

NOV 1 - 2017

Jorge Navarrete Clerk

Deputy

No. S240156

**In the Supreme Court
of the State of California**

**DON MATHEWS, M.F.T., MICHAEL ALVAREZ, M.F.T., and
WILLIAM OWEN, CADC II,**

Plaintiffs and Petitioners,

vs.

**XAVIER BECERRA, in his official capacity as Attorney General of
California; and JACKIE LACEY in her official capacity as the
District Attorney of the county of Los Angeles and representative of
the California district attorneys,**

Defendants and Respondents.

After a Decision of the Court Of Appeal, Second Appellate District,
Division Two Case No. B265990
(Los Angeles County Superior Court Case No. BC573135,
Honorable Michael L. Stern, Judge)

**MOTION FOR JUDICIAL NOTICE BY AMICI CURIAE
SCHOLARS IN SUPPORT OF PLAINTIFFS AND PETITIONERS**

Trenton H. Norris, SBN 164781
ARNOLD & PORTER
KAYE SCHOLER LLP
10th Floor, Three Embarcadero Center
San Francisco, CA 94111-4024
Telephone: (415) 471-3303
Facsimile: (415) 471-3400

Oscar Ramallo, SBN 241487
ARNOLD & PORTER
KAYE SCHOLER LLP
777 South Figueroa Street, 44th Floor
Los Angeles, California 90017-5844
Telephone: (213) 243-4290
Facsimile: (213) 243-4199

Attorneys for Amici Curiae

No. S240156

**In the Supreme Court
of the State of California**

**DON MATHEWS, M.F.T., MICHAEL ALVAREZ, M.F.T., and
WILLIAM OWEN, CADC II,**

Plaintiffs and Petitioners,

vs.

**XAVIER BECERRA, in his official capacity as Attorney General of
California; and JACKIE LACEY in her official capacity as the
District Attorney of the county of Los Angeles and representative of
the California district attorneys,**

Defendants and Respondents.

After a Decision of the Court Of Appeal, Second Appellate District,
Division Two Case No. B265990
(Los Angeles County Superior Court Case No. BC573135,
Honorable Michael L. Stern, Judge)

**MOTION FOR JUDICIAL NOTICE BY AMICI CURIAE
SCHOLARS IN SUPPORT OF PLAINTIFFS AND PETITIONERS**

Trenton H. Norris, SBN 164781
ARNOLD & PORTER
KAYE SCHOLER LLP
10th Floor, Three Embarcadero Center
San Francisco, CA 94111-4024
Telephone: (415) 471-3303
Facsimile: (415) 471-3400

Oscar Ramallo, SBN 241487
ARNOLD & PORTER
KAYE SCHOLER LLP
777 South Figueroa Street, 44th Floor
Los Angeles, California 90017-5844
Telephone: (213) 243-4290
Facsimile: (213) 243-4199

Attorneys for Amici Curiae

MOTION FOR JUDICIAL NOTICE

TO THE HONORABLE TANI CANTIL-SAKAUYE, CHIEF
JUSTICE, AND TO THE HONORABLE ASSOCIATE JUSTICES OF
THE CALIFORNIA SUPREME COURT.

Pursuant to California Rule of Court 8.252, Evidence Code section 452 and 459, Scholar Amici¹ request this Court take judicial notice of the following documents:

CALIFORNIA LEGISLATIVE HISTORY

- EXHIBIT 1 Assem. Com. on Criminal Justice, transcript of hearing, “Child Abuse Reporting” (Nov. 21, 1978) [relevant portions]

- EXHIBIT 2 Assem. Com. On Public Law and Safety, Concurrence in Senate Amendments (Aug. 30, 1984)

- EXHIBIT 3 Legis. Counsel’s Dig., Assem. Bill No. 2233 (1989-1990 Reg. Sess.), 1989 Cal. Legis. Serv. 1180

- EXHIBIT 4 Sen. Com. On Public Safety, Bill Analysis of Assem. Bill No. 1775 (2013-2014 Reg. Sess.) as amended May 13, 2014

- EXHIBIT 5 State Bar of California, Report on Assem. Bill No 2497 (1979-1980 Reg. Sess.) [relevant portions]

¹ The following scholars comprise the Scholar Amici: Amanda Agan, Ira Ellman, Eric Janus, Roger Lancaster, Richard Leo, Chrysanthi Leon, Jill Levenson, Wayne A. Logan, J.J. Prescott, Michael Seto, Jonathan Simon, Christopher Slobogin, Richard Wollert, and Franklin Zimring.

FEDERAL LEGISLATIVE HISTORY

- EXHIBIT 6 Remarks of Rep. Kildee, 123 Cong. Rec. 29886 (Sept. 19, 1977) [relevant portions]
- EXHIBIT 7 Sexual Exploitation of Children, Hearings before House Subcom. on the Judiciary, 95th Cong. 1st Sess. (June 10, 1977) [relevant portions]

STUDIES AND OTHER AUTHORITIES

- EXHIBIT 8 American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders (5th ed., 2013) [relevant portions]
- EXHIBIT 9 American Psychiatric Association, The Principles of Medical Ethics: With Annotations Especially Applicable to Psychiatry (2013) [relevant portions]
- EXHIBIT 10 American Psychological Association, Ethical Principles of Psychologists and Code of Conduct (2017) [relevant portions]
- EXHIBIT 11 Babchishin, et al., *Online Child Pornography Offenders are Different: A Meta-analysis of the Characteristics of Online and Offline Sex Offenders Against Children* (2015) 44 Archives of Sexual Behavior 45
- EXHIBIT 12 Christman, *Autonomy in Moral and Political Philosophy*, Stanford Encyclopedia of Philosophy (Jan. 9, 2015)
- EXHIBIT 13 Elliott, et al., *The Psychological Profiles of Internet, Contact, and Mixed Internet/ Contact Sex Offenders* (2012) 25 Sexual Abuse: J. of Res. & Treatment 3
- EXHIBIT 14 Endrass, et al., *The consumption of Internet child pornography and violent and sex offending* (July 14, 2009) BMC Psychiatry
- EXHIBIT 15 Faust, et al., *Child Pornography Possessors and Child Contact Sex Offenders: A Multilevel Comparison of Demographic Characteristics and Rates of Recidivism* (2014) 27 Sexual Abuse: J. Res. & Treatment 1

- EXHIBIT 16 Frankfurt, *Freedom of the Will and the Concept of a Person* (1971) 63 J. Phil. 5
- EXHIBIT 17 Hanson, et al., *First Report of the Collaborative Outcome Data Project on the Effectiveness of Psychological Treatment for Sex Offenders* (2002) 14 Sexual Abuse: J. of Res. & Treatment 169
- EXHIBIT 18 National Association of Social Workers, Code of Ethics (2008) [relevant portions]
- EXHIBIT 19 Schmucker & Lösel, *Sexual offender treatment for reducing recidivism among convicted sex offenders: a systematic review and meta-analysis*, *Campbell Systematic Reviews* (July 2017) [relevant portions]
- EXHIBIT 20 Seto, et al., *Contact Sexual Offending by Men With Online Sexual Offenses* (2010) 23 Sexual Abuse: J. Res. & Treatment 1
- EXHIBIT 21 Taube & Elwork, *Researching the Effects of Confidentiality Law on Patients' Self-Disclosures* (1990) 21 Prof. Psychol.: Res. & Prac. 72
- EXHIBIT 22 United Nations Human Rights Council, *Report of the Special Rapporteur on the sale of children, child prostitution and child pornography* (July 13, 2009) [relevant portions]
- EXHIBIT 23 United States Sentencing Commission, *Federal Child Pornography Offenses* (2011) [relevant portions]
- EXHIBIT 24 Urban Institute Research Report, *Estimating the Size and Structure of the Underground Commercial Sex Economy in Eight Major U.S. Cities* (March 2014) [relevant portions]
- EXHIBIT 25 Williams, et al., *Inferring sexually deviant behavior from corresponding fantasies: The role of personality and pornography consumption* (2009) 36 Crim. Just. & Behavior 198

CALIFORNIA SESSION LAWS

- EXHIBIT 26 Stats. 1984, ch. 1613

Alternatively, Scholar Amici request the Court consider these materials as background to its determination of the law without taking formal notice of them. (*Cabral v. Ralphs Grocery Co.* (2011) 51 Cal.4th 764, 775-776 fn. 5.)

Where indicated above, Scholar Amici have provided only pertinent portions of the material in order to reduce the volume of this filing. Scholar Amici will make copies available of complete versions of the materials at the request of the Court or the parties.

This motion for judicial notice is based on the following points and authorities.

Dated: October 23, 2017

Respectfully submitted,

ARNOLD & PORTER
KAYE SCHOLER LLP

By: _____



Trenton H. Norris
Oscar Ramallo
Attorneys for Amici Curiae

MERMORANDUM OF POINTS AND AUTHORITIES

California Rule of Court 8.252(a)(2) provides that a party requesting judicial notice must state:

(A) Why the matter to be noticed is relevant to the appeal;

(B) Whether the matter to be noticed was presented to the trial court and, if so, whether judicial notice was taken by that court;

(C) If judicial notice of the matter was not taken by the trial court, why the matter is subject to judicial notice under Evidence Code section 451, 452, or 453; and

(D) Whether the matter to be noticed relates to proceedings occurring after the order or judgment that is the subject of the appeal.

(Cal. Rules of Court, Rule 8.252(a)(2).)

Scholar Amici request judicial notice of two categories of documents (1) legislative history and statutes and (2) and documents containing legislative facts concerning the issues under review. Both categories are proper subjects for judicial notice. Alternatively, the Court can consider these materials without formally taking notice of them.

I. Legislative History and California Statutes

Petitioners contend that Assembly Bill 1775 (“AB 1775”) violates the right of privacy in California’s constitution. AB 1775 is an amendment to an existing statutory scheme, the Child Abuse and Neglect Reporting Act (“CANRA”). In assessing whether AB 1775 violates the right of privacy, the Court must carefully compare the privacy interests at stake “with competing or countervailing privacy and nonprivacy interests.” (*Hill v. NCAA* (1994) 7 Cal 4th 1, 37.) A state law that intrudes on “an interest fundamental to personal autonomy,” must be “narrowly drawn” to further a “compelling state interest.” (*American Academy of Pediatrics v. Lungren* (1997) 16 Cal.4th 307, 323-324, 329.)

There is significant dispute among the parties about the scope of the interests CANRA is intended to serve and whether AB 1775 actually serves those interests. Thus, Scholar Amici ask the Court to take judicial notice of California state legislative material pertaining to CANRA, which shed light on CANRA's intended purpose. Moreover, the Legislature has amended CANRA as a result of mandates in federal law. Thus, the legislative history of these federal mandates shed further light on CANRA's purposes. For the reasons explained in Scholar Amici's brief, these materials demonstrate that AB 1775 does not fulfill any of CANRA's legitimate purposes. Accordingly, these materials are directly relevant to the issues under review.

Except for Exhibit 26 (Stats. 1984, ch. 1613), these materials were not presented to the Courts below. The trial court did not rule on the request for judicial notice of the material in Exhibit 26. The Court of Appeal granted the request.

All of these materials are judicially noticeable as either public statutory law of this state (Evid. Code, § 451, subd. (a)) or as official acts of the legislatures of this state and the United States (Evid. Code, § 452 (c); *Dowhal v. SmithKline Beecham Consumer Healthcare* (2004) 32 Cal.4th 910, 926 fn. 6 [taking judicial notice of legislator's floor statements].)

The matters do not relate to proceedings after the judgment subject to appeal.

II. Legislative Facts

This Court recently explained the concept of legislative facts as follows:

In determining de novo what the law is, appellate courts routinely consider materials that were not introduced at the trial, including publications containing expressions of viewpoints and generalized statements about the state of the world. These are considered not as a substitute for evidence but as an aid to the court's work of interpreting, explaining and forming the law. As the Law Revision Commission has explained, the Evidence Code does not restrict courts in their consideration of materials for the purpose of determining the law: (Cal. Law Revision Com. com., 29B pt. 1 West's Ann. Evid.Code (1995 ed.) foll. § 450, p. 420; see also Rest.3d Torts, Liability for Physical and Emotional Harm, § 7, com. b, p. 79 ["Courts determine legislative facts necessary to decide whether a no-duty rule is appropriate in a particular category of cases."].)

(*Cabral v. Ralphs Grocery Co.* (2011) 51 Cal.4th 764, 775-776 fn. 5.)

Here, in forming the law governing the constitutional right to privacy, the Court must decide whether the value of maintaining confidentiality of communications between patients and psychotherapists is outweighed by the purported benefits of enforcing AB 1775. Such a task requires the Court to understand the value of psychotherapy, the value of confidentiality in psychotherapy, and whether there is a likelihood that AB 1775 intrusion into privacy will achieve any significant countervailing benefits. For the reasons detailed in Scholar Amici's brief, these materials help establish that AB 1775's intrusion into the right of privacy is not justified. Thus, these materials are directly related to the issues under review.

A request for judicial notice of these materials was not made to the courts below. The materials are subject to judicial notice pursuant to *Cabral*. Alternatively, the Court may consider these materials as

background to its decision without formally noticing them. (*Cabral, supra*, 51 Cal.4th at p. 775-776 fn. 5 [“We could have considered the CalTrans manual as background to our determination of the law without taking formal notice of it”].)

The matters do not relate to proceedings after the judgment subject to appeal.

[PROPOSED] ORDER TAKING JUDICIAL NOTICE

IT IS HEREBY ORDERED that the Motion for Judicial Notice of Scholar Amici is granted. The Court shall judicially notice the following documents, which are attached to the Motion for Judicial Notice:

CALIFORNIA LEGISLATIVE HISTORY

- EXHIBIT 1 Assem. Com. on Criminal Justice, transcript of hearing, "Child Abuse Reporting" (Nov. 21, 1978) [relevant portions]
- EXHIBIT 2 Assem. Com. On Public Law and Safety, Concurrence in Senate Amendments (Aug. 30, 1984)
- EXHIBIT 3 Legis. Counsel's Dig., Assem. Bill No. 2233 (1989-1990 Reg. Sess.), 1989 Cal. Legis. Serv. 1180
- EXHIBIT 4 Sen. Com. On Public Safety, Bill Analysis of Assem. Bill No. 1775 (2013-2014 Reg. Sess.) as amended May 13, 2014
- EXHIBIT 5 State Bar of California, Report on Assem. Bill No 2497 (1979-1980 Reg. Sess.) [relevant portions]

FEDERAL LEGISLATIVE HISTORY

- EXHIBIT 6 Remarks of Rep. Kildee, 123 Cong. Rec. 29886 (Sept. 19, 1977) [relevant portions]
- EXHIBIT 7 Sexual Exploitation of Children, Hearings before House Subcom. on the Judiciary, 95th Cong. 1st Sess. (June 10, 1977) [relevant portions]

STUDIES AND OTHER AUTHORITIES

- EXHIBIT 8 American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders (5th ed., 2013) [relevant portions]
- EXHIBIT 9 American Psychiatric Association, The Principles of Medical Ethics: With Annotations Especially Applicable to Psychiatry (2013) [relevant portions]

- EXHIBIT 10 American Psychological Association, Ethical Principles of Psychologists and Code of Conduct (2017) [relevant portions]
- EXHIBIT 11 Babchishin, et al., *Online Child Pornography Offenders are Different: A Meta-analysis of the Characteristics of Online and Offline Sex Offenders Against Children* (2015) 44 Archives of Sexual Behavior 45
- EXHIBIT 12 Christman, *Autonomy in Moral and Political Philosophy*, Stanford Encyclopedia of Philosophy (Jan. 9, 2015)
- EXHIBIT 13 Elliott, et al., *The Psychological Profiles of Internet, Contact, and Mixed Internet/ Contact Sex Offenders* (2012) 25 Sexual Abuse: J. of Res. & Treatment 3
- EXHIBIT 14 Endrass, et al., *The consumption of Internet child pornography and violent and sex offending* (July 14, 2009) BMC Psychiatry
- EXHIBIT 15 Faust, et al., *Child Pornography Possessors and Child Contact Sex Offenders: A Multilevel Comparison of Demographic Characteristics and Rates of Recidivism* (2014) 27 Sexual Abuse: J. Res. & Treatment 1
- EXHIBIT 16 Frankfurt, *Freedom of the Will and the Concept of a Person* (1971) 63 J. Phil. 5
- EXHIBIT 17 Hanson, et al., *First Report of the Collaborative Outcome Data Project on the Effectiveness of Psychological Treatment for Sex Offenders* (2002) 14 Sexual Abuse: J. of Res. & Treatment 169
- EXHIBIT 18 National Association of Social Workers, Code of Ethics (2008) [relevant portions]
- EXHIBIT 19 Schmucker & Lösel, *Sexual offender treatment for reducing recidivism among convicted sex offenders: a systematic review and meta-analysis*, *Campbell Systematic Reviews* (July 2017) [relevant portions]

- EXHIBIT 20 Seto, et al., *Contact Sexual Offending by Men With Online Sexual Offenses* (2010) 23 Sexual Abuse: J. Res. & Treatment 1
- EXHIBIT 21 Taube & Elwork, *Researching the Effects of Confidentiality Law on Patients' Self-Disclosures* (1990) 21 Prof. Psychol.: Res. & Prac. 72
- EXHIBIT 22 United Nations Human Rights Council, *Report of the Special Rapporteur on the sale of children, child prostitution and child pornography* (July 13, 2009) [relevant portions]
- EXHIBIT 23 United States Sentencing Commission, *Federal Child Pornography Offenses* (2011) [relevant portions]
- EXHIBIT 24 Urban Institute Research Report, *Estimating the Size and Structure of the Underground Commercial Sex Economy in Eight Major U.S. Cities* (March 2014) [relevant portions]
- EXHIBIT 25 Williams, et al., *Inferring sexually deviant behavior from corresponding fantasies: The role of personality and pornography consumption* (2009) 36 Crim. Just. & Behavior 198

CALIFORNIA SESSION LAWS

- EXHIBIT 26 Stats. 1984, ch. 1613
- EXHIBIT 27 Stats. 2014, ch. 264

Dated: _____, 2017

Chief Justice

MEMBERS

FERRY GOGGIN
VICE CHAIRMAN
RICHARD ALATORRE
PAUL BANNAI
JULIAN DIXON
JOHN KNOX
MEL LEVINE
BRUCE NESTANDE
MIKE ROOS

California Legislature

STATE CAPITOL
SACRAMENTO 95814
TELEPHONE: (916) 443-326

MICHAEL S. ULLMAN
PRINCIPAL CONSULTANT
PETER JENSEN
ASSOCIATE CONSULTANT
BILL RUTLAND
ASSOCIATE CONSULTANT
PATTY MARCHAL
COMMITTEE SECRETARY

KFC 10
4
C 68
1978

Assembly Committee on Criminal Justice

KENNETH L. MADDY
CHAIRMAN

HEARING

CHILD ABUSE REPORTING

Los Angeles, California
November 21, 1978

PARTICIPANTS IN ORDER OF APPEARANCE	Page
Assemblyman Kenneth L. Maddy, Chairman Assembly Committee on Criminal Justice	1
Michael Gates, Deputy Attorney General, Department of Justice	2
June Sherwood, Director, Crime Prevention Unit, Department of Justice	27
John Woods, Bureau of Identification, Department of Justice	35
Assemblyman Michael Roos	43
Cheryl Macon, Chief, Child Abuse Office Department of Social Services	46
Lt. Ray Gott, California State Juvenile Officers' Association	54
Patrick Earl, Editor, "Uncommon Sense"	56
Jean Matusinka, Interagency Child Abuse and Neglect Council	58
Keith Walley, California Hospital Association	59
James Apthorp, M.D., American Academy of Pediatrics	61
Martin Weeks, Juvenile Section Division Chief, Los Angeles County Counsel	63

JUNE SHERWOOD: Members of the panel, thank you for the opportunity to offer some comments on S.B. 1614. The Attorney General's Crime Prevention Unit, has been actively working in child abuse in the various local communities throughout the State of California for the past several years. Our work in this field addresses first, the training and educating of mandated reporters and local law enforcement on the reporting law and on the indices and recognition of suspected child abuse and neglect. Second, the encouragement of local team building and interagency cooperation in the handling of child abuse. Third, surveying and evaluation of local community resources for the treatment of troubled families, that is the abused and the abusers. Fourth, the development of in depth community awareness, and awareness of the need for additional resource development at the local level. Based on our years of research and experience we have come to the following conclusions: first, as Mr. Gates mentioned there is serious under reporting throughout California. This may be caused by a variety of factors including the fact that there appears to be confusion on the part of some social service agencies surrounding the necessity to report to the Department of Justice Child Abuse Index. Referred cases of mental, emotional and neglect cases. Usually, these cases are usually handled by a social service agency. Secondly, some law enforcement agencies do not forward all cases of reported suspected child abuse, not only those under criminal investigation. Third, there is widespread confusion among the counseling and treatment mandated reporters as well as the professional help and education mandated reporters concerning the law and their reporting responsibilities. We have found paren-

thetically that teachers and school nurses in our experience have the best record in terms of reporting. Finally, child protective social service agencies in the social service field in some counties may not forward physical abuse reports unless in their judgment reached the stage of imminent danger. Because of the recidivism and escalatory nature of child abuse, that is as you know, it tends to happen over and over again. This particular event and it escalates in seriousness from minor to more serious abuses, and often unfortunately sometimes death, but because of the recidivism and escalatory nature of child abuse this under reporting interferes with early intervention and prevention by a community team approach. A team that involves law enforcement, health, school professionals and so forth. The purpose obviously of the child abuse index is to have a record of past events so that alert can be made and will effect the decision making and allow early intervention and prevention by teams. This is not only true due to insufficient staff and treatment resources but also because of the migratory pattern of the abusing family. The abusing family typically moves from jurisdiction to jurisdiction and therefore cannot come to the attention, the past history cannot come to the attention of the local law enforcement, local social worker, local other team members unless there has been a report to the state file. Many suspected cases are lost in the cracks because of that. Parenthetically, the second general conclusion in addition to these conclusions about reporting which is not related to the law is that from our experience there is no county in this state where there are adequate treatment resources. I'll throw that out for your consideration although

that has nothing to do with the reporting law. To document the necessity for better interagency cooperation and identification and reporting one can cite the experience of Los Angeles County USC Medical Center. After adopting a hospital team approach called the suspected child abuse and neglect team. This is a team approach that has been adopted by several hospitals. That team is composed of a medical doctor, a registered nurse and a medical social worker. In 1974 previous to the creation of the SCAN team in L.A. County, USC identified forty-nine cases.

In the following year a hundred and forty-nine cases were identified, a two hundred plus increase in their identification of child abuse cases in that hospital. Turning to our personal experience the experience of the crime prevention unit to cite some information resulting from a pilot program we have been conducting for nine months our crime prevention unit has been developing and testing a community based child abuse prevention model known as the Pomona project in cooperation as our partners with the Pomona Police Department, the City of Pomona and the Pomona office of Los Angeles County Department of Public Social Services. As a result of in-service training of all police personnel and mandated reporter professions practicing in the City of Pomona we have found the following results. One, reports of suspected child abuse through the police department has been increased three hundred percent. Two, reports of suspected child abuse through the Pomona Office of DPSS have increased approximately twenty-five percent. Three, closer and more positive interagency working relationships have improved markedly and resulted in a five major interagency procedural change involving

reduction of paperwork and more easily identifiable interagency contact networks. Our experience of this increased reporting in Pomona is that while it obviously results in greater work loads for under staffed agencies and could result in reporter frustration from an apparent lack of response should that happen. This additional reporting can be constructively addressed as evidenced by the Pomona project where we have seen first, inter-agency cooperation developing community-wide shared information on resource availability.

Second, citizen involvement to identify and develop additional resources needs from the private sector of the community. This has happened.

And, three, the increased cooperation and communication between law enforcement social service personnel and mandated reporters as well as community volunteers has minimized the burn out factor and the frustration and has made it possible for the system to respond to the increased workload. Moreover to argue against more effective reporting procedures which will inform all child protective service agencies and insure more complete statewide suspected child abuse files is to argue I guess on the basis that it will result in taking valuable time of case-workers of child protective agencies which flies in the face of our primary responsibility for the protection of the child and weakens the informed decision making possible to the agencies by knowledge of prior history and through inter-agency cooperation. Next I would like to comment briefly on the provisions of S.B. 1614 as contained in Section 11166, subsections E and F requiring immediate reporting by telephone and written reports within

thirty-six hours by county welfare or county probation to the law enforcement agency having jurisdiction over the case and the requiring of the same procedure from law enforcement agencies to county welfare. These provisions, as Mr. Gates has indicated, clarify the present reporting procedure in order to insure, first that all parties who have investigatory and decision making responsibilities in the handling of child abuse cases as defined in the legislation child protection service agencies which are police or county sheriff's department, county welfare department or county probation department. That these agencies will be made aware of suspected cases requiring such investigation and decision making and second that the local law enforcement agency having jurisdiction will be a party to such an investigation and decision making. As noted above we have found that in some cases law enforcement agencies have not been immediately notified. This later situation may have occurred as a result of what appears to be an effort on the part of some people involved in child abuse matters to reserve the handling of child abuse as the exclusive province of social service workers. Mr. Gates quoted from the federal provisions. Those holding this view argue that child abuse is not a crime but a non-criminal problem best handled by treatment, and believe that other government agencies such as police, prosecutors and courts should come into the situation only when the social service worker makes the judgment that they are needed. We in the Attorney General's Office strongly oppose any effort to allow single specialized groups to presume to make all the judgments necessary to protect the safety of children in child abuse cases.

Such an approach is parochial and short sighted and fails to take into account the interest of society in general and of the child in particular. In our experience, however, this approach that I have described does not characterize in our experience the attitude of the majority of social service professionals in this state, by no means.

One of the most distinguished and knowledgeable leaders in the social worker field is Mrs. Helen Boardman, who headed the family service unit of the Children's Hospital in Los Angeles for many years who has been an authority in the social work field and with respect to child abuse and who has written and testified extensively on the vital and unique importance of the law enforcement role in the handling of child abuse.

Intervention involving infringement on the fundamental right of parents to control and raise their own children is justified only by a paramount social interest: the protection of the safety and well being of the child. Such intervention may involve a broad range of possible actions, including counseling and treatment, the filing of criminal charges or the removal of the child from control should not be made solely by any single agency limited to a specialized field of expertise, but ideally should be made by a team approach of the various disciplines with responsibility for the protection of children.

Regardless of what one calls it, for example, the willful injuring of a child by a parent or guardian is a physical assault by one human being on another and, as such, it is clearly a crime and necessitates the involvement of those agencies of government responsible for dealing with crimes.

It is clear that it may not be appropriate in any instant case to respond with traditional crime and punishment approaches. However, since the immediate protection of the child is the paramount concern and since early intervention is vital due to the recidivist and escalatory nature of the crime of child abuse, law enforcement must be involved in decision-making along with the other disciplines.

Indeed, the nature of law enforcement's role and training brings unique qualifications to the handling of child abuse cases, and which must be part of interagency decision making, particularly in the initial response. In order to set clearly on record the need for such law enforcement involvement, may I conclude with a few comments on the functions and unique role of law enforcement and on some perceived misconceptions regarding same.

Under California child abuse reporting statutes and law, police play a central role in crisis intervention and in initial investigation and handling of child abuse cases with the following functions:

1. Protection of the child
2. Collection of evidence and investigation; and
3. Determination, with other agencies, of resources available in the community.

There are many practical and compelling factors which uniquely qualify law enforcement for its role in child abuse handling:

1. Police are the only 24-hour field service child protective agency with investigatory and arrest authority - and almost always the only round-the-clock branch of

government that can provide immediate response. The police are the only agency empowered to take a child into immediate protective custody and, therefore, the only one which can ensure immediate medical treatment.

2. By the nature of their role in the community and their powers, the police are the primary responders to family crisis situations.
3. Police have the perceived authority and status which induces cooperation.
4. Compared to other involved disciplines, police are better trained to ensure constitutional rights and due process procedures in the investigation of cases.
5. Police officers on the scene collect all evidence that may "make or break" a case, and such thorough collection and preservation of evidence is important whether or not criminal prosecution is pursued.
6. Moreover, police response is immediate within a time frame of 3 - 30 minutes, whereas, because of public social worker heavy caseload and limited staff, their time response varies from within 2 hours to 2 days. Effective intervention and prevention (as well, obviously, as the immediate protection of the child) is not compatible with a two-day response.

The attitudes of some concerning the police role in child abuse cases have resulted in part from certain common misperceptions regarding police involvement. These include:

1. The misperception that the requirement of reporting is inhibited by the police role. This is invalid since the law provides for alternative reporting of suspected cases.
2. The misperception that judicial remedies in child abuse cases are drastic and rigid. This again, is invalid since only 5 cases out of 6,500 result in prison on an approximate average.
3. The misperception that law enforcement attitudes and procedures are inflexible and are uniformly characterized by a "hard line law and order" stance. This is not true of California local law enforcement which our experience testifies to be open and flexible in seeking new and progressive ways of problem resolution. While we all have observed instances of heavy handedness and excessively punitive attitudes, this is not the general rule and depends on the quality of training, which is generally good in this state. Further, there is a general new emphasis on crime prevention among California law enforcement agencies, as opposed to the traditional re-active stance.

From our experience in working with law enforcement there can be identified several outstanding examples of high professionalism, sensitivity, and expertise in handling of child abuse, such as L.A.P.D., L.A.S.O., San Diego Police Department, San Jose Police Department, Hayward Police Department, Oceanside Police Department, Pomona Police Department and many others where considerable special training and a framework of interagency cooperation

characterizes their efforts. These agencies recognize the need for an interdisciplinary approach. The San Diego and Hayward Police Departments, for example, have a formalized team procedure whereby assigned social workers respond together on all calls to suspected child abuse.

A summary of law enforcement's recognition of the importance of interagency cooperation in child abuse decision making is to be found in the child abuse "training key" of the International Association of Chiefs of Police from which I quote:

"The various government agencies that handle portions of child abuse cases must work together. Each agency has a separate but overlapping responsibility. The contributions of all of them are extremely important. Cooperative action and good inter-agency communications are essential ingredients that must be developed for the successful handling of child abuse and neglect."

And, as I indicated in encouraging and assisting the development of team approaches in local communities throughout California has certainly demonstrated that.

I thank you very much.

CHAIRMAN MADDY: Thank you very much, Mrs. Sherwood. Mr. Woods, Bureau of Identification, Department of Justice.

JOHN WOODS: I am the manager of Special Operations of the Bureau of Identification, and part of my responsibility includes the supervision of our child abuse suspect file. That file has been in existence since 1965 and it is more or less a pointer system to correlate previous, prior reported child abuse suspects.

All of the information that comes into our file comes from police reports of crimes and incidents. We have a cross-index

CONCURRENCE IN SENATE AMENDMENTS

AB 2709 (Vicencia) As Amended: August 28, 1984

ASSEMBLY VOTE 78-0 (June 12, 1984) SENATE VOTE 39-0 (August 28, 1984)
(Consent Calendar)

Original Committee Reference: CRIM. LAW & PUB. S.

DIGEST

Urgency statute. 2/3 vote required.

Under existing law, child care custodians, medical practitioners, child protective agencies, and certain nonmedical practitioners must report suspected instances of child abuse to law enforcement, including neglect, sexual assault, or non-accidental physical injury inflicted on a child.

As passed by the Assembly, this bill:

- 1) Stated legislative findings concerning the serious problem of child abuse.
- 2) Required the Department of Justice to automate its Child Abuse Central Registry and to develop criteria to periodically purge registry entries.
- 3) Appropriated \$200,000 to the Department of Justice to implement these provisions.

The Senate amendments also:

- 1) Broaden the definition of "child abuse" to require reporting of sexual exploitation, as defined, and the failure to provide adequate medical care, as specified.
- 2) Redefine a "child care custodian" for reporting purposes to include "licensees and employees of community care facilities for children," rather than "licensed day care workers."
- 3) Delete the requirement that law enforcement make daily reports to the Department of Justice on instances of suspected sexual exploitation of children.
- 4) Require child protective agencies to add appointed counsel in juvenile court abuse or neglect proceedings to those entitled to access to Department of Justice information concerning instances of child abuse neglect.

-continued-



- 5) Prohibit appointment of the attorney responsible for presenting evidence of child abuse or neglect as the guardian ad litem of a child in a dependency action or a criminal prosecution of the alleged abuser.
- 6) Add a general local costs disclaimer.
- 7) Double-join this bill with AB 2702 (Davis) and SB 1124 (Watson).

FISCAL EFFECT

- 1) The bill appropriates \$200,000 from the General Fund to the Department of Justice to automate the Child Abuse Central Registry.
- 2) According to the Legislative Analyst, this bill will result in minor, absorbable General Fund costs to the Department of Justice due to the changes in reporting requirements.

Local agencies will incur undetermined, but probably minor, costs due to changed reporting requirements, including adding appointed counsel. Any net costs are potentially state reimbursable. The bill contains a general local costs disclaimer.

COMMENTS

- 1) The department estimates it will be able to automate 320,000 files covering a 20-year period from 1965 to 1985.
- 2) According to the Criminal Law and Public Safety Committee analysis:
 - a) According to the author's office, the purpose of this bill is to bring California's child abuse reporting law into compliance with recent changes in the federal Child Abuse Prevention and Treatment for a grant currently used to fund the activities of the Office of Child Abuse Prevention. California currently receives \$608,000 annually from this grant. Other provisions of the bill are technical changes to the reporting laws.
 - b) According to the Department of Social Services, federal law has recently been changed in three respects. Effective February 25, 1983, regulations issued by the U.S. Department of Health and Human Services require states participating in the grant program to have mandatory child abuse reporting laws which include coverage of sexual exploitation and failure to provide adequate medical care. In addition, participating states may not permit the guardian ad litem of the child in a dependency action to be the attorney responsible for presenting evidence of child abuse or neglect.

LEGISLATIVE INTENT SERVICE (800) 666-1917



(5) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Ch. 1180 (AB 2233) Polanco. Crimes: sexual conduct: matter.

Existing law punishes, as specified, various activities relating to the distribution or exhibition of obscene matter, as defined. Those provisions generally require as an element of the crime, that a person in this state who engages in those prohibited activities has the "intent" to distribute or exhibit that obscene matter.

This bill would make it a public offense, punishable as specified, for any person in this state to knowingly possess or control any matter, as defined, knowing that it depicts a person under the age of 14 years personally engaging in or simulating specified sexual conduct. This bill would also provide that it is not necessary to prove that the matter is obscene in order to establish a violation of these provisions. Thus, the bill would impose a state-mandated local program by creating new crimes.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Ch. 1181 (SB 594) Maddy. Instructional materials. ¹²

Existing law provides for the establishment in state government of the Curriculum and Supplemental Materials Commission, consisting of 18 representatives, including 13 public members, appointed in a prescribed manner. Existing law requires at least 3 of the public members to be full-time classroom teachers assigned to teach any of grades 1 to 8, inclusive.

This bill would instead require that at least 7 of these public members be current classroom teachers, or mentor teachers, or both, assigned to teach kindergarten or any of grades 1 to 12, inclusive. This bill, notwithstanding this requirement, would require that current members of the commission who were appointed to the commission on or before December 31, 1989, be allowed to complete their terms.

Existing law authorizes the governing boards of school districts to adopt instructional materials for use in the public schools. Existing law requires school district governing boards when adopting instructional materials to include only instructional materials which, among other things, accurately portray, whenever appropriate, man's place in ecological systems and the necessity for the protection of our environment.

This bill would revise this requirement to, instead, refer to humanity's place in ecological systems and the necessity for the protection of our environment.

Existing law requires the State Board of Education to adopt instructional materials for use in kindergarten and grades 1 to 8, inclusive, for use by school district governing boards, subject to the requirement that adoptions be made biennially for all applicable levels for specified subject areas, and the requirement that the state board adopt not less than 5, but no more than 15, of designated types of basic instructional materials in each subject in each grade, as specified.

This bill would delete the latter requirement and, instead, would require the state board to adopt basic instructional materials for kindergarten and grades 1 to 8, inclusive, in specified categories, as well as any other subject, discipline, or interdisciplinary areas for which the state board determines that adoption to be necessary or desirable, and would authorize the state board to phase in the new submission over a 3-year period, and would repeal this provision January 1, 1993. This bill would require the state board to adopt instructional materials, instructional materials systems, instructional materials sets, or a combination thereof, for basic instructional materials in each subject in each grade.

This bill would require the state board to adopt procedures, as prescribed, for the submission of basic instructional materials in the identified subject areas at least every

NOTE: Superior numbers appear as a separate section at the end of the digests.

CA B. An., A.B. 1775 Assem., 5/13/2014

California Bill Analysis, Assembly Floor, 2013-2014 Regular Session, Assembly Bill 1775

May 13, 2014
California Assembly
2013-2014 Regular Session

_ CONCURRENCE IN SENATE AMENDMENTS AB 1775 (Melendez) As Amended May 13, 2014 Majority vote

PUB. S.

SUMMARY : Provides that knowingly downloading, streaming, or accessing material, including a video recording, in which a child is engaged in an act of obscene sexual conduct, except as specified, is sexual exploitation for the purpose of mandated reporting by specified individuals under the Child Abuse and Neglect Reporting Act (CANRA).

The Senate amendments provide that the streaming or accessing through electronic or digital media of material in which a child is engaged in an act of obscene sexual conduct is sexual exploitation for the purpose of mandated reporting under CANRA.

Existing law :

1) Requires a mandated reporter to make a report to a specified agency whenever the mandated reporter, in his or her professional capacity or within the scope of his or her employment, has knowledge of or observes a child who the mandated reporter knows or reasonably suspects has been the victim of child abuse or neglect. Requires the mandated reporter to make an initial report to the agency immediately or as soon as is practicably possible by telephone and to prepare and send, fax, or electronically transmit a written follow-up report thereof within 36 hours of receiving the information concerning the incident. Authorizes the mandated reporter to include with the report any non-privileged documentary evidence the mandated reporter possesses relating to the incident.

2) Punishes as a misdemeanor any mandated reporter who fails to report an incident of known or reasonably suspected child abuse or neglect as required with up to six months confinement in a county jail, a fine of \$1,000, or by both that imprisonment and fine. States that if a mandated reporter intentionally conceals his or her failure to report an incident known by the mandated reporter to be abuse or severe neglect, as specified, the failure to report is a continuing offense until a specified agency discovers the offense.

3) Defines "child" under CANRA as a person under the age of 18 years.

4) Defines, for purposes of CANRA, "child abuse or neglect" to include physical injury or death inflicted by other than accidental means upon a child by another person, sexual abuse as defined, neglect as defined, the willful harming or injuring of a child or the endangering of the person or health of a child as defined, and unlawful corporal punishment or injury as defined. States that "child abuse or neglect" does not include a mutual affray between minors or an injury caused by reasonable and necessary force used by a peace officer acting within the course and scope of his or her employment as a peace officer.

5) Defines "sexual abuse" to mean sexual assault or sexual exploitation as these terms are defined.

6) States that "sexual exploitation" refers to any of the following:

- a) Conduct involving matter depicting a minor engaged in obscene acts in violation of state law with respect to:
 - i) The preparing, selling, or distributing of obscene matter; and
 - ii) The employment or use of a minor to perform prohibited acts.
- b) Any person who knowingly promotes, aids, assists, employs, uses, persuades, induces, or coerces a child, or any person responsible for a child's welfare as specified, who knowingly permits or encourages a child to engage in, or assists others to engage in, prostitution or a live performance involving obscene sexual conduct, or to either pose or

model alone or with others for purposes of preparing a film, photograph, negative, slide, drawing, painting, or other pictorial depiction, involving obscene sexual conduct; and

c) Any person who depicts a child in, or who knowingly develops, duplicates, prints, or exchanges, any film, photograph, videotape, negative, or slide in which a child is engaged in an act of obscene sexual conduct, except for those activities by law enforcement, prosecution agencies, and other described persons.

7) Provides that volunteers of public or private organizations, except a volunteer of a Court Appointed Special Advocate program, whose duties require direct contact with and supervision of children are not mandated reporters but are encouraged to obtain training in the identification and reporting of child abuse and neglect and are further encouraged to report known or suspected instances of child abuse or neglect to a specified agency.

8) Strongly encourages employers to provide their employees who are mandated reporters with training in the duties imposed by CANRA. States that this training shall include training in child abuse and neglect identification and training in child abuse and neglect reporting and that whether or not employers provide their employees with training in child abuse and neglect identification and reporting, the employers are required to provide their employees who are mandated reporters with a statement that informs the employee that he or she is a mandated reporter and informs the employee of his or her reporting obligations and of his or her confidentiality rights.

9) Encourages public and private organizations to provide their volunteers whose duties require direct contact with and supervision of children with training in the identification and reporting of child abuse and neglect.

10) Provides that neither the physician-patient privilege nor the psychotherapist-patient privilege applies to information reported pursuant to CANRA in any court proceeding or administrative hearing.

FISCAL EFFECT: According to the Senate Appropriations Committee, pursuant to Senate Rule 28.8, negligible state costs.

COMMENTS : According to the author, "AB 1775 will further ensure the protection of children from the proliferation of sexual exploitation through internet child pornography. The State Legislature has a duty to ensure it does everything within its power to make certain the most vulnerable of our society, our children, are protected." Please see the policy committee analysis for a full discussion of this bill.

Analysis Prepared by : Shaun Naidu / PUB. S. / (916) 319-3744

FN: 0004095

CA B. An., A.B. 1775 Assem., 5/13/2014

Child Abuse Reporting

Section Affected

Amends Section 11161.5 of the Penal Code.

Purpose

Revise the standard for child abuse reporting and extend the immunity from civil and criminal sanctions on persons statutorily required to report incidents of child abuse.

Discussion

Present law statutorily mandates enumerated professions who commonly come into contact with minors to report incidents of child abuse. The professions are required to make reports when "From observation" it "appears" that a "minor has physical injury or injuries ... inflicted upon him by other than accidental means" (emphasis added). Immunity from civil and criminal liability is conferred on the maker of the report "unless it can be proven that a false report was made and the person knew or should have known that the report was false."

Assembly Bill 2497 revises the reporting standard for the enumerated professionals to require a report when such person "has reasonable cause to believe" that a minor has physical injury or injuries inflicted upon him or her by other than accidental means."

The child abuse reporting system is the single most important point of access to the justice system for children under the age of five in California. Mandatory health screening begins to bring maltreated children to public attention at school age, but more life-threatening and brain-damaging abuse affects infants and toddlers, who may survive only if the reporting statute is responsive to their needs.

Unfortunately the present reporting statute contains an enormous loop-hole which jeopardizes the well being of helpless children. Specifically, the California Supreme Court held in Landeros v. Flood (1976) 17 C 3d. 399 that "the provision of Section 11161.5 is ambiguous with respect to the required state of mind of the physician" (emphasis added). The court opined that to prove an actionable failure to report, the plaintiff must show that the professional actually "observed... (the) injuries and formed the opinion that they were intentionally inflicted" upon the child (page 415).

Assembly Bill 2497 revises the reporting standard to overcome the Landeros ruling to require reporting by professionals when there exists "reasonable cause to believe" that a minor has physical injury or injuries inflicted upon him or her by other than accidental means..." (emphasis added). This language will obviate the "state of mind" requirement of Landeros and thereby promote increased child

LEGISLATIVE INTENT SERVICE (800) 666-1917



abuse reporting upon reliable information to the professional. Further, as of 1973, only six states did not impose the "cause to believe", "reason to believe", "reasonable cause to believe", or "probable cause to suspect" language as the trigger for child abuse reporting. (Appendix A)

Concurrent with revising the reporting standard, Assembly Bill 2497 revises the immunity provision to eliminate the chilling effect of the exception for false or negligent reports and extend limited immunity to persons other than the statutorily enumerated professionals. It must be emphasized that the reinstatement of total civil and criminal immunity is integrally related to the imposition of the "reasonable cause to believe" reporting standard.

In 1975 and 1976, the Legislature amended Section 11161.5 of the Penal Code to add an exception to the civil and criminal immunity which provided that "unless it can be proven that a false report was made and the person knew or should have known that the report was false." Although the chilling effect of the amendment is difficult to measure, the limitation on immunity is certainly sufficient cause for enumerated professionals to hesitate when they are aware that an angry parent may initiate litigation for damages for a report which is subsequently proven to be false. The cost of legal representation to defend, and the human toll in time wasted and anxiety suffered, are sufficient to deter many potential reporters. Since there exist numerous legal and personal impediments to reporting to the detriment of an abused child, it is reasonable to eliminate the limitation on civil and criminal immunity for objective non-biased professionals.

Further, extending limited civil and criminal immunity to "any other person making a report of child abuse or molestation" (emphasis added) will encourage members of the general public to report known cases of child abuse. The limitation on total immunity for false or negligent reports is necessary to prevent a vindictive former spouse or neighbor from making a knowingly false report.

The seriousness of the problem of child abuse cannot be over estimated. Repeated instances of abuse of the same child tend to lead to progressively more severe results, including death, brain damage, and disabling emotional handicaps. It's not a tiny fraction of the child population we're talking about, either. Approximately 10% of all trauma seen in emergency rooms affecting children under three years of age is inflicted.¹ Of all fractures in children under two years of age, 25% are inflicted.² Studies show reinjury rates after initial abuse run as high as 50% to 60%.³

¹Holter and Friedman, Pediatrics, Vol. 42 (March 1976) p. 128.

²Kempe, Disease in Childhood, Vol. 46 (1971) pp. 28-37.

³J. Ebbin, "Battered Child Syndrome at the L.A. County Hospital," Am. Journal of Disease in Children, Vol. 118 (1969) pp. 660-7.
Skinner and Castle, Seventy-Eight Battered Children: A Retrospective Study, London Natl. Society for the Prevention of Cruelty to Children. (1969)

LEGISLATIVE INTENT SERVICE (800) 666-1917



AS of 1973, all 50 States had child abuse reporting statutes, and so did the District of Columbia, Guam and the Virgin Islands.

Of those 53 jurisdictions, only six did not use language such as "cause to believe," "reason to believe," "reasonable cause to believe," or "probable cause to suspect," as triggers for mandatory reporting of child abuse cases.

The six anomalous reporting statutes were these:

Alabama ----- "appears to be suffering from..."

Arizona ----- "evidence of injury not explained by..."

California --- "it appears from observation... that the minor has injury... which appear(s) to have been inflicted..."

Minnesota ---- "where the injury appears to have been caused..."

Pennsylvania - "whose examination of... (or) observation of a child...discloses evidence of... neglect or injury not explained by..."

Tennessee ---- "injury... of such a nature as to reasonably indicate that it has been caused by..."

Source: "Child Abuse Legislation In The 1970's," by Vincent De Francis, J.D. and Carroll L. Lucht, J.D. American Humane Association, Children's Division, Denver, Colorado. 1974.



the best interests of the United States. Making Environmental Action's hit list for 1978 does not bother me in the least. Certainly I am not going to try and curry favor with this or any other special interest group. Perhaps the dirty dozen campaign ought to put its own house in order before attempting to clean out the House of Representatives.

AMENDMENT TO H.R. 6693 TO PROHIBIT SEXUAL EXPLOITATION OF CHILDREN

HON. DALE E. KILDEE

OF MICHIGAN

IN THE HOUSE OF REPRESENTATIVES

Monday, September 19, 1977

Mr. KILDEE. Mr. Speaker, the House of Representatives will soon consider H.R. 6693 which will amend and extend the provisions of the Child Abuse Prevention and Treatment Act.

At that time, I intend to offer the text of the child exploitation prevention bill, which was introduced by Mr. MURPHY of New York and myself, as an amendment. This amendment would extend the original concept of H.R. 6693 by prohibiting commercial sexual exploitation of children.

Extensive hearings have been held on this legislation which is being sponsored by 126 Members of the House. Hearings were held in Los Angeles and New York in addition to hearings here in Washington. Among those who testified were people from the Justice Department, local law enforcement agencies, prosecutors' offices, treatment facilities, the media, and academic institutions. The final version of the bill incorporates some of the suggestions made by these witnesses.

The testimony demonstrated both the scope of the problem and the serious consequences for those children who are commercially sexually exploited. In the course of these hearings, we have discovered that the sexual abuse of children is a much more prevalent problem than many of us had suspected. I think that we also came to the conclusion that no single faceted approach will be sufficient to deal with this serious problem. Additional attention needs to be given to prevention, treatment, and rehabilitation on both the Federal and State levels. I envision this amendment as the beginning of a process in which we do much more to protect our children from sexual abuse and treat those who are the unfortunate victims.

This amendment will attack one of the most reprehensible aspects of this problem. It will provide punishments for those whose motivation for abusing a child is greed and profit.

I ask my colleagues to support this amendment, the text of which follows:

AMENDMENT TO H.R. 6693

(Offered by Mr. KILDEE)

Page --- after line ---, add the following new section:

SEXUAL EXPLOITATION OF CHILDREN

SEC. 7. (a) The Congress finds that—

(1) the use of children as subjects in the

production of pornographic materials is very harmful to both the children and to society as a whole;

(2) the production and sale of such pornographic materials represent many millions of dollars in annual revenue, and the sale and distribution of such materials are carried on to a substantial extent through interstate and foreign commerce and through the means and instrumentalities of such commerce; and

(3) existing Federal laws dealing with the interstate distribution of pornographic materials do not protect against the use of children in the production of such materials, and specific legislation in this area is both advisable and needed.

(b) The Child Abuse Prevention and Treatment Act (Public Law 93-247; 88 Stat. 4) is amended by adding at the end thereof the following new sections:

"SEXUAL EXPLOITATION OF CHILDREN

"Sec. 8. (a) Any person who causes or willfully permits a child to engage in a prohibited sexual act or in the simulation of such an act shall be punished as provided under subsection (c) if such person knows, has reason to know, or intends—

"(1) that such act will be photographed, filmed, or electronically reproduced; and

"(2) that any photograph, printed material containing such photograph, film, or electronic visual image depicting such act will be transported or shipped through interstate commerce or foreign commerce for purposes of sale or resale, will be made available for sale or resale in a manner which will affect interstate commerce or foreign commerce, or will be mailed in connection with the sale or resale of any such materials.

"(b) Any person who photographs, films, or produces an electronic visual image of a child engaging in a prohibited sexual act or in the simulation of such an act shall be punished as provided under subsection (c) if such person knows, has reason to know, or intends that any photograph, printed matter containing such photograph, film, or electronic visual image made by such person depicting such an act will be transported or shipped through interstate commerce or foreign commerce for purposes of sale or resale, will be made available for sale or resale in a manner which will affect interstate commerce or foreign commerce, or will be mailed in connection with the sale or resale of any such materials.

"(c) Any person who violates subsection (a) or (b) shall be fined not less than \$5,000 nor more than \$50,000, or imprisoned not more than 20 years, or both.

"REPRODUCTION, TRANSPORTATION, AND DISTRIBUTION OF CERTAIN PHOTOGRAPHS, FILMS, AND ELECTRONIC VISUAL IMAGES

"Sec. 9. (a) Any person who—

"(1) manufactures, reproduces, or duplicates any photograph, film, or electronic visual image depicting a child engaging in a prohibited sexual act or in the simulation of such an act, and who knows, has reason to know, or intends that the product resulting from such manufacture, reproduction, or duplication will be transported or shipped through interstate commerce or foreign commerce for purposes of sale or resale, will be made available for sale or resale in a manner which will affect interstate commerce or foreign commerce, or will be mailed in connection with the sale or resale of such materials;

"(2) knowingly transports or ships through, or in such manner as to affect, interstate commerce or foreign commerce or knowingly mails any photograph, printed matter containing such photograph, film, or electronic visual image depicting a child engaging in a prohibited sexual act or in the simulation of such an act, for the purpose of sale or resale;

"(3) knowingly receives for the purpose of selling or knowingly sells any photograph, printed matter containing such photograph, film, or electronic visual image which has been shipped or transported through, or in such manner as to affect, interstate commerce or foreign commerce or has been mailed, and which depicts a child engaging in a prohibited sexual act or in the simulation of such an act; or

"(4) uses for profit, or makes available for profit, in any public showing any film or electronic visual image which has been transported or shipped through, in such a manner as to affect, interstate commerce or foreign commerce or which has been mailed, and which depicts a child engaging in a prohibited sexual act or in the simulation of such an act, shall be punished as provided in subsection (b).

"(b) Any person who violates subsection (a) shall be fined not more than \$25,000, or imprisoned not more than 15 years, or both.

"ENFORCEMENT AUTHORITY

"Sec. 10. Enforcement authority for the provisions of sections 8 and 9 shall be vested in the Attorney General of the United States.

"DEFINITIONS

"Sec. 11. For the purposes of sections 8 and 9—

"(1) the term 'child' means any individual who has not attained age 16;

"(2) the term 'prohibited sexual act' means sexual intercourse, and intercourse, masturbation, fellatio, cunnilingus, sexual oriented sadomasochistic abuse, sexual bestiality, or a lewd exhibition of the genitals in the context of any sexual activity;

"(3) the term 'public showing' means any showing which is accessible to the general public for the payment of any direct or indirect fee or other consideration and includes any membership organization for which the qualifications are established for the primary purpose of making any individual who qualifies as a member eligible to attend such a showing; and

"(4) the term 'simulation' means the depiction of the genitals in explicit sexual activity which gives the appearance of the performance of any prohibited sexual act."

HELSINKI'S UNFULFILLED PROMISE

HON. MARTY RUSSO

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Monday, September 19, 1977

Mr. RUSSO. Mr. Speaker, I appreciate having the opportunity to join my distinguished colleague, Representative DRINAN, in a project he initiated entitled "Helsinki's Unfulfilled Promise." As we are all aware, in August of 1975, 35 nations signed the Helsinki Final Act which pledged to facilitate the reunification of families separated by political boundaries. It would appear that the Soviet Union's promise, however, is virtually meaningless as evidenced by the number of families who have been divided because of the U.S.S.R.'s harsh and discriminatory emigration policies.

I am deeply saddened by the need to call your attention, once again, to the case of Celia and Joseph Kats and their young son, Albert. Since 1973, the Kats family has attempted to leave the Soviet Union and join Celia's mother, Mrs. Goldetha Foxman, who lives alone in Bat Yam, Israel. To date their request

SEXUAL EXPLOITATION OF CHILDREN

78600643

HEARINGS
BEFORE THE
SUBCOMMITTEE ON CRIME
OF THE
COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES
NINETY-FIFTH CONGRESS
FIRST SESSION
ON
SEXUAL EXPLOITATION OF CHILDREN

MAY 23, 25, JUNE 10, AND SEPTEMBER 20, 1977

Serial No. 12



Printed for the use of the Committee on the Judiciary

U.S. GOVERNMENT PRINTING OFFICE

98-185

WASHINGTON : 1977

CG B7712

Thank you very much for your participation. I think you have been very helpful to us in the definition of the problem.

Our next witness will be Congresswoman Barbara Mikulski, from Baltimore, for the purpose of testifying before the committee. Welcome to the committee.

**TESTIMONY OF HON. BARBARA A. MIKULSKI, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF MARYLAND**

Ms. MIKULSKI. Thank you, Mr. Miller, and members of the joint committee. My name is Barbara A. Mikulski. I am a Member of Congress representing the Third Congressional District of Maryland. I am also a professionally trained social worker with a master's degree in social work from the University of Maryland. I have spent an extensive part of my professional career as a child welfare worker in the areas of foster care, child neglect, and child abuse, so I come before you today not only as a congressional colleague but as someone who has worked extensively in the field that you currently have under inquiry.

I want to commend you for having these hearings. Ever since "Sixty Minutes" did a program on "kidporn" my constituents have voiced a continuing outcry of rage about this particular subject. The issues raised are not necessarily related to obscenity but to child exploitation and child abuse. What people are talking about when they say, "Can't you do something about that, Barb." is that they feel a child, without free consent of his or her will or being able to consent of his or her will, is being abused.

I would also like to point out I think the media attention and your congressional activity has resulted in a substantial reduction of "kidporn" being available in the market. I would like to give a concrete example. Prior to your hearings, I have evidence to believe that "kidporn" was widely available in an area of Baltimore City called The Block. Now I know, of course, Members of Congress would not be familiar with "The Block," but it is a particular geographic area of Baltimore given over to burlesque theaters, girlie shows, and other things related to what in Boston would be called the combat zone.

In preparation for this hearing I sent two of my male staff members up to "The Block" to see what they could buy or observe being sold in the area of "kidporn," over the counter and under the counter.

By the way, that was not a chauvinistic act on my part. I knew if I went they would recognize me and wouldn't sell it to me.

My staff members went to virtually every bookstore of this type on The Block. They could find no kiddie porn available either over the counter or under the counter, either because the guys weren't regular customers, or I think, your congressional jawboning and inquiry has taken it off the market.

I am a cosponsor of the Murphy-Kildee bill to amend the United States Code to prohibit the sexual exploitation of children and I also am extremely supportive of the proposed amendment to the Child Abuse Prevention and Treatment Act which extends the definition of child abuse to include sexual exploitation of a child by a person responsible for the welfare of the child.

I think those two pieces of legislation are absolutely critical to deal with the issue that we are talking about.

First, I think what the Kildee-Murphy bill accomplishes is that it makes it a criminal offense to promote this activity and thus discourages the porno procurers and parents who are actually pimping for their children from engaging in this kind of very lucrative enterprise.

Second, by making sexual exploitation of children a form of child abuse the question will be not whether the material is obscene but whether the child has been exploited, thus removing the first amendment issue.

I would also like to posture another way for you to view this problem, what we are talking about are child labor laws. And just as our predecessors maybe 50 or 75 years ago passed legislation to take little kids out of coal mines and little kids of sweat shops, now we need a child labor law to take little kids out of smut mills and, I think if we look at this as a violation of child labor laws it again takes the edge off the kind of constitutional issue.

However, as we pursue this course of investigation, it is my feeling and experience that says that this is really the first of many steps that we are going to have to take, colleagues, because really what this is indicative of in many ways is the whole issue that is coming into our conscience as a nation, and that is violence in the family. It is my experience that children who have engaged in kiddie porn also have engaged in child prostitution, which is growing in my own congressional district.

For example, we have a growing problem of teenage prostitution, both male and female. Why? Because most of the children who are engaged in this activity come from homes that are extremely violent, they are abused, either physically abused or sexually abused. They either try to get out or try to run away. When they run away they get into this type activity in order to support themselves financially.

Now, as we try to pass legislation I am sure that this will result in children being removed from one unsafe and unsavory home; this is going to take us into the whole issue of foster care. I would like to recommend to your attention that the children's defense fund released a report in April entitled "Children Without Homes: An Examination of Public Responsibility to Children in Out-of-Home Care". What the children's defense fund said frankly when it comes to dealing with children, our public policies are fragmented, they are scattered through in a wide array of Federal bureaucracies, and instead of worrying about kids our own Federal agencies and, therefore, our own State and local agencies get into turf warfare.

What I am saying is that as we try to deal with this issue, I am not trying to stretch it too thin, first let us deal with the Murphy-Kildee, let us deal with child abuse, but then we have to take the next step to move into really taking a look at violence in the family, and in terms of physical abuse, battered spouses and then the whole issue of foster care, adoption care, and then a wide range of child welfare services.

This is probably the first few steps of a journey of a thousand miles. I am ready to go with you, and I commend you on conducting these very thorough hearings.

Thank you, I hope you find this information helpful in your work.

Mr. MILLER. Thank you, Barbara, for your statement, a very forceful statement. I am happy to see that you took time to separate the issues into symptoms and problems, because I think that no matter how we deal with the issue of child pornography we are dealing with a symptom of something that is going on, a much deeper problem in the American family. One of the concerns that I have over all of the publicity around the issue of child pornography is that we will create even a worse image in the minds of those parents who might desire us to seek help of their own image not come forward and its great concern to me because we heard testimony from a program in California that deals with the problems of incest within the family where they are able to get parents or children to come forward, they have reconstructed 90 percent of the families they have dealt with, allowed those families to remain together and move on to useful lives, and the concern that we drive those people away because we create such a terrible image again, and you are one of the few witnesses that has gotten away, as we keep calling it, around the tip of the iceberg and gotten underneath to where we really are in terms of needs of services to families that simply cry out in help.

I think last year in California we had 53,000 families in crisis who were asking for help, affirmative steps saying help us, we want to be able to meet that need, and I think that some of what we see here, other than the sheer crisisness of people who would ever get involved in this business is also a symptom of what is wrong in the family.

Mr. Jeffords.

Mr. JEFFORDS. I want to commend you also on your statement, and for the same reasons Mr. Miller stated, for getting at and pointing out the more basic problems and we have got to deal with the real problems of sexual abuse especially where they occur in the family.

I wondered, I am thinking, I know Mr. Miller is thinking in terms of trying to direct some funds in this area to see if we can accomplish some things in the physical abuse of children, but we find very little has been done in the sexual abuse area.

California is the first State we found where anything had been done, like they have had Parents United, which is the same as Parents Anonymous, the only sexual abuse type thing. I wonder if we were to appropriate or ask for an appropriation of more money in the area what kind of programs you think it could best be spent on to deal with in the areas of the real basic problems of sex abuse which are becoming more expansive than we have in child pornography?

Ms. MIKULSKI. Well, Congressman Jeffords, I feel for one, we need to create a national climate for abusers to be able to come out of the closet, if you will, and face up to their problems, because you can't participate in a help program unless that occurs.

Second, when we talk about providing funds, I think one of the things we have to take a look at is to whom are we going to give money, and ultimately how is that money going to be spent at a local level.

One of my concerns, and that is why I wanted to point out this is such a difficult area, is that if we give it through traditional HEW pipelines, I am not convinced it is going to get down into the local community.

I am not sure public agencies can really be helpful in this.

Coming from my own social work background, I worked in the war on both public programs and voluntary social service sector, I believe that the best way to help parents with families with this type of problem goes into the voluntary sector, the fund should be available to a wide range of two types of organizations, No. 1, the United Fund type of organization, that has had a traditional, very thorough approach to family problems and, No. 2, to those funds to help self-help groups, in the same way we see with child abuse and whatever.

I think, for example, one of the things we need to think about might be a toll-free hotline. Somebody calls up almost in a model and says listen, I am scared, I do these things to my kids and I hate myself, and I don't know what the heck to do about it. Then somebody could provide crisis counselling over the phone and say, look, in Baltimore there is a Family in Children's Society. They have a special program; you are going to meet moms and dads like yourself. So when you think in terms of Federal funding, let us think about where it is going to go. I am a big believer that people who have the problem and are dealing with it can be of great help to other people who are beginning to struggle with the problem.

So that is why I am also saying as we think about funding let us think about the voluntary sector and let us think about innovative ways of going directly to self-help groups. I think they will start to spring up.

Another thing that I would caution is that many people would tell you we don't know very much about the problem, and that is true. We do need research. But one of the things that always happens whenever these issues come to the fore, members of the committee, is that everybody wants to study the victim and very few people want to get out and help the victim. I think in both cases both parents and children are victims in this. One of the things we need to do when we fund our program, is to make sure it doesn't become another continuing rip-off program, where they can study incestuous parents but the result is treatment recommendations and then help to local groups who I think have the will to help.

Mr. JEFFORDS. Thank you very much. I would like to point out we have done that very thing, reoriented the fund in the Child Abuse Act. I certainly agree with you if we do have additional funding for sexual abuse we ought to take that kind of approach.

Thank you very much.

Mr. MILLER. Mr. Gudger.

Mr. GUDGER. Congresswoman Mikulski, I want to thank you for your testimony, it has been most enlightening particularly to have someone here who speaks from our own point of concern and also has a background of social services experience.

I have had a rather substantial experience in trial practice. I have prosecuted cases dealing with incest and have dealt with hundreds of cases dealing with the problem of child placement, adoption, foster homes and I tend to see these things from a lawyers standpoint. However, in my part of the country we see very little of sexual abuse in our courts. We don't see a child as the victim of a sexual abuse situation but very, very rarely. And incest cases develop rarely into the area where the courts can deal with it. Maybe you are having a different

experience in a more urban area. I would like to know do you have actual case documentation, of extensive child abuse situations involving sexual assaults upon children in the Baltimore area or any other urban area where you have experience or knowledge, and particularly has your own social service experience brought you in touch with any of this type of child abuse that—

Ms. MIKULSKI. My own experience did bring me into this type of experience, but let me tell you the way it was handled, which goes to the heart of being an attorney, is that where there was actual physical abuse of the child. As you know from your child abuse activity, where you could see the kid has bruises on his or her arm or burns, all the obvious marks that have clearly provided evidence for prosecution, then that is where those cases were predominant. However, what happens if you are a victim of sexual abuse that only comes out very often after the child might be in foster care when she says my daddy did this or my mommy did this, or my stepdaddy did this, and so on. But, usually when I get into types of this activity, unless it was actually forceable rape, the evidentiary material is not obvious. The child, he or she, feels guilty about having engaged in this act so somehow or other they feel that they have been bad.

Now somebody says my daddy beat me, my mommy beat me. here is my broken arm. That is very different than describing a sexual encounter with the parent or stepparent, which is also an incredible problem. So the children don't feel free to express themselves. There is guilt, reluctance, shame, inhibition in that area. When we would go into court on a child neglect basis, specifically culpable neglect to be able to remove children, in Maryland we separated culpable neglect from nonculpable. In some instances there was neglect in the family out of circumstances that might have been related to poverty or another problem we really do not in many instances prove in a court of law because you got into my stepdaddy did this, and stepdaddy said no, and other than where the rape had occurred there was no—

Mr. GUDGER. So you have a very limited amount of judicial experience up there in child abuse cases?

Ms. MIKULSKI. I have had experience in trying to take these things into court but I can tell you No. 1, the victim does not want to say I am the victim, and No. 2, it is very hard to prove because unless there is rape there—

Mr. GUDGER. One final question, if we put a bill like this on the books aren't we going to encounter the same difficulty in enforcing it that we already are encountering in child abuse situations in enforcing our statutes prohibiting contributing to the delinquency of a minor, which is, I think, in many States a method whereby a parent is deprived of custody of a child and the child is placed in a foster home where there has been some abuse situation, either sexual or otherwise.

Ms. MIKULSKI. You know, I think that with the law, the opposite will occur because somehow or another where wives and children are concerned there is still the attitude that that is personal property, that this kid is my property and I can do anything I want with this kid. There is an attitude that somehow or other in the home anything goes, because it is in my own home. I think that when we begin to change the sexual child abuse law, the child abuse laws in terms of physical

and sexual abuse, what you are really saying is anything really doesn't go and because it goes on in your own home that doesn't make it right and that that kid is not a frisbee to be thrown up against the wall.

But I think only experience will tell us whether we are doing good or putting it deeper in the closet. I am saying let us try it, if it doesn't work then we certainly haven't made the situation worse.

Mr. GUDGER. Thank you, Mr. Chairman.

Mr. MILLER. Mr. Kildee.

Mr. KILDEE. Thank you, Mr. Chairman. Congresswoman Mikulski, I appreciate your support not only today but your support in the last months on this bill. You made a statement which I will concur with, there has been substantial reduction of child porn since the 60 Minute show and the introduction of this bill, and that is true. While out in Los Angeles we went to some of the porn shops with the LAPD and they would ask, LAPD would ask do you have any porn, kidporn? No; we are not going to handle that stuff, there is a new law making me an accessory to child abuse. The fact we introduced a bill has had a chilling effect upon that.

I think if it were really on the law books it would certainly deter that one area of pornography which results from child abuse, and that is really what we are trying to get at.

I think there are two reasons to produce child pornography. One is a sexual persuasion toward children, and that requires treatment, but the other is profit, human greed, two human weaknesses there. If we can take out or diminish somewhat the profit, we are going to somewhat control some of that, one of the reasons for child pornography. But I think you are really right, the first part of 6933 which I attempted to amend has another chapter incorporating the language of this bill.

The bill introduced by Mr. Brademas really addresses itself to the child abuse prevention and treatment and I think we have to do that. The problem is the Congress. The Congress is good to authorizing great problems and then not funding them. Next year, for example, we will authorize under Mr. Brademas' bill \$25 million, which may be used for private agencies and will really give some help, but last year I think we authorized a similar sum and the Congress appropriated much less than that. I think that is the problem I think we have.

If we really think our kids are important in this country we have to spend some money to protect them.

I voted several weeks ago to take about \$2 billion away from the Pentagon budget and I can find a good place to spend that money to protect our children. I think that is very important.

But I think the whole problem of alienation in our society is something we have to really know more about, see how we can handle that, and violence in the family.

Some of the children that we came across in Los Angeles who were runaways, really had very little option except to run away, the family life was so bad that this was really a way to escape something that was unbearable.

So I would hope that the Congress in addition to passing laws like this would fund our authorization bills to assist the family and assist those families where violence does exist, and not only sexual violence

but all types of violence which leads to children being alienated from their family and running away, and I would hope that, I know you will be a leader in that, and I just hope when the Congress gets down to appropriating money for 6933 that its appropriation will be in line with the authorization.

Mr. MILLER. Mr. Ertel.

Mr. ERTEL. Thank you, Mr. Chairman.

Congresswoman Mikulski, I enjoyed your statement. I have a couple of questions I would like to ask you.

No. 1, you have had experience obviously with the laws of the State of Maryland in relation to child abuse which you basically were talking about. Are those laws adequate in the State of Maryland to take care of the problems within the State of Maryland in relation to child abuse in this type of problem in your judgment? Do you have a contributing to delinquency, corrupting the morals of a minor?

Ms. MIKULSKI. Yes, sir, we have a wide range of categories within State law, both relate to neglect. In some instances we don't go directly to the child abuse but we go to something called children in need of supervision where a petition may be filed in juvenile court in behalf of a concerned party saying this child needs supervision. It might be that that child needs supervision outside of his or her home. That could be, for example, filed by a school authority for a problem of chronic truancy by a public health nurse who sees these things, or a variety of other things.

Mr. ERTEL. Neglect, that come within it if a child is being neglected either physically—

Ms. MIKULSKI. In Maryland, there were really as I remember two types of negligence. One is culpable and the other is nonculpable negligence. Nonculpable negligence would come under the category of the children in need of supervision. That might be where a kid is absent from school but mommie is in the hospital and dad is a car washer and there is no homemaker service and the whole family is in disarray. What they really need is some kind of structure to help them straighten out their family and the child doesn't have to be removed because there is good will on the part of the parent toward its own child.

Culpable neglect is where there has been actual abuse of the child and willfull exploitation of the child.

Mr. ERTEL. I guess that brings me to my next question then, your statement here. Do you feel that the Federal Government should enact legislation which would either usurp or supplant that State legislation or is it better that that be handled at the State level where it is more of a personal, closer relationship than what I tend to think of the Federal Government, being very impersonal, very standoffish? Aren't we better trying to deal with this more on a local level?

Ms. MIKULSKI. Well, I think the problems need to be solved on the local level and it will be worked out in local courts, it will not necessarily end up in Federal court. However, when you get to the issue of kiddie porn—

Mr. ERTEL. The transportation, I think. I was just directing myself to the child abuse end of it without getting into pornography and transportation.

Ms. MIKULSKI. I would have to carefully consider a preemption clause, Congressman Ertel, but one of the problems is that I am not

familiar with all of the State codes, nor their adequacy, nor their sense of urgency on this issue.

Mr. ERTEL. Well, I guess that brings me to my final question. You talked about funding a voluntary agency like United Fund. And if in fact we get the Federal Government giving money there, then if we are going to go along with the Federal Government giving money, we are going to go along with restrictions by the Federal Government, and we are going to have Federal control. I have some question whether or not the Federal Government wants to get into funding United Fund. They are a charitable organization. In my judgment, at least generally from what I have seen they have done an excellent job.

In my area we have a hotline funded by a charitable organization. I am sure we don't want the Federal Government in there.

Ms. MIKULSKI. They are already in it. For example, there is Federal support for programs like meals on wheels, family in children society.

Mr. ERTEL. But it is not directly to the United Fund as an agency?

Ms. MIKULSKI. I am talking about agencies within the United Fund. First of all, they tend to have a legitimate record of service in the community. I am really talking about the local family children society, I am talking about a consortium of services, perhaps Catholic charities, Jewish charities, Lutheran social services, who sometimes form a consortium.

Mr. MILLER. They are agencies that get money?

Mr. ERTEL. Yes.

Ms. MIKULSKI. They do receive Federal funds.

Mr. ERTEL. I hope we are looking at United Fund and those things as voluntary.

Ms. MIKULSKI. I am not talking about—

Mr. ERTEL. That function without getting the Government in there telling them how to run it.

Ms. MIKULSKI. I am also saying that I don't think that Federal funds should ever be the total support of local charitable and volunteer organizations. That is what provides the vitality and commitment to do a good job.

Mr. ERTEL. I think once we get down to the basics I think we are much more in agreement. I was worried about the broader sweep.

Mr. MILLER. Mr. Railsback.

Mr. RAILSBACK. Yes, I, too, would like to commend and thank you for what I think has been very helpful. May I ask you, based on your experience, do you know of any instances where somebody acting as a legal guardian or a foster parent has abused or exploited a child?

Ms. MIKULSKI. Yes sir, it is with a great deal of pain that I have to say that in my experience as a child welfare worker this has occurred with a stepfather, primarily, and not so much the stepmother, and then in foster care situations.

Mr. ERTEL. What, if anything, do you think we can do about that? Would that more properly be left to the local people?

Ms. MIKULSKI. I think that is done by the local people through more screening of applicants for foster care.

Mr. ERTEL. I think that is all I have.

Thank you, Mr. Chairman.

Mr. MILLER. Thank you, Congresswoman Mikulski.

tion

DIAGNOSTIC AND STATISTICAL
MANUAL OF
MENTAL DISORDERS

FIFTH EDITION

DSM-5™



American
Psychiatric
Publishing
A Division of American Psychiatric Association

Washington, DC
London, England

disorder, it is usually secondary to repeated interpersonal failures due to angry outbursts and frequent mood shifts, rather than a result of a persistent lack of social contacts and desire for intimacy. Furthermore, individuals with schizotypal personality disorder do not usually demonstrate the impulsive or manipulative behaviors of the individual with borderline personality disorder. However, there is a high rate of co-occurrence between the two disorders, so that making such distinctions is not always feasible. Schizotypal features during adolescence may be reflective of transient emotional turmoil, rather than an enduring personality disorder.

Cluster B Personality Disorders

Antisocial Personality Disorder

Diagnostic Criteria

301.7 (F60.2)

- A. A pervasive pattern of disregard for and violation of the rights of others, occurring since age 15 years, as indicated by three (or more) of the following:
1. Failure to conform to social norms with respect to lawful behaviors, as indicated by repeatedly performing acts that are grounds for arrest.
 2. Deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure.
 3. Impulsivity or failure to plan ahead.
 4. Irritability and aggressiveness, as indicated by repeated physical fights or assaults.
 5. Reckless disregard for safety of self or others.
 6. Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or honor financial obligations.
 7. Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another.
- B. The individual is at least age 18 years.
- C. There is evidence of conduct disorder with onset before age 15 years.
- D. The occurrence of antisocial behavior is not exclusively during the course of schizophrenia or bipolar disorder.
-

Diagnostic Features

The essential feature of antisocial personality disorder is a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood. This pattern has also been referred to as *psychopathy*, *sociopathy*, or *dyssocial personality disorder*. Because deceit and manipulation are central features of antisocial personality disorder, it may be especially helpful to integrate information acquired from systematic clinical assessment with information collected from collateral sources.

For this diagnosis to be given, the individual must be at least age 18 years (Criterion B) and must have had a history of some symptoms of conduct disorder before age 15 years (Criterion C). Conduct disorder involves a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated. The specific behaviors characteristic of conduct disorder fall into one of four categories: aggression to people and animals, destruction of property, deceitfulness or theft, or serious violation of rules.

The pattern of antisocial behavior continues into adulthood. Individuals with antisocial personality disorder fail to conform to social norms with respect to lawful behavior (Criterion A1). They may repeatedly perform acts that are grounds for arrest (whether they are arrested or not), such as destroying property, harassing others, stealing, or pursuing illegal occupations. Persons with this disorder disregard the wishes, rights, or feelings of others. They are frequently deceitful and manipulative in order to gain personal profit or pleasure (e.g., to obtain money, sex, or power) (Criterion A2). They may repeatedly lie, use an alias, con others, or malingering. A pattern of impulsivity may be manifested by a failure to plan ahead (Criterion A3). Decisions are made on the spur of the moment, without forethought and without consideration for the consequences to self or others; this may lead to sudden changes of jobs, residences, or relationships. Individuals with antisocial personality disorder tend to be irritable and aggressive and may repeatedly get into physical fights or commit acts of physical assault (including spouse beating or child beating) (Criterion A4). (Aggressive acts that are required to defend oneself or someone else are not considered to be evidence for this item.) These individuals also display a reckless disregard for the safety of themselves or others (Criterion A5). This may be evidenced in their driving behavior (i.e., recurrent speeding, driving while intoxicated, multiple accidents). They may engage in sexual behavior or substance use that has a high risk for harmful consequences. They may neglect or fail to care for a child in a way that puts the child in danger.

Individuals with antisocial personality disorder also tend to be consistently and extremely irresponsible (Criterion A6). Irresponsible work behavior may be indicated by significant periods of unemployment despite available job opportunities, or by abandonment of several jobs without a realistic plan for getting another job. There may also be a pattern of repeated absences from work that are not explained by illness either in themselves or in their family. Financial irresponsibility is indicated by acts such as defaulting on debts, failing to provide child support, or failing to support other dependents on a regular basis. Individuals with antisocial personality disorder show little remorse for the consequences of their acts (Criterion A7). They may be indifferent to, or provide a superficial rationalization for, having hurt, mistreated, or stolen from someone (e.g., "life's unfair," "losers deserve to lose"). These individuals may blame the victims for being foolish, helpless, or deserving their fate (e.g., "he had it coming anyway"); they may minimize the harmful consequences of their actions; or they may simply indicate complete indifference. They generally fail to compensate or make amends for their behavior. They may believe that everyone is out to "help number one" and that one should stop at nothing to avoid being pushed around.

The antisocial behavior must not occur exclusively during the course of schizophrenia or bipolar disorder (Criterion D).

Associated Features Supporting Diagnosis

Individuals with antisocial personality disorder frequently lack empathy and tend to be callous, cynical, and contemptuous of the feelings, rights, and sufferings of others. They may have an inflated and arrogant self-appraisal (e.g., feel that ordinary work is beneath them or lack a realistic concern about their current problems or their future) and may be excessively opinionated, self-assured, or cocky. They may display a glib, superficial charm and can be quite voluble and verbally facile (e.g., using technical terms or jargon that might impress someone who is unfamiliar with the topic). Lack of empathy, inflated self-appraisal, and superficial charm are features that have been commonly included in traditional conceptions of psychopathy that may be particularly distinguishing of the disorder and more predictive of recidivism in prison or forensic settings, where criminal, delinquent, or aggressive acts are likely to be nonspecific. These individuals may also be irresponsible and exploitative in their sexual relationships. They may have a history of many

sexual partners irresponsible as a result of a relationship with a relative for food individual is av necessities. The vices, may fail to spend many years are more likely (e.g., suicide, ac

Individuals including complex may have associated symptoms individuals with meet criteria for narcissistic personality disorder in adult life disorder (before Child abuse or may increase the disorder.

Prevalence

Twelve-month prevalence of antisocial personality disorder (greater than 1% in the general population and higher in samples of prisoners and immigrants) factors.

Development

Antisocial personality disorder is a chronic condition as the individual's personality tends to be stable over time there is likely to be a high rate of use. By definition

Risk and Prognosis

Genetic and physical factors: first-degree biological relatives with antisocial personality disorder. The risk to biological relatives of this disorder are increased in individuals with antisocial personality disorder. Within more often have antisocial personality disorder. Males more often increase in prevalence in the general population. Factors contributing to the disorder include biological and environmental factors.

sexual partners and may never have sustained a monogamous relationship. They may be irresponsible as parents, as evidenced by malnutrition of a child, an illness in the child resulting from a lack of minimal hygiene, a child's dependence on neighbors or nonresident relatives for food or shelter, a failure to arrange for a caretaker for a young child when the individual is away from home, or repeated squandering of money required for household necessities. These individuals may receive dishonorable discharges from the armed services, may fail to be self-supporting, may become impoverished or even homeless, or may spend many years in penal institutions. Individuals with antisocial personality disorder are more likely than people in the general population to die prematurely by violent means (e.g., suicide, accidents, homicides).

Individuals with antisocial personality disorder may also experience dysphoria, including complaints of tension, inability to tolerate boredom, and depressed mood. They may have associated anxiety disorders, depressive disorders, substance use disorders, somatic symptom disorder, gambling disorder, and other disorders of impulse control. Individuals with antisocial personality disorder also often have personality features that meet criteria for other personality disorders, particularly borderline, histrionic, and narcissistic personality disorders. The likelihood of developing antisocial personality disorder in adult life is increased if the individual experienced childhood onset of conduct disorder (before age 10 years) and accompanying attention-deficit/hyperactivity disorder. Child abuse or neglect, unstable or erratic parenting, or inconsistent parental discipline may increase the likelihood that conduct disorder will evolve into antisocial personality disorder.

Prevalence

Twelve-month prevalence rates of antisocial personality disorder, using criteria from previous DSMs, are between 0.2% and 3.3%. The highest prevalence of antisocial personality disorder (greater than 70%) is among most severe samples of males with alcohol use disorder and from substance abuse clinics, prisons, or other forensic settings. Prevalence is higher in samples affected by adverse socioeconomic (i.e., poverty) or sociocultural (i.e., migration) factors.

Development and Course

Antisocial personality disorder has a chronic course but may become less evident or remit as the individual grows older, particularly by the fourth decade of life. Although this remission tends to be particularly evident with respect to engaging in criminal behavior, there is likely to be a decrease in the full spectrum of antisocial behaviors and substance use. By definition, antisocial personality cannot be diagnosed before age 18 years.

Risk and Prognostic Factors

Genetic and physiological. Antisocial personality disorder is more common among the first-degree biological relatives of those with the disorder than in the general population. The risk to biological relatives of females with the disorder tends to be higher than the risk to biological relatives of males with the disorder. Biological relatives of individuals with this disorder are also at increased risk for somatic symptom disorder and substance use disorders. Within a family that has a member with antisocial personality disorder, males more often have antisocial personality disorder and substance use disorders, whereas females more often have somatic symptom disorder. However, in such families, there is an increase in prevalence of all of these disorders in both males and females compared with the general population. Adoption studies indicate that both genetic and environmental factors contribute to the risk of developing antisocial personality disorder. Both adopted and biological children of parents with antisocial personality disorder have an increased

risk of developing antisocial personality disorder, somatic symptom disorder, and substance use disorders. Adopted-away children resemble their biological parents more than their adoptive parents, but the adoptive family environment influences the risk of developing a personality disorder and related psychopathology.

Culture-Related Diagnostic Issues

Antisocial personality disorder appears to be associated with low socioeconomic status and urban settings. Concerns have been raised that the diagnosis may at times be misapplied to individuals in settings in which seemingly antisocial behavior may be part of a protective survival strategy. In assessing antisocial traits, it is helpful for the clinician to consider the social and economic context in which the behaviors occur.

Gender-Related Diagnostic Issues

Antisocial personality disorder is much more common in males than in females. There has been some concern that antisocial personality disorder may be underdiagnosed in females, particularly because of the emphasis on aggressive items in the definition of conduct disorder.

Differential Diagnosis

The diagnosis of antisocial personality disorder is not given to individuals younger than 18 years and is given only if there is a history of some symptoms of conduct disorder before age 15 years. For individuals older than 18 years, a diagnosis of conduct disorder is given only if the criteria for antisocial personality disorder are not met.

Substance use disorders. When antisocial behavior in an adult is associated with a substance use disorder, the diagnosis of antisocial personality disorder is not made unless the signs of antisocial personality disorder were also present in childhood and have continued into adulthood. When substance use and antisocial behavior both began in childhood and continued into adulthood, both a substance use disorder and antisocial personality disorder should be diagnosed if the criteria for both are met, even though some antisocial acts may be a consequence of the substance use disorder (e.g., illegal selling of drugs, thefts to obtain money for drugs).

Schizophrenia and bipolar disorders. Antisocial behavior that occurs exclusively during the course of schizophrenia or a bipolar disorder should not be diagnosed as antisocial personality disorder.

Other personality disorders. Other personality disorders may be confused with antisocial personality disorder because they have certain features in common. It is therefore important to distinguish among these disorders based on differences in their characteristic features. However, if an individual has personality features that meet criteria for one or more personality disorders in addition to antisocial personality disorder, all can be diagnosed. Individuals with antisocial personality disorder and narcissistic personality disorder share a tendency to be tough-minded, glib, superficial, exploitative, and lack empathy. However, narcissistic personality disorder does not include characteristics of impulsivity, aggression, and deceit. In addition, individuals with antisocial personality disorder may not be as needy of the admiration and envy of others, and persons with narcissistic personality disorder usually lack the history of conduct disorder in childhood or criminal behavior in adulthood. Individuals with antisocial personality disorder and histrionic personality disorder share a tendency to be impulsive, superficial, excitement seeking, reckless, seductive, and manipulative, but persons with histrionic personality disorder tend to be more exaggerated in their emotions and do not characteristically engage in antisocial behaviors. Individuals with histrionic and borderline personality disorders are

manipulative
manipulativ
antisocial pe
than those v
present in sc
vated by a de
but rather is

Criminal beh
disorder mu
accompanied b
personality t
tional impair

Diagnosti

A pervasive
and marked i
as indicated t

1. Frantic eff
or self-mu
2. A pattern
ing betwe
3. Identity di
4. Impulsivity
substance
mutilating
5. Recurrent
6. Affective ir
irritability, c
7. Chronic fe
8. Inappropri
temper, cc
9. Transient,

Diagnost

The essential f
of interperson
by early adult

Individual
imagined abar
or the loss of ex
and behavior. C
perience intens
istic time-limit
despair in react
one important
believe that thi
lated to an intol

manipulative to gain nurturance, whereas those with antisocial personality disorder are manipulative to gain profit, power, or some other material gratification. Individuals with antisocial personality disorder tend to be less emotionally unstable and more aggressive than those with borderline personality disorder. Although antisocial behavior may be present in some individuals with paranoid personality disorder, it is not usually motivated by a desire for personal gain or to exploit others as in antisocial personality disorder, but rather is more often attributable to a desire for revenge.

Criminal behavior not associated with a personality disorder. Antisocial personality disorder must be distinguished from criminal behavior undertaken for gain that is not accompanied by the personality features characteristic of this disorder. Only when antisocial personality traits are inflexible, maladaptive, and persistent and cause significant functional impairment or subjective distress do they constitute antisocial personality disorder.

Borderline Personality Disorder

Diagnostic Criteria

301.83 (F60.3)

A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Frantic efforts to avoid real or imagined abandonment. (**Note:** Do not include suicidal or self-mutilating behavior covered in Criterion 5.)
2. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation.
3. Identity disturbance: markedly and persistently unstable self-image or sense of self.
4. Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). (**Note:** Do not include suicidal or self-mutilating behavior covered in Criterion 5.)
5. Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior.
6. Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days).
7. Chronic feelings of emptiness.
8. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights).
9. Transient, stress-related paranoid ideation or severe dissociative symptoms.

Diagnostic Features

The essential feature of borderline personality disorder is a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity that begins by early adulthood and is present in a variety of contexts.

Individuals with borderline personality disorder make frantic efforts to avoid real or imagined abandonment (Criterion 1). The perception of impending separation or rejection, or the loss of external structure, can lead to profound changes in self-image, affect, cognition, and behavior. These individuals are very sensitive to environmental circumstances. They experience intense abandonment fears and inappropriate anger even when faced with a realistic time-limited separation or when there are unavoidable changes in plans (e.g., sudden despair in reaction to a clinician's announcing the end of the hour; panic or fury when someone important to them is just a few minutes late or must cancel an appointment). They may believe that this "abandonment" implies they are "bad." These abandonment fears are related to an intolerance of being alone and a need to have other people with them. Their frantic

American Psychiatric Association
The Principles of Medical Ethics

**With Annotations Especially
Applicable to Psychiatry**

2013 Edition

of professionally unethical behavior. Physicians lose no right of citizenship on entry into the profession of medicine.

2. Where not specifically prohibited by local laws governing medical practice, the practice of acupuncture by a psychiatrist is not unethical per se. The psychiatrist should have professional competence in the use of acupuncture. Or, if he or she is supervising the use of acupuncture by nonmedical individuals, he or she should provide proper medical supervision. (See also Section 5, Annotations 3 and 4.)

Section 4

A physician shall respect the rights of patients, colleagues, and other health professionals, and shall safeguard patient confidences and privacy within the constraints of the law.

1. Psychiatric records, including even the identification of a person as a patient, must be protected with extreme care. Confidentiality is essential to psychiatric treatment. This is based in part on the special nature of psychiatric therapy as well as on the traditional ethical relationship between physician and patient. Growing concern regarding the civil rights of patients and the possible adverse effects of computerization, duplication equipment, and data banks makes the dissemination of confidential information an increasing hazard. Because of the sensitive and private nature of the information with which the psychiatrist deals, he or she must be circumspect in the information that he or she chooses to disclose to others about a patient. The welfare of the patient must be a continuing consideration.

2. A psychiatrist may release confidential information only with the authorization of the patient or under proper legal compulsion. The continuing duty of the psychiatrist to protect the patient includes fully apprising him/her of the connotations of waiving the privilege of privacy. This may become an issue when the patient is being investigated by a government agency, is applying for a position, or is involved in legal action. The same principles apply to the release of information concerning treatment to medical departments of government agencies, business organizations, labor unions, and insurance companies. Information gained in confidence about patients seen in student health services should not be released without the students' explicit permission.

3. Clinical and other materials used in teaching and writing must be adequately disguised in order to preserve the anonymity of the individuals involved.

4. The ethical responsibility of maintaining confidentiality holds equally for the consultations in which the patient may not have been present and in which the consultee was not a physician. In such instances, the physician consultant should alert the consultee to his or her duty of confidentiality.

5. Ethically, the psychiatrist may disclose only that information which is relevant to a given situation. He or she should avoid offering speculation as fact. Sensitive information such as an individual's sexual orientation or fantasy material is usually unnecessary.

6. Psychiatrists are often asked to examine individuals for security purposes, to determine suitability for various jobs, and to determine legal competence. The psychiatrist must fully describe the nature and purpose and lack of confidentiality of the examination to the examinee at the beginning of the examination.

7. Careful judgment must be exercised by the psychiatrist in order to include, when appropriate, the parents or guardian in the treatment of a minor. At the same time, the psychiatrist must assure the minor proper confidentiality.

8. When, in the clinical judgment of the treating psychiatrist, the risk of danger is deemed to be significant, the psychiatrist may reveal confidential information disclosed by the patient.”

9. When the psychiatrist is ordered by the court to reveal the confidences entrusted to him/her by patients, he or she may comply or he/ she may ethically hold the right to dissent within the framework of the law. When the psychiatrist is in doubt, the right of the patient to confidentiality and, by extension, to unimpaired treatment should be given priority. The psychiatrist should reserve the right to raise the question of adequate need for disclosure. In the event that the necessity for legal disclosure is demonstrated by the court, the psychiatrist may request the right to disclosure of only that information which is relevant to the legal question at hand.

10. With regard for the person’s dignity and privacy and with truly informed consent, it is ethical to present a patient to a scientific gathering if the confidentiality of the presentation is understood and accepted by the audience.

11. It is ethical to present a patient or former patient to a public gathering or to the news media only if the patient is fully informed of enduring loss of confidentiality, is competent, and consents in writing without coercion.

12. When involved in funded research, the ethical psychiatrist will advise human subjects of the funding source, retain his or her freedom to reveal data and results, and follow all appropriate and current guidelines relative to human subject protection.

13. Ethical considerations in medical practice preclude the psychiatric evaluation of any person charged with criminal acts prior to access to, or availability of, legal counsel. The only exception is the rendering of care to the person for the sole purpose of medical treatment.

14. Sexual involvement between a faculty member or supervisor and a trainee or student, in those situations in which an abuse of power can occur, often takes advantage of inequalities in the working relationship and may be unethical because:

- a. Any treatment of a patient being supervised may be deleteriously affected.
- b. It may damage the trust relationship between teacher and student.
- c. Teachers are important professional role models for their trainees and affect their trainees’ future professional behavior.

ETHICAL PRINCIPLES OF PSYCHOLOGISTS AND CODE OF CONDUCT

Adopted August 21, 2002
Effective June 1, 2003
(With the 2010 Amendments
to Introduction and Applicability
and Standards 1.02 and 1.03,
Effective June 1, 2010)

With the 2016 Amendment
to Standard 3.04
Adopted August 3, 2016
Effective January 1, 2017

cies with Current Therapy Clients/Patients; 10.06, Sexual Intimacies with Relatives or Significant Others of Current Therapy Clients/Patients; 10.07, Therapy with Former Sexual Partners; and 10.08, Sexual Intimacies with Former Therapy Clients/Patients.)

3.09 Cooperation with Other Professionals

When indicated and professionally appropriate, psychologists cooperate with other professionals in order to serve their clients/patients effectively and appropriately. (See also Standard 4.05, Disclosures.)

3.10 Informed Consent

(a) When psychologists conduct research or provide assessment, therapy, counseling, or consulting services in person or via electronic transmission or other forms of communication, they obtain the informed consent of the individual or individuals using language that is reasonably understandable to that person or persons except when conducting such activities without consent is mandated by law or governmental regulation or as otherwise provided in this Ethics Code. (See also Standards 8.02, Informed Consent to Research; 9.03, Informed Consent in Assessments; and 10.01, Informed Consent to Therapy.)

(b) For persons who are legally incapable of giving informed consent, psychologists nevertheless (1) provide an appropriate explanation, (2) seek the individual's assent, (3) consider such persons' preferences and best interests, and (4) obtain appropriate permission from a legally authorized person, if such substitute consent is permitted or required by law. When consent by a legally authorized person is not permitted or required by law, psychologists take reasonable steps to protect the individual's rights and welfare.

(c) When psychological services are court ordered or otherwise mandated, psychologists inform the individual of the nature of the anticipated services, including whether the services are court ordered or mandated and any limits of confidentiality, before proceeding.

(d) Psychologists appropriately document written or oral consent, permission, and assent. (See also Standards 8.02, Informed Consent to Research; 9.03, Informed Consent in Assessments; and 10.01, Informed Consent to Therapy.)

3.11 Psychological Services Delivered to or Through Organizations

(a) Psychologists delivering services to or through organizations provide information beforehand to clients and when appropriate those directly affected by the services about (1) the nature and objectives of the services, (2) the intended recipients, (3) which of the individuals are clients, (4) the relationship the psychologist will have with each person and the organization, (5) the probable uses of services

provided and information obtained, (6) who will have access to the information, and (7) limits of confidentiality. As soon as feasible, they provide information about the results and conclusions of such services to appropriate persons.

(b) If psychologists will be precluded by law or by organizational roles from providing such information to particular individuals or groups, they so inform those individuals or groups at the outset of the service.

3.12 Interruption of Psychological Services

Unless otherwise covered by contract, psychologists make reasonable efforts to plan for facilitating services in the event that psychological services are interrupted by factors such as the psychologist's illness, death, unavailability, relocation, or retirement or by the client's/patient's relocation or financial limitations. (See also Standard 6.02c, Maintenance, Dissemination, and Disposal of Confidential Records of Professional and Scientific Work.)

4. Privacy and Confidentiality

4.01 Maintaining Confidentiality

Psychologists have a primary obligation and take reasonable precautions to protect confidential information obtained through or stored in any medium, recognizing that the extent and limits of confidentiality may be regulated by law or established by institutional rules or professional or scientific relationship. (See also Standard 2.05, Delegation of Work to Others.)

4.02 Discussing the Limits of Confidentiality

(a) Psychologists discuss with persons (including, to the extent feasible, persons who are legally incapable of giving informed consent and their legal representatives) and organizations with whom they establish a scientific or professional relationship (1) the relevant limits of confidentiality and (2) the foreseeable uses of the information generated through their psychological activities. (See also Standard 3.10, Informed Consent.)

(b) Unless it is not feasible or is contraindicated, the discussion of confidentiality occurs at the outset of the relationship and thereafter as new circumstances may warrant.

(c) Psychologists who offer services, products, or information via electronic transmission inform clients/patients of the risks to privacy and limits of confidentiality.

4.03 Recording

Before recording the voices or images of individuals to whom they provide services, psychologists obtain permission from all such persons or their legal representatives. (See also Standards 8.03, Informed Consent for Recording Voices and Images in Research; 8.05, Dispensing with Informed Consent for Research; and 8.07, Deception in Research.)

Online Child Pornography Offenders are Different: A Meta-analysis of the Characteristics of Online and Offline Sex Offenders Against Children

Kelly M. Babchishin · R. Karl Hanson · Heather VanZuylen

Received: 30 May 2013 / Revised: 12 October 2013 / Accepted: 22 October 2013 / Published online: 14 March 2014
© Her Majesty the Queen in Right of Canada as represented by: Public Safety Canada 2014

Abstract The current meta-analysis compared the characteristics of online child pornography-only offenders, typical (offline) sex offenders against children, and offenders with both child pornography and contact sex offences against children (mixed). Based on 30 unique samples (comparison *ns* ranging from 98 to 2,702), the meta-analysis found key differences between groups. Offenders who committed contact sex offences were more likely to have access to children than those with only child pornography offences. In contrast, offenders who used the internet to commit sexual offences had greater access to the internet than those with contact sex offenders. Differences between the groups, however, were not limited to differential opportunities. Sex offenders against children and mixed offenders were found to score higher on indicators of antisociality than online child pornography offenders (CPOs). CPOs were also more likely to have psychological barriers to sexual offending than sex offenders against children and mixed offenders (e.g., greater victim empathy). Mixed offenders were found to be the most pedophilic, even more than CPOs. The findings suggest that offenders who restricted their offending behavior to online child pornography offences were different from mixed offenders and offline sex offenders against children, and that mixed offenders were a particularly high risk group.

Keywords Sex offenders · Internet · Child pornography · Pedophilia · Paraphilias · Meta-analysis

Introduction

The internet is commonly used for sexual purposes. Approximately three quarters of men and half of women have intentionally viewed pornography over the internet (Albright, 2008). For some individuals, however, the use of the internet for sexual purposes becomes problematic and interferes with key aspects of their lives, such as career, psychological and sexual well-being, and offline intimate relationships (Brand et al., 2011; Green, Carnes, Carnes, & Weinman, 2012; Levin, Lillis, & Hayes, 2012; Putnam, 2000). In the general public, the prevalence of such problematic online sexual behaviors has been found to range from 1 to 6.5 % (Cooper, Delmonico, & Burg, 2000; Cooper, Griffin-Shelley, Delmonico, & Mathy, 2001; Daneback, Cooper, & Månsson, 2005).

A minority of individuals with problematic online sexual behaviors will commit online sexual offences (Mitchell & Wells, 2007). Criminal sexual behaviors include viewing illegal pornography, sexual solicitation of minors, prostitution, and indecent exposure. The most concerning type of internet criminal behavior victimizes children and a minority of individuals with problematic online sexual behaviors have committed such crimes. For example, 13 % of those classified as having problematic online sexual behaviors have viewed child pornography and 6 % have sexually exploited a minor (Mitchell & Wells, 2007). Many measures of problematic online sexual behavior include questions about illegal activities (e.g., Internet Sex Screening Test: Delmonico & Miller, 2003; Cybersex Addiction Screening Test: Sexual Recovery Institute, 2013) and viewing child pornography or sexually soliciting minors has been identified as one of the 10 indicators that someone may

K. M. Babchishin · R. K. Hanson · H. VanZuylen
Public Safety Canada, Ottawa, ON, Canada

K. M. Babchishin (✉)
Department of Psychology, Carleton University, 1125 Colonel by
Drive, Ottawa, ON K1S 5B6, Canada
e-mail: kelly_babchishin@carleton.ca

H. VanZuylen
Department of Psychology, University of Ottawa, Ottawa, ON,
Canada

have problematic online sexual behaviors (Carnes, Delmonico, & Griffin, 2007). Of course, internet preoccupation is not a necessary condition for online child pornography or sexual solicitation of minors. On average, online sex offenders scored in the middle range of an internet preoccupation scale (e.g., Lee, Li, Lamade, Schuler, & Prentky, 2012). Online sex offenders, however, have greater internet preoccupation compared to typical (offline) sex offenders against children (e.g., Lee et al., 2012).

Viewing Child Pornography Over the Internet

The number of detected online sex offenders has drastically increased since the early 2000s (Dauvergne & Turner, 2010; Middleton, Mandeville-Norden, & Hayes, 2009; Wolak, 2011), as have the resources available for detecting these online sexual offences (Hamilton, 2012). Most detected online sex offenders are convicted of downloading or possessing child pornography (Wolak, 2011). There has been much debate and research examining the extent to which online child pornography offenders (CPOs) also have a history of contact sex offences against children. One reason for the expectation that online CPOs also commit contact sex offences is that the prevalence of sexual interest in children is higher among CPOs than among typical, contact sex offenders against children (Babchishin, Hanson, & Hermann, 2011). In fact, a history of child pornography offences is a valid diagnostic indicator of pedophilia (Seto, Cantor, & Blanchard, 2006).

Given that sexual interest in children is one of the best predictors of sex offences against children (e.g., Hanson & Morton-Bourgon, 2005), it would naturally follow that online CPOs would also be at risk for offline sexual offences against children. However, studies consistently find that the proportion of CPOs who reoffend with a contact sex offense is lower than the rates typically observed for sex offenders against children (Seto, Hanson, & Babchishin, 2011). Seto et al. found approximately 1 % official recidivism rates for contact sexual offences and a 3 % recidivism rate for child pornography offences after a follow-up of up to 6 years.

Not all CPOs, however, limit their sexual offending to the internet. One out of eight CPOs will have an officially recorded contact sex offense against a child, and about half will self-report committing a contact sex offense (Seto et al., 2011). Those who have both child pornography and contact offences (i.e., mixed offenders) have higher recidivism rates for contact sex offences (6 %) than offenders with solely online child pornography offences (0.2 %) (Goller, Graft, Frei, & Dittmann, 2010; Graf & Dittmann, 2011). The 5-year recidivism rate of mixed offenders (6 %) is comparable to the rate for offline sex offenders against children (13 %) (Harris & Hanson, 2004).

Are Online Child Pornography Offenders a New Type of Offender?

A parsimonious explanation of online CPOs would be that the same factors that motivate offline sexual offending also motivate online sexual offending. In addition to sexual deviancy, it is also well established that antisociality is a major risk factor of sexual offending against children (Hanson & Bussière, 1998; Quinsey, 1986; Seto, 2008, 2013). Antisociality refers to a set of personality traits and attitudes that indicate a disregard for societal norms and the safety of others, a lack of remorse, impulsivity, and persistent rule breaking (American Psychiatric Association, 2013).

Although sexual deviancy and antisociality are important motivational factors for sexual offending behaviors, not all motivated individuals commit sexual offences. One explanation for the link between motivation and actual offending is provided by routine activity theory (Cohen & Felson, 1979). This theory, now the dominant theory within criminology, posits that criminal behavior requires not only motivated offenders, but suitable targets and a lack of supervision. Applying this theory to online offenders, the largely unregulated internet environment provides both conditions (opportunity and lack of supervision) for motivated offenders to download or distribute child pornography. Indeed, the rates of online sexual crimes, and child pornography offences in particular, have increased substantially with the increasing use of the internet (Dauvergne & Turner, 2010; Middleton et al., 2009; Wolak, 2011). However, not all individuals have equal access to the internet. Internet use is positively correlated with young age, high education, and high income, as well as gender (male) and race (Caucasian) (Zickuhr & Smith, 2012).

We expected that access to the internet, in addition to antisociality and sexual deviancy, are core explanatory factors of online child pornography offences (see also Seto, 2013). Routine activity theory would posit that those motivated to commit sexual offences and who have access to the internet are those most likely to commit online sexual offences. In contrast, motivated individuals who have limited access to the internet, but have access to children, are relatively more likely to commit contact (offline) sex offences. Meanwhile, it was expected that those who were motivated to commit sexual offences and have access to both the internet and children would be mixed offenders.

There are also reasons to believe that CPOs are a distinct group of sex offenders (e.g., Babchishin et al., 2011). Specifically, the ease of access to online child pornography may contribute to a new group of offenders who succumb to temptations that they would have otherwise controlled. The association between sexual fantasy and action, however, is not absolute. Some online CPOs would be expected to restrict their offending behaviors to the internet. Indeed, despite being motivated to commit sexual offences against children (e.g., pedohebephilia), offenders who restrict their offences to online child pornography seem to have greater barriers to offending, such as less antisocial tendencies

(Long, Alison, & McManus, 2013), greater victim empathy, and greater self-control (Elliott, Beech, & Mandeville-Norden, 2012). Antisocial individuals are more likely to act out sexual fantasies involving criminal activity (e.g., sexual assault) than less antisocial individuals (Williams, Cooper, Howell, Yuille, & Paulhus, 2009) and CPOs tend to be less antisocial than contact sex offenders against children (Babchishin et al., 2011). As such, CPOs may engage in sexual fantasy about children, appreciate that it is morally wrong, and not act on it even when the opportunity presents itself (Elliott & Beech, 2009; Elliott, Beech, Mandeville-Norden, & Hayes, 2009).

Such a finding would parallel sex research in the general population. Despite half of male undergraduate students reporting at least one fantasy involving criminal sexual acts (e.g., frotteurism, voyeurism, sexual assault), the propensity to act out these fantasies was much lower (20 %), with those scoring higher on psychopathy being the most likely to act out their deviant fantasies (Williams et al., 2009). The distinction between fantasy and action has also been applied to both online solicitation offenders and online CPOs. Online solicitation offenders have been divided into those who restrict their online offending behavior to the internet (fantasy-driven solicitation offenders) and those who actively set meetings with minors to act out their deviant fantasies (contact-driven solicitation offenders) (Briggs, Simons, & Simonsen, 2011). Similarly, CPOs have been divided into those who use child pornography as part of contact offences, such as victim grooming (contact-driven), and those who are motivated by deviant sexual interest without intent to commit a contact offense (fantasy-driven) (Meridian, Curtis, Thakker, Wilson, & Boer, 2013). As such, it has been hypothesized that the link between sexual fantasy and action may differ across different sex offender types.

Purpose of the Current Meta-Analysis

A better understanding of the similarities and differences between online-only, mixed, and traditional (i.e., offline-only) sex offenders against children is needed. Although there have been considerable advances in recent years, empirical and theoretical advancement on internet sexual offending has been limited by samples including offenders with different offending behaviors. Specifically, studies have combined child pornography-only offenders with sex offenders who have both contact and child pornography offences. Babchishin et al. (2011) presented the first meta-analysis that reviewed the characteristics of internet offenders. Compared to offline sex offenders, online sex offenders were more likely to have demographic characteristics correlated with internet use (e.g., Caucasian, young), greater barriers to acting out sex offences (e.g., greater victim empathy), and had greater sexual deviancy.

The meta-analysis of Babchishin et al. (2011), however, compared online sex offender groups to offline sex offender groups in general and, as such, did not examine differences within online sex offender groups. Outstanding questions remain. Are

there key differences between CPOs and offenders who commit both child pornography and contact sex offences? Are offenders who commit both online and offline sex offences different than those who solely commit contact sex offences? Since Babchishin et al. (2011), there are now additional studies available allowing for a more thorough examination of the characteristics of online sex offenders than was previously available.

Method

Study Selection

An initial collection of studies was retrieved through a previous internet sex offender meta-analysis (Babchishin et al., 2011). Online searches for additional studies were conducted through PsycINFO, Dissertations and Thesis Fulltext, National Criminal Justice Reference Service, Web of Science, and Medline using the following search terms: internet, online, cyber*, sex offend*, child molest*, child abuse imag*, imag* of child abuse, lur*, groom*, travel*, solicit*, child porn*, character*, and trait. Studies were also found by reviewing presentations given at conferences held by the Association for the Treatment of Sexual Abusers, the International Association for the Treatment of Sex Offenders, and the Congrès international francophone sur l'agression sexuelle. Additional studies were also found by reviewing the reference lists of studies, contacting researchers, and utilizing Google Scholar. The search ended January 31, 2013 and resulted in 30 eligible samples (2 French and 28 English studies).

Table 1 provides basic descriptive information for each study. Approximately half of studies were published ($k = 17$; 57 %) and studies were produced between 2003 and 2013 ($Mdn = 2011$). Most offenders were sampled from the United States ($k = 9$), followed by Canada and the United Kingdom (both $k = 7$). Of the 30 unique samples, 29 reported on CPO (N ranged from 10 to 459, $Mdn = 38$, Total $N = 2,284$), 23 reported on sexual offenders against children (SOC) (N ranged from 10 to 526, $Mdn = 47$; Total $N = 2,320$), and 16 reported on mixed offenders (N ranged from 10 to 231, $Mdn = 52$; Total $N = 1,086$). Most samples grouped offenders into their respective groups based on official charges or convictions (i.e., 81 % of mixed offenders, 91 % of SOC, and 94 % of CP offenders); some studies also used self-report and other sources, such as accusations (17 % of SOC, 23 % of CP, and 38 % of mixed offenders). All samples were exclusively of men, and most were derived from community settings (60 %; $k = 18$) or a combination of community and institutions (20 %; $k = 6$).

Coding Procedure

Each study was coded with a standard list of variables and explicit coding rules (coding manual available upon request).

Table 1 Descriptive information of included samples

Study	Country	Location	N			Adversarial setting
			CPO	SOC	M	
1. Armstrong (2009)	Australia	Unknown	33	33	–	Moderate
2. Seto, Wood, Babchishin, and Flynn (2012)	United States	Combined	38	38	–	High
3. Hanson (2012)	Canada	Community	–	395	16	Moderate
4. Merdian (2012)	New Zealand	Combined	22	29	17	Low
5. Finkelhor, Wolak, and Mitchell (2008)	United States	Community	177	–	179	High
6. Finkelhor, Mitchell, and Wolak (2012)	United States	Community	288	–	231	High
7. Lopez (2008)	United States	Community	11	107	–	Moderate
8. Perrot, Benony, and Lopes (2001)	France	Unknown	14	14	–	Low
9.1 Lee et al. (2012)	Canada/United States	Combined	128	277	60	Low
9.2 Coward, Gabriel, Schuler, and Prentky (2009)						
10.1 Elliott et al. (2012)	United Kingdom	Community	459	526	142	Moderate
10.2 Elliott et al. (2009)						
11.1 Howitt and Sheldon (2007)	United Kingdom	Institution	16	25	10	Low
11.2 Sheldon and Howitt (2008)						
11.3 Sheldon and Howitt (2007)						
12. Reijnen Bulten, and Nijman (2009)	Netherlands	Community	22	47	–	Moderate
13.1 McCarthy (2010a)	United States	Community	176	–	71	Moderate
13.2 McCarthy (2010b)						
14. Matsuzawa (2009)	United States	Community	26	–	26	Moderate
15. Tomak, Weschler, Ghahramanlou-Holloway, Virden, and Nademin (2009)	United States	Combined	48	104	–	Moderate
16. Wall, Pearce, and McGuire (2011)	United Kingdom	Community	25	25	–	Low
17. Bates and Metcalf (2007)	United Kingdom	Community	112	52	–	Moderate
18.1 Neutze, Grundmann, Scherner, and Beier (2012b)	Germany	Community	129	71	144	Low
18.2 Neutze, Seto, Schaefer, Mundt, and Beier (2011)						
19. Smid, Schepers, Kamphuis, van Linden, and Barteling (2013)	Netherlands	Community	87	–	63	High
20. Magaletta, Faust, Bickart, and McLearn (2014)	United States	Institution	35	26	–	Low
21. Long et al. (2013)	United Kingdom	Community	60	–	60	High
22. Rooney (2003)	Ireland	Combined	15	15	–	Low
23. Hempel, Buck, Goethals, and van Marle (2013)	Netherlands	Combined	19	46	–	Low
24. McWhaw (2011)	Canada	Community	53	53	10	Moderate
25. Seto et al. (2006)	Canada	Community	87	178	43	High
26. Paradis and Titley (2011)	Canada	Community	24	–	14	Moderate
27. Webb, Craissati, and Keen (2007)	United Kingdom	Community	90	120	–	Moderate
28. Marshall O'Brien, Marshall, Booth, and Davis (2012)	Canada	Institution	30	28	–	Moderate
29. Jung, Ennis, Stein, Choy, and Hook (2012)	Canada	Community	50	101	–	Moderate
30. Roche, O'Reilly, Gavin, Ruiz, and Arancibia (2012)	Ireland	Institution	10	10	–	Low
		Total N	2,284	2,320	1,086	

Decimals represent overlapping samples, with 0.1 representing the main sample (i.e., the study contributing the most effect sizes)

CPO child pornography offenders, SOC sex offenders against children, M mixed offenders

The first and third author coded all studies separately and generated consensus ratings. Ratings had two components: information describing the study (one form per study) and effect size information (one form per effect size). To be included in the current meta-analysis, the study had to include

at least two of the following groups: CPO, offline SOC, or mixed offenders (i.e., committed both online and offline offences against children). Recent samples (post 2000) of CPOs were included because it was presumed that a majority of these offenders would have used the internet or other computer

technology in their offences. The study had to report on at least one of the characteristics targeted by this review, which included demographic or psychological variables. At the end of coding, only variables with three or more studies were meta-analyzed. The study also needed to include sufficient statistical information to calculate an effect size (Cohen's d).

Interrater Reliability

Interrater reliability analyses were based on 17 studies. The raters coded 456 common effect sizes, with high levels of agreement (absolute intra-class correlation [ICC] based on single rater = 0.94). Fourteen effect sizes were identified by one rater but not the other. Interrater reliability for items was first examined for all variables in the coding manual (although not all are reported in the current meta-analysis). Of the variables reported in the current meta-analysis, interrater reliability ranged from 78 to 100 % agreement for categorical variables ($Mdn = 94\%$, $n = 13$; κ ranged from 0.65 to 1.00, $Mdn = 0.89$, $n = 9$) and ICC values ranged from 0.97 to 1.00 for continuous variables ($Mdn = 0.999$; $n = 4$).

Overview of Analyses

Effect Size

The effect size indicator was the standardized mean difference, Cohen's d , defined as follows: $d = (M_1 - M_2)/S_w$, where M_1 and M_2 were the group means, and S_w was the pooled-within SD (Hasselblad & Hedges, 1995). As a heuristic for interpretation, Cohen (1988) suggested that a d of 0.2 is small, 0.5 is moderate, and 0.8 is large.

Aggregation of Findings

Findings across studies were aggregated using fixed-effect and random-effects meta-analysis (Borenstein, Hedges, Higgins, & Rothstein, 2009). Whereas the results of fixed-effect meta-analysis are conceptually restricted to the particular set of studies included in the meta-analysis, random-effects meta-analysis estimates effects for the population of which the current sample of studies is a part. When variability across studies is low ($Q < \text{degrees of freedom}$), random-effects and fixed-effect meta-analysis produce identical results. When the analysis includes a small number of studies ($k < 30$), greater interpretation weight should be given to fixed-effect rather than random-effects analyses because the between-study variability estimate necessary for random-effects analyses (i.e., tau) loses precision (Schulze, 2007).

To test the variability of findings across studies, we used Cochran's Q statistic and the I^2 statistic (Borenstein et al., 2009). The Q statistic provides a significance test for variability, whereas the I^2 is a measure of effect size for variability and can, therefore, be

compared across analyses. As a rough heuristic, I^2 values of 25, 50, and 75 % can be considered low, moderate, and high variability, respectively (Higgins, Thompson, Deeks, & Altman, 2003).

Following Hanson and Morton-Bourgon (2009), a finding was considered an outlier if it was the single extreme value and accounted for more than 50 % of the total variance (Q), and the overall variability (Q) was significant. When outliers were identified, results are presented both with and without the outlier, with the main interpretation focusing on the findings with the outlier removed. The exception is that if an analysis of three studies identified one study as an outlier, it was not removed (with so few studies, identifying outliers produces unstable results).

Results

CPO are Different from SOC

Tables 2, 3, 4, 5, and 6 compared CPO to SOC, with comparisons based on 3–18 studies (N ranging from 183 to 2,702; $Mdn = 735$). SOC were found to have greater access to children ($d = 0.53$) than CPO. In turn, CPO had a greater number of indicators of internet use compared to SOC, such as younger age ($d = -0.21$), higher income ($d = 0.60$), and higher education ($d = 0.77$) (see Table 3).

Child pornography offender were also found to have greater sexual deviancy ($d = -0.37$ for pedophilia), but greater barriers to offending compared to SOC. For example, SOC had greater cognitive distortions (e.g., $d = 0.49$), victim empathy deficits ($d = 0.53$), and emotional identification with children ($d = 0.20$) than CPO. In addition, SOC endorsed a greater number of indicators of antisociality compared to CPO, such as greater number of prior offences ($d = 0.39$), higher scores on measures of antisociality ($d = 0.58$), and greater problems with supervision compared to CPO ($d = 0.74$).

There were some notable differences in relationship variables. For example, SOC were more likely to have a detached approach to romantic relationships ($d = 0.28$), but less likely to have problems with sexual preoccupation ($d = -0.39$) and sexual self-regulation compared to CPO ($d = -0.19$). Apart from SOC having greater indicators of severe mental illness (e.g., schizophrenia) than CPO ($d = 0.26$), the two groups were found to be relatively similar in psychological profiles. SOC, however, had consistently greater childhood difficulties and abuse compared to CPO (see Table 6).

CPO are Different from Mixed Offenders

Tables 7, 8, and 9 compared CPO to sex offenders against children who also had an online offense (mixed offenders), with comparisons based on 3–13 studies (n ranging from 98 to

Table 2 Meta-analysis comparing child pornography offenders (CPOs) to sex offenders against children on sexual offending variables

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Prior sexual offences	0.53	[0.39, 0.67]	0.58	[0.30, 0.86]	20.06**	65.1	1,807 (8)	2, 4, 10.2, 16, 17, 24, 27, 29
Prior sexual offences ^a	0.63	[0.48, 0.78]	0.66	[0.47, 0.85]	7.50	20.0	1,670 (7)	2, 4, 10.2, 16, 17, 24, 27
Static risk scale	0.19	[-0.04, 0.42]	0.21	[-0.13, 0.55]	4.11	51.3	410 (3)	2, 27, 29
Other risk scale	0.42	[0.20, 0.64]	0.09	[-0.78, 0.96]	24.94***	92.0	409 (3)	7, 18.2, 27
Any paraphilia	-0.18	[-0.35, -0.01]	-0.12	[-0.53, 0.28]	29.41***	79.6	735 (7)	2, 11.2, 18.1, 23, 24, 25, 30
Pedohebephilia	-0.18	[-0.36, -0.005]	-0.18	[-0.60, 0.24]	28.72***	79.1	735 (7)	2, 11.2, 18.1, 23, 24, 25, 30
Pedophilia	-0.21	[-0.42, 0.003]	-0.16	[-0.69, 0.38]	22.13**	81.9	633 (5)	2, 18.1, 24, 25, 30
Pedophilia ^a	-0.37	[-0.60, -0.14]	-0.39	[-0.83, 0.06]	9.02*	66.8	532 (4)	2, 18.1, 25, 30
Cognitive distortions	0.40	[0.29, 0.51]	0.32	[-0.04, 0.69]	24.11***	79.3	1,550 (6)	4, 10.1, 11, 17, 18.1, 27
Cognitive distortions ^a	0.49	[0.37, 0.61]	0.45	[0.14, 0.77]	7.86	49.1	1,349 (5)	4, 10.1, 11, 17, 27
Victim empathy deficits	0.53	[0.42, 0.65]	0.44	[-0.07, 0.94]	17.32**	88.4	1,255 (3)	10.1, 17, 18.1
Emotional ID with children	0.20	[0.08, 0.31]	0.15	[-0.08, 0.38]	6.76	40.8	1,264 (5)	2, 4, 10.1, 17, 18.2
Minimization	0.21	[-0.09, 0.51]	0.21	[-0.09, 0.51]	1.79	0.0	183 (3)	4, 20, 29
Access to children								
Access to minors	0.53	[0.40, 0.65]	0.65	[0.40, 0.65]	6.02	0.0	1,583 (6)	2, 4, 7, 10.1, 12, 16, 18.1, 23
Has children	0.53	[0.40, 0.66]	0.54	[0.39, 0.69]	6.32	5.0	1,510 (7)	4, 7, 10.1, 12, 16, 18.1, 23

A positive *d* indicates that sex offenders against children had more characteristics that were inherently problematic (e.g., paraphilia) or risk relevant (e.g., access to minors). Bolded values indicate that group differences were statistically significant, $p < .05$. Static risk scales were specific to sex offenders (e.g., Risk-Matrix 2000 and Static-99). Other risk scales included those created by clinicians or developed for the purpose of the study to assess risk of sexual recidivism. Indented variables with distinct names (e.g., pedohebephilia) represent subcategories (e.g., any paraphilia)

ID identification

^a One outlier removed

* $p < .05$; ** $p < .01$; *** $p < .001$

2,638; *Mdn* = 955). As expected, there were no differences in demographic variables associated with internet use (see Table 7). Mixed offenders, however, were found to have greater sexual interest in children (pedohebephilia) than CPO ($d = 0.50$). In addition to having greater paraphilic interests ($d = 0.18$), mixed offenders also had greater access to children than CPO ($d = 0.32$).

Mixed offenders also had fewer barriers to breaking the law compared to CPOs: more prior violent offences ($d = 0.94$), more unemployed ($d = 0.26$), and had greater substance abuse problems ($d = 0.35$; see Table 8). Mixed offenders, however, were less likely than CPO to participate in pedophilic social network or to have other negative social influences ($d = -0.40$).

There were relatively few differences in the general psychological variables sampled in the current meta-analysis. In terms of relationship variables, mixed offenders were found to have greater likelihood of low commitment sex (e.g., frequent partners) ($d = 0.73$), have greater sexual regulation problems ($d = 0.30$), and were more likely to report a homosexual or bisexual orientation ($d = 0.64$). Mixed offenders were also more likely to have childhood difficulties compared to CPOs (see Table 9).

Mixed Offenders are Different from SOC

Tables 10 and 11 compared SOC to mixed offenders, with comparisons based on 3–7 studies (*n* ranging from 297 to 1,664; *Mdn* = 682). Compared to SOC, mixed offenders had significantly greater sexual interest in children ($d = 0.78$), less access to children, and a greater number of indicators of internet use (e.g., higher education, $d = -0.39$). SOC and mixed offenders scored similarly on indicators of antisociality. When differences were observed, SOC tended to hold more indicators of antisociality (see Table 10). Mixed offenders, however, tended to have greater empathy deficits ($d = 0.37$) and tended to score lower on impression management compared to SOC ($d = -0.21$).

Table 11 shows group differences on relationship, psychological, and childhood variables between mixed offenders and SOC. There were relatively few differences in relationship variables with the exception that mixed offenders were more likely to report a homosexual or bisexual orientation ($d = 0.61$) and greater intimacy deficits than SOC ($d = 0.40$). Lastly, psychological and childhood variables sampled in the current meta-analysis did not distinguish SOC and mixed offenders, with the exception that mixed offenders

Table 3 Comparing CPOs to sexual offenders against children on internet demographics and indicators of antisociality

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Access to the Internet								
Young	-0.21	[-0.28, -0.13]	-0.18	[-0.35, 0.0004]	64.93***	73.8	2,702 (18)	2, 4, 7, 8, 9.1, 10.1, 11.2, 12, 15, 16, 18.1, 20, 22, 23, 24, 27, 28, 29
Low income	0.60	[0.21, 0.99]	0.56	[-0.04, 1.16]	4.59	56.4	221 (3)	4, 7, 23
Manual labour	0.65	[0.40, 0.91]	0.69	[0.39, 0.99]	4.73	15.4	574 (5)	7, 9.1, 11.2, 16, 29
Low education	0.77	[0.64, 0.90]	0.80	[0.58, 1.02]	32.94**	57.5	1,485 (15)	1, 2, 4, 7, 9.1, 11.1, 12, 16, 17, 18.1, 20, 22, 23, 24, 29
Racial minority	0.74	[0.51, 0.96]	0.80	[0.48, 1.1]	13.64	41.3	1,058 (9)	1, 2, 4, 7, 9.1, 12, 15, 20, 27
Internet preoccupation	-1.16	[-1.40, -0.92]	-1.47	[-2.24, -0.70]	5.57	64.1	352 (3)	4, 9.1, 22
Indicators of antisociality								
Antisociality	0.63	[0.49, 0.78]	0.56	[0.24, 0.88]	21.54***	76.8	853 (6)	9.1, 12, 15, 20, 27, 29
Antisociality ^b	0.58	[0.41, 0.76]	0.58	[0.41, 0.76]	2.54	0.0	571 (4)	9.1, 12, 15, 20
Any prior offences	0.46	[0.29, 0.63]	0.53	[0.23, 0.84]	19.07**	63.3	743 (8)	2, 4, 7, 11.1, 16, 17, 24, 29
Any prior offences ^a	0.39	[0.22, 0.56]	0.39	[0.21, 0.57]	6.38	5.9	702 (7)	2, 4, 7, 16, 17, 24, 29
Prior violent offences	0.22	[-0.09, 0.54]	0.28	[-0.13, 0.70]	3.56	15.8	372 (4)	2, 4, 24, 29
General empathy deficits	0.19	[0.08, 0.29]	0.09	[-0.17, 0.34]	13.71*	63.5	1,439 (6)	4, 10.1, 17, 18.1, 20, 29
Callous	-0.12	[-0.24, -0.01]	-0.12	[-0.24, -0.01]	1.98	0.0	1,169 (4)	4, 10.1, 20, 29
Hostility	0.25	[0.08, 0.41]	0.29	[0.06, 0.51]	7.75	35.5	810 (6)	4, 9.2, 12, 15, 20, 29
Problems with supervision	0.74	[0.40, 1.09]	0.96	[0.21, 1.71]	7.58*	73.6	387 (3)	2, 24, 27
Low self-regulation	0.10	[0.01, 0.20]	0.08	[-0.06, 0.22]	12.27	26.6	1,774 (10)	2, 4, 10.1, 12, 15, 16, 18.2, 22, 27, 29
Impulsivity	0.10	[-0.005, 0.22]	0.07	[-0.10, 0.23]	10.05	30.4	1,496 (8)	4, 10.1, 12, 15, 16, 18.2, 22, 29
Employment problems	-0.09	[-0.40, 0.23]	-0.09	[-0.40, 0.23]	0.62	0.0	205 (3)	2, 4, 29
Substance abuse	0.45	[0.25, 0.64]	0.45	[0.22, 0.68]	6.81	26.6	637 (6)	2, 7, 20, 24, 27, 29
Unemployed	0.52	[0.30, 0.74]	0.52	[0.30, 0.74]	0.71	0.0	574 (6)	1, 4, 16, 17, 18.1, 23

A positive *d* indicates that sex offenders against children had more characteristics that were risk relevant (e.g., antisociality) or statistically rare (e.g., racial minority) than CPOs. Bolded values indicate that group differences were statistically significant, $p < .05$. Indented variables with distinct names (e.g., callous) represent subcategories (e.g., general empathy deficits)

^a One outlier removed

^b Two outliers removed

* $p < .05$; ** $p < .01$; *** $p < .001$

scored lower on measures of impression management than SOC ($d = -0.21$).

Summary of Findings

Consistent with routine activity theory, offenders who commit contact sex offences were found to have greater access to children compared to those who do not commit contact offences. In contrast, online sex offenders had greater access to the internet compared to offline sex offenders against children (see Fig. 1). Mixed offenders showed similar internet access as CPOs and access to children that was intermediate between the other two groups. Compared to traditional (offline) sex offenders, online offenders were more likely to have deviant sexual interests; however, online-only offenders were more likely to have lifestyle and psychological barriers that prevent them from acting directly on these interests (e.g., lower victim access, lower antisociality, greater victim empathy) than both

SOC and mixed offenders. Compared to CPO and SOC, mixed offenders were found to have greater sexual interest in children, and were similar to SOC in antisociality (see Fig. 2).

Discussion

Routine activity theory provides a useful framework for explaining many of the observed differences between online child pornography and offline sex offenders. Our finding that, compared to online CPOs, offenders who commit contact sex offences are more likely to have access to children and less likely to have access to the internet is parsimoniously explained by assuming that motivated offenders take advantage of the opportunities available to them. In addition to access variables, however, groups also differed on certain psychological characteristics: specifically, antisociality and psychological barriers to sexual offending. Sex offenders against children and mixed

Table 4 Comparing CPOs to sexual offenders against children on romantic relationship and sex life variables

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Single	−0.01	[−0.13, 0.11]	−0.07	[−0.26, 0.13]	22.30*	46.2	2,113 (13)	1, 4, 7, 10.1, 12, 16, 18.1, 20, 22, 23, 24, 27, 29
Never married	0.18	[−0.10, 0.45]	0.05	[−0.48, 0.58]	17.65**	71.7	463 (6)	1, 7, 15, 16, 20, 22
Never married ^a	0.34	[0.05, 0.64]	0.29	[−0.12, 0.69]	7.07	43.4	407 (5)	7, 15, 16, 20, 22
Never lived with a partner	−0.41	[−0.62, −0.20]	−0.58	[−1.06, −0.10]	17.13**	76.6	542 (5)	1, 2, 16, 27, 29
Never lived with a partner ^a	−0.30	[−0.52, −0.08]	−0.35	[−0.71, 0.005]	6.67	55.0	467 (4)	1, 16, 27, 29
Homosexual/bisexual	−0.07	[−0.31, 0.16]	−0.10	[−0.40, 0.21]	7.53	33.6	660 (6)	4, 7, 9.1, 11.2, 16, 18.2
Intimacy deficits	0.02	[−0.19, 0.24]	−0.02	[−0.44, 0.40]	14.11**	71.6	501 (5)	1, 2, 4, 7, 27
Intimacy deficits ^a	0.20	[−0.05, 0.44]	0.15	[−0.20, 0.50]	5.64	46.9	425 (4)	1, 4, 7, 27
Problems with sex life	−0.30	[−0.47, −0.14]	−0.24	[−0.52, 0.04]	10.21*	60.8	777 (5)	9.2, 12, 15, 16, 24
Problems with sex life ^a	−0.12	[−0.33, 0.09]	−0.12	[−0.34, 0.10]	3.16	5.0	372 (4)	12, 15, 16, 24
Detached relationship style	−0.06	[−0.22, 0.09]	0.14	[−0.23, 0.51]	21.53***	76.8	753 (6)	1, 9.2, 12, 15, 16, 22
Detached relationship style ^a	0.28	[0.06, 0.51]	0.28	[0.06, 0.51]	3.50	0.0	348 (5)	1, 12, 15, 16, 22
Low sexual regulation	−0.27	[−0.40, −0.13]	−0.34	[−0.75, 0.07]	46.56**	87.1	1,110 (7)	2, 9.2, 16, 18.1, 24, 27, 29
Low sexual regulation ^b	−0.19	[−0.33, −0.05]	−0.20	[−0.35, −0.05]	4.26	6.2	985 (5)	9.2, 18.1, 24, 27, 29
Sexual preoccupation	−0.50	[−0.64, −0.35]	−0.63	[−1.04, −0.22]	25.27**	84.2	857 (5)	2, 9.2, 18.1, 24, 29
Sexual preoccupation ^a	−0.39	[−0.54, −0.24]	−0.39	[−0.54, −0.24]	0.24	0.0	781 (4)	9.2, 18.1, 24, 29
Low commitment sex	0.06	[−0.12, 0.24]	0.005	[−0.33, 0.34]	9.16*	67.3	668 (4)	4, 9.2, 24, 29
Low commitment sex ^a	0.16	[−0.04, 0.36]	0.12	[−0.20, 0.45]	4.28	53.3	567 (3)	4, 9.2, 29

A positive *d* indicates that sex offenders against children had more characteristics that were inherently problematic (e.g., sexual preoccupation) or statistically rare (e.g., homosexuality) than CPOs. Bolded values indicate that group differences were statistically significant, $p < .05$. Indented variables with distinct names (e.g., sexual preoccupation) represent subcategories (e.g., sexual regulation)

^a One outlier removed

^b Two outliers removed

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 5 Comparing CPOs to sexual offenders against children on general psychological profiles

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Mental health issues	−0.04	[−0.16, 0.08]	−0.03	[−0.20, 0.14]	19.97*	44.9	1,435 (12)	4, 7, 9.1, 12, 15, 16, 17, 18.2, 22, 24, 27, 29
Mental health issues ^a	0.002	[−0.13, 0.13]	0.002	[−0.13, 0.13]	8.22	0.0	1,156 (11)	4, 7, 9.1, 15, 16, 17, 18.2, 22, 24, 27, 29
Severe mental illness	0.26	[0.05, 0.47]	0.25	[0.005, 0.49]	3.93	23.6	385 (4)	12, 15, 20, 27
Personality disorders	0.03	[−0.23, 0.29]	0.03	[−0.23, 0.29]	0.69	0.0	236 (3)	20, 27, 29
Anxiety	0.01	[−0.19, 0.21]	−0.09	[−0.52, 0.34]	20.86**	76.0	420 (6)	12, 15, 16, 20, 22, 28
Anxiety ^a	0.14	[−0.07, 0.36]	0.08	[−0.29, 0.44]	10.12*	60.5	362 (5)	12, 15, 16, 20, 22
Depression	0.01	[−0.13, 0.14]	0.05	[−0.14, 0.23]	13.61	41.2	1,115 (9)	7, 9.2, 12, 15, 16, 18.2, 20, 24, 29
General social deficits	0.10	[0.01, 0.18]	0.04	[−0.19, 0.27]	43.08***	79.1	2,207 (10)	7, 9.2, 10.1, 17, 18.1, 20, 22, 29
Social deficits	−0.20	[−0.40, 0.005]	−0.09	[−0.57, 0.39]	12.36	75.7	568 (4)	9.2, 20, 22, 29
Low self-esteem	−0.12	[−0.22, −0.01]	−0.25	[−0.58, 0.08]	21.58**	81.5	1,628 (5)	1, 9.2, 10.1, 17, 24
Poor coping skills	0.04	[−0.06, 0.15]	0.04	[−0.06, 0.15]	2.53	0.0	1,403 (6)	4, 10.1, 16, 18.1, 20, 29
Underassertiveness	−0.16	[−0.28, −0.05]	−0.20	[−0.39, −0.003]	3.82	21.5	1,193 (4)	10.1, 17, 20, 29
Social desirability	0.53	[0.43, 0.63]	0.52	[0.24, 0.80]	28.04**	78.6	1,720 (7)	9.1, 10.1, 12, 15, 16, 17, 27
Social desirability ^a	0.48	[0.38, 0.58]	0.40	[0.20, 0.61]	10.76	53.6	1,617 (6)	9.1, 10.1, 12, 15, 16, 17
Impression management	0.15	[0.05, 0.26]	0.07	[−0.13, 0.27]	8.41	52.4	1,483 (5)	9.1, 10.1, 16, 17, 18.2

A positive *d* indicates that sex offenders against children had more characteristics that were inherently problematic (e.g., mental health issues) than CPOs. Bolded values indicate that group differences were statistically significant, $p < .05$. Indented variables with distinct names (e.g., social deficits) represent subcategories (e.g., general social deficits)

^a One outlier removed

* $p < .05$; ** $p < .01$

Table 6 Comparing CPOs to sexual offenders against children on childhood factors

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Childhood sexual abuse	0.22	[0.04, 0.40]	0.24	[0.01, 0.46]	6.86	27.1	1,023 (6)	4, 7, 9.2, 11.2, 18.1, 27
Childhood physical abuse	0.37	[0.15, 0.59]	0.37	[0.15, 0.59]	1.92	0.0	704 (4)	4, 9.2, 11.3, 27
Family abuse in childhood	0.17	[−0.01, 0.35]	0.17	[−0.01, 0.35]	0.92	0.0	645 (4)	4, 9.1, 11.3, 27
Family neglect	0.15	[−0.16, 0.45]	0.15	[−0.16, 0.45]	1.30	0.0	296 (3)	4, 11.3, 27
Family disruption	0.45	[0.13, 0.77]	0.45	[0.13, 0.77]	3.04	1.4	397 (4)	4, 11.3, 24, 27
Conduct issues in childhood	0.39	[0.21, 0.58]	0.45	[0.18, 0.72]	8.76	43.0	922 (6)	4, 9.1, 11.3, 24, 27, 29
Juvenile delinquency	0.74	[0.44, 1.04]	0.74	[0.44, 1.04]	1.01	0.0	673 (4)	4, 9.1, 24, 29
Acting out in childhood	0.28	[0.08, 0.48]	0.29	[0.07, 0.51]	3.29	8.8	415 (4)	4, 11.3, 27, 29
Emotional difficulties in childhood	−0.02	[−0.20, 0.16]	−0.02	[−0.20, 0.16]	0.96	0.0	735 (4)	4, 9.1, 27, 29

A positive *d* indicates that sex offenders against children had more characteristics that were inherently problematic (e.g., acting out in childhood) or statistically rare (e.g., childhood sexual abuse) than CPOs. Bolded values indicate that group differences were statistically significant, $p < .05$. Family disruption is defined as any family disruption in childhood outside of neglect or abuse, and includes divorce, substance abuse by parents, and being sent to foster care. Indented variables with distinct names (e.g., family neglect) represent subcategories (e.g., family abuse in childhood)

Table 7 Meta-analysis comparing child pornography to mixed offenders on indicators of offending and internet demographics

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Sex offending variables								
Prior sexual offences	0.85	[0.66, 1.04]	0.90	[0.43, 1.38]	37.72***	81.4	1,522 (8)	4, 5, 6, 13.1, 19, 21, 24, 26
Prior sexual offences ^a	1.12	[0.90, 1.35]	1.06	[0.65, 1.47]	17.40**	65.5	1,402 (7)	4, 5, 6, 13.1, 19, 24, 26
Any paraphilia	0.18	[0.05, 0.30]	0.19	[0.04, 0.35]	9.12	23.2	1,577 (8)	4, 5, 6, 11.2, 13.1, 18.1, 25, 26
Pedohebephilia	0.25	[0.08, 0.42]	0.37	[0.07, 0.67]	12.63*	52.5	1,478 (7)	4, 5, 6, 11.2, 13.1, 18.1, 25
Pedohebephilia ^a	0.50	[0.26, 0.73]	0.50	[0.26, 0.73]	4.22	0.0	1,205 (6)	4, 5, 6, 11.2, 13.1, 24
Pedophilia	0.30	[0.12, 0.48]	0.37	[0.07, 0.66]	7.79	48.7	1,414 (5)	5, 6, 13.1, 18.1, 25
Other paraphilia	0.11	[−0.04, 0.26]	0.11	[−0.04, 0.26]	0.85	0.0	1,184 (5)	5, 6, 11.2, 18.1, 26
Cognitive distortions	0.31	[0.18, 0.45]	0.26	[−0.09, 0.62]	15.88**	74.8	1,175 (5)	4, 10.1, 11.1, 13.1, 18.1
Cognitive distortions ^a	0.14	[−0.03, 0.31]	0.12	[−0.13, 0.38]	3.72	19.4	902 (4)	4, 10.1, 11.1, 13.1
Emotional ID with children	0.15	[−0.01, 0.32]	0.15	[−0.01, 0.32]	0.20	0.0	728 (3)	4, 10.1, 18.2
Access to children								
Access to minors	0.32	[0.21, 0.43]	0.33	[0.12, 0.54]	22.65**	64.7	2,309 (9)	4, 5, 6, 10.1, 13.1, 18.1, 19, 21, 26
Lived with children	0.43	[0.26, 0.59]	0.42	[0.22, 0.62]	2.86	30.0	984 (3)	5, 6, 21
Has children	0.23	[0.12, 0.34]	0.21	[0.02, 0.40]	16.30**	57.0	2,129 (8)	4, 5, 6, 10.1, 13.1, 18.1, 21, 26
Has children ^a	0.13	[0.004, 0.26]	0.13	[−0.02, 0.29]	7.73	22.4	1,610 (7)	4, 5, 10.1, 13.1, 18.1, 21, 26
Access to the internet								
Young	−0.04	[−0.13, 0.04]	−0.04	[−0.15, 0.06]	15.37	21.9	2,638 (13)	4, 5, 6, 9, 10.1, 11.2, 13.1, 14, 18.1, 19, 21, 24, 26
Low income	0.14	[−0.06, 0.35]	0.08	[−0.25, 0.41]	4.41	54.6	771 (3)	4, 5, 6
Manual labour	0.02	[−0.21, 0.25]	0.02	[−0.21, 0.25]	1.95	0.0	652 (4)	5, 9, 11.2, 19
Low education	0.10	[−0.04, 0.24]	0.13	[−0.06, 0.31]	11.35	29.5	1,197 (9)	1, 4, 5, 9, 11.1, 13.1, 14, 18.1, 24
Racial minority	0.11	[−0.14, 0.37]	0.11	[−0.14, 0.37]	4.96	0.0	1,369 (6)	4, 5, 6, 9, 13.1, 14

A positive *d* indicates that mixed offenders had more characteristics that were inherently problematic (e.g., pedophilia), risk relevant (e.g., access to minors) or statistically rare (e.g., racial minority) than CPOs. Bolded values indicate that group differences were statistically significant, $p < .05$. Indented variables with distinct names (e.g., pedohebephilia) represent subcategories (e.g., any paraphilia)

ID identification

^a One outlier removed

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 8 Meta-analysis comparing child pornography to mixed offenders on indicators of antisociality and general psychological profiles

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Indicators of antisociality								
Any prior offences	0.40	[0.26, 0.54]	0.52	[0.21, 0.83]	27.29***	74.4	1,485 (8)	4, 5, 6, 11.1, 13.1, 19, 21, 24
Any prior offences ^a	0.35	[0.21, 0.49]	0.38	[0.15, 0.60]	12.32	51.3	1,422 (7)	4, 5, 6, 11.1, 13.1, 19, 21
Prior violent offences	1.20	[0.92, 1.48]	1.15	[0.66, 1.64]	8.00*	62.5	1,037 (4)	4, 5, 6, 19
Prior violent offences ^a	0.94	[0.61, 1.28]	0.94	[0.61, 1.28]	1.08	0.0	535 (3)	4, 5, 19
Negative social influences	-0.06	[-0.22, 0.10]	0.14	[-0.76, 1.04]	80.75***	96.3	895 (4)	4, 5, 6, 13.1
Negative social influences ^a	-0.40	[-0.58, -0.22]	-0.40	[-0.58, -0.22]	1.22	0.0	734 (3)	4, 5, 6
Unemployed	0.14	[-0.02, 0.29]	0.17	[-0.18, 0.51]	19.72**	74.6	1,364 (6)	1, 5, 6, 18.1, 19, 26
Unemployed ^b	0.26	[0.09, 0.44]	0.30	[0.001, 0.59]	8.83	54.7	1,008 (5)	1, 6, 18.1, 19, 26
General empathy deficits	0.08	[-0.06, 0.23]	0.10	[-0.23, 0.44]	7.07*	71.7	913 (3)	4, 10.1, 18.1
Substance abuse	0.35	[0.19, 0.50]	0.35	[0.19, 0.50]	1.98	0.0	1,143 (5)	4, 5, 6, 13.1, 26
Hostility	0.21	[-0.15, 0.56]	0.18	[-0.37, 0.74]	4.41	54.6	607 (3)	4, 6, 14
Low self-regulation	0.01	[-0.15, 0.16]	0.01	[-0.19, 0.21]	4.81	16.9	821 (5)	4, 10.1, 14, 18.2, 26
Impulsivity	0.02	[-0.14, 0.18]	0.03	[-0.21, 0.27]	4.59	34.7	784 (4)	4, 10.1, 14, 18.2
General psychological profiles								
Mental health issues	-0.08	[-0.25, 0.08]	-0.08	[-0.26, 0.10]	4.21	4.9	1,027 (5)	4, 5, 6, 14, 18.2
Depression	-0.20	[-0.42, 0.02]	-0.20	[-0.42, 0.02]	1.76	0.0	1,220 (5)	5, 6, 13.1, 14, 18.2
Low self-esteem	-0.06	[-0.23, 0.11]	-0.06	[-0.23, 0.11]	0.25	0.0	705 (3)	1, 10.1, 14
General social deficits	0.001	[-0.10, 0.10]	0.17	[-0.26, 0.60]	84.60***	94.1	1,796 (6)	4, 5, 6, 10.1, 13.1, 18.1
General social deficits ^a	-0.11	[-0.21, -0.004]	-0.09	[-0.34, 0.15]	19.83***	79.8	1,635 (5)	4, 5, 6, 10.1, 18.1
Poor coping skills	0.14	[-0.003, 0.28]	-0.02	[-0.34, 0.31]	10.70*	72.0	965 (4)	4, 10.1, 14, 18.1
Social desirability	0.11	[-0.05, 0.26]	0.08	[-0.21, 0.38]	4.97	59.7	826 (3)	9.1, 10.1, 14
Impression management	-0.03	[-0.18, 0.12]	-0.08	[-0.31, 0.15]	3.78	47.1	866 (3)	9.1, 10.1, 18.2

A positive *d* indicates that mixed offenders had more characteristics that were risk relevant (e.g., prior offences) or inherently problematic (e.g., empathy deficits) than CPOs. Bolded values indicate that group differences were statistically significant, $p < .05$. Presence of pedophilic social networks included in negative social influences. Indented variables with distinct names (e.g., impulsivity) represent subcategories (e.g., self-regulation)

^a One outlier removed

^b Two outliers removed

* $p < .05$; ** $p < .01$; *** $p < .001$

offenders were more antisocial than online CPOs. Furthermore, CPOs had the greatest number of barriers to sexual offending (e.g., greater victim empathy, fewer cognitive distortions) than sex offenders against children and mixed offenders. These findings suggest that the differences between the groups cannot be fully explained by differential opportunities.

One notable finding was that mixed offenders were the most pedophilic, even more than CPOs, who are already known for their high levels of pedophilic interests (Seto et al., 2006). Consistent with previous research (Seto et al., 2006), we found that the child pornography-only offenders were more likely to have an identified sexual interest in children compared to offline, contact sexual offenders against children. Given the high rates of pedophilia among CPOs, the even higher rate of pedophilia among the mixed offenders is striking.

These results suggest that the mixed offenders are a particularly problematic group in terms of sexual deviancy. These findings also

highlight the diversity in motivations for sexual offending against children. Pedophilia is not a necessary or sufficient condition for contact sex offences against children, with only about half of sex offenders against children being classified as pedophilic (Seto, 2008). A wide range of motivational factors has been theorized to explain child sexual offending, including impulsivity, antisociality, social deficits, and offense supportive attitudes (for review, see Ward & Beech, 2006).

The high rates of pedophilic interests in the online offender groups may at least partially be attributed to differential processing by the criminal justice system. It is difficult for police to proceed with child pornography charges unless the children portrayed are obviously physically immature. In fact, the majority of individuals arrested for child pornography have pictures depicting children under the age of 12 (Wolak, Finkelhor, & Mitchell, 2005). In contrast, individuals can be charged with sex offences against children if the victims are up to 18 years

Table 9 Meta-analysis comparing child pornography to mixed offenders on relationship and childhood variables

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Relationship variables								
Never married	−0.05	[−0.19, 0.10]	−0.06	[−0.45, 0.34]	21.72**	81.6	1,143 (5)	1, 5, 6, 13.1, 14
Never married ^a	−0.16	[−0.32, −0.003]	−0.20	[−0.50, 0.10]	7.15	58.0	945 (4)	1, 5, 6, 14
Never lived with a partner	−0.21	[−0.37, −0.04]	−0.27	[−0.57, 0.03]	4.83	58.6	894 (3)	1, 5, 6
Single	0.06	[−0.05, 0.18]	0.06	[−0.05, 0.18]	3.68	0.0	2,102 (9)	4, 5, 6, 10.1, 18.1, 19, 21, 24, 26
Intimacy deficits	0.18	[−0.15, 0.51]	0.18	[−0.17, 0.52]	2.15	7.1	407 (3)	1, 4, 5
Detached relationship style	−0.20	[−0.56, 0.16]	−0.12	[−0.82, 0.59]	7.27*	72.5	140 (3)	1, 14, 26
Homosexual/bisexual	0.64	[0.38, 0.91]	0.64	[0.38, 0.91]	1.65	0.0	554 (5)	4, 5, 9.1, 11.2, 26
Low sexual regulation	0.26	[0.10, 0.43]	0.24	[−0.04, 0.51]	7.67	47.8	706 (5)	4, 6, 13.1, 18.1, 26
Low sexual regulation ^a	0.30	[0.13, 0.46]	0.30	[0.13, 0.46]	0.49	0.0	669 (4)	6, 13.1, 18.1, 26
Low commitment sex	0.73	[0.50, 0.97]	0.73	[0.50, 0.97]	2.62	0.0	399 (4)	4, 6, 13.1, 26
Childhood variables								
Childhood sexual abuse	0.35	[0.11, 0.59]	0.34	[0.01, 0.67]	6.13	34.7	622 (5)	4, 11.2, 13.1, 18, 26
Childhood physical abuse	0.57	[0.17, 0.97]	0.57	[0.17, 0.97]	0.71	0.0	210 (4)	4, 11.3, 13.2, 26
Family abuse in childhood	0.54	[0.10, 0.98]	0.54	[0.10, 0.98]	0.17	0.0	99 (3)	4, 11.3, 26
Family disruption	0.36	[−0.12, 0.85]	0.36	[−0.12, 0.85]	0.23	0.0	124 (3)	11.3, 24, 26
Conduct issues in childhood	0.44	[0.004, 0.87]	0.44	[0.004, 0.87]	0.77	0.0	98 (3)	4, 11.3, 26
Acting out in childhood	0.33	[−0.10, 0.76]	0.33	[−0.10, 0.76]	0.40	0.0	98 (3)	4, 11.3, 26

A positive *d* indicates that mixed offenders had more characteristics that were inherently problematic (e.g., detached relationship style) or statistically rare (e.g., homosexuality) than CPOs. Bolded values indicate that group differences were statistically significant, $p < .05$. Family disruption is defined as any family disruption in childhood outside of neglect or abuse, and includes divorce, substance abuse by parents, and being sent to foster care. Indented variables with distinct names (e.g., low commitment sex) represent subcategories (e.g., sexual regulation)

^a One outlier removed

* $p < .05$; ** $p < .01$

of age in some jurisdictions. Consequently, a substantial proportion of sex offenders against children would be expected to victimize children whose physical form approximated that of young adults and, thus, would be unlikely to have a pedophilic motivation to their offending. Studies directly comparing CPOs with sex offenders against prepubescent children would be informative in this debate; unfortunately, studies included in the current meta-analysis inconsistently reported the age criteria of victims. An additional limitation of the meta-analysis is that up to half of the CPOs would be expected to have undetected offline offences (Seto et al., 2011). As such, group differences would be attenuated by the probable inclusion of mixed offenders in the online child pornography group.

The finding that the online offender groups were more likely to report homosexual or bisexual orientation than the offline offenders was unexpected. This association may be related to the correlates of sexual self-regulation deficits. Individuals with paraphilic hypersexuality tend to engage in a wide range of sexual behaviors (Cantor et al., 2013), and there is some evidence that individuals with online sexual compulsions, in particular, are more likely to report a homosexual or bisexual orientation than those not meeting the criteria of online sexual compulsions (Cooper et al., 2000).

Cross-Over from Online to Offline Sexual Offences

The likelihood that identified CPOs will cross-over to contact sexual offences is a preoccupation for applied risk assessment. The existing research has found low rates of recidivism for both new contact offences and new child pornography offences (<10%). For both outcomes, the major risk factors are related to general criminality, such as young age, prior violent offences, juvenile record, and total prior criminal history (Eke, Seto, & Williams, 2011; Seto & Eke, 2005). For child pornography recidivism, however, there is some evidence that the content of the child pornography collection may also provide information about the likelihood of recidivism; specifically, the ratio of boy to girl content (Eke & Seto, 2012).

The prominence of general criminality factors in predicting cross-over and persistence is consistent with the findings of the current meta-analysis. Among child pornography users with pedophilia, the psychological factors that differentiate those who act on their interests and those who do not should be related to propensities for rule violation. Our results also suggest that opportunity matters. Motivated offenders with access to children were those most likely to sexually assault

Table 10 Meta-analysis comparing sex offenders against children to mixed offenders on indicators of offending and internet demographics

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Sex offending variables								
Prior sexual offences	−0.09	[−0.44, 0.26]	−0.06	[−0.59, 0.46]	4.27	53.2	520 (3)	3, 4, 24
Any paraphilia	0.33	[0.12, 0.54]	0.40	[0.04, 0.76]	7.37	59.3	808 (4)	3, 11.2, 18.1, 25
Pedohebephilia	0.39	[0.18, 0.59]	0.63	[0.16, 1.10]	16.66**	76.0	853 (5)	3, 4, 11.2, 18.1, 25
Pedohebephilia ^a	0.78	[0.50, 1.07]	0.78	[0.50, 1.07]	2.14	0.0	637 (4)	3, 4, 11.2, 25
Cognitive distortions	0.09	[−0.06, 0.23]	0.38	[−0.24, 0.99]	48.42***	91.7	1,296 (5)	3, 4, 10.1, 11, 18.1
Cognitive distortions ^a	0.69	[0.46, 0.92]	0.67	[0.40, 0.94]	3.61	16.9	628 (4)	3, 4, 11.1, 18.1
Emotional ID with children	−0.02	[−0.18, 0.13]	0.05	[−0.21, 0.30]	4.83	37.8	1,139 (4)	3, 4, 10.1, 18.2
Access to children								
Access to minors	−0.26	[−0.43, −0.08]	−0.22	[−0.50, 0.06]	5.70	47.4	1,228 (4)	3, 4, 10.1, 18
Has children	−0.28	[−0.47, −0.10]	−0.23	[−0.62, 0.17]	6.17*	67.6	915 (3)	4, 10.1, 18
Access to the internet								
Young	0.10	[−0.03, 0.23]	0.10	[−0.12, 0.32]	11.79	49.1	1,664 (7)	3, 4, 9.1, 10.1, 11.2, 18.1, 24
Low education	−0.39	[−0.60, −0.18]	−0.48	[−0.79, −0.16]	9.41	46.8	638 (6)	1, 4, 9.1, 11.1, 18.1, 24
Racial minority	−0.44	[−0.83, −0.05]	−0.44	[−0.83, −0.05]	2.52	0.0	726 (4)	1, 3, 4, 9.1
Antisocial indicators								
Any prior offences	−0.43	[−0.76, −0.11]	−0.51	[−1.20, 0.18]	12.69**	76.4	555 (4)	3, 4, 11.1, 24
Any prior offences ^a	−0.21	[−0.56, 0.14]	−0.20	[−0.61, 0.21]	2.64	24.1	520 (3)	3, 4, 24
Prior violent offences	0.19	[−0.26, 0.64]	0.20	[−0.26, 0.64]	0.01	0.0	520 (3)	3, 4, 24
Unemployed	−0.03	[−0.33, 0.28]	−0.02	[−0.38, 0.35]	2.36	15.4	315 (3)	1, 4, 18.1
General empathy deficits	−0.08	[−0.22, 0.07]	0.16	[−0.34, 0.66]	22.65***	86.8	1,226 (4)	3, 4, 10, 18.1
General empathy deficits ^a	0.37	[0.13, 0.61]	0.37	[0.13, 0.61]	0.79	0.0	598 (3)	3, 4, 18.1
Callous	−0.29	[−0.47, −0.12]	0.07	[−0.62, 0.77]	13.02**	84.6	1,050 (3)	3, 4, 10.1
Low self-regulation	−0.06	[−0.22, 0.10]	−0.06	[−0.22, 0.11]	3.08	2.7	1,145 (4)	3, 4, 10.1, 18.2
Impulsivity	−0.06	[−0.22, 0.09]	−0.06	[−0.22, 0.09]	2.96	0.1	1,145 (4)	3, 4, 10.1, 18.2

A positive *d* indicates that mixed offenders had more characteristics that were inherently problematic (e.g., pedohebephilia), risk relevant (e.g., access to minors) or statistically rare (e.g., racial minority) than sex offenders against children. Bolded values indicate that group differences were statistically significant, $p < .05$. Indented variables with distinct names (e.g., pedohebephilia) represent subcategories (e.g., any paraphilia)

^a One outlier removed

* $p < .05$; ** $p < .01$; *** $p < .001$

actual children whereas pedophilic offenders who frequently use computers were those most likely to view child pornography. Consequently, individuals most at risk for cross-over offences would be expected to have high levels of pedophilia, high levels of antisociality, have access to children, and have few psychological barriers to acting on their deviant impulses. Conversely, online child pornography would be expected to be low risk for contact sex offences if they score low on measures of general antisociality, have limited access to children, and have psychological barriers to committing contact sexual offences.

Almost all of the previous recidivism research with online offenders has used officially recorded offences as the outcome criteria, which would underestimate the true recidivism rate. The German Prevention Project Dunkelfeld, however, provides a rare opportunity to examine self-reported persistence of child pornography offending (Beier et al., 2009).

Child pornography-only offenders have low rates of contact sexual offences and this remains true even based on confidential self-report in a relationship of trust (e.g., 0%) (Neutze, Grundmann, Amelung et al., 2012a). In contrast, the rates of self-reported child pornography use were very high both prior to and following treatment (Kuhle et al., 2012). Although child pornography offences declined at post-treatment, most (80%) of the treatment graduates ($n = 14$) still reported some use of sexual abuse images of children involving nudity and erotic posing. Importantly, none of these individuals had been detected by the criminal justice system. Further research studies examining predictors of self-reported child pornography reoffending would be informative and may find distinct risk factors from those predicting contact sex offences. Studies of individuals with problematic online sexual behaviors, for example, suggest that loneliness and boredom are particularly important predictors of internet

Table 11 Meta-analysis comparing sex offenders against children to mixed offenders on relationship, psychological, and childhood variables

Variable	Fixed-effect		Random-effects		<i>Q</i>	<i>I</i> ²	<i>n</i> (<i>k</i>)	Studies
	<i>d</i>	[95 % CI]	<i>d</i>	[95 % CI]				
Relationship variables								
Single	0.11	[−0.10, 0.31]	0.10	[−0.15, 0.35]	4.84	17.3	1,039 (5)	1, 4, 10.1, 18.1, 24
Intimacy deficits	0.40	[0.06, 0.74]	0.38	[−0.15, 0.91]	4.77	58.1	424 (3)	1, 3, 4
Homosexual/bisexual	0.61	[0.28, 0.94]	0.61	[0.28, 0.94]	0.56	0.0	317 (3)	4, 9, 11.2
Sexual entitlement	0.06	[−0.31, 0.42]	0.06	[−0.31, 0.42]	0.32	0.0	412 (3)	3, 4, 11.1
General psychological profiles								
Mental health issues	−0.06	[−0.41, 0.28]	−0.06	[−0.41, 0.28]	1.22	0.0	542 (3)	3, 4, 18.2
General social deficits	0.12	[−0.03, 0.27]	0.20	[−0.12, 0.52]	6.29*	68.2	1,214 (3)	3, 10.1, 18.1
Loneliness	0.11	[−0.04, 0.26]	0.18	[−0.13, 0.48]	5.82	65.7	1,220 (3)	3, 10.1, 18.1
Low self-esteem	0.01	[−0.16, 0.19]	0.06	[−0.67, 0.80]	8.46*	76.3	765 (3)	1, 4, 10.1
Poor coping skills	0.12	[−0.03, 0.27]	0.05	[−0.19, 0.29]	5.34	43.9	1,242 (4)	3, 4, 10.1, 18.1
Impression management	−0.21	[−0.35, −0.06]	−0.23	[−0.41, −0.05]	2.70	26.0	999 (3)	9, 10.1, 18.2
Childhood variables								
Child sexual abuse	−0.15	[−0.46, 0.15]	−0.15	[−0.46, 0.15]	0.10	0.0	297 (3)	4, 11.2, 18.1
Family disruptions	−0.26	[−0.64, 0.13]	−0.26	[−0.64, 0.13]	1.02	0.0	545 (4)	3, 4, 11.3, 24
Childhood conduct issues	−0.02	[−0.48, 0.44]	−0.02	[−0.48, 0.44]	0.30	0.0	530 (4)	3, 4, 11.3, 24
Juvenile delinquency	−0.04	[−0.58, 0.51]	−0.04	[−0.58, 0.51]	0.30	0.0	495 (3)	3, 4, 24

A positive *d* indicates that mixed offenders had more characteristics that were inherently problematic (e.g., loneliness) or statistically rare (e.g., child sexual abuse) than sex offenders against children. Bolded values indicate that group differences were statistically significant, $p < .05$. Family disruption is defined as any family disruption in childhood outside of neglect or abuse, and includes divorce, substance abuse by parents, and being sent to foster care. Indented variables with distinct names (e.g., loneliness) represent subcategories (e.g., general social deficits)

* $p < .05$

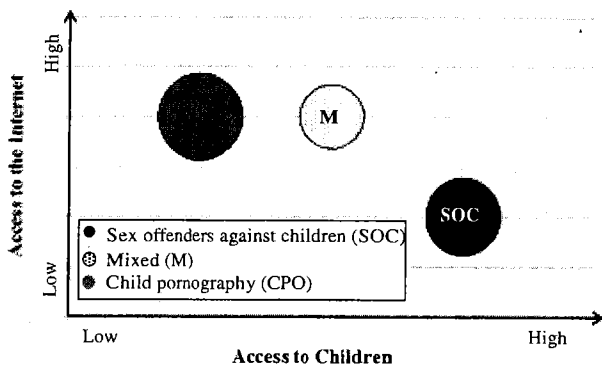


Fig. 1 Group differences on group rankings of access to children and access to the internet. The size of the bubbles was determined by total number of studies included in the meta-analysis sampling the particular group

pornography use (Chaney & Chang, 2005; Yoder, Virden III, & Amin, 2005).

Future Directions

The current meta-analysis did not find many differences in general psychological variables (e.g., anxiety, depression, self-esteem) between the online and offline sexual offender

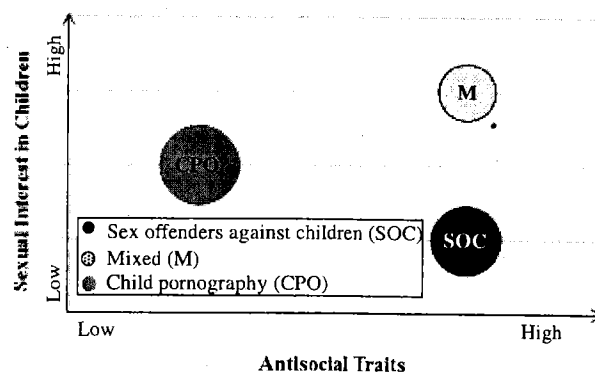


Fig. 2 Group differences based on group rankings of sexual interest in children and antisociality. The size of the bubbles was determined by total number of studies included in the meta-analysis sampling the particular group

groups. It is likely, however, that many of these factors could be correlated with diverse forms of sexual offending. For example, Babchishin et al. (2011) found no significant differences between online and offline sex offences in child sexual abuse rates; nevertheless, the absolute rates among all the sexual offender groups were substantially higher than the rates for the male population. Further comparisons between offenders and normative samples on the general psychological variables are needed before it is possible to make strong

conclusions about the contribution of these variables to online and offline sexual offending.

Similarly, research using comparison groups of individuals with non-criminal sexual behavior problems would help identify the distinctive features of online sexual offenders. Individuals with high levels of problematic sexual behaviors tend to report greater sexual sensation seeking, non-sexual sensation seeking, and sexual compulsivity (Cooper, Scherer, Boies, & Gordon, 1999). As such, it is plausible that some individuals who commit online sexual offences are positioned at the extreme high end of sexual compulsivity (Wood, 2011). However, not all online CPOs report internet or pornography addiction as reasons for viewing child pornography (Seto, Reeves, & Jung, 2010). It is likely that pedophilia is a major contributing factor in most cases of persistent child pornography use.

Conclusion

This study found that offenders who restrict their offending behavior to online child pornography offences are different from mixed offenders and sex offenders against children, and that mixed offenders (with both contact and non-contact offences) are a particularly high risk group. Given these group differences,

combining mixed offenders and child pornography-only offenders into a general child pornography sample is not desirable. Advancing our understanding of etiological and risk factors for these groups of offenders requires clear sample compositions. The current meta-analysis suggests that the management of offenders with child pornography offences within the correctional and forensic mental health system should carefully consider the existence of concomitant contact sexual offences.

Acknowledgments The views expressed are those of the authors and not necessarily those of Public Safety Canada. Funding for this project was provided in part by the Social Science and Humanities Research Council of Canada. We would like to thank the following individuals for providing us with unpublished data or additional information for this meta-analysis: Till Amelung, Anne Burgess, David Delmonico, Liam Ennis, Ayten Erdogan, Erik Faust, Inge Hempel, Eric Imhof, Sandy Jung, Eva Kimonis, Paula Lopez, Hannah Merdian, Elicia Nademin, Olav Nielssen, Gerard Niveau, Yves Paradis, James Ray, Wineke Smid, and Gemma Wall.

Appendix: Definition of Psychological Variables

See Table 12.

Table 12 Studies and measures analyzed for psychological meta-variables

Variable	Study	Measure
1. Static risk scale	2. Seto et al. (2012)	Static-99 and VASORS
	27. Webb et al. (2007)	RM2000C classifications
	29. Jung et al. (2012)	Modified Static-99
2. Other risk scale	7. Lopez (2008)	Self-reported risk of reoffending if the offender had not been caught
	18.2. Neutze et al. (2011)	High risk situations test
	27. Webb et al. (2007)	ACUTE-2000
3. Any paraphilia	2. Seto et al. (2012)	STABLE-2007: Deviant sexual preference item
	3. Hanson (2012)	STABLE-2007: Deviant sexual preference item
	11.2 Sheldon and Howitt (2008)	Self-reported interest in children under 16 and humiliation, force, confrontational and bestiality fantasies
3.1 Pedopheophilia	18.1 Neutze et al. (2012b)	Diagnosed with pedophilia, hebephilia, or any other paraphilia
	2. Seto et al. (2012)	Self-reported pedopheophilia
	4. Merdian (2012)	Self-reported sexual interest in children
3.1.1 Pedophilia	18.1 Neutze et al. (2012b)	Diagnosed with pedophilia or hebephilia
	2. Seto et al. (2012)	Self-reported pedophilia
	5. Finkelhor et al. (2012)	Diagnosed with pedophilia
	6. Finkelhor et al. (2008)	Diagnosed with pedophilia or hebephilia
	13.1 McCarthy (2010a)	Diagnosed with pedophilia according to DSM IV criteria
	18.1 Neutze et al. (2012b)	Diagnosed with pedophilia
	23. Hempel et al. (2013)	Implicit association test adapted to assess sexual interest in children
	24. McWhaw (2011)	PPG diagnosed pedophilia
25. Seto et al. (2006)	PPG diagnosed pedophilia	
30. Roche et al. (2012)	Implicit association test adapted to assess sexual interest in children	

Table 12 continued

Variable	Study	Measure
3.2 Other paraphilia	5. Finkelhor et al. (2012)	Evidence of paraphilia other than pedophilia
	6. Finkelhor et al. (2008)	Evidence of paraphilia other than pedophilia
	11.2 Sheldon and Howitt (2008)	Self-reported interest in children under 16 and humiliation, force, confrontational and bestiality fantasies
	18.1 Neutze et al. (2012b)	Evidence of paraphilia other than pedohebephilia
4. Cognitive distortions	26. Paradis and Titley (2011)	Any interest in transvestism, urophilia, coprophilia, fetishism, exhibitionism, or voyeurism.
	3. Hanson (2012)	STABLE-2000: Child molester attitude item
	4. Merdian (2012)	Abel-Becker Cognition Scale
	10.1 Elliott et al. (2012)	Children and Sex Cognition Questionnaire
	11.1 Howitt and Sheldon (2007)	Children and sexual activities: Sexual scale, Uncontrollable scale, and Nature of Harm scale
	13.1 McCarthy (2010a)	Presence of cognitive distortions
	17. Bates and Metcalf (2007)	Children and Sex Cognition Questionnaire
5. General empathy	18.1 Neutze et al. (2012b)	Bumby MOLEST scale
	27. Webb et al. (2007)	STABLE-2000: Child molester attitudes
5.1 Victim empathy deficits	10.1 Elliott et al. (2012)	Victim Empathy Distortion scale
	17. Bates and Metcalfe (2007)	Victim Empathy Distortion scale
	18.1 Neutze et al. (2012b)	Empathy for Children scale: Cognitive and Emotional Empathy subscales
5.2 Callous	3. Hanson (2012)	STABLE-2007: Lack of concern for others
	4. Merdian (2012)	Self-reported ease of lying
	10.1 Elliott et al. (2012)	Interpersonal Reactivity Index: Empathetic Concern scale
	20. Magaletta et al. (2014)	PAI: Warmth scale
	29. Jung et al. (2012)	PAI: Warmth scale
6. Emotional identification with children	2. Seto et al. (2012)	STABLE-2007: Emotional identification with children item
	3. Hanson (2012)	STABLE-2007: Emotional identification with children item
	4. Merdian (2012)	Self-reported greater comfort with children than adults
	10.1 Elliott et al. (2012)	Children and Sex Questionnaire: Emotional Congruence
	17. Bates and Metcalf (2007)	Children and Sex Questionnaire: Emotional Congruence
	18.2 Neutze et al. (2011)	Child Identification Scale: Emotional identification with children
7. Minimization	4. Merdian (2012)	Abel-Becker Cognition Scale—justification factor
	20. Magaletta et al. (2014)	PAI: Treatment Rejection scale
	29. Jung et al. (2012)	PAI: Treatment Rejection scale
8. Internet Preoccupation	4. Merdian (2012)	Self-reported loss of control/relationship/work/sleep due to internet use
	9.1 Lee et al. (2012)	Internet Preoccupation scale
	22. Rooney (2003)	Self-reported internet use was out of control
9. Antisociality	9.1 Lee et al. (2012)	Anti-social Behavior scale
	12. Reijnen et al. (2009)	MMPI: Psychopathic Deviate scale
	15. Tomak et al. (2009)	MMPI: Psychopathic Deviate scale
	20. Magaletta et al. (2014)	PAI: Antisocial Features scale
	27. Webb et al. (2007)	Psychopathy Checklist—screening version
	29. Jung et al. (2012)	PAI: Antisocial Features scale

Table 12 continued

Variable	Study	Measure	
10. Hostility	4. Merdian (2012)	Self-reported daily irritability and aggression	
	6. Finkelhor et al. (2008)	Aggressive/hostile during interview	
	9.1 Lee et al. (2012)	Self-reported anger in adulthood	
	12. Reijnen et al. (2009)	MMPI: Paranoia scale	
	14. Matsuzawa (2009)	MMPI: Aggression, Paranoia, and Cynicism scales	
	15. Tomak et al. (2009)	MMPI: Paranoia scale	
	20. Magaletta et al. (2014)	PAI: Aggression and Paranoia scales	
	29. Jung et al. (2012)	PAI: Aggression scale	
11. Problems with supervision	2. Seto et al. (2012)	STABLE-2007: Cooperation with supervision item	
	24. McWhaw (2011)	History of parole violations	
	27. Webb et al. (2007)	STABLE-2000: Cooperation with supervision item	
12. General self-regulation	3. Hanson (2012)	STABLE-2007: Impulsive and poor problem solving items	
12.1 Impulsivity	27. Webb et al. (2007)	STABLE 2000: General self-regulation item	
	3. Hanson (2012)	STABLE-2007: Impulsiveness item	
	4. Merdian (2012)	Self-reported daily risk-taking and impulsivity	
	10.1 Elliott et al. (2012)	Baratt Impulsivity Scale	
	12. Reijnen et al. (2009)	MMPI: Hypomania scale	
	14. Matsuzawa (2009)	MMPI: Disconstraint, Hypomanic Activation, and Mania scales	
	15. Tomak et al. (2009)	MMPI Hypomania scale	
	16. Wall et al. (2011)	Unspecified risk taking scale	
	18.2 Neutze et al. (2011)	NEO-FFI: Conscientiousness scale	
	22. Rooney (2003)	NEO-FFI: Conscientiousness scale	
	29. Jung et al. (2012)	PAI: Antisocial Stimulus Seeking scale	
	12.2 Employment problems	2. Seto et al. (2012)	History of problems with employment
		4. Merdian (2012)	Self-reported employment problems
		29. Jung et al. (2012)	Problems with employment
	13. Intimacy deficits	1. Armstrong (2009)	Secure, fearful, dismissing, and preoccupied relationship styles and Fear of Intimacy scale Problems with intimate partner in the year before offending
2. Seto et al. (2012)		STABLE-2007: Capacity for relationship stability item	
3. Hanson (2012)		STABLE-2007: Capacity for relationship stability item	
4. Merdian (2012)		Self-reported problems with finding a romantic partner and problems with past relationships	
5. Finkelhor et al. (2008)		Problems with intimate partner in the year before offending	
7. Lopez (2008)		Self-reported satisfaction in romantic relationship	
27. Webb et al. (2007)		STABLE-2000: Intimacy deficits (definite problem)	
14. Problems with sex life		9.2 Coward et al. (2009)	Self-reported sexual frustration
		12. Reijnen et al. (2009)	MMPI: Masculinity/Femininity scale
		15. Tomak et al. (2009)	MMPI: Masculinity/Femininity scale
	16. Wall et al. (2011)	Self-reported satisfaction with sex life	
	24. McWhaw (2011)	Derogatis Sexual Functioning Inventory: Sexual Satisfaction scale	
15. Sexual self-regulation	4. Merdian (2012)	Use of child pornography to relieve stress	
	9.2 Coward et al. (2009)	Self-reported preoccupation with sex, time spent consuming pornography, and number of sexual partners	
	13.1 McCarthy (2010a)	Hours watching porn (adult or child) per week	
	16. Wall et al. (2011)	Unspecified sexual risk taking scale	
	18.1 Neutze et al. (2012b)	Lack of Coping Self-Efficacy and Sexual Preoccupation scales from Sexual Behaviour Involving Minors	
	27. Webb et al. (2007)	STABLE-2000: Sexual self-regulation item	

Table 12 continued

Variable	Study	Measure
15.1 Sexual preoccupation	2. Seto et al. (2012)	STABLE-2007: Sex drive/sexual preoccupation item
	9.1 Lee et al. (2012)	Self-reported pornography consumption and preoccupation with sex
	18.1 Neutze et al. (2012b)	Sexual Behaviour Involving Minors scale: Sexual Preoccupation
	24. McWhaw (2011)	Derogatis Sexual Functioning Inventory: Sex Drive scale
	25. Seto et al. (2006)	STABLE-2007: Sexual preoccupation item
15.2 Low commitment sex	29. Jung et al. (2012)	Masturbates daily or more
	4. Merdian (2012)	History of cheating, paying for sex, and sex tourism
	6. Finkelhor et al. (2012)	Swinging or group sex with adults
	9. Lee et al. (2012)	Number of sexual partners
	13.1 McCarthy (2010a)	Sex with strangers/prostitutes/groups, cybersex, and meeting adults online for sex
16. Sexual entitlement	24. McWhaw (2011)	Derogatis Sexual Functioning Inventory—Experience scale
	26. Paradis and Titley (2011)	Interest in cybersex, swinging, and prostitutes
	29. Jung et al. (2012)	Number of sexual partners
	3. Hanson (2012)	STABLE-2000: Sexual entitlement item
17. Detached relationship style	4. Merdian (2012)	Abel-Becker Cognition Scale—Entitlement Factor
	11.1 Howitt and Sheldon (2007)	Children and Sexual Activities Cognitive Distortions scale: Entitlement
18. Mental health issues	1. Armstrong (2009)	Dismissive relationship style
	9.2 Coward et al. (2009)	Self-reported preference for virtual rather than face-to-face communication
	12. Reijnen et al. (2009)	MMPI: Social Introversion scale
	14. Matsuzawa (2009)	MMPI: Social Introversion scale
	15. Tomak et al. (2009)	MMPI: Social Introversion scale
	16. Wall et al. (2011)	Emotional Avoidance Questionnaire
	22. Rooney (2003)	NEO-FFI: Extraversion scale
	26. Paradis and Titley (2011)	Solitary in adulthood
	3. Hanson (2012)	Ever hospitalized overnight for a psychiatric condition
	4. Merdian (2012)	Diagnosed with a mental health issue
19. Severe mental illness	5. Finkelhor et al. (2012)	Diagnosed with ADHD or other mental illness
	6. Finkelhor et al. (2008)	Intelligence, ADHD, emotional problems or mental illness, and other emotional problems
	7. Lopez (2008)	ADHD, mental health counseling, and reporting an unknown disorder
	9.1 Lee et al. (2012)	Adult emotional problems (includes ADHD, rejection, and acting out)
	12. Reijnen et al. (2009)	MMPI: Hysteria scale
	14. Matsuzawa (2009)	MMP: Hysteria and Demoralization scale
	15. Tomak et al. (2009)	MMPI: Hysteria scale
	16. Wall et al. (2011)	Psychological Distress scale
	17. Bates and Metcalf (2007)	Personal Distress scale
	18.2 Neutze et al. (2011)	NEO-FFI: Neuroticism scale
	22. Rooney (2003)	NEO-FFI: Neuroticism scale
	24. McWhaw (2011)	Derogatis sexual functioning inventory—symptoms
	27. Webb et al. (2007)	Contact with mental health services as an adult
	29. Jung et al. (2012)	Accessed mental health services
	20. Personality disorder	12. Reijnen et al. (2009)
15. Tomak et al. (2009)		MMPI Schizophrenia scale
20. Magaletta et al. (2014)		PAI Schizophrenia and Mania scales
27. Webb et al. (2007)		MCMI-III overall psychopathology
20. Personality disorder	20. Magaletta et al. (2014)	PAI: Borderline features scale
	27. Webb et al. (2007)	MCMI-III personality disorders
	29. Jung et al. (2012)	PAI: Borderline features scale

Table 12 continued

Variable	Study	Measure
21. Anxiety	12. Reijnen et al. (2009)	MMPI: Psychastenia and Hypochondriasis scales
	15. Tomak et al. (2009)	MMPI: Psychastenia and Hypochondriasis scales
	16. Wall et al. (2011)	Hospital Anxiety and Depression scale: Anxiety scale
	20. Magaletta et al. (2014)	PAI: Anxiety, Somatic Complaints, and Anxiety Related Disorder scales
	22. Rooney (2003)	Reaction Inventory Interference scale
22. Depression	28. Marshall et al. (2012)	Obsessive Compulsive Inventory
	5. Finkelhor et al. (2012)	Diagnosed with depression, anxiety or suicidal thoughts and behaviors
	6. Finkelhor et al. (2008)	Diagnosed with depression
	7. Lopez (2008)	Diagnosed with depression and suicidal thoughts and behaviors
	9.2 Coward et al. (2009)	Self-reported sadness in adulthood
	12. Reijnen et al. (2009)	MMPI: Depression scale
	13.1 McCarthy (2010a)	Diagnosed with depression
	14. Matsuzawa (2009)	MMPI: Depression and Low Positive Emotions scales
	15. Tomak et al. (2009)	MMPI: Depression scale
	16. Wall et al. (2011)	Hospital Anxiety and Depression scale: Depression scale
	18.2 Neutze et al. (2011)	Allgemeine Depressionskala (German Depression scale)
	20. Magaletta et al. (2014)	PAI: Depression scale
23. General social deficits	24. McWhaw (2011)	Derogatis sexual functioning inventory—affect scale
23.1 Social deficits	29. Jung et al. (2012)	Suicidal ideation
	9.2 Coward et al. (2009)	Self-reported social awkwardness/isolation in adulthood
	20. Magaletta et al. (2014)	PAI: Non-support scale
	22. Rooney (2003)	Low agreeableness assessed by NEO
23.2 Loneliness	29. Jung et al. (2012)	PAI: Non-support scale
	3. Hanson (2012)	STABLE-2007: Social rejection item
	7. Lopez (2008)	Self-reported social isolation
	9.2 Coward et al. (2009)	Self-reported loneliness
	10.1 Elliott et al. (2012)	UCLA Loneliness scale
	17. Bates and Metcalf (2007)	UCLA Loneliness scale
	18.1 Neutze et al. (2012b)	UCLA Loneliness scale
	28. Marshall et al. (2012)	UCLA Loneliness scale
23.3 Negative social influence (pedophilic social networks)	4. Merdian (2012)	Engaged in conversation with other child pornography users and pedophiles
	5. Finkelhor et al. (2012)	Talked to other offenders about offending
	6. Finkelhor et al. (2008)	Used the internet to talk to others with similar deviant interests
	13.2 McCarthy (2010b)	Communicating with others with similar deviant interests online or in person
24. Self-esteem	27. Webb et al. (2007)	STABLE-2000: Significant social influences item
	1. Armstrong (2009)	Model of self
	4. Merdian (2012)	Self-reported self-esteem issues
	9.2 Coward et al. (2009)	Self-reported low self-esteem
	10.1 Elliott et al. (2012)	Thorton Self-esteem Scale
	14. Matsuzawa (2009)	MMPI: Low Self-esteem scale
	17. Bates and Metcalf (2007)	Thorton Self-esteem scale
24. McWhaw (2011)	Derogatis sexual functioning inventory—body image	

Table 12 continued

Variable	Study	Measure
25. Coping skills	3. Hanson (2012)	ACUTE-2007: Emotional collapse
	4. Merdian (2012)	Self-reported difficulty coping with stress
	10.1 Elliott et al. (2012)	Interpersonal Reactivity Index: Personal Distress scale
	14. Matsuzawa (2009)	MMPI: Negative emotionality/neuroticism
	16. Wall et al. (2011)	Avoidance of positive and negative emotions
	18.1 Neutze et al. (2012b)	Coping Inventory for Stressful Situations (German version)
	20. Magaletta et al. (2014)	PAI: Stress scale
26. Underassertiveness	29. Jung et al. (2012)	PAI: Stress scale
	10.1 Elliott et al. (2012)	Social Response Inventory: Underassertiveness scale
	17. Bates and Metcalf (2007)	Social Response Inventory: Underassertiveness scale
	20. Magaletta et al. (2014)	PAI: Dominance scale
27. Social desirability	29. Jung et al. (2012)	PAI: Dominance scale
	9.1 Lee et al. (2012)	Paulhus Deception Scale: Self-deception enhancement
	10.1 Elliott et al. (2012)	Paulhus Deception Scale: Self-deception enhancement
28. Impression management	12. Reijnen et al. (2009)	MMPI: Lie scale
	14. Matsuzawa (2009)	MMPI: Lie scale
	15. Tomak et al. (2009)	MMPI: Lie scale
	16. Wall et al. (2011)	Paulhus Deception Scale: Self-deception enhancement
	17. Bates and Metcalf (2007)	Balanced Inventory of Desirable Responding: Social desirability scale
	27. Webb et al. (2007)	MCMI-III: Social Desirability scale
	9.1 Lee et al. (2012)	Paulhus Deception scale: Impression management
29. Family abuse in childhood	10.1 Elliott et al. (2012)	Paulhus Deception scale: Impression management
	16. Wall et al. (2011)	Paulhus Deception scale: Impression management
	17. Bates and Metcalf (2007)	Balanced Inventory of Desirable Responding: Impression Management scale
	18.2 Neutze et al. (2011)	Balanced Inventory of Desirable Responding: Impression Management scale
29.1 Family neglect	9.1 Lee et al. (2012)	Child Abuse scale
	11.3 Sheldon and Howitt (2007)	Physical abuse in childhood, absent parent/seclusion, and witness violence in home
	26. Paradis and Titley (2011)	Physical abuse by either parent
30. Family disruption	4. Merdian (2012)	Did not have enough food to eat as a child and did not always have a place to sleep
	11.3 Sheldon and Howitt (2007)	Absent parent/seclusion
	27. Webb et al. (2007)	Emotional/physical neglect in childhood
31. Conduct issues in childhood	3. Hanson (2012)	Left parents' care before 16 years of age
	4. Merdian (2012)	Did not live with the same adults while growing up
	11.3 Sheldon and Howitt (2007)	Separated/divorced parents, parental substance abuse, put in foster care and/or institutionalized
	24. McWhaw (2011)	Separation from parent prior to age 16
	26. Paradis and Titley (2011)	Absent parent/separated from parents
31.1 Juvenile delinquency	27. Webb et al. (2007)	Taken into local authority care
	26. Paradis and Titley (2011)	Self-reported aggressive behaviors, not being social, bullied/rejected by peer at school
	3. Hanson (2012)	Juvenile sex offences
	4. Merdian (2012)	Self-reported criminal activity and stealing in childhood
	9.1 Lee et al. (2012)	Classified as a juvenile delinquent
	24. McWhaw (2011)	Juvenile arrests
	29. Jung et al. (2012)	Childhood aggression

Table 12 continued

Variable	Study	Measure
31.2 Acting out in childhood	4. Merdian (2012)	Missed school most of the time, skipped school, suspended or expelled from school, bullied others, run away from home, frequently lied and broke promises in childhood
	11.3 Sheldon and Howitt (2007)	Two or more behavioral or emotional problems in childhood
	26. Paradis and Titley (2011)	Self-reported not being social or bullied/rejected by peer at school
	27. Webb et al. (2007)	Two or more childhood difficulties and enrollment in special schooling
	29. Jung et al. (2012)	Elementary school maladjustment, suspended/expelled, failed grade, poor school adjustment, and teenage alcoholism
31. Emotional difficulties in childhood	4. Merdian (2012)	Bullied by others, self-harm as a child, and difficulty making friends
	9.1 Lee et al. (2012)	Childhood Emotional Problems scale
	27. Webb et al. (2007)	History of self-harm as a child
	29. Jung et al. (2012)	Evidence of childhood peer rejection

References

Note. References marked with an asterisk were included in the meta-analysis.

- Albright, J. M. (2008). Sex in American online: An exploration of sex, marital status, and sexual identity in internet sex seeking and its impacts. *Journal of Sex Research, 45*, 175–186. doi:10.1080/00224490801987481.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.
- *Armstrong, J. A. E. (2009). *Internet child pornography: An examination of attachment and intimacy deficits*. Unpublished doctoral dissertation, Deakin University, Melbourne, Australia.
- Babchishin, K. M., Hanson, R. K., & Hermann, C. A. (2011). The characteristics of online sex offenders: A meta-analysis. *Sexual Abuse: A Journal of Research and Treatment, 23*, 92–123. doi:10.1177/1079063210370708.
- *Bates, A., & Metcalf, C. (2007). A psychometric comparison of internet and non-internet sex offenders from a community treatment sample. *Journal of Sexual Aggression, 13*, 11–20. doi:10.1080/13552600701365654.
- Beier, K., Neutze, J., Mundt, I. A., Ahlers, C. J., Goecker, D., Konrad, A., et al. (2009). Encouraging self-identified pedophiles and hebephiles to seek professional help: First results of the Prevention Project Dunkelfeld (PPD). *Child Abuse and Neglect, 33*, 545–549. doi:10.1016/j.chiabu.2009.04.002.
- Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. Chichester, UK: Wiley.
- Brand, M., Laier, C., Pawlikowski, M., Schachtel, U., Scholer, T., & Alstotter-Gleich, C. (2011). Watching pornographic pictures on the internet: Role of sexual arousal ratings and psychological-psychiatric symptoms for using internet sex sites excessively. *Cyberpsychology, Behavior, and Social Networking, 14*, 371–377. doi:10.1089/cyber.2010.0222.
- Briggs, P., Simon, W. T., & Simonsen, S. (2011). An exploratory study of internet-initiated sexual offences and the chat room sex offender: Has the internet enabled a new typology of sex offender? *Sexual Abuse: A Journal of Research and Treatment, 23*, 72–91. doi:10.1177/1079063210384275.
- Cantor, J. M., Klein, C., Lykins, A., Rullo, J. E., Thaler, L., & Walling, B. R. (2013). A treatment-oriented typology of self-identified hypersexuality referrals. *Archives of Sexual Behavior, 42*, 883–893. doi:10.1007/s10508-013-0085-1.
- Carnes, P. J., Delmonico, D. L., & Griffin, E. (2007). *In the shadows of the net: Breaking free of compulsive online sexual behavior* (2nd ed.). Center City, MN: Hazeldean.
- Chaney, M. P., & Chang, C. Y. (2005). A trio of turmoil for internet sexually addicted men who have sex with men: Boredom proneness, social connectedness, and dissociation. *Sexual Addiction & Compulsivity, 12*, 3–18. doi:10.1080/10720160590933671.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cohen, L., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Journal of Sociology, 86*, 90–118. doi:10.2307/2094589.
- Cooper, A., Delmonico, D. L., & Burg, R. (2000). Cybersex users, abusers, and compulsives: New findings and implications. *Sexual Addiction & Compulsivity, 7*, 5–29. doi:10.1080/10720160008400205.
- Cooper, A., Griffin-Shelley, E., Delmonico, D. L., & Mathy, R. M. (2001). Online sexual problems: Assessment and predictive variables. *Sexual Addiction & Compulsivity, 8*, 267–285. doi:10.1080/107201601753459964.
- Cooper, A., Scherer, C. R., Boies, S. C., & Gordon, B. L. (1999). Sexuality on the internet: From sexual exploration to pathological expression. *Professional Psychology: Research and Practice, 30*, 154–164. doi:10.1037/0735-7028.30.2.154.
- *Coward, A. I., Gabriel, A. M., Schuler, A., & Prentky, R. A. (2009, March). *Child internet victimization: Project development and preliminary results*. Presentation at the 2009 Annual Conference of the American Psychology—Law Society, San Antonio, TX.
- Daneback, K., Cooper, A., & Månsson, S.-A. (2005). An internet study of cybersex participants. *Archives of Sexual Behavior, 34*, 321–328. doi:10.1007/s10508-005-3120-z.
- Dauvergne, M., & Turner, J. (2010). Police-reported crime statistics in Canada, 2009 (Catalogue No. 85-002-X). *Juristat, 30*. Statistics Canada, Canadian Centre for Justice Statistics. Retrieved February 4, 2014 from <http://www.statcan.gc.ca/pub/85-002-x/2010002/article/11292-eng.htm>.
- Delmonico, D., & Miller, J. (2003). The Internet Sex Screening Test: A comparison of sexual compulsives versus non-compulsives. *Sexual and Relationship Therapy, 18*, 261–276. doi:10.1080/1468199031000153900.
- Eke, A. W., & Seto, M. C. (2012). Risk assessment of online offenders for law enforcement. In K. Ribisl & E. Quayle (Eds.), *Internet child pornography: Understanding and preventing on-line child abuse* (pp. 148–168). Devon, UK: Willan.
- Eke, A. W., Seto, M. C., & Williams, J. (2011). Examining the criminal history and future offending of child pornography offenders: An

- extended prospective follow-up study. *Law and Human Behavior*, 35, 466–478. doi:10.1007/s10979-010-9252-2.
- Elliott, I. A., & Beech, A. R. (2009). Understanding online child pornography use: Applying sexual offense theory to internet offenders. *Aggression and Violent Behavior*, 14, 180–193. doi:10.1016/j.avb.2009.03.002.
- *Elliott, I. A., Beech, A. R., & Mandeville-Norden, R. (2012). The psychological profiles of internet, contact, and mixed internet/contact sex offenders. *Sexual Abuse: A Journal of Research and Treatment*. doi:10.1177/1079063212439426.
- Elliott, I. A., Beech, A. R., Mandeville-Norden, R., & Hayes, E. (2009). Psychological profiles of internet sexual offenders: Comparisons with contact sex offenders. *Sexual Abuse: A Journal of Research and Treatment*, 21, 76–92. doi:10.1177/1079063208326929.
- *Finkelhor, D., Mitchell, K. J., & Wolak, J. (2012). *Second National Juvenile Online Victimization Incidence Study (NJOV-2)* [Dataset]. Retrieved February 4, 2014 from the National Data Archive on Child Abuse and Neglect website: <http://www.ndacan.cornell.edu>.
- *Finkelhor, D., Wolak, J., & Mitchell, K. (2008). *Juvenile Online Victimization Incidence Study (N-JOV)* [Dataset]. Retrieved February 4, 2014 from the National Data Archive on Child Abuse and Neglect web site: <http://www.ndacan.cornell.edu>.
- Goller, A., Graf, M., Frei, A., & Dittmann, V. (2010). PW01-117—Recidivism of internet sex offenders—An epidemiological study on more than 4600 offenders in Switzerland. *European Psychiatry*, 25(Suppl. 1), 1533. doi:10.1016/S0924-9338(10)71516-9.
- Graf, M., & Dittmann, V. (2011). Forensic-psychiatric treatment for internet sex offenders. In D. P. Boer, R. Eher, L. A. Craig, M. H. Miner, & F. Pfäfflin (Eds.), *International perspectives on the assessment and treatment of sexual offenders: Theory, practice, and research* (pp. 479–488). West Sussex, UK: Wiley.
- Green, B. A., Carnes, S., Carnes, P. J., & Weinman, E. A. (2012). Cybersex addiction patterns in a clinical sample of homosexual, heterosexual, and bisexual men and women. *Sexual Addiction & Compulsivity*, 19, 77–98. doi:10.1080/10720162.2012.658343.
- Hamilton, M. (2012). The child pornography crusade and its net widening effect. *Cardozo Law Review*, 33, 1679–1732.
- *Hanson, R. K. (2012). Updated risk assessment data for 411 online sex offenders and extrafamilial offenders identified in *The Dynamic Supervision Project, 2007*. Ottawa, ON: Public Safety and Emergency Preparedness Canada. Unpublished raw data.
- Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology*, 66, 348–362. doi:10.1037/0022-006X.66.2.348.
- Hanson, R. K., & Morton-Bourgon, K. E. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology*, 73, 1154–1163. doi:10.1037/0022-006X.73.6.1154.
- Hanson, R. K., & Morton-Bourgon, K. E. (2009). The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis of 118 prediction studies. *Psychological Assessment*, 21, 1–21. doi:10.1037/a0014421.
- Harris, A. J. R., & Hanson, R. K. (2004). *Sex offender recidivism: A simple question* (user report 2004-03). Ottawa, ON: Public Safety and Emergency Preparedness Canada.
- Hasselblad, V., & Hedges, L. V. (1995). Meta-analysis of screening and diagnostic tests. *Psychological Bulletin*, 117, 167–178. doi:10.1037/0033-2909.117.1.167.
- *Hempel, I. S., Buck, N. M. L., Goethals, K. R., & van Marle, H. J. C. (2013). Unraveling sexual associations in contact and noncontact child sex offenders using the single category—Implicit Association Test. *Sexual Abuse: A Journal of Research and Treatment*, 25, 444–460. doi:10.1177/1079063212464660.
- Higgins, J., Thompson, S. G., Deeks, J. J., & Altman, D. G. (2003). Measuring inconsistency in meta-analyses. *British Medical Journal*, 327, 557–560. doi:10.1136/bmj.327.7414.557.
- *Howitt, D., & Sheldon, K. (2007). The role of cognitive distortions in paedophilic offending: Internet and contact offenders compared. *Psychology, Crime & Law*, 13, 469–486. doi:10.1080/10683160601060564.
- *Jung, S., Ennis, L., Stein, S., Choy, A., & Hook, T. (2012). *Child pornography possessors: Comparisons and contrasts with contact and non-contact sex offenders*. Manuscript submitted for publication.
- Kuhle, L. F., Neutze, J., Amelung, D., Grundmann, G., Scherner, A., Konrad, G. A., Schaefer, K. M., & Beier, K. M. (2012, September). *Treatment-change in child pornography offending in pedophiles and hebephiles in the Prevention Project Dunkelfeld*. Paper presented at the conference of the International Association for the Treatment of Sexual Offenders, Berlin, Germany.
- *Lee, A. F., Li, N. C., Lamade, R., Schuler, A., & Prentky, R. A. (2012). Predicting hands-on child sexual offences among possessors of internet child pornography. *Psychology, Public Policy, and Law*. doi:10.1037/a0027517.
- Levin, M. E., Lillis, J., & Hayes, S. C. (2012). When is online pornography viewing problematic among college males? Examining the moderating role of experiential avoidance. *Sexual Addiction & Compulsivity*, 19, 168–180. doi:10.1080/10720162.2012.657150.
- *Long, M. L., Alison, L. A., & McManus, M. A. (2013). Child pornography and likelihood of contact abuse: A comparison between contact child sexual offenders and noncontact offenders. *Sexual Abuse: A Journal of Research and Treatment*, 25, 370–395. doi:10.1177/1079063212464398.
- *Lopez, P. (2008). Descriptive and psychological data from 133 sex offenders identified in *An in-depth look at northern Nevada's sex offenders*. Master's thesis. Available from ProQuest Dissertations and Theses database (UMI: 1455648). Unpublished raw data.
- *Magaletta, P. R., Faust, E., Bickart, W., & McLearn, A. M. (2014). Exploring clinical and personality characteristics of adult male internet-only child pornography offenders. *International Journal of Offender Therapy and Comparative Criminology*, 58, 137–153. doi:10.1177/0306624X12465271.
- *Marshall, L. E., O'Brien, M. D., Marshall, W. L., Booth, B., & Davis, A. (2012). Obsessive-compulsive disorder, social phobia, and loneliness in incarcerated internet child pornography offenders. *Sexual Addiction & Compulsivity*, 19, 41–52. doi:10.1080/10720162.2012.665291.
- *Matsuzawa, Y. K. (2009). *MMPI-2 characteristics of internet sex offenders*. Doctoral dissertation. Available from ProQuest Dissertations and Theses database (UMI: 3365796).
- *McCarthy, J. (2010a). *The relationship between possessing child pornography and child molestation*. Doctoral thesis. Available from ProQuest Dissertations and Theses database (UMI: 3412742).
- *McCarthy, J. (2010b). Internet sexual activity: A comparison between contact and non-contact child pornography offenders. *Journal of Sexual Aggression*, 16, 181–195. doi:10.1080/13552601003760006.
- *McWhaw, A. (2011). *Online child pornography offenders and risk assessment: How online offenders compare to contact offenders using common risk assessment variables*. Unpublished master's thesis, University of Ottawa, Ottawa, Canada.
- *Merdian, H. L. (2012). *Offenders who use child sexual exploitation material: Development of an integrated model for classification, assessment, and treatment*. Unpublished doctoral dissertation, The University of Waikato, New Zealand.
- Merdian, H. L., Curtis, C., Takker, J., Wilson, N., & Boer, D. P. (2013). The three dimensions of online child pornography offending. *Journal of Sexual Aggression*, 19, 121–132. doi:10.1080/13552600.2011.611898.
- Middleton, D., Mandeville-Norden, R., & Hayes, E. (2009). Does treatment work with internet sex offenders? Emerging findings from the Internet Sex Offender Treatment Programme (i-SOTP). *Journal of Sexual Aggression*, 15, 5–19. doi:10.1080/13552600802673444.

- Mitchell, K. J., & Wells, M. (2007). Problematic internet experiences: Primary or secondary presenting problems in persons seeking mental health care? *Social Science and Medicine*, *65*, 1136–1141. doi:10.1016/j.socscimed.2007.05.015.
- Neutze, J., Grundmann, D., Amelung, T., Kuhle, L. F., Scherner, G., Konrad, A., et al. (2012a, September). *Treatment change in dynamic risk factors in the Prevention Project Dunkelfeld*. Paper presented at the International Association for the Treatment of Sexual Offenders Conference, Berlin, Germany.
- *Neutze, J., Grundmann, D., Scherner, G., & Beier, K. M. (2012b). Undetected and detected child sexual abuse and child pornography offenders. *International Journal of Law and Psychiatry*, *35*, 168–175. doi:10.1016/j.ijlp.2012.02.004.
- *Neutze, J., Seto, M. C., Schaefer, G. A., Mundt, I. A., & Beier, K. M. (2011). Predictors of child pornography offenses and child sexual abuse in a community sample of pedophiles and hebephiles. *Sexual Abuse: A Journal of Research and Treatment*, *23*, 212–242. doi:10.1177/1079063210382043.
- *Paradis, Y., & Titley, S. (2011, September). Psychological data from 38 sex offenders identified in *Portrait clinique sommaire d'individus condamnés pour des accusations de pornographie juvénile et évalués au Centre d'Intervention en Délinquance Sexuelle de Laval (CIDS)*. Paper presented at the meeting of Congrès International Francophone sur l'Agression Sexuelle, Montreaux, Suisse. Unpublished raw data.
- *Perrot, M., Benony, H., & Lopes, G. (2001, September). *Les téléchargements d'images pédopornographiques: Un groupe clinique à part?* Poster presented at the meeting of Congrès International Francophone sur l'Agression Sexuelle, Montreaux, Suisse.
- Putnam, D. E. (2000). Initiation and maintenance of online sexual compulsivity: Implications for assessment and treatment. *CyberPsychology & Behavior*, *3*, 553–563. doi:10.1089/109493100420160.
- Quinsey, V. L. (1986). Men who have sex with children. In D. N. Weisstub (Ed.), *Law and mental health: International perspectives* (pp. 140–172). New York: Pergamon.
- *Reijnen, L., Bulten, E., & Nijman, H. (2009). Demographic and personality characteristics of internet child pornography downloaders in comparison to other offenders. *Journal of Child Sexual Abuse*, *18*, 611–622. doi:10.1080/10538710903317232.
- *Roche, B., O'Reilly, A., Gavin, A., Ruiz, M. R., & Arancibia, G. (2012). Using behavior-analytic implicit tests to assess sexual interests among normal and sex-offender populations. *Socioaffective Neuroscience & Psychology*, *2*. Retrieved February 4, 2014 from <http://www.socioaffectiveneuroscipsychol.net/index.php/snp/article/view/17335>.
- *Rooney, F. (2003). *The internet and child sexual abuse: Personality and indicators of abusive behaviour*. Unpublished doctoral dissertation, University of Dublin Trinity College, Dublin, Ireland.
- Schulze, R. (2007). Current methods for meta-analysis: Approaches, issues, and developments. *Zeitschrift für Psychologie/Journal of Psychology*, *215*, 90–103. doi:10.1027/0044-3409.215.2.90.
- Seto, M. C. (2008). *Pedophilia and sexual offending against children: Theory, assessment, and intervention*. Washington, DC: American Psychological Association.
- Seto, M. C. (2013). *Internet sex offenders*. Washington, DC: American Psychological Association.
- *Seto, M. C., Cantor, J. M., & Blanchard, R. (2006). Child pornography offences are a valid diagnostic indicator of pedophilia. *Journal of Abnormal Psychology*, *115*, 610–615. doi:10.1037/0021-843X.115.3.610.
- Seto, M. C., & Eke, A. W. (2005). The criminal histories and later offending of child pornography offenders. *Sexual Abuse: A Journal of Research and Treatment*, *17*, 201–210. doi:10.1007/s11194-005-4605-y.
- Seto, M. C., Hanson, R. K., & Babchishin, K. M. (2011). Contact sexual offending by men with online sexual offences. *Sexual Abuse: A Journal of Research and Treatment*, *23*, 124–145. doi:10.1177/1079063210369013.
- Seto, M. C., Reeves, L., & Jung, S. (2010). Motives for child pornography offending: The explanations given by offenders. *Journal of Sexual Aggression*, *16*, 169–180. doi:10.1080/13552600903572396.
- *Seto, M. C., Wood, J. M., Babchishin, K. M., & Flynn, S. (2012). Online solicitation offenders are different from child pornography offenders and lower risk than contact sexual offenders. *Law and Human Behavior*, *36*, 320–330. doi:10.1037/h0093925.
- Sexual Recovery Institute. (2013). *Cybersex Addiction Screening Test*. Retrieved February 4, 2014 from Sexual Recovery: <http://www.sexualrecovery.com/resources/self-tests/csat.php>.
- *Sheldon, K., & Howitt, D. (2007). *Sex offenders and the internet*. Chichester, UK: Wiley.
- *Sheldon, K., & Howitt, D. (2008). Sexual fantasy in paedophile offenders: Can any model explain satisfactorily new findings from a study of internet and contact sexual offenders? *Legal and Criminological Psychology*, *13*, 137–158. doi:10.1348/135532506X173045.
- *Smid, W., Schepers, K., Kamphuis, J. H., van Linden, S., & Barteling, S. (2013). *Prioritizing child pornography notification: Predicting dual offending*. Unpublished manuscript.
- *Tomak, S., Weschler, F. S., Ghahramanlou-Holloway, M., Virden, T., & Nademin, M. E. (2009). An empirical study of the personality characteristics of internet sex offenders. *Journal of Sexual Aggression*, *15*, 139–148. doi:10.1080/13552600902823063.
- *Wall, G. K., Pearce, E., & McGuire, J. (2011). Psychological data for 50 child sex offenders from North West England Probation Services identified in: Are internet offenders emotionally avoidant? *Psychology, Crime & Law*, *17*, 381–401. [Unpublished raw data].
- Ward, T., & Beech, A. (2006). An integrated theory of sexual offending. *Aggression and Violent Behavior*, *11*, 44–63. doi:10.1016/j.avb.2005.05.002.
- *Webb, L., Craissati, J., & Keen, S. (2007). Characteristics of internet child pornography offenders: A comparison with child molesters. *Sexual Abuse: A Journal of Research and Treatment*, *19*, 449–465. doi:10.1007/s11194-007-9063-2.
- Williams, K. M., Cooper, B. S., Howell, T. M., Yuille, J. C., & Paulhus, D. L. (2009). Inferring sexually deviant behavior from corresponding fantasies: The role of personality and pornography consumption. *Criminal Justice & Behavior*, *36*, 198–222. doi:10.1177/0093854808327277.
- Wolak, J. (2011, November). *Child pornography possessors: Trends in offender and case characteristics*. Paper presented at the meeting of the Association for the Treatment of Sexual Abusers, Toronto, ON, Canada.
- Wolak, J., Finkelhor, D., & Mitchell, K. J. (2005). *Child Pornography Possessors Arrested in Internet-Related Crimes: Findings from the National Juvenile Online Victimization Study*. Alexandria, VA: National Center for Missing & Exploited Children. Retrieved February 4, 2014 from <http://www.unh.edu/ccrc/pdf/jvq/CV81.pdf>.
- Wood, H. (2011). The internet and its role in the escalation of sexually compulsive behaviour. *Psychoanalytic Psychotherapy*, *25*, 127–142. doi:10.1080/02668734.2011.576492.
- Yoder, V. C., Virden, T. B., & Amin, K. (2005). Internet pornography and loneliness: An association? *Sexual Addiction & Compulsivity*, *12*, 19–44. doi:10.1080/10720160590933653.
- Zickuhr, K., & Smith, A. (2012). *Digital differences*. Retrieved from Pew Research Centre's Internet & American Life Project website: <http://pewinternet.org/Reports/2012/Digital-differences.aspx>.



Stanford Encyclopedia of Philosophy

Autonomy in Moral and Political Philosophy

First published Mon Jul 28, 2003; substantive revision Fri Jan 9, 2015

Individual autonomy is an idea that is generally understood to refer to the capacity to be one's own person, to live one's life according to reasons and motives that are taken as one's own and not the product of manipulative or distorting external forces. It is a central value in the Kantian tradition of moral philosophy but it is also given fundamental status in John Stuart Mill's

version of utilitarian liberalism (Kant 1785/1983, Mill 1859/1975, ch. III). Examination of the concept of autonomy also figures centrally in debates over education policy, biomedical ethics, various legal freedoms and rights (such as freedom of speech and the right to privacy), as well as moral and political theory more broadly. In the realm of moral theory, seeing autonomy as a central value can be contrasted with alternative frameworks such as an ethic of care, utilitarianism of some kinds, and an ethic of virtue. Autonomy has traditionally been thought to connote independence and hence to reflect assumptions of individualism in both moral thinking and political designations of political status. In recent decades, however, theorists have increasingly tried to structure the concept so as to sever its ties to this brand of individualism. In all such discussions the concept of autonomy is the focus of much controversy and debate, disputes which focus attention on the fundamentals of moral and political philosophy and the Enlightenment conception of the person more generally.

- [1. The Concept of Autonomy](#)
 - [1.1 Basic Distinctions](#)
 - [1.2 Conceptual Variations](#)
- [2. Autonomy in Moral Philosophy](#)
 - [2.1 Autonomy as an Object of Value](#)
 - [2.2 Autonomy and Paternalism](#)
- [3. Autonomy in Social and Political Philosophy](#)
 - [3.1 Autonomy and the Foundations of Liberalism](#)
 - [3.2 Identity and Conceptions of the Self](#)
 - [3.3 Relational Autonomy](#)
 - [3.4 Autonomy, Liberalism and Perfectionism](#)
 - [3.5 Autonomy and Political Liberalism](#)
 - [3.6 Autonomy, Justice and Democracy](#)
- [Bibliography](#)
- [Academic Tools](#)
- [Other Internet Resources](#)
- [Related Entries](#)

1. The Concept of Autonomy

In the western tradition, the view that individual autonomy is a basic moral and political value is very much a modern development. Putting moral weight on an individual's ability to govern herself, independent of her place in a metaphysical order or her role in social structures and political institutions is very much the product of the modernist humanism of which much contemporary moral and political philosophy is an offshoot. (For historical discussions of autonomy, see Schneewind 1988, Lindley 1986, Part I). As such, it bears the weight of the controversies that this legacy has attracted. The idea that moral principles and obligations, as well as the legitimacy of political authority, should be grounded in the self-governing individual, considered apart from various contingencies of place, culture, and social relations, invites skeptics from several quarters. Autonomy, then, is very much at the vortex of the complex (re)consideration of modernity.

Put most simply, to be autonomous is to be one's own person, to be directed by considerations, desires, conditions, and characteristics that are not simply imposed externally upon one, but are part of what can somehow be considered one's authentic self. Autonomy in this sense seems an irrefutable value, especially since its opposite — being guided by forces external to the self and which one cannot authentically embrace — seems to mark the height of oppression. But specifying more precisely the conditions of autonomy inevitably sparks controversy and invites skepticism about the claim that autonomy is an unqualified value for all individuals.

Autonomy plays various roles in theoretical accounts of persons, conceptions of moral obligation and responsibility, the justification of social policies and in numerous aspects of political theory. It forms the core of the Kantian conception of practical reason (see, e.g. Korsgaard 1996, Hill 1989) and, relatedly, connects to questions of moral responsibility (see Wolff 1970, 12–19). It is also seen as the aspect of persons that prevents or ought to prevent paternalistic interventions in their lives (Dworkin 1988, 121–29). It plays a role in education theory and policy, on some views specifying the core goal of liberal education generally (Gutmann 1987, Cuypers and Ishtiyaque 2008; for discussion, see Brighouse 2000, 65–111). Also, despite many feminists' reservations concerning the ideal of autonomy, it is sometimes seen as a valuable conceptual element in some feminist ideals, such as the identification and elimination of social conditions that victimize women and other (potentially) vulnerable people (Friedman 1997, Meyers 1987, Christman 1995).

1.1 Basic Distinctions

Several distinctions must be made to zero in on the kind of autonomy that is of greatest interest to moral and political theory. “Moral autonomy” refers to the capacity to impose the (putatively objective) moral law on oneself, and, following Kant, it is claimed as a fundamental organizing principle of all morality (Hill 1989). On the other hand, what can be called “personal autonomy” is meant as a trait that individuals can exhibit relative to any aspects of their lives, not limited to questions of moral obligation (Dworkin 1988, 34–47).

Personal (or individual) autonomy should also be distinguished from *freedom*, although again, there are many renderings of these concepts, and certainly some conceptions of positive freedom will be equivalent to what is often meant by autonomy (Berlin 1969, 131–34). Generally, one can distinguish autonomy from freedom in that the latter concerns the ability to act, without external or internal constraints and also (on some conceptions) with sufficient resources and power to make one's desires effective (Berlin 1969, Crocker 1980, MacCallum 1967). Autonomy concerns the independence and authenticity of the desires (values, emotions, etc.) that move one to act in the first place. Some

distinguish autonomy from freedom by insisting that freedom concerns particular acts while autonomy is a more global notion, referring to states of a person (Dworkin 1988, 13–15, 19–20). But autonomy can be used to refer both to the global condition (autonomous personhood) and as a more local notion (autonomous relative to a particular trait, motive, value, or social condition). Addicted smokers for example are autonomous persons in a general sense but (for some) helplessly unable to control their behavior regarding this one activity (Christman 1989, 13–14).

In addition, we must keep separate the idea of basic autonomy, the minimal status of being responsible, independent and able to speak for oneself, from ideal autonomy, an achievement that serves as a goal to which we might aspire and according to which a person is maximally authentic and free of manipulative, self-distorting influences. Any plausible conceptualization of basic autonomy must, among other things, imply that most adults who are not suffering from debilitating pathologies or are under oppressive and constricting conditions count as autonomous. Autonomy as an ideal, on the other hand, may well be enjoyed by very few if any individuals, for it functions as a goal to be attained.

The reason to construe basic autonomy broadly enough to include most adults is that autonomy connects with other status designators which apply (or, it is claimed, should apply) in this sweeping manner. Autonomy is connected, for example, to moral and legal responsibility, on some views (e.g., Ripstein 1999); it is considered a criterion of political status, in that autonomous agency is seen as necessary (and for some sufficient) for the condition of equal political standing; moreover, being autonomous stands as a barrier to unchecked paternalism, both in the personal, informal spheres and in legal arenas (Feinberg 1986). Lacking autonomy, as young children do, is a condition which allows or invites sympathy, care, paternalism and possibly pity. Therefore, a guiding consideration in evaluating particular conceptions of autonomy (though hardly a hard and fast test) will be whether it connects properly to these ancillary judgments (for discussion of “formal conditions” of a concept of autonomy, see Dworkin 1988, 7–10).

1.2 Conceptual Variations

The variety of contexts in which the concept of autonomy functions has suggested to many that there are simply a number of different conceptions, and that the word simply refers to different elements in each of those contexts (Arpaly 2004). Feinberg has claimed that there are at least four different meanings of “autonomy” in moral and political philosophy: the capacity to govern oneself, the actual condition of self-government, a personal ideal, and a set of rights expressive of one's sovereignty over oneself (Feinberg 1989). One might argue that central to all of these uses is a conception of the person able to act, reflect, and choose on the basis of factors that are somehow her own (authentic in some sense). Nevertheless, it is clear that formulating a “theory” of the concept will involve more than merely uncovering the obscure details of the idea's essence, for autonomy, like many concepts central to contentious moral or political debate is itself essentially contested. So a theory of autonomy is simply a construction of a concept aimed at capturing the general sense of “self-rule” or “self-government” (ideas which obviously admit of their own vagaries) and which can be used to support principles or policies the theory attempts to justify.

The idea of self-rule contains two components: the independence of one's deliberation and choice from manipulation by others, and the capacity to rule oneself (see Dworkin 1989, 61f and Arneson 1991). However, the ability to rule oneself will lie at the core of the concept, since a full account of that capability will surely entail the freedom from external manipulation characteristic of independence. Indeed, it could be claimed that independence *per se* has no fixed meaning or

necessary connection with self-government unless we know what kinds of independence is required for self-rule (cf., however Raz 1986, 373-78).

Focusing, then, on the requirements of self rule, it can be claimed that to govern oneself one must be in a position to act competently based on desires (values, conditions, etc.) that are in some sense one's own. This picks out the two families of conditions often proffered in conceptions of autonomy: competency conditions and authenticity conditions. Competency includes various capacities for rational thought, self-control, and freedom from debilitating pathologies, systematic self-deception, and so on. (Different accounts include different conditions: see, for example, Berofsky 1995, R. Young 1991, Haworth 1986, Meyers 1989.)

Authenticity conditions often include the capacity to reflect upon and endorse (or identify with) one's desires, values, and so on. The most influential models of authenticity in this vein claim that autonomy requires second-order identification with first order desires. For Frankfurt, for instance, such second-order desires must actually have the structure of a volition: wanting that the first order desires issue in action, that they comprise one's will. Moreover, such identification, on his view, must be "wholehearted" for the resulting action to count as free (autonomous).^[1]

This overall approach to autonomy has been very influential, and several writers have developed variations of it and defended it against objections. The most prominent objections concern, on the one hand, the fatal ambiguities of the concept of "identification" and, on the other, the threat of an infinite regress of conditions. The first problem surrounds the different ways that one can be said to "identify" with a desire, each of which render the view conceptually suspect. Either one identifies with an aspect of oneself in the sense of simply acknowledging it (without judgment) or one identifies with a desire in an aspirational, approving sense of that term. In the first case, however, identification would clearly not be a consistent mark of autonomy, for one could easily identify as part of oneself any manner of addictive, constricting, or imposed aspects of one's make-up. But approving of a trait is also problematic as a requirement of autonomy, for there are many perfectly authentic aspects of myself (ones for which I can and should be held fully responsible for example) which I do not fully approve of. I'm not perfect, but does that mean that I am thereby not autonomous? (Cf. Watson 1989, Berofsky 1995, 99–102).^[2]

This model stresses internal self-reflection and procedural independence. However, the view includes no stipulations about the content of the desires, values, and so on, in virtue of which one is considered autonomous, specifically there is no requirement that one act from desires independently of others. Were there to be such a requirement, it would involve what is called "substantive independence". Some writers have insisted that the autonomous person must enjoy substantive independence as well as procedural independence (e.g., Stoljar 2000, Benson 1987, 2005, Oshana 2006). The motivation for such a position is that autonomy should not be understood as consistent with certain constrained life situations no matter how the person came to choose such a situation (cf. Meyers 2000). This claim, however, threatens to rob the attribution of autonomy of any claim to value neutrality it may otherwise carry, for if, conceptually, one is not autonomous when one (freely, rationally, without manipulation) chooses to enter conditions of severely limited choice, then the concept is reserved to only those lifestyles and value pursuits that are seen as acceptable from a particular political or theoretical point of view. I will return to this line of thought in a moment.

One variation on the internal self-reflection model focuses on the importance of the personal history of the agent as an element of her autonomy (Christman 1991, Mele 1993; cf. Fisher & Ravizza 1998; cf. also Raz 1986, 371). On these views, the question of whether a person is autonomous at a time

depends on the processes by which she came to be the way she is. It is not clear that such a focus will be able to avoid the problems raised about internal reflection models (see Mele 1991, Mackenzie & Stoljar 2000b, 16–17), but such a move attempts to embrace a conception of the self of self-government which is not only social but diachronically structured (see, e.g., Atkins 2008, Cuypers 2001).

For those who are wary of the postulate of reflective self endorsement, an alternative approach is to equate autonomy with simply a set of competences, such as the capacity to choose deliberately, rationally, and, as Berofsky claims, “objectively” (see Berofsky 1995, Meyers 1989). This locates autonomy in the general capacity to respond to reasons, and not, for example, in acts of internal self-identification. However, even in these accounts, the capacity to think critically and reflectively is necessary for autonomy as one of the competences in question, even though the reflective thought required need not refer to external values or ideals (Berofsky 1995, ch. 5).

Further difficulties have been raised with the requirement of second order self-appraisal for autonomy. For it is unclear that such higher level judgments have any greater claim to authenticity than their first order cousins. Clearly if a person is manipulated or oppressed (and hence non-autonomous), it could well be that the reflective judgments she makes about herself are just as tainted by that oppression as are her ground-level decisions (Thalberg 1989, Friedman 1986, Meyers 1989, 25–41, Noggle 2005), and often our second order reflective voices are merely rationalizations and acts of self-deception rather than true and settled aspects of our character (for general discussion see the essays in Veltman and Piper 2014). This has led to the charge that models of autonomy which demand second-order endorsement merely introduce an infinite regress: for second-level judgments must be tested for their authenticity in the same way as first order desires are, but if that is so, then ever higher levels of endorsement would be called for. Various responses to this problem have been made, for the most part involving the addition of conditions concerning the manner in which such reflection must be made, for example that it must be free of certain distorting factors itself, it must reflect an adequate causal history, and the like (Christman 1991, Mele 1995).

Other aspects of the inner reflection model should be noted. As just mentioned, this view of autonomy is often stated as requiring critical self reflection (see, e.g., Haworth 1986). This has been understood as involving a rational appraisal of one's desires, testing them for internal consistency, their relation to reliable beliefs, and the like. But an overly narrow concentration on *rational* assessment exposes such conceptions to charges of hyper intellectualism, painting a picture of the autonomous person as a cold, detached calculator (see Meyers 2004, 111–37). Connections to values, desires, and personal traits are often grounded in emotional and affective responses, ones connected with care, commitment, and relations to others (see Friedman 1998, MacKenzie & Stoljar 2000b, Meyers 1989). For parallel reasons, some theorists have noted that concentration on only *desires* as the focal point of autonomy is overly narrow, as people can (fail to) exhibit self-government relative to a wide range of personal characteristics, such as values, physical traits, relations to others, and so on (see Double 1992, 66).

2. Autonomy in Moral Philosophy

Autonomy is central in certain moral frameworks, both as a model of the moral person — the feature of the person by virtue of which she is morally obligated — and as the aspect of persons which ground others' obligations to her or him. For Kant, the self-imposition of universal moral law is the ground of both moral obligation generally and the respect others owe to us (and we owe ourselves). In short, practical reason — our ability to use reasons to choose our own actions — presupposes that we understand ourselves as free. Freedom means lacking barriers to our action that are in any way

external to our will, though it also requires that we utilize a law to guide our decisions, a law that can come to us only by an act of our own will (for further discussion see Hill 1989). This self-imposition of the moral law is autonomy. And since this law must have no content provided by sense or desire, or any other contingent aspect of our situation, it must be universal. Hence we have the (first formulation of the) Categorical Imperative, that by virtue of our being autonomous we must act only on those maxims that we can consistently will as a universal law.

The story continues, however: for the claim is that this capacity (to impose upon ourselves the moral law) is the ultimate source of all moral value — for to value anything (instrumentally or intrinsically) implies the ability to make value judgments generally, the most fundamental of which is the determination of what is *morally* valuable. Some theorists who are not (self-described) Kantians have made this inference central to their views of autonomy. Paul Benson, for example, has argued that being autonomous implies a measure of self-worth in that we must be in a position to trust our decision-making capacities to put ourselves in a position of responsibility (Benson 1994; cf. also Grovier 1993, Lehrer 1997, and Westlund 2014). But the Kantian position is that such self-regard is not a contingent psychological fact about us, but an unavoidable implication of the exercise of practical reason (cf. Taylor 2005).

So we owe to ourselves moral respect in virtue of our autonomy. But insofar as this capacity depends in no way on anything particular or contingent about ourselves, we owe similar respect to all other persons in virtue of their capacity. Hence (via the second formulation of the Categorical Imperative), we are obliged to act out of fundamental respect for other persons in virtue of their autonomy. In this way, autonomy serves as both a model of practical reason in the determination of moral obligation and as the feature of other persons deserving moral respect from us. (For further discussion, see *Immanuel Kant and moral philosophy*.)

Recent discussions of Kantian autonomy have downplayed the transcendental nature of practical reason in this account (see, for example, Herman 1993 and Hill 1991). For example, Christine Korsgaard follows Kant in seeing our capacity for self-reflection as both the object of respect and the seat of normativity generally. On her view, we are all guided by what she calls a “practical identity”, a point of view which orients reflection on values and manifests an aspect of our self concept. But unlike Kant, Korsgaard argues that we have different practical identities that are the source of our normative commitments, and not all of them are of fundamental moral worth. But the most general of such identities — that which makes us members of a kingdom of ends — is our moral identity, which yields universal duties and obligations independent of contingent factors. Autonomy is the source of all obligations, whether moral or non-moral, since it is the capacity to impose upon ourselves, by virtue of our practical identities, obligations to act (Korsgaard 1996).

Traditional critiques of autonomy-based moral views, and Kant's in particular, have been mounted along various lines. I mention two here, as they connect with issues concerning autonomy in social and political theory. The first concerns the way in which autonomy-based moral theory grounds obligation in our *cognitive* abilities rather than in our emotions and affective connections (see, e.g., Williams 1985, Stocker 1976). The claim is that Kantian morality leaves too little room for the kinds of emotional reactions that are constitutive of moral response in many situations: the obligations of parents for example concern not only what they do but the passions and care they bring forth in doing it. To view obligation as arising from autonomy but understanding autonomy in a purely cognitive manner makes such an account vulnerable to this kind of charge.

The difficulty this criticism points to resides in the ambiguities of the self-description that we might utilize in valuing our “humanity” — our capacity to obligate ourselves. For we can reflect upon our

decision-making capacities and value this positively (and fundamentally) but regard that “self” engaging the capacity in different ways. The Kantian model of such a self is of a pure cognizer — a reflective agent engaged in practical reason. But also involved in decision-making are our passions — emotions, desires, felt commitments, senses of attraction and aversion, alienation and comfort. These are both the objects of our judgement and partly constitutive of them — to passionately embrace an option is different from coolly determining it to be best. Judgment is involved with all such passions when decisions are made. And it (judgment) need not be understood apart from them, but as an ability to engage in those actions whose passionate and reasoned support we muster up. So when the optimal decision for me is an impassioned one, I must value my ability to engage in the right passions, not merely in the ability to cold-heartedly reflect and choose. Putting the passions outside the scope of reasoned reflection, as merely an ancillary quality of the action — to consider how to do something not merely what we are doing — is to make one kind of decision. Putting passions inside that scope — saying that what it is right to do now is to act with a certain affect or passion — is another. When we generalize from our ability to make the latter sort of decisions, we must value not only the ability to weigh options and universalize them but also the ability to engage the right affect, emotion, etc. Therefore, we value ourselves and others as passionate reasoners not merely reasoners *per se*.

The implications of this observation is that in generalizing our judgments in the manner Korsgaard (following Kant) says we must, we need not commit ourselves to valuing only the cognitive capacities of humanity but also its (relatively) subjective elements. This directly relates to the nature of autonomy, for the question of whether moral obligation rests upon and contains affective elements depends on the conception of autonomy at work and whether affective elements are included in the types of reflective judgments that form its core.

A second question is this: since the reflection that is involved in autonomy (and which, according to this view, is the source of normativity) need only be *hypothetical* reflection upon one's desires and mental capacities, then the question arises: under what conditions is this hypothetical reflection meant to take place? If the capacity for reflection is the seat of obligation, then we must ask if the conditions under which such hypothetical reflection takes place are idealized in any sense — if they are assumed to be reasonable for example. Are we considering merely the reflections the (actual) person would make were she to turn her attention to the question, no matter how unreasonable such reflections might be? If so, why should we think this grounds obligations? If we assume they are reasonable, then under some conditions moral obligations are not imposed by the actual self but rather by an idealized, more rational self. This implies that morality is not literally self-imposed if by “self” one means the actual set of judgments made by the agent in question. Indeed, a Platonist/realist about moral value could claim that the objective values which (according to the theory) apply to all agents independent of choice are in fact “self-imposed” in this idealized sense: they would be imposed were the person to reflect on the matter, acting as a perfectly reasonable agent. This shows the complex and potentially problematic implications of this ambiguity.

This points to the question of whether autonomy can be the seat of moral obligation and respect if autonomy is conceived in a purely procedural manner. If no substantive commitments or value orientations are included in the conceptual specification of autonomy, then it is unclear how this capacity grounds any particular substantive value commitments. On the other hand, if autonomy includes a specification of particular values in its conditions — that the autonomous person must value her own freedom for example — then it turns out that moral obligation (and respect) attaches only to those already committed in this way, and not more generally to all rational agents as such (as traditionally advertised by the view). This echoes, of course, Hegel's critique of Kant.

These difficulties point to ambiguities in autonomy-based moral views, ones which may well be clarified in further developments of those theories. They also pick up on traditional problems with Kantian ethics (though there are many other such difficulties not mentioned here). Before leaving moral philosophy, we should consider ethical views which focus on autonomy but which do not depend directly on a Kantian framework.

2.1 Autonomy as an Object of Value

Autonomy can play a role in moral theory without that theory being fully Kantian in structure. For example, it is possible to argue that personal autonomy has intrinsic value independent of a fully worked out view of practical reason. Following John Stuart Mill, for example, one can claim that autonomy is “one of the elements of well-being” (Mill 1859/1975, ch. III). Viewing autonomy as an intrinsic value or as a constitutive element in personal well-being in this way opens the door to a generally consequentialist moral framework while paying heed to the importance of self-government to a fulfilling life (for discussion see Sumner 1996).

It may also be unclear why autonomy — viewed here as the capacity to reflect on and endorse one's values, character and commitments — should have value independent of the results of exercising that capacity. Why is one person's autonomy intrinsically valuable when she uses it to, say, harm herself or make rash or morally skewed choices? More generally, how can we take account of the systematic biases and distortions that plague typical human reasoning in valuing people's capacity to make decisions for themselves (see, e.g., Conly 2013)? This question becomes more acute as we consider ways that autonomy can obtain in degrees, for then it is unclear why personal autonomy should be seen as equally valuable in persons who display different levels of it (or different levels of those abilities that are its conditions, such as rationality).

Indeed, autonomy is often cited as the ground of treating all individuals equally from a moral point of view. But if autonomy is not an all-or-nothing characteristic, this commitment to moral equality becomes problematic (Arneson 1999). It can be argued that insofar as the abilities required for autonomy, such as rational reflectiveness, competences in carrying out one's decisions, and the like, vary across individuals (within or between species as well), then it is difficult to maintain that all autonomous beings have equal moral status or that their interests deserve the same weight in considering decisions that affect them.

The move that must be made here, I think, picks up on Korsgaard's gloss on Kantianism and the argument that our reflective capacities ultimately ground our obligations to others and, in turn, others' obligations to regard us as moral equals. Arneson argues, however, that people surely vary in this capacity as well — the ability to reflectively consider options and choose sensibly from among them. Recall what we said above concerning the ambiguities of Korsgaard's account concerning the degree to which the self-reflection that grounds obligation is idealized at all. If it is, then it is not the everyday capacity to look within ourselves and make a choice that gives us moral status but the more rarified ability to do so rationally, in some full sense. But we surely vary in our ability to reach that ideal, so why should our autonomy be regarded as equally worthy?

The answer may be that our normative commitments do not arise from our actual capacities to reflect and to choose (though we must have such capacities to some minimal degree), but rather from the way in which we must *view ourselves* as having these capacities. We give special weight to our own present and past decisions, so that we continue on with projects and plans we make because (all other things being equal) *we* made them, they are ours, at least when we do them after some reflective

deliberation. The pull that our own decisions have on our ongoing projects and actions can only be explained by the assumption that we confer status and value on decisions simply because we reflectively made them (perhaps, though, in light of external, objective considerations). This is an all-or-nothing capacity and hence may be enough to ground our equal status even if perhaps, in real life, we exercise this capacity to varying degrees.^[2] Much has been written about conceptions of well-being that rehearse these worries (see Sumner 1996, Griffin 1988). Such a view might be buttressed with the idea that the attribution of autonomous agency, and the respect that purportedly goes with it, is itself a normative stance, not a mere observation of how a person actually thinks and acts (for discussion of this position see Christman 2005 and Korsgaard 2014)

2.2 Autonomy and Paternalism

Autonomy is the aspect of persons that undue paternalism offends against. Paternalistic interventions can be both interpersonal (governed by social and moral norms) and a matter of policy (mediated by formal or legal rules). Such interventions are identified not by the kind of acts they involve but by the justification given for them, so that paternalism involves interference with a person's actions or knowledge against that person's will for the purpose of advancing that person's good. Respect for autonomy is meant to prohibit such interventions because they involve a judgment that the person is not able to decide for herself how best to pursue her own good. Autonomy is the ability to so decide, so for the autonomous subject of such interventions paternalism involves a lack of respect for autonomy. See also *Paternalism*.

But as our discussion of the nature of autonomy indicated, it is often unclear exactly what that characteristic involves. Important in this context is whether autonomy can be manifested in degrees — whether the abilities and capacities that constitute autonomy obtain all at once or progressively. If the latter is the case, then it is unclear that a blanket prohibition against paternalism is warranted. Some people will be less able to judge for themselves what their own good is and hence be more susceptible to (justified) paternalistic intervention (Conly 2013).

Often such an obligation toward another person requires us to treat her as autonomous, independent of the extent to which she is so concerning the choice in question. At least this is the case when a person is autonomous above a certain threshold: she is an adult, not under the influence of debilitating factors, and so on. I might know that a person is to some degree under the sway of external pressures that are severely limiting her ability to govern her life and make independent choices. But as long as she has not lost the basic ability to reflectively consider her options and make choices, if I intervene against her will (for her own good), I show less respect for her as a person than if I allow her to make her own mistakes. (Which is not to say, of course, that intervention in such cases might not, in the end, be justified; only that something is lost when it is engaged in, and what is lost is a degree of interpersonal respect we owe each other.)

However, as we saw in the last section, this move depends on the determination of basic autonomy and an argument that such a threshold is non-arbitrary. Also relevant here is the question of procedural versus substantive autonomy as the ground of the prohibition of paternalism. For if by “autonomy” we mean the ability to govern oneself no matter how deprived or morally worthless are the options being exercised, it is unclear that the bar to paternalism (and respect for persons generally) retains its normative force. As I mentioned above, the response to this challenge must be that the decision making capacity itself is of non-derivative value, independent of the content of those decisions, at least if one wishes to avoid the difficulties of positing a substantive (and hence non-neutral) conception of autonomy as the basis for interpersonal respect.

This is merely a sampling of some of the central ways that the idea of autonomy figures in moral philosophy. Not discussed here are areas of applied ethics, for example in medical ethics, where respect for autonomy grounds such principles as that of informed consent. Such contexts illustrate the fundamental value that autonomy generally is thought to represent as expressive of one of the fundamentals of moral personhood.

3. Autonomy in Social and Political Philosophy

3.1 Autonomy and the Foundations of Liberalism

The conception of the autonomous person plays a variety of roles in various constructions of liberal political theory (for recent discussion, see, e.g., Coburn 2010 and the essays in Christman and Anderson, eds. 2005). Principally, it serves as the model of the person whose perspective is used to formulate and justify political principles, as in social contract models of principles of justice (Rawls 1971). Also (and correspondingly) it serves as the model of the citizen whose basic interests are reflected in those principles, such as in the claim that basic liberties, opportunities, and other primary goods are fundamental to flourishing lives no matter what moral commitments, life plans, or other particulars of the person might obtain (Kymlicka 1989, 10–19, Waldron 1993: 155–6).^[4] Moreover, autonomy is ascribed to persons (or projected as an ideal) in order to delineate and critique oppressive social conditions, liberation from which is considered a fundamental goal of justice (whether or not those critiques are described as within the liberal tradition or as a specific alternative to it) (cf. Keornahan 1999, Cornell 1998, Young 1990, Gould 1988; cf. also Hirschmann 2002, 1–29).

For our purposes here, liberalism refers generally to that approach to political power and social justice that determines principles of right (justice) prior to, and largely independent of, determination of conceptions of the good (though see *Liberalism*; see also Christman 2002, ch. 4). This implies that the liberal conception of justice, and the legitimation of political power more generally, can be specified and justified without crucial reference to controversial conceptions of value and moral principles (what Rawls calls “comprehensive moral conceptions” (Rawls 1993, 13–15). The fact of permanent pluralism of such moral conceptions is therefore central to liberalism.^[5]

One manner in which debates concerning autonomy directly connect to controversies within and about liberalism concerns the role that state neutrality is to play in the justification and application of principles of justice. Neutrality is a controversial standard, of course, and the precise way in which liberal theory is committed to a requirement of neutrality is complex and controversial (see Raz 1986, 110–64, Waldron 1993, 143–67). The question to be asked here is whether the conception of autonomy utilized in liberal theories must itself attempt to be neutral concerning various conceptions of morality and value, or, alternatively, does the reliance on autonomy in the justification and specification of liberal theories of justice render them non-neutral simply because of this reliance (no matter how “neutral” the conception of autonomy utilized turns out to be).

Let us consider this first question and in so doing revisit the issue of whether the independence implicit in autonomy should best be conceived in a purely “procedural” manner or more substantively. Recall that some theorists view autonomy as requiring minimal competence (or rationality) along with authenticity, where the latter condition is fleshed out in terms of the capacity to reflectively endorse (or not be alienated from) aspects of oneself. This view can be called “proceduralist” because it demands that the procedure by which a person comes to identify a desire (or trait) as her own is what is crucial in the determination of its authenticity and hence autonomy.

This conception of autonomy is adopted, according to its defenders, because doing so is the only way to ensure that autonomy is neutral toward all conceptions of value and the good that reasonable adults may come to internalize (Dworkin 1989).

Critics of this view have pointed to cases where it is imagined that persons adopt what we all would call oppressive and overly restrictive life situations but in a way that meets the minimal conditions of autonomy on proceduralist accounts, so that on such accounts they count as autonomous because of the self-governing processes by which they entered such oppressive conditions. These critics argue that any conception of autonomy that ascribes that trait to such people is wrongly conceived (Benson 1987, MacKenzie & Stoljar 2001b, Waller 1993, Oshana 1998, Stoljar 2000). On the basis of such a judgment, they argue that normatively substantive conditions should be added to the requirements of autonomy, conditions such as the ability to recognize and follow certain moral or political norms (See Benson 1987, Wolf 1980; for criticism, see Berofsky 1995, ch. 7). This criticism suggests that considerations concerning the autonomous self cannot avoid questions of identity and hence whether the self of self-government can be understood independently of the (perhaps socially defined) values in terms of which people conceive of themselves; this is a subject to which we now turn.

3.2 Identity and Conceptions of the Self

Autonomy, as we have been describing it, certainly attaches paradigmatically to individual persons; it is not (in this usage) a property of groups or peoples. So the autonomy that grounds basic rights and which connects to moral responsibility, as this concept is thought to do, is assigned to persons without essential reference to other people, institutions, or traditions within which they may live and act. Critics claim, however, that such a view runs counter to the manner in which most of us (or all of us in some ways) define ourselves, and hence diverges problematically from the aspects of identity that motivate action, ground moral commitments, and by which people formulate life plans. Autonomy, it is argued, implies the ability to reflect wholly on oneself, to accept or reject one's values, connections, and self-defining features, and change such elements of one's life at will. But we are all not only deeply enmeshed in social relations and cultural patterns, we are also defined by such relations, some claim (Sandel 1982, 15–65). For example, we use language to engage in reflection but language is itself a social product and deeply tied to various cultural forms. In any number of ways we are constituted by factors that lie beyond our reflective control but which nonetheless structure our values, thoughts, and motivations (Taylor 1991, 33f; for discussion see Bell 1993, 24–54). To say that we are autonomous (and hence morally responsible, bear moral rights, etc.) only when we can step back from all such connections and critically appraise and possibly alter them flies in the face of these psychological and metaphysical realities.^[6]

In a different manner, critics have claimed that the liberal conception of the person, reflected in standard models of autonomy, under-emphasizes the deep identity-constituting connections we have with gender, race, culture, and religion, among other things. Such “thick” identities are not central to the understanding of the self-governing person who, according to standard liberal models, is fully able to abstract from such elements of her self-concept and to either identify with or to reject such them. But such an ideal too narrowly valorizes the life of the cosmopolitan “man” — the world traveler who freely chooses whether to settle into this or that community, identify with this or that group, and so on (see Young 1991, Alcoff 2006 and Appiah 2010; for discussion, see Meyers, 2000b).

These challenges have also focused on the relation of the self to its culture (Margalit and Raz, 1990, Tamir 1993). What is at issue from a policy perspective is that emphasis on the individual's self-government, with the cosmopolitan perspective that this entails, makes it difficult if not impossible to

ground rights to the protection and internal self- government of traditional cultures themselves (Kymlicka, 1995). This is problematic in that it excludes from the direct protection of liberal policies those individuals and groups whose self-conceptions and value commitments are deeply constituted by cultural factors. Or, conversely, the assumption that the autonomous person is able to separate himself from all cultural commitments forestalls moves to provide state protection for cultural forms themselves, insofar as such state policies rest on the value of autonomy.

There have been many responses to these charges on behalf of a liberal outlook (e.g., Kymlicka, 1989, Gutman, 1985, Appiah 2005; for a general response to question of cultural identities see Kymlicka 1997). The most powerful response is that autonomy need not require that people be in a position to step away from all of their connections and values and to critically appraise them. Mere piecemeal reflection is all that is required. As Kymlicka puts it: "No particular task is set for us by society, and no particular cultural practice has authority that is beyond individual judgement and possible rejection" (Kymlicka, 1989:, 50).

There is a clarification that is needed in this exchange, however. For insofar as defenders of liberal principles (based on the value of autonomy) claim that all aspects of a person's self-concept be subject to alteration in order to manifest autonomy, they needlessly exaggerate the commitments of the liberal position. For such a view is open to the charge that liberal conceptions fail to take seriously the permanent and unalterable aspects of the self and its social position (Young, 1990, 46). Our embodiment, for example, is often not something which we can alter other than marginally, and numerous other self-defining factors such as sexual orientation (for some), native language, culture and race, are not readily subject to our manipulation and transformation, even in a piecemeal manner. To say that we are heteronomous because of this is therefore deeply problematic. What must be claimed by the defender of autonomy-based liberalism is that the ability in question is to change those aspects of oneself from which one is deeply alienated (or with which one does not identify, etc.). For in those cases where, upon reflection, one experiences one's body, culture, race, or sexuality as an external burden constricting one's more settled and authentic nature, and still one cannot alter that factor, then one lacks autonomy relative to it (see Christman, 2001, 2009 ch. 6). But if one feels fully at home within those unalterable parameters one does not lack autonomy because of that unalterability

3.3 Relational Autonomy

Several writers have claimed that proceduralist accounts of autonomy would wrongly attribute autonomy to those whose restricted socialization and stultifying life conditions pressure them into internalizing oppressive values and norms, for example women who have internalized the belief in the social authority of husbands, or that only by having and raising children are their lives truly complete, and the like. If such women reflect on these values they may well endorse them, even if doing so is free of any specific reflection-inhibiting conditions. But such women surely lack autonomy, it is claimed; so only if autonomy includes a requirement that one be able to recognize basic value claims (such as the person's own equal moral standing) will that concept be useful in describing the oppressive conditions of a patriarchal society (see, e.g., Oshana, 1998, Stoljar, 2000; for discussion see Christman 1995, Benson, 1990, Friedman, 2000, Meyers, 1987, 1989).^[2]

These and related considerations have sparked some to develop an alternative conception of autonomy meant to replace allegedly overly individualistic notions. This replacement has been called "relational autonomy" (MacKenzie and Stoljar, 2000a). Spurred by feminist critiques of traditional conceptions of autonomy and rights (Nedelsky, 1989, Code, 1991), relational conceptions of autonomy stress the ineliminable role that relatedness plays in both persons' self- conceptions, relative

to which autonomy must be defined, and the dynamics of deliberation and reasoning. These views offer a provocative alternative to traditional models of the autonomous individual, but it must be made clear what position is being taken on the issue: on the one hand, relational accounts can be taken as resting on a non-individualist conception of the person and then claim that insofar as autonomy is self-government and the self is constituted by relations with others, then autonomy is relational; or these accounts may be understood as claiming that whatever selves turn out to be, autonomy fundamentally involves social relations rather than individual traits (Oshana, 2006). Some such views also waiver between claiming that social and personal relations play a crucial causal role in the development and enjoyment of autonomy and claiming that such relations constitute autonomy (for discussion see Mackenzie and Stoljar, 2000b, 21–26; for a recent overview, see Mackenzie 2014).

Another relational element to autonomy that has been developed connects social support and recognition of the person's status to her capacities for self-trust, self-esteem, and self-respect. The core argument in these approaches is that autonomy requires the ability to act effectively on one's own values (either as an individual or member of a social group), but that oppressive social conditions of various kinds threaten those abilities by removing one's sense of self-confidence required for effective agency. Social recognition and/or support for this self-trusting status is required for the full enjoyment of these abilities (see Anderson and Honneth 2005, Grovier 1993, Benson 2005, McCleod and Sherwin 2005, and Westlund 2014).

These claims often are accompanied with a rejection of purportedly value-neutral, proceduralist accounts of autonomy, even those that attempt to accommodate a fully social conception of the self. One question that arises with relational views connected to self-trust in this way, is why, exactly such relations are seen as conceptually constitutive of autonomy rather than contributory to it (and its development), where the self-confidence or self-trust in question is the core element to which these sorts of social relations are an important (albeit contingent) contributor. Another question to be considered arises from those cases where self-trust is established despite lack of social recognition, as when runaway slaves manage to heroically push on with their quest for freedom while facing violent denials from surrounding others (and surrounding social structures) that they enjoy the status of a full human being capable of authentic decision making. Finally, self-trust is not always merited: consider the brash teenager who insists on exercising social independence based on her unwarranted confidence in her abilities to make good judgments (see Mackenzie 2008, n. 36).

Nevertheless, these approaches have all importantly shifted philosophical attention concerning autonomy to the social and interpersonal dynamics that shape its enjoyment, connecting ideas about autonomy with broader issues of social justice, recognition, and social practices. This brings us back, then, to considerations of the liberal project and its potential limitations, where autonomy remains central.

3.4 Autonomy, Liberalism, and Perfectionism

As noted earlier, there are various versions of liberal political philosophy. All of them, however, are committed to a conception of political legitimacy in which political power and authority is justified only if such authority is acceptable to all citizens bound by it (see Rawls 1993, 144–50). This connects to a broader view of the foundations of value that at least some liberal theorists present as central to that tradition. That is the claim that values are valid for a person only if those values are or can be reasonably endorsed by the person in question. By extension, principles guiding the operation of institutions of social and political power — what Rawls calls the institutions of the basic structure (Rawls 1993, 258) — are legitimate only if they can be endorsed in this way by those subject to them.

In this way, liberalism (in most of its forms) is committed to what some have called the “endorsement constraint” (Kymlicka 1989, 12f, R. Dworkin 2000, 216–18).

Models of autonomy considered above include a condition that mirrors this constraint, in that a person is autonomous relative to some action-guiding norm or value only if, upon critical reflection of that value, she identifies with it, approves of it, or does not feel deeply alienated from it. Combining this view with the endorsement constraint, liberalism carries the implication that autonomy is respected only when guiding values or principles in a society can be embraced in some way by those governed by them. This will connect directly to the liberal theory of legitimacy to be discussed below.

Perfectionists reject this set of claims. Perfectionism is the view that there are values valid for an individual or a population even when, from the subjective point of view of those agents or groups, that value is not endorsed or accepted (Wall 1998, Sumner 1996, 45–80, Hurka 1993, Sher 1997; see also *Perfectionism*). In short, it is the view that there are entirely objective values. While there are perfectionist liberals, this view generally resists the liberal claim that the autonomous acceptance of the central components of political principles is a necessary condition for the legitimacy of those principles. Moreover, perfectionists question the liberal commitment to neutrality in the formulation and application of political principles (Hurka 1993, 158–60).

Perfectionists specifically target the liberal connection between respect for autonomy and neutrality of political principles (Wall 1998, 125–204). For many, liberalism rests on the value of individual autonomy, but this reliance either assumes that respect for autonomy is merely one value among others in the liberal view, or autonomy has overriding value. In either case, however, neutrality is not supported. If autonomy is merely one value among others, for example, then there will clearly be times when state support of those other values will override respect for autonomy (paternalistic restrictions imposed to promote citizen safety, for example) (Sher 1997, 45–105, Hurka 1993, 158–60). On the other hand, autonomy could be seen as an absolute constraint on the promotion of values, or, more plausibly, as a constitutive condition of the validity of all values for a person, as the endorsement constraint implies. Perfectionists reply, however, that this is itself a controversial value position, one that may not find unqualified general support (Hurka 1993, 148–52, Sher 1997, 58–60, Sumner 1996, 174–83; cf. Griffin 1986, 135–36). To answer these objections, one must turn to consideration of the liberal principle of legitimacy. For the claim that liberals make concerning the limits of state promotion of the good — a limit set by respect for autonomy — depends heavily on their view about the ultimate ground of political power.

3.5 Autonomy and Political Liberalism

Liberalism is generally understood to arise historically out of the social contract tradition of political philosophy and hence rests on the idea of popular sovereignty. The concept of autonomy, then, figures centrally in at least one dominant strand in this tradition, the strand that runs through the work of Kant. The major alternative version of the liberal tradition sees popular sovereignty as basically a collective expression of rational choice and that the principles of the basic institutions of political power are merely instrumental in the maximization of aggregate citizen welfare (or, as with Mill, a constitutive element of welfare broadly considered).

But it is the Kantian brand of liberalism that places autonomy of persons at center stage. Rawls's *Theory of Justice* was seen as the contemporary manifestation of this Kantian approach to justice, where justice was conceived as those principles that would be chosen under conditions of unbiased rational decision-making (from behind the veil of ignorance). The original position where such

principles would be chosen was said by Rawls to mirror Kant's Categorical Imperative. That is, it is a device in which persons can choose principles to impose upon themselves in a way which is independent of contingencies of social position, race, sex, or conception of the good (Rawls 1971, 221–27). But as is well known, the Kantian foundations of Rawls's theory of justice rendered it vulnerable to the charge that it was inapplicable to those populations (all modern populations in fact) where deep moral pluralism abounds. For under such conditions, no theory of justice which rests on a metaphysically grounded conception of the person could claim full allegiance from members of a population whose deep diversity causes them to disagree about metaphysics itself, as well as about moral frameworks and conceptions of value related to it. For this reason, Rawls developed a new (or further developed) understanding of the foundations of his version of liberalism, a political conception (Rawls 1993).

Under political liberalism, autonomy of persons is postulated, not as a metaphysically grounded “fact” about moral personality or practical reason as such, but rather as one of several “device[s] of representation” under which diverse citizens can focus on the methods of derivation (such as the original position) for substantive principles of justice (Rawls 1999, 303–58). Justice is achieved only when an overlapping consensus among people moved by deeply divergent but reasonable comprehensive moral views can be attained, a consensus in which such citizens can affirm principles of justice from within those comprehensive views.

Political Liberalism shifts the focus from a philosophical conception of justice, formulated abstractly and meant to apply universally, to a practical conception of legitimacy where consensus is reached without pretension of deep metaphysical roots for the principles in question. More than merely a “modus vivendi” for the participating parties, justice must be affirmed in a way that finds a moral basis for all participating citizens, albeit from different frameworks of value and moral obligation. The operation of public reason and deliberation, then, serves as the means by which such a consensus might be established, and hence public discussion and democratic institutions must be seen as a constitutive part of the justification of principles of justice rather than merely a mechanism for collective determination of the social good.

But the role of autonomy in the specification of this picture should not be under-emphasized (or the controversies it invites ignored). For such a consensus counts as legitimate only when achieved under conditions of free and authentic affirmation of shared principles. Only if the citizens see themselves as fully able to reflectively endorse or reject such shared principles, and to do so competently and with adequate information and range of options, can the overlapping political consensus step beyond the purely strategic dynamics of a modus vivendi and ground legitimate institutions of political power.

Therefore, social conditions that hamper the equal enjoyment of capacities to reflectively consider and (if necessary) reject principles of social justice, due, say, to extreme poverty, disability, ongoing injustice and inequality, or the like, restrict the establishment of just principles. Autonomy, then, insofar as that concept picks out the free reflective choice operating in the establishment of legitimacy, is basic to, and presupposed by, even such non-foundational (political) conceptions of justice.

Critics of political liberalism arise from several quarters. However, among the objections to it that focus on autonomy are those that question whether a political conception of legitimacy that rests on shared values can be sustained without the validity of those values being seen as somehow objective or fundamental, a position that clashes with the purported pluralism of political liberalism. Otherwise, citizens with deeply conflicting worldviews could not be expected to affirm the value of autonomy except as a mere *modus vivendi* (see, e.g., Wall 2009; cf. also Larmore 2008, 146–6). A line of

response to this worry that could be pursued would be one that claimed that values that amount to autonomy (in some conceptualization of that idea) are already functional in the social structures and cultural practices of otherwise defensible democratic practices (as well as some critical projects that emphasize oppression and domination, as we saw above). This point raises the issue, to which we now turn, of the connection between autonomy, political liberalism, and democracy.

3.6 Autonomy, Justice and Democracy

In closing, we should add a word about the implications of political liberalism for the traditional division between liberal justice and democratic theory. I say “division” here, but different views of justice and democracy will convey very different conceptions of the relation between the two (see Christiano 1996, Lakoff 1996). But traditionally, liberal conceptions of justice have viewed democratic mechanisms of collective choice as essential but highly circumscribed by the constitutional provisions that principles of justice support. Individual rights and freedoms, equality before the law, and various privileges and protections associated with citizen autonomy are protected by principles of justice and hence not subject to democratic review, on this approach (Gutman 1993).

However, liberal conceptions of justice have themselves evolved (in some strains at least) to include reference to collective discussion and debate (public reason) among the constitutive conditions of legitimacy. It could be claimed, then, that basic assumptions about citizens' capacities for reflective deliberation and choice — autonomy — must be part of the background conditions against which an overlapping consensus or other sort of political agreement concerning principles of justice is to operate.

Some thinkers have made the connection between individual or “private” autonomy and collective or “public” legitimacy — prominent, most notably Habermas (Habermas 1994). On this view, legitimacy and justice cannot be established in advance through philosophical construction and argument, as was thought to be the case in natural law traditions in which classical social contract theory flourished and which is inherited (in different form) in contemporary perfectionist liberal views. Rather, justice amounts to that set of principles that are established in practice and rendered legitimate by the *actual* support of affected citizens (and their representatives) in a process of collective discourse and deliberation (see e.g., Fraser 1997, 11–40 and Young 2000). Systems of rights and protections (private, individual autonomy) will necessarily be protected in order to institutionalize frameworks of public deliberation (and, more specifically, legislation and constitutional interpretation) that render principles of social justice acceptable to all affected (in consultation with others) (Habermas 1994, 111).

This view of justice, if at all acceptable, provides an indirect defense of the protection of autonomy and, in particular, conceptualizing autonomy in a way that assumes reflective self-evaluation. For only if citizen participants in the public discourse that underlies justice are assumed to have (and provided the basic resources for having) capacities for competent self-reflection, can the public defense and discussion of competing conceptions of justice take place (cf. Gaus 1996, Parts II and III, Gaus 2011). Insofar as autonomy is necessary for a functioning democracy (considered very broadly), and the latter is a constitutive element of just political institutions, then autonomy must be seen as reflective self-appraisal (and, I would add, non-alienation from central aspects of one's person) (see Cohen 2002, Richardson 2003).

This approach to justice and autonomy, spelled out here in rough and general form, has certainly faced criticism. In particular, those theorists concerned with the multi-dimensional nature of social

and cultural “difference” have stressed how the conception of the autonomous person assumed in such principles (as well as criteria for rational discourse and public deliberation) is a contestable ideal not internalized by all participants in contemporary political life (see, e.g., Brown 1995, Benhabib 1992). Others motivated by post-modern considerations concerning the nature of the self, rationality, language, and identity, are also suspicious of the manner in which the basic concepts operative in liberal theories of justice (“autonomy” for example) are understood as fixed, transparent, and without their own political presuppositions (see, e.g., Butler 1990; for general discussion see White 1990).

These charges are stated here much too generally to give an adequate response in this context. But the challenge remains for any theory of justice which rests on a presumption of the normative centrality of autonomy. To be plausible in a variously pluralistic social setting, such a view must avoid the twin evils of forcibly imposing a (reasonably) contested value on resistant citizens, on the one hand, and simply abandoning all normative conceptions of social order in favor of open ended struggle for power on the other. The view that individuals ought to be treated as, and given the resources to become, autonomous in one of the minimal senses outlined here will, I submit, be a central element in any political view that steers between the Scylla of oppressive forms of perfectionism and the Charybdis of interest-group power politics.

Bibliography

- Alcoff, Linda Martin (2006). *Visible Identities: Race, Gender and the Self*, Oxford: Oxford University Press.
- Appiah, Kwame Anthony (2005). *The Ethics of Identity*, Princeton: Princeton University Press.
- (2001). “(2010). *Cosmopolitanism: Ethics in a World of Strangers*, New York: Norton.
- Arneson, Richard (1991). “Autonomy and Preference Formation,” in Jules Coleman and Allen Buchanan, eds. *In Harm's Way: Essays in Honor of Joel Feinberg*, Cambridge: Cambridge University Press, pp. 42–73.
- (1999). “What, if Anything, Renders All Humans Morally Equal?,” in D. Jamieson (ed.), *Singer and his Critics*, Oxford: Blackwell, pp. 103–28.
- Arpaly, Nomy (2004). *Unprincipled Virtue*, New York: Oxford University Press.
- Atkins, Kim (2008). *Narrative Identity and Moral Identity: A Practical Perspective*, New York: Routledge.
- Baumann, Holgar (2008). “Reconsidering Relational Autonomy. Personal Autonomy for Socially Embedded and Temporally Extended Selves,” *Analyse and Kritik*, 30: 445–468.
- Bell, Daniel (1993). *Communitarianism and its Critics*, Oxford: Clarendon.
- Benhabib, Seyla (1992). *Situating the Self: Gender, Community and Postmodernism in Contemporary Ethics*, New York: Routledge.
- Benn, Stanley (1988). *A Theory of Freedom*, Cambridge: Cambridge University Press.
- Benson, Paul (2005). “Feminist Intuitions and the Normative Substance of Autonomy,” in J.S. Taylor (ed.) (2005), pp. 124–42.
- (1994) “Autonomy and Self-Worth,” *Journal of Philosophy*, 91 (12): 650–668.
- (1990). “Feminist Second Thoughts About Free Agency,” *Hypatia*, 5 (3): 47–64.
- (1987). “Freedom and Value,” *Journal of Philosophy*, 84: 465–86.
- Berlin, Isaiah (1969). “Two Concepts of Liberty,” in *Four Essays on Liberty*, London: Oxford University Press, pp. 118–72.
- Berofsky, Bernard (1995). *Liberation from Self*, New York: Cambridge University Press.
- Brighouse, Harry (2000). *School Choice and Social Justice*, Oxford: Oxford University Press.
- Brown, Wendy (1995). *States of Injury: Power and Freedom in Late Modernity*, Princeton, NJ: Princeton University Press.

- Bushnell, Dana, ed. (1995). *Nagging Questions*, Savage, Md: Rowman & Littlefield.
- Butler, Judith (1990). *Gender Trouble: Feminism and the Subversion of Identity*, New York: Routledge.
- Christiano, Thomas (1996). *The Rule of the Many: Fundamental Issues in Democratic Theory*, Boulder, CO: Westview Press.
- Christiano, Thomas and John Christman, eds. (2009). *Contemporary Debates in Political Philosophy* Oxford: Wiley-Blackwell.
- Christman, John (1991). "Autonomy and Personal History," *Canadian Journal of Philosophy*, 21 (1): 1–24.
- (1995). "Feminism and Autonomy," in Bushnell (1995), pp. 17–39.
- (2001). "Liberalism, Autonomy, and Self-Transformation," in *Social Theory and Practice*, 27 (2): 185–206.
- (2004). *Social and Political Philosophy: A Contemporary Introduction*, London: Routledge.
- (2001). "(2005). "Autonomy, Self-knowledge and Liberal Legitimacy," in Christman and Anderson (eds.) (2005), 330–57.
- (2009). *The Politics of Persons: Individual Autonomy and Socio-historical Selves*, Cambridge: Cambridge University Press.
- ed. (1989) *The Inner Citadel: Essays on Individual Autonomy*, New York: Oxford University Press.
- Christman, John and Joel Anderson, eds. (2005). *Autonomy and the Challenges to Liberalism: New Essays*, New York: Cambridge University Press.
- Cochran, David (1999). *The Color of Freedom*, Albany, NY: SUNY Press.
- Coburn, Ben (2010). *Autonomy and Liberalism*, New York: Routledge.
- Code, Lorraine (1991). "Second Persons," in *What Can She Know? Feminist Theory and the Construction of Knowledge*, Lanham, MD: Rowman and Littlefield.
- Cohen, Joshua (1996). "Procedure and Substance in Deliberative Democracy," in Benhabib (ed.) (1996a), pp. 95–119.
- (2002). "Deliberation and Democratic Legitimacy," in James Bohman and William Rehg, eds., *Deliberative Democracy*, Cambridge, MA: MIT Press, 67–92.
- Conly, Sarah (2013). *Against Autonomy: Justifying Coercive Paternalism*, Cambridge: Cambridge University Press.
- Cornell, Drucilla (1998). *At the Heart of Freedom*, Princeton, NJ: Princeton University Press.
- Crittenden, Jack (1992). *Beyond Individualism: Reconstituting the Liberal Self*, New York: Oxford University Press.
- Crocker, Lawrence (1980). *Positive Liberty*, The Hague: Martinus Nijhoff.
- Cuypers, Stefaan (2001). *Self-Identity and Personal Autonomy*, Hampshire, UK: Ashgate.
- Cuypers, Stefaan E. and Haji, Ishtiyaque (2008). "Educating for Well-Being and Autonomy," in *Theory and Research in Education*, 6 (1): 71–93.
- Double, Richard (1992). "Two Types of Autonomy Accounts," *Canadian Journal of Philosophy*, 22 (1): 65–80.
- Dworkin, Gerald (1988). *The Theory and Practice of Autonomy*, New York: Cambridge University Press.
- Dworkin, Ronald (2000). *Sovereign Virtue: The Theory and Practice of Equality*, Cambridge, MA: Harvard University Press.
- Elster, Jon (1983). *Sour Grapes*, Cambridge: Cambridge University Press.
- Feinberg, Joel (1986). *Harm to Self. The Moral Limits of the Criminal Law* (Volume 3), Oxford: Oxford University Press.
- (1989). "Autonomy," in Christman, ed. (1989), pp. 27–53.
- Fischer, John Martin, ed. (1986). *Moral Responsibility*, Ithaca, NY: Cornell University Press.





- Fischer, John Martin and Mark Ravizza (1998). *Responsibility and Control: A Theory of Moral Responsibility*, New York: Cambridge University Press.
- Flathman, Richard (1989). *Toward A Liberalism*, Ithaca: Cornell University Press.
- Frankfurt, Harry (1987). "Freedom of the Will and the Concept of a Person," in *The Importance of What We Care About*, Cambridge: Cambridge University Press.
- (1992). "The Faintest Passion," *Proceedings and Addresses of the Aristotelian Society*, 49: 113–45.
- Friedman, Marilyn (1986). "Autonomy and the Split-Level Self," *Southern Journal of Philosophy*, 24 (1): 19–35.
- (1997). "Autonomy and Social Relationships: Rethinking the Feminist Critique," in Meyers, ed. (1997), pp. 40–61.
- (1998). "Feminism, Autonomy, and Emotion," in *Norms and Values: Essays on the Work of Virginia Held*, Joram Graf Haber, ed., Lanham, MD: Rowman and Littlefield.
- (2000). "Autonomy, Social Disruption, and Women," in MacKenzie and Stoljar, eds. (2000), pp. 35–51.
- Gaus, Gerald F. (1996). *Justificatory Liberalism*, New York: Oxford University Press
- (2001). "(2011). *The Order of Public Reason: A Theory of Freedom and Morality in a Diverse and Bounded World*, Cambridge: Cambridge University Press.
- Geuss, Raymond (2001). "Liberalism and Its Discontents," *Political Theory*, 30(3): 320–39.
- Gilligan, Carol (1982). *In a Different Voice: Psychological Theory and Women's Development*, Cambridge, MA: Harvard University Press.
- Gould, Carol (1988). *Rethinking Democracy: Freedom and Social Cooperation in Politics, Economy, and Society*, Cambridge: Cambridge University Press.
- Gray, John (1993). *Post-Liberalism: Studies in Political Thought*, New York: Routledge.
- Griffin, James (1988). *Well-Being: Its Meaning, Measurement and Moral Importance*, Oxford: Oxford University Press.
- Grovier, Trudy (1993). "Self-Trust, Autonomy and Self-Esteem," *Hypatia*, 8 (1): 99–119.
- Gutman, Amy (1985). "Communitarian Critics of Liberalism," *Philosophy and Public Affairs*, 14 (3): 308–22.
- (1987). *Democratic Education*, Princeton, NJ: Princeton University Press.
- (1993). "Democracy," in Robert Goodin and Philip Pettit, eds. *A Companion to Contemporary Political Philosophy*, Oxford: Blackwell Publishers, 411–21.
- Habermas, Jürgen (1994). *Between Facts and Norms*, William Rehg, trans., Cambridge, MA: MIT Press.
- Haworth, Lawrence (1986). *Autonomy: An Essay in Philosophical Psychology and Ethics*, New Haven: Yale University Press.
- Herman, Barbara (1993). *The Practice of Moral Judgement*, Cambridge, MA: Harvard University Press.
- Hill, Thomas (1987). "The Importance of Autonomy," in Kittay and Meyers, ed. (1987), pp. 129–38.
- (1989). "The Kantian Conception of Autonomy," in Christman, ed. (1989), pp. 91–105.
- (1991). *Autonomy and Self Respect*, New York: Cambridge University Press.
- Hirschmann, Nancy (2002). *The Subject of Freedom: Toward A Feminist Theory of Freedom*, Princeton, NJ: Princeton University Press.
- Hurka, Thomas (1993). *Perfectionism*, New York: Oxford University Press.
- Jaggar, Alison (1983). *Feminist Politics and Human Nature*, Totowa, NJ: Rowman and Allanheld.
- Kant, Immanuel (1785/1983). *Grounding for the Metaphysics of Morals*, in I. Kant, *Ethical Philosophy*, James W. Ellington, trans., Indianapolis, IA: Hackett Publishing Co.
- (1797/1999). *Metaphysical Elements of Justice*, John Ladd, ed. Indianapolis, IN: Hackett.

- Kernohan, Andrew (1999). *Liberalism, Equality, and Cultural Oppression*, New York: Cambridge University Press.
- Kittay, Eva Feder and Diana T. Meyers (1987). *Women and Moral Theory*, Savage, MD: Rowman and Littlefield.
- Korsgaard, Christine M. (2014). "The Normative Constitution of Agency," in Manuel Vargas and Gideon Yaffe, eds. *Rational and Social Agency: The Philosophy of Michael Bratman*, New York: Oxford University Press, 190–214.
- (2001). "(1996). *The Sources of Normativity*, New York: Cambridge University Press.
- Kymlicka, Will (1989). *Liberalism, Community and Culture*, Oxford: Clarendon.
- Lakoff, Sanford (1996) *Democracy: History, Theory, Practice*, Boulder, CO: Westview Press.
- Larmore, Charles (2008). *The Autonomy of Morality*, Cambridge: Cambridge University Press.
- Lehrer, Keith (1997). *Self-Trust: A Study in Reason, Knowledge, and Autonomy*, Oxford: Oxford University Press.
- Lindley, Richard (1986). *Autonomy*, Atlantic Highlands, NJ: Humanities Press International.
- MacIntyre, Alasdair (1984). *After Virtue*, Notre Dame, IN: University of Notre Dame Press.
- Mackenzie, Catriona (2008). "Relational Autonomy, Normative Authority and Perfectionism," *Journal of Social Philosophy*, 39 (4): 512–33.
- (2014). "Three Dimensions of Autonomy: A Relational Analysis," in Veltman and Piper, eds. (2014), 15–41.
- Mackenzie, Catriona, and Natalie Stoljar, eds. (2000a). *Relational Autonomy: Feminist Perspectives on Autonomy, Agency, and the Social Self*, New York: Oxford University Press.
- (2000b). "Introduction: Autonomy Refigured," in Mackenzie and Stoljar, eds. (2000a): 3–31.
- MacKinnon, Catherine (1989). *Toward a Feminist Theory of the State*, Cambridge, MA: Harvard University Press.
- Mahmoud, S. (2003). "Ethical Formation and Politics of Individual Autonomy in Contemporary Egypt," *Social Research*, 70 (3): 837–866.
- Margalit, Avashai and Joseph Raz (1990). "National Self-Determination," *Journal of Philosophy*, 87 (9): 439–61.
- May, Thomas (1994). "The Concept of Autonomy," *American Philosophical Quarterly*, 31 (2): 133–44.
- McCallum, Gerald (1967). "Negative and Positive Freedom," *Philosophical Review*, 76: 312–34.
- McLeod, Carolyn and Susan Sherwin, "Relational Autonomy, Self-Trust, and Health Care for Patients Who Are Oppressed," in MacKenzie and Stoljar, eds., 2000a, pp. 259–79.
- Mele, Alfred R. (1991). "History and Personal Autonomy," *Canadian Journal of Philosophy*, 23: 271–80.
- (1995). *Autonomous Agents: From Self-Control to Autonomy*, New York: Oxford University Press.
- Meyers, Diana T. (1987). "Personal Autonomy and the Paradox of Feminine Socialization," *Journal of Philosophy*, 84: 619–28.
- (1989). *Self, Society, and Personal Choice*, New York: Columbia University Press.
- (1994). *Subjection and Subjectivity: Psychoanalytic Feminism and Moral Philosophy*, New York: Routledge.
- ed. (1997). *Feminist Rethink the Self*, Boulder, CO: Westview Press.
- (2004). *Being Yourself: Essays on Identity, Action, and Social Life*, Lanham, MD: Rowman and Littlefield.
- Mill, John Stuart (1859/1975). *On Liberty*, David Spitz, ed. New York: Norton.
- Mills, Charles (1997). *The Racial Contract*, Ithaca, NY: Cornell University Press.
- Moon, J. Donald (1993). *Constructing Community: Moral Pluralism and Tragic Conflicts*, Princeton, NJ: Princeton University Press.

- Nedelsky, Jennifer (1989). "Reconciling Autonomy: Sources, Thoughts, and Possibilities," *Yale Journal of Law and Feminism*, 1 (1): 7–36.
- Nicholson, Linda, ed. (1990). *Feminism/Postmodernism*, New York: Routledge.
- Noggle, R. (2005). "Autonomy and the Paradox of Self-Creation: Infinite Regresses, Finite Selves, and the Limits of Authenticity," in J.S. Taylor, ed. (2005), pp. 87–108.
- O'Neill, Onora (1989). *Constructions of Reason: Explorations in Kant's Practical Philosophy*, New York: Cambridge University Press.
- Oshana, Marina (1998). "Personal Autonomy and Society," *Journal of Social Philosophy*, 29 (1): 81–102.
- (2006). *Personal Autonomy in Society*, Hampshire, UK: Ashgate.
- (2005). "Autonomy and Self Identity," in Christman and Anderson, eds. (2005), pp. 77–100.
- Pearsall, Marilyn, ed. (1986). *Women and Values: Readings in Recent Feminist Philosophy*, Belmont, CA: Wadsworth Publishing.
- Rawls, John (1971). *A Theory of Justice*, Revised edition (1999) Cambridge, MA: Harvard University Press.
- (1993). *Political Liberalism*, New York: Columbia University Press.
- Raz, Joseph (1986). *The Morality of Freedom*, Oxford: Clarendon.
- Richardson, Henry (2003). *Democratic Autonomy: Public Reasoning about the Ends of Policy*, Oxford: Oxford University Press.
- Ripstein, Arthur (1999). *Equality, Responsibility, and the Law*, Cambridge University Press.
- Sandel, Michael J. (1982). *Liberalism and the Limits of Justice*, Cambridge: Cambridge University Press, 2nd edition 1999.
- Schneewind, J. B. (1998). *The Invention of Autonomy*, Cambridge: Cambridge University Press.
- Sher, George (1997). *Beyond Neutrality: Perfectionism and Politics*, Cambridge: Cambridge University Press.
- Stoljar, Natalie (2000). "Autonomy and the Feminist Intuition," in Mackenzie and Stoljar, eds. (2000a): 94–111.
- Sumner, L. W. (1996). *Welfare, Happiness and Ethics*, New York: Oxford University Press.
- Tamir, Yael (1993). *Liberal Nationalism*, Princeton, NJ: Princeton University Press.
- Taylor, Charles (1989). "Cross-Purposes: The Liberal-Communitarian Debate," in Rosenblum (1989), pp. 159–82.
- (1991). *The Ethics of Authenticity*, Cambridge, MA: Harvard University Press.
- (1992). *Multiculturalism and the "Politics of Recognition"*, Princeton, NJ: Princeton University Press.
- Taylor, James Stacey, ed. (2005). *Personal Autonomy: New Essays on Personal Autonomy and Its Role in Contemporary Moral Philosophy*, Cambridge: Cambridge University Press.
- Taylor, Robert (2005). "Kantian Personal Autonomy," *Political Theory*, 33 (5): 602–628.
- Thalberg, Irving (1989). "Hierarchical Analyses of Unfree Action," reprinted in Christman (1989), pp. 123–136.
- Veltman, Andrea and Mark Piper, eds. (2014). *Autonomy, Oppression, and Gender*. Oxford: Oxford University Press.
- Waldron, Jeremy (1993). *Liberal Rights: Collected Papers 1981–1991*, New York: Cambridge University Press.
- Wall, Steven (1998). *Liberalism, Perfectionism and Restraint*, New York: Cambridge University Press.
- (2009). "Perfectionism in Politics: A Defense," in Christiano and Christman, eds. 2009, pp. 99–118.
- Westlund, Andrea (2014). "Autonomy and Self-Care," in Veltman and Piper, eds. (2014), 181–98.

- White, Stephen (1991). *Political Theory and Post Modernism* Cambridge: Cambridge University Press.
- Williams, Bernard (1985). *Ethics and the Limits of Philosophy*, Cambridge, MA: Harvard University Press.
- Wolf, Susan (1990). *Freedom and Reason*, New York: Oxford University Press.
- Wolff, Robert Paul (1970). *In Defense of Anarchism*, New York: Harper & Row.
- Young, Iris Marion (1990). *Justice and the Politics of Difference*, Princeton, NJ: Princeton University Press.
- (2000). *Inclusion and Democracy*, Oxford: Oxford University Press.
- Young, Robert (1986). *Autonomy: Beyond Negative and Positive Liberty*, New York: St. Martin's Press.

Academic Tools

-  [How to cite this entry.](#)
-  [Preview the PDF version of this entry at the Friends of the SEP Society.](#)
-  [Look up this entry topic at the Indiana Philosophy Ontology Project \(InPhO\).](#)
-  [Enhanced bibliography for this entry at PhilPapers, with links to its database.](#)

Other Internet Resources

- [Autonomy](#), list of articles in the special issue (Vol. 20, No. 2, 2003) of *Social Philosophy & Policy*

Related Entries

[autonomy: personal](#) | [communitarianism](#) | [feminist philosophy, topics: perspectives on the self](#) | [free will](#) | [identity politics](#) | [liberalism](#) | [paternalism](#) | [privacy](#) | [well-being](#)

Copyright © 2015 by
John Christman <jpc11@psu.edu>

[Open access to the SEP is made possible by a world-wide funding initiative.](#)
[Please Read How You Can Help Keep the Encyclopedia Free](#)

Stanford | Center for the Study of
Language and Information

The Stanford Encyclopedia of Philosophy is [copyright © 2016 by The Metaphysics Research Lab, Center for the Study of Language and Information \(CSLI\), Stanford University](#)

Library of Congress Catalog Data: ISSN 1095-5054

Sexual Abuse: A Journal of Research and Treatment

<http://sax.sagepub.com/>

The Psychological Profiles of Internet, Contact, and Mixed Internet/Contact Sex Offenders

Ian A. Elliott, Anthony R. Beech and Rebecca Mandeville-Norden
Sex Abuse 2013 25: 3 originally published online 20 March 2012
DOI: 10.1177/1079063212439426

The online version of this article can be found at:
<http://sax.sagepub.com/content/25/1/3>

Published by:



<http://www.sagepublications.com>

On behalf of:



ATSA

Association for the Treatment of Sexual Abusers

**Additional services and information for *Sexual Abuse: A Journal of Research and Treatment* can be
found at:**

Email Alerts: <http://sax.sagepub.com/cgi/alerts>


Subscriptions: <http://sax.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://sax.sagepub.com/content/25/1/3.refs.html>

The Psychological Profiles of Internet, Contact, and Mixed Internet/Contact Sex Offenders

Sexual Abuse: A Journal of
Research and Treatment
25(1) 3–20
© The Author(s) 2013
Reprints and permission: <http://www.sagepub.com/journalsPermissions.nav>
DOI: 10.1177/1079063212439426
<http://sax.sagepub.com>


Ian A. Elliott^{1,2}, Anthony R. Beech¹,
and Rebecca Mandeville-Norden^{1,3}

Abstract

A sample of 526 contact offenders, 459 internet offenders, and 143 mixed contact/internet offenders was compared on a range of self-report psychological measures assessing offense-supportive beliefs, socioaffective functioning, emotional management, and socially desirable responding. A multivariate general linear model found a mixed offender profile that was similar to internet offenders rather than contact offenders. The contact group demonstrated lower victim empathy, a greater level of pro-offending attitudes, an externalized locus of control, more assertiveness, a diminished ability to relate to fictional characters, and greater impulsivity than the internet and mixed offender groups. The mixed offender group demonstrated a higher level of empathic concern than the other two groups. The mixed offender group could also be distinguished from the internet group by increased personal distress and perspective-taking ability. A discriminant function analysis highlighted the key linear factor distinguishing between the groups to be one relating to offense-supportive attitudes and identification with fictional characters. A second factor was related to higher levels of empathic concern and poor self-management. These findings are discussed in the context of the potential pathways between internet and contact sexual offenses.

Keywords

child pornography, internet, sex offenders, cross-over, psychological profiles, etiological pathways

¹School of Psychology, University of Birmingham, Edgbaston, Birmingham, UK

²Lucy Faithfull Foundation, Epsom, UK

³Devon and Cornwall Probation Service, Exeter, UK

Corresponding Author:

Ian A. Elliott, School of Psychology, University of Birmingham, Edgbaston, Birmingham, B15 2TT, UK
Email: ian@iaelliott.com

Introduction

Although they remain a relatively small proportion of all identified sex offenders, there is increasing concern about the behaviors and management of individuals with offenses relating to sexually explicit material involving children (SEM-c) on the internet. Over the past two decades there has been a concerted effort to establish the psychological characteristics of these "internet offenders," understand how their online offenses manifest, and establish whether or not they can be distinguished from those who commit contact offenses against children. By identifying these characteristics and offense processes, we will be better able to develop evidence-based assessment and treatment to those who are detected, create more effective preventative strategies for online offending, and gain a better understanding of the relationship between online and offline sexually offensive behavior.

A number of studies have compared the characteristics of internet offenders (those who access SEM-c online) and contact sex offenders (those who physically commit sexual offenses against child victims). These studies have focused on a number of key variables, such as self-report psychological variables (see Babchishin, Hanson, & Hermann, 2011), assessments of sexual arousal (e.g., penile plethysmograph—PPG; Seto, Cantor, & Blanchard, 2006), and both official and self-reported offense histories (Bourke & Hernandez, 2009; Eke, Seto, & Williams, 2010; Seto, Hanson, & Babchishin, 2011). Overall, Babchishin et al. report in their meta-analysis that internet offenders appear to be distinguishable from contact offenders by a lower level of victim empathy deficits, fewer distorted beliefs and attitudes (cognitive distortions) about the appropriateness of sexual contact between adults and children, and by a greater level of sexual deviance.

Following the growth in criminal justice cases relating to SEM-c, there has been public and professional concern about the level of overlap between the use of SEM-c and the commission of contact child sex offenses. There is considerable debate within the criminal justice field about the size and proportion of offenders in the internet offender populations who may also have contact offenses and vice versa. In the context of online offending, these online/offline offenders are typically referred to as "dual," "cross-over," or "mixed" offenders. Based on the characteristics of those individuals known to the criminal justice system, there are three offending routes by which a sex offender could be categorized as a mixed offender. First, an individual with prior contact offenses may be detected for a subsequent internet offense. Second, an individual with a prior internet offense may be detected for a subsequent contact offense. Finally, an individual may be detected for internet and contact offenses simultaneously, regardless of his or her offending history. However, these criminal justice categorizations are arbitrary in nature, being based only on official outcomes, and may not make a true representation of the behaviors or motivations of the individual.

The link between SEM-c (indeed, any form of pornography) and contact sex offenses remains unclear. It seems that there are a number of sex offenders who express their sexual interest in children exclusively through SEM-c and are unlikely to

commit contact offenses (Seto et al., 2011). For these individuals, a number of potential motivations for SEM-c use have been hypothesized. These include the use of SEM-c as an aid for sexual arousal and masturbation, as a means of escape from reality, for the facilitation of social contacts with like-minded individuals, and even as a self-medication strategy to avoid contact sexual offenses (Taylor & Quayle, 2003; Ward & Hudson, 1998). There are very different motivations and goals involved in each of these, including sexual, emotional, self-regulatory and interpersonal goals. McManus, Long, and Alison (2011) note that there is, on one hand, an argument that SEM-c is implicated in the development of contact offending and that on the other hand there is an argument that SEM-c acts as a diversion from contact offending. They subsequently argue that some offenders escalate from SEM-c to contact offending while other offenders access SEM-c as part of an established history of contact offenses. There is also evidence, both before and after the proliferation of internet access, for the use of SEM-c in the modus operandi of contact offenders—some of whom will be producers of child pornography themselves (Bernard, 1985; Riegel, 2004). Conversely, Taylor and Quayle note that for some individuals, their use of SEM-c may fuel a sexual interest in children and consequently may increase the risk of them seeking to act out offline the activities they see.

Only a small number of studies account for these mixed offenders in comparisons between internet and contact offenders. Howitt and Sheldon (2007) compared small groups of internet contact and mixed offenders (based on known offenses) on a measure of offense-supportive cognitions. They developed a self-report measure that applied the implicit theory approach to cognitive distortions in child molesters (Ward & Keenan, 1999) and internet offenders, adapting the items so that they did not assume contact offenses on the part of the respondent. The implicit theory approach proposes five deep cognitive schema held by individuals with a sexual interest in children: (1) that children are sexual objects, (2) that sexual activity is not harmful, (3) that some people are superior to others and deserving of special treatment, (4) that the world is inherently dangerous, and (5) that behavior is uncontrollable and driven by external forces. Howitt and Sheldon found few significant differences between the three groups on any of the scales, suggesting that general sexual offense-supportive cognitions are typically endorsed by all three groups equally. Only two significant differences were noted. First, as compared to the contact group, the internet group appeared to more frequently endorse items relating to the belief that children are sexually sophisticated. However, it has been noted that internet offenders often objectify the children in the images, and hence, if the images are deliberately stylized to make the child look willing and engaging offenders may see the child in the image as sexually sophisticated while at the same time knowing that children in reality are not (Elliott & Beech, 2009). Second, as compared to the mixed group, the contact group appeared to less frequently endorse “dangerous world” items, such as those relating to beliefs that the world is a hostile place and that adults cannot be trusted.

A recent study by Neutze, Seto, Schaefer, Mundt, and Beier (2011) compared a self-referred noncriminal justice sample of 137 contact-only, internet-only, and mixed

offenders on a wider series of self-report measures. Their entire sample had received a specific diagnosis of pedophilic or hebephilic sexual interest, and cases were categorized based on self-reported offences over the offender's lifetime. Principal component analysis was used to identify four superordinate domains that were being assessed by the various scales on the measures: emotional deficits, offense-supportive cognitions, sexual self-regulation problems, and nonconformity. Neutze et al. found no significant differences between the three groups for any scales on the measures. The authors suggest that the lack of differences may be a function of their sample composition, due to their sample being taken from self-referred individuals rather than those who have been convicted. They suggest that those seeking treatment may be more motivated to change than those whose treatment has been prescribed and, therefore, they may be more likely to have challenged and reflected on their own offending.

Seto, Wood, Babchishin, and Flynn (in press) compared contact offenders with two groups of online offenders—those with SEM-c-related offenses and those with online solicitation offenses. Like Neutze et al. (2011), they noted that similarities between the groups were more evident than differences; however, the two online groups demonstrated lower capacity for relationship stability than the contact group. Consistent with the findings of Babchishin et al. (2011), Seto et al. also found that their SEM-c group were rated as having greater deviant sexual arousal on the corresponding Static-2007 dynamic risk item. They note though that this may be due to the SEM-c use in this group being used as evidence for deviant sexual arousal in the Static-2007. Nonetheless, the SEM-c group was more likely to self-report pedophilic sexual interests than the solicitation and contact offender groups and more hebephilic interests than the contact group. In turn, the solicitation group was more likely to admit SEM-c use than the contact group and was more likely to self-report hebephilic sexual interests.

As such, there is growing evidence that individuals with a variety of combinations of contact, internet, and online solicitation offenses may differ on a number of psychological variables. The aim of this investigation is to assess the extent to which a criminal justice-defined mixed offender group shares characteristics with contact and internet offender groups. Given previous comparisons between the two groups on the same battery of self-report measures, it is expected that the internet and contact groups will differ most prominently on variables related to victim empathy and cognitive distortions. What remains to be understood is the extent to which mixed offenders share characteristics with contact offenders (e.g., greater victim empathy distortions, more frequent cognitive distortions) or internet offenders (e.g., greater relatedness to fictional characters) or have a combination of both. Alternatively, they may demonstrate a unique profile unrelated to either contact or internet offenders.

To explore this, three analyses will be conducted. First, the contact, internet, and mixed offender groups will be compared on a measure of socially desirable responding, the results of which will be used to correct the self-report scores for potential response bias. Second, contact, internet, and mixed offenders will be compared on a range of psychological variables, based on clinically observable deficits typically noted in sex offenders (Hanson & Harris, 2000; Thornton, 2002; Ward & Beech, 2006;

Ward & Siegert, 2002). Third, those variables that are found to significantly differ will be used to determine the linear combination that best classifies cases into the three groups.

Method

Sample

A sample consisting of 526 contact offenders, 459 internet offenders, and 143 mixed offenders was examined. The contact offender group consisted of individuals with an index contact offense against a child (e.g., rape, indecent assault, and/or gross indecency perpetrated against a person under the age of 16) and no known index or prior convictions for internet offenses. Of these offenders, where the information was available ($n = 520$), 124 (23.8%) had previous known convictions for sexual offenses. The internet offender group consisted of individuals with an index internet-related sexual offense (e.g., the possession, distribution, and/or making¹ of indecent images of a person under the age of 18) and no known index or prior convictions for contact offenses. The mixed offender group consisted of 97 offenders who had a combination of contact and internet index offenses and 46 offenders who had only an index internet offense but also had known previous convictions for contact offenses against children. Our inclusion criteria for this group also included individuals with an index contact offense and previous internet offenses, though no such offenders existed in the data set. Offenders with index offenses related to online "grooming" or the procurement of children online were also excluded from the sample. It was decided that these offenders could not be included in the internet group as their behavior represents direct victimization of a child, nor could they be included in the contact group as the offense is based on the act of arranging to meet a child after online grooming and there was no evidence available to confirm whether or not they had committed a contact sexual offense. It is noted that these groups are based on broad legal definitions, and it should be stressed that there is likely to be a degree of heterogeneity within the groups in regard to the extent of their offending behaviors.

Demographic information was obtained from each offender's presentence report. Demographic details were not available for all offenders in the sample due to missing data in some files, and therefore, the total numbers in Table 1 correspond to those offenders for whom the data were recorded. A univariate GLM (general linear model) revealed a significant effect of age, $F = 4.03$, $df = 1097$, $p = .18$. However, the magnitude of this difference was small² ($r = .06$). Post hoc analysis showed that the contact offender group was significantly older than the internet offender group ($p < .05$). There was a significant difference in relationship status between the groups, $\chi^2(4) = 34.08$, $p < .001$, which was a reflection of the higher proportion of internet offenders who were recorded as "single" and the lower proportion who were divorced, separated, or widowed. There was a significant difference in parenthood, $\chi^2(4) = 37.63$, $p < .001$, with an increase in the relative proportions of fathers from the internet (lowest),

Table 1. Sociodemographic and Offense-Related Characteristics of Contact, Mixed, and Internet Offenders

	Contact	Mixed	Internet
Age	(<i>n</i> = 518) 42.2 (14.3)	(<i>n</i> = 139) 42.0 (11.9)	(<i>n</i> = 444) 39.9 (11.3)*
Relationship status (%)	(<i>n</i> = 526)	(<i>n</i> = 140)	(<i>n</i> = 443)
Single	45.6	48.6	58.1
Married/cohabiting	20.4	18.6	24.0
Separated/divorced/ widowed	34.1	32.9	17.9**
Parent (%)	(<i>n</i> = 522)	(<i>n</i> = 131)	(<i>n</i> = 438)
Yes	60.7	51.1	40.9
No	39.3	48.9	59.1**
Victim gender	(<i>n</i> = 524)	(<i>n</i> = 125)	(<i>n</i> = 374)
Male	17.6	20.0	9.1
Female	79.6	60.8	53.7
Combination	2.9	19.2	37.2**

p* < .05. *p* < .001.

through the mixed, to the contact group (highest). There was also a significant difference in victim gender, $\chi^2(4) = 183.61, p < .001$, which was a reflection of the higher proportion of internet offenders with a combination of male and female victims. This is potentially a result of the often indiscriminate nature of downloading (e.g., through peer-to-peer software) and the vast quantities of images that some internet offenders collect, rather than a systematic difference in sexual preference.

Measures

The U.K. Probation Service determines suitability for a sex offender treatment program using Beech's (1998) deviancy algorithm, a pretreatment screening system that uses a battery of psychological self-report measures. Data for this study represented archival raw scores from these pretreatment assessments. The measures assess three³ of the four sets of clinical phenomena often displayed by sex offenders (Hanson & Harris, 2000; Thornton, 2002; Ward & Beech, 2006; Ward & Siegert, 2002): offense-supportive beliefs, interpersonal deficits, and emotional dysregulation. This study utilized these pretreatment scores to compare self-report characteristics between the three groups.

The following scales were used in the analysis. Scales 1 to 3 measure offense-related beliefs and attitudes, Scales 4 to 10 measure social adequacy and interpersonal functioning, Scales 11 to 15 measure ability to effectively manage emotions and behaviors, and Scale 16 was used to correct for socially desirable responding:

(1) Victim Empathy Distortion Scale (Beckett & Fisher, 1994), (2 & 3) Children and Sex Cognitions Questionnaire (Beckett, 1987), (4) Short Self-Esteem Scale (Thornton, unpublished; Webster, Mann, Thornton, & Wakeling, 2006), (5) University of California Los Angeles (UCLA) Loneliness Scale (Russell, Peplau, & Cutrona, 1980), (6 & 7) Kingston Sexual Behavior Clinic: Social Response Inventory (Keltner, Marshall, & Marshall, 1981), (8, 9, 10, & 11) Interpersonal Reactivity Index (IRI; Davis, 1980), (12) Nowicki-Strickland Locus of Control Scale (Nowicki & Duke, 1974), (13, 14, & 15) Barratt Impulsivity Scale—11 (BIS-11; Barratt, 1994), and (16) Paulhus Deception Scales (PDS; Paulhus, 1998). Full descriptions of these measures, including statistics related to internal reliability and test-retest reliability, can be found in Elliott, Beech, Mandeville-Norden, and Hayes (2009).

Results

Three analyses were carried out. First, an analysis of socially desirable responding was conducted to assess its impact on these self-report measures. A mathematical correction was then applied to the raw scores to correct for socially desirable responding. Subsequently, two main analyses were carried out: (1) a multivariate GLM with post hoc comparisons to ascertain significant group differences, and (2) a discriminant function analysis (DFA) to understand how the measures related to each other in order to determine group membership. These are described in turn below.

Socially Desirable Responding

A multivariate GLM⁴ analysis revealed a significant multivariate difference between the groups on the PDS measure of socially desirable responding, $F = 18.60$, $df = 1125$, $p < .001$. As seen in Table 2, main effects were also found for each of the PDS subscales: Image Management (IM) ($r = .06$, $p = .01$) and Self-Deceptive Enhancement Scale (SDE; $r = .18$, $p < .001$). Post hoc comparisons indicated a significant difference between the contact and internet groups on the PDS Impression Management scale ($p = .006$). Significant differences were also found on the Self-Deceptive Enhancement Scale between the contact group and both the mixed group ($p < .001$) and the internet group ($p < .001$). Although this suggests that contact offenders are somewhat more likely than mixed and internet offenders to show an unconscious bias toward favorable self-description, it is important to note that the multivariate effect size (.18) is small.

To correct for socially desirable response bias, the self-report scores were adjusted using a statistical technique devised by Saunders (1991). The regression coefficient for predicting the unadjusted score for each measure from the offender's score on the response validity measure is derived for each comparison group using the regression formula: $Y = (a)(x) + b$, where Y is the unadjusted score, (a) is the regression coefficient, and (x) is the score on the accountability measure. This regression coefficient provide a coefficient by which scores on a measure increase or decrease, within each

Table 2. Multivariate General Linear Model Analysis Between the Contact, Mixed, and Internet Groups on a Range of Psychometric Measures After Adjustment for Socially Desirable Responding

	Contact (n = 526)	Mixed (n = 142)	Internet (n = 459)	F	Correlational effect size (r)	Post hoc findings
Impression management	8.7 (4.0)	8.2 (4.1)	7.9 (3.6)	4.621*	.06	C > I**
Self-deceptive enhancement	4.2 (3.5)	3.0 (2.9)	2.5 (2.5)	37.833**	.18	C > M***, C > I***
Victim empathy distortions	36.0 (25.9)	29.1 (20.2)	21.5 (18.8)	50.12**	.21	C > M**, C > I***, M > I***
Children and sex: Cognitive distortion	15.6 (10.1)	12.4 (10.3)	11.0 (7.9)	31.01**	.16	C > M**, C > I***
Children and sex: Emotional Congruence	14.6 (10.3)	13.6 (9.5)	12.4 (8.6)	6.55*	.08	C > I***
Thornton Self-esteem	3.2 (2.3)	3.3 (2.5)	3.2 (2.3)	.17	.01	—
Emotional loneliness	47.1 (10.6)	46.9 (10.5)	46.5 (11.1)	.37	.02	—
Underassertiveness	11.5 (6.6)	11.7 (7.0)	12.4 (6.0)	2.05	.04	—
Overassertiveness	1.8 (2.6)	0.8 (1.9)	1.3 (1.6)	14.30**	.11	C > M***, C > I***, I > M*
IRI Perspective taking	15.2 (5.1)	16.1 (4.6)	15.0 (4.5)	2.69	.05	M > I*
IRI Empathic Concern	19.0 (4.3)	20.8 (4.0)	18.5 (4.4)	14.39**	.11	M > C***, M > I***
IRI Fantasy	12.6 (4.8)	15.0 (5.2)	14.5 (4.8)	24.53**	.15	C < M***, C < I***
IRI Personal distress	12.6 (5.4)	13.8 (5.5)	12.2 (4.9)	4.56*	.06	M > I*
Locus of control	15.0 (5.5)	12.2 (5.8)	13.4 (5.0)	20.38**	.13	C > M***, C > I***
Barratt Impulsivity Scale-11: Motor	21.8 (4.3)	21.5 (3.7)	22.2 (4.0)	2.40	.05	—
Barratt Impulsivity Scale-11: Cognitive	25.7 (3.8)	24.6 (3.5)	24.5 (3.5)	13.21**	.11	C > M**, C > I***
Barratt Impulsivity Scale-11: Nonplanning	26.6 (4.9)	26.8 (4.3)	25.9 (4.3)	3.28	.05	—

Note: IRI = Interpersonal Reactivity Index.

* $p < .05$. ** $p < .01$. *** $p < .001$.

group, for every 1 unit increase in PDS total score (i.e., the effect of increasing levels of socially desirable responding on a group's scores on a particular measure). The adjusted score (Y^1) is calculated by multiplying the accountability score by the regression coefficient and subtracting this from the unadjusted score: $Y^1 = Y - (a)(x)$.

Comparisons of Samples

A multivariate GLM analysis⁵ revealed a significant multivariate difference between the groups on a range of psychological measures ($F = 10.69$, $df = 1124$, $p < .001$; Wilks' Lambda = .764). Univariate F tests indicated that there were significant differences between the groups on 9 out of the 15 measures. These can be seen in Table 2, along with means, standard deviations, and Pearson's r correlational effect size. The values for the scales below the first two rows (the PDS scales) have been adjusted using the Saunders correction for socially desirable responding.

Post hoc analyses⁶ were carried out to assess differences between the three groups. Six of the 15 measures appeared to significantly distinguish the contact group from both the mixed and internet groups: a greater frequency of victim empathy distortions, a greater frequency of cognitive distortions, lower fantasy scores, a more external locus of control, overassertiveness, and higher levels of cognitive impulsivity. On these six measures, mixed offenders could also be distinguished from internet offenders as having a greater frequency of victim empathy distortions and lower scores for overassertiveness. On three measures, the mixed offenders could be significantly distinguished from the other two groups. The mixed group demonstrated significantly higher levels of empathic concern than the contact and internet groups and significantly higher levels of personal distress and increased perspective taking than the internet group. Finally, the contact group could be distinguished from the internet group on one measure, demonstrating significantly higher levels of emotional congruence with children.

Discriminant Function Analysis

A DFA was conducted to determine the linear combination of measures that best classifies cases into the three groups. The seven measures on which the groups significantly differed (and where $r > .10$) in the multivariate GLM were included in a stepwise DFA analysis: victim empathy, cognitive distortion, overassertiveness, empathic concern, fantasy, locus of control, and cognitive impulsivity. Two significant functions were derived from the DFA. The eigenvalues, relative variance, canonical correlations, and statistical significance for each function are shown in Table 3.

Function 1 was related to offense-supportive attitudes and fantasy (cognitive distortion, victim empathy, and fantasy) and discriminated contact offenders from internet offenders and mixed offenders and, to a lesser extent, mixed offenders from internet offenders. Function 1 contributes the most to discriminatory power, representing

Table 3. Statistical Significance for the Derived Discriminant Functions

Function	Eigenvalue	% variance	Canonical correlations	Wilks Lambda	χ^2	df	Sig.
1	.173	80.9	.384	.819	224.27	12	<.001
2	.041	19.1	.198	.961	44.90	5	<.001

Table 4. DFA Group Classification

	Predicted group membership				
	Contact	Internet	Mixed	Total	
Original group membership (n)	Contact	346	179	1	526
	Internet	157	302	0	459
	Mixed	64	78	1	143
Original group membership (%)	Contact	65.8	34.0	0.2	
	Internet	34.2	65.8	0.0	
	Mixed	44.8	54.4	0.7	

Note: DFA = discriminant function analysis; 57% of original grouped cases correctly classified. Percentages are calculated across rows.

80.9% of the variance in the data. Function 2 was related to empathic concern and self-management (empathic concern, locus of control, overassertiveness, cognitive impulsivity) and discriminated mixed offenders from contact and internet offenders.

As shown in Table 4, the correct classification of cases into contact, internet, and mixed groups on the basis of these discriminant functions is substantially better than chance (39.9%)⁷, with 57% of the observed cases being correctly classified (i.e., their predicted group classification, based on their scores on those variables that generated the two functions, matched their actual group membership). Of the contact offenders, 346 (65.8%) were correctly classified, but the vast majority of the remainder were misclassified as internet offenders (34%). Of the internet offenders, 302 (65.8%) were correctly classified, and all of those remaining were misclassified as contact offenders (34.2%). However, in the mixed group only one case (0.7%) was correctly classified. Consequently, the overall accuracy of classification was likely to have been reduced by the incorrect classification of the mixed offender group as either internet or contact offenders. Based on their scores on those variables that generated the two discriminant functions, 44.8% of the mixed offenders were classified as contact offenders and 54.5% were classified as internet offenders.

As we created our mixed offender group from two sources (those with mixed index offenses and those with historical contact offenses) it was important to rule this out as a potential cause of misclassification for mixed offenders, for example, to ensure that all those misclassified as internet offenders are not disproportionately from one source

or the other. Using the casewise statistics it was found that of those individuals with both index contact and internet offenses, 54 were classified as internet offenders and 43 were classified as contact offenders. Of those individuals with index internet offenses and historical contact offenses, 24 were classified as internet offenders and 21 were classified as contact offenders. This demonstrates there was a relatively even proportion of offenders from each source that were misclassified and, hence, sampling source does not appear to account for the misclassification of mixed offenders.

Discussion

This study found that mixed offenders present a self-reported psychological profile wherein they have more in common with internet offenders than with contact offenders on some variables, while occupying an approximately median position between contact and internet offenders on others. Overall, the findings appear to suggest that mixed offenders present with clinical symptoms more similar to internet offenders rather than to contact offenders. In turn, however, mixed offenders present with more self-management deficits than internet offenders. A DFA demonstrated that the key linear difference, based on the significant variables from the GLM, was a function relating to the frequency of offense-supportive attitudes and identification with fictional characters. Contact offenders demonstrated a greater frequency of cognitive distortions and victim empathy distortions, whereas internet and mixed offenders had a greater ability to relate to fictional characters.

Mixed Offenders and Offense-Supportive Beliefs

The findings suggest that offenders with index offenses relating to SEM-c, regardless of previous contact offenses, are less likely than those with contact-only offenses to endorse beliefs such as “the victim enjoyed what happened” or “the victim was not harmed by what happened.” There is an extensive literature on pro-offending attitudes held by child molesters and how they relate to offense-related behavior (e.g., Abel, Becker, & Cunningham-Rathner, 1984; Maruna & Mann, 2006; Marziano, Ward, Beech, & Pattison, 2006; Ward & Keenan, 1999). However, it has been noted that internet offenders do appear to be aware of the harm caused by sexual contact between children and adults, but may cognitively distance themselves from the abusive nature of the images to justify their use of images, through a belief that they are not responsible for any harm caused by the activities depicted (Howitt & Sheldon, 2007; Quayle & Taylor, 2002). They also appear to view other sex offenders (child molesters and rapists) as more dangerous, harmful, and deviant than themselves (Malesky & Ennis, 2004; Winder & Gough, 2010).

It appears contradictory to find that mixed offenders do not hold offense-supportive beliefs about sexual activity between adults and children, given that they have current or historical contact sex offenses against children. This raises the question as to how mixed offenders, who have presumably been exposed to the harmful realities of the

sexual offense process, appear to have greater victim empathy and less cognitive distortions than contact-only offenders. This appears to be counterintuitive to the "escalation hypothesis" proposed by Taylor and Quayle (2003). This hypothesis suggests that ongoing exposure to SEM-c creates maladaptive schema about the appropriateness of child sex relations that increase the appeal of contact offending as an acceptable response to negative emotions or life stressors. It might have been expected that the mixed group would demonstrate these cognitive distortions to justify their contact offending.

Evidence for the effect of pornography on attitudes appears to be conflicting and inconsistent. Paul and Linz (2008), for example, found that although there is evidence that viewing so-called "barely legal" material (where the performer is 18 or older, but appears younger) may create cognitive associations between youth and sexuality, there was no evidence that this led to attitudes and beliefs that child sex imagery is socially acceptable. Conversely, a meta-analysis by Hald, Malamuth, and Yuen (2009) found that attitudes supporting violence toward women were significantly correlated with the use of pornography, especially violent pornography. A number of studies have noted, however, the role of pornography on violent and sexually abusive outcomes appears to be principally related to men who demonstrate a prior proclivity for sexual aggression and use pornography frequently (e.g., Kingston, Malamuth, Fedoroff, & Marshall, 2009; Langevin & Curnoe, 2004; Seto, Maric, & Barbaree, 2001).

Mixed Offenders and Fantasy

The finding that the mixed group shares with the internet group a greater ability to relate to fictional characters is perhaps not surprising, given the use of SEM-c in both groups. A previous study using these measures with groups of child-related sex offenders (Elliott et al., 2009) noted that users of SEM-c were more likely to endorse items associated with deep emotional engagement in fictional narrative and empathizing with characters within those narratives. These elevated scores for fantasy demonstrated by internet and mixed offenders also appear consistent with the nature of SEM-c itself. To the user, the children depicted in SEM-c material may represent characters performing a role for an audience. SEM-c is often deliberately stylized to meet audience demands for smiling children, in order for that audience to be able to engage in fantasies of compliant, willing children (Taylor & Quayle, 2003). This connection between fantasy and SEM-c may also be linked to the evidence that SEM-c offenders have higher levels of sexual deviance and preoccupation than contact and solicitation (i.e., online grooming) offenders (e.g., Babchishin et al., 2011; Seto et al., in press).

Although neither deviant sexual interest nor sexual preoccupations were directly assessed by the scales in this study, this ability to engage with fictional material could be a function of sexual preoccupation and deviant interest for SEM-c users. Further research is required to investigate whether heightened levels of fantasy predict the use of pornography. In particular, there is a need to examine whether individuals who feel

they relate to fictional characters are potentially drawn to material depicting sexual activity as a sexual outlet or whether the stylization of pornographic imagery creates a sense of engagement with fictional characters and scenarios.

Mixed Offenders and Self-Management

One possible explanation for the contact offending by a population of mixed offenders who may not share the cognitive distortions of contact-only offenders is their self-management skills. The second, less influential factor in the DFA was the higher levels of empathic concern and poor self-management that distinguished the mixed offenders from the internet offenders. Sex offenders have been noted to use sex as a coping strategy to deal with difficult and stressful situations (Cortoni & Marshall, 2001; Stinson, Becker, & Sales, 2008). This lack of self-management may explain how a group of individuals who do not appear to have such deficits in victim empathy or hold pro-offending attitudes supporting adult-child sexual relationships commit contact offenses. Babchishin et al. (2011) suggest that it may be plausible that those internet offenders who demonstrate higher levels of sexual deviance, but do not commit contact offenses, might have greater self-control. Hence, those who do commit contact offenses may do so due to a lack of self-management skills. Ward and Hudson (1998) suggested that the use of SEM-c by individuals with a sexual interest in children actually represents a maladaptive strategy to avoid contact offending. These maladaptive self-management strategies may actually have the opposite effect and increase the risk of contact offending.

Limitations

It is important to note that the effect sizes for all of these differences were small in magnitude, with only the difference in victim empathy being considered a medium-sized effect. Similarly, the DFA findings should be treated with some caution as the self-management factor accounts for only a small amount of the variance and about one third of the sample were miscategorized by the two factors. Hence, these factors represent only subtle rather than extreme differences between the groups.

A potential methodological limitation is the self-report approach to assessment. The scores presented here are pretreatment scores obtained after arrest and during the early stages of probation supervision as a sex offender. Therefore, it could be argued that the participants may not be responding in the same way under supervision that they might have responded during the period in which they were offending.

In addition, these psychological measures were chosen to assess treatment need and effectiveness in contact sexual offenders, before the emergence of the internet sexual offenses. Howitt and Sheldon (2007) noted that the disparity between clinical and self-report measure approaches to eliciting and measuring cognitive distortions in internet offenders somewhat undermines the self-report approach for that population. Hence, the scales used here may be measuring constructs that are perhaps unrelated to internet

offenders. There was also no measure of socioeconomic status, and we were unable to test any assumptions that access to computer technology could be a systematic variable in an analysis of this type. The self-report measures used in this analysis also do not assess sexual interest. As such there was no opportunity to explore the extent to which our mixed offender sample integrates into the findings of Babchishin et al. (2011), that deviant sexual interest is a key difference between online and offline offenders.

Although the present sample was, in criminal justice terms, reasonably large, the sample participants are taken from a community-based population and, therefore, may not represent their respective populations as a whole, as there is no comparison to either incarcerated or noncriminal justice offenders. It can be assumed that offenders who have been sentenced to a community sentence will have committed offenses that were not considered serious enough, or did not have a long enough criminal history, to warrant incarceration. Internet offenses are often very difficult to detect, and hence, there may be subsets of online offenders who we do not see or have access to (Neutze et al., 2010; Ray, Kimonis, & Donoghue, 2010). Similarly, it is not known whether or not individuals in both our internet and contact samples have undetected offenses of the other type. This may be particularly important in light of evidence that internet offenders have been found to self-report further contact offenses or risky sexual behavior during treatment (Bourke & Hernandez, 2009) and during polygraph examination (Buschman et al., 2010). The lack of self-reported data for previous contact and internet offenses may have led to some offenders being incorrectly labeled from the outset, as some of the single-offense groups may have been more appropriately placed in the mixed data group had these data been available.

Data were also not available regarding the ages of the victims and as such we may be making comparisons between very different groups. Hypothetically, for example, if a large number of the internet group were accessing images of victims aged 16 to 18 this may not be comparable with the contact group as the contact group would not contain individuals with victims in this age group as the U.K. age of consent for sexual activity is 16 years.

Conclusions

This investigation has uncovered some potential leads in our understanding of those offenders who have a combination of both contact and internet sex offenses. They appear to present a more similar profile on self-report psychometrics to internet offenders rather than contact offenders but appear to have somewhat inferior emotional self-management to the other two groups. These findings may generate more questions than they provide answers, and we would strongly encourage further research into the internet offense process in terms of how individuals on the three mixed offense pathways differ in terms of how their cognitive processes are affected by the immediate effects of internet use and how this might affect self-control and subsequently potentially harmful online behaviors.

In terms of clinical practice with mixed offenders, this suggests that clinicians that encounter mixed offenders may need to first assess what *type* of mixed offender they are presented with and understand that even though a mixed offender has committed a contact offense their treatment needs may look somewhat different from those who commit contact offenses alone. Indeed, if more thorough policing techniques mean that mixed offenders become more prevalent, assessment and treatment for all contact offenders may need to incorporate some internet-specific elements to account for this potentially underrepresented population.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes

1. This should be distinguished from the “taking” of an image (which could be considered a form of contact offending) and refers to the deliberate creation of an electronic copy of an indecent image of a child (see Gillespie, 2005).
2. Cohen (1988) defined the threshold of a small effect size as $d = .20$ ($r = .10$), a medium effect size as $d = .50$ ($r = .24$), and a large effect size as $d = .80$ ($r = .37$).
3. Deviant sexual arousal is difficult to assess using self-report measures and is more typically measured using clinical assessment, the penile plethysmograph (PPG), or polygraph testing (Beech, Fisher, & Thornton, 2003).
4. As we use this acronym from this point, it is worth noting that it should not be confused with the Good Lives Model approach to sex offender treatment.
5. An initial GLM accounting for the significant differences in age, parenthood, and victim gender resulted in group differences for all variables being highly (and improbably) significant. Given the small effect sizes for these differences and the issues relating to sampling (especially in victim gender) the GLM presented here does not include these demographic factors as covariates.
6. Games-Howell tests were used, as this test takes into account samples of unequal sizes and does not require population variances to be equivalent (Field, 2009).
7. Calculated by dividing the sum of the weighted probabilities of correct classification for each group by the total N (Tabachnick & Fidell, 2007): $((526 \cdot .47) + (459 \cdot .41) + (143 \cdot .13)) / 1128 = 450.2$ (39.9%) cases correctly classified by chance alone.

References

- Abel, G. G., Becker, J. V., & Cunningham-Rathner, J. (1984). Complications, consent, and cognitions in sex between children and adults. *International Journal of Law & Psychiatry*, 7, 89-103. doi:10.1016/0160-2527(84)90008-6

- Babchishin, K. M., Hanson, R. K., & Hermann, C. A. (2011). The characteristics of online sex offenders: A meta-analysis. *Sexual Abuse: A Journal of Research & Treatment, 23*, 92-123. doi:10.1177/1079063210370708
- Barratt, E. S. (1994). Impulsiveness and aggression. In J. Monahan & H. J. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment*. Chicago, IL: University of Chicago Press.
- Beckett, R. C. (1987). *The children and sex questionnaire*. Oxford, UK: Littlemore Health Centre, The Oxford Clinic.
- Beckett, R. C., & Fisher, D. (1994, November). *Assessing victim empathy: A new measure*. Paper presented at the 13th annual conference of the Association for the Treatment of Sexual Abusers, San Francisco, CA.
- Beech, A. R. (1998). A psychometric typology of child abusers. *International Journal of Therapy & Comparative Criminology, 42*, 319-339. doi:10.1177/0306624X9804200405
- Beech, A. R., Fisher, D., & Thornton, D. (2003). Risk assessment of sex offenders. *Professional Psychology: Research and Practice, 34*, 339-352. doi:10.1037/0735-7028.34.4.339
- Bernard, F. (1985). *Paedophilia: A factual report*. Rotterdam, Netherlands: Enclave Press.
- Bourke, M. L., & Hernandez, A. E. (2009). The "Butner Study" redux: A report of the incidence of hands-on child victimization by child pornography offenders. *Journal Family Violence, 24*, 183-191. doi:10.1007/s10896-008-9219-y
- Buschman, J., Bogaerts, S., Foulger, S., Wilcox, D., Sosnowski, D., & Cushman, B. (2010). Sexual history disclosure polygraph examinations with cybercrime offenses: A first Dutch explorative study. *International Journal of Offender Therapy & Comparative Criminology, 54*, 395-411. doi:10.1177/0306624X09334942
- Cortoni, F., & Marshall, W. L. (2001). Sex as a coping strategy and its relationship to juvenile sexual history and intimacy in sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 13*, 27-43. doi:1079-0632/01/0100-0027\$19.50/0
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Davis, M. H. (1980). A multi-dimensional approach to individual differences in empathy. *JSAS Catalogue to Selected Documents in Psychology, 10*, 85.
- Elliott, I. A., & Beech, A. R. (2009). Understanding online child pornography use: Applying sexual offense theory to internet offenders. *Aggression and Violent Behavior, 14*, 180-193. doi:10.1016/j.avb.2009.03.002
- Elliott, I. A., Beech, A. R., Mandeville-Norden, R., & Hayes, E. (2009). Psychological profiles of internet sex offenders: Comparisons with contact sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 21*, 76-92. doi:10.1177/1079063208326929
- Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: SAGE.
- Gillespie, A. A. (2005). Indecent images of children: The ever changing law. *Child Abuse Review, 14*, 430-443. doi:10.1002/car.919
- Hald, G. M., Malamuth, N. M., & Yuen, C. (2009). Pornography and attitudes supporting violence against women: Revisiting the relationship in nonexperimental studies. *Aggressive Behavior, 36*, 14-20. doi:10.1002/ab.20328
- Hanson, R. K., & Harris, A. J. R. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice & Behavior, 27*, 6-35. doi:10.1177/0093854800027001002

- Howitt, D., & Sheldon, K. (2007). The role of cognitive distortions in paedophilic offending: Internet and contact offenders compared. *Psychology, Crime, & Law, 13*, 469-486. doi:10.1080/10683160601060564
- Keltner, A. A., Marshall, P. G., & Marshall, W. L. (1981). Measurement and correlation of assertiveness and social fear in a prison population. *Corrective and Social Psychiatry, 27*, 41-47.
- Kingston, D. A., Malamuth, N. M., Fedoroff, P., & Marshall, W. L. (2009). The importance of individual differences in pornography use: Theoretical perspectives and implications for treating sexual offenders. *Journal of Sex Research, 46*, 216-232. doi:10.1080/00224490902747701
- Langevin, R., & Curnoe, S. (2004). The use of pornography during the commission of sexual offences. *International Journal of Offender Therapy and Comparative Criminology, 48*, 572-586. doi:10.1177/0306624X03262518
- Malesky, L. A., & Ennis, L. (2004). Supportive distortions: An analysis of posts on a pedophile internet message board. *Journal of Addictions & Offender Counseling, 24*, 92-100.
- Maruna, S., & Mann, R. E. (2006). A fundamental attribution error? Rethinking cognitive distortions. *Legal and Criminological Psychology, 11*, 155-177. doi:10.1348/135532506X114608
- Marziano, V., Ward, T., Beech, A. R., & Pattison, P. (2006). Identification of five fundamental implicit theories underlying cognitive distortions in child abusers: A preliminary study. *Psychology, Crime and Law, 12*, 97-105. doi:10.1080/10683160500056887
- McManus, M., Long, M. L., & Alison, L. (2011). Child pornography offenders: Towards an evidence-based approach to prioritizing the investigation of indecent image offenses. In L. Alison & L. Rainbow (Eds.), *Professionalizing offender profiling: Forensic and investigative psychology in practice*. Abingdon, UK: Routledge.
- Neutze, J., Seto, M. C., Schaefer, G. A., Mundt, I. A., & Beier, K. M. (2010). Predictors of child pornography offenses and child sexual abuse in a community sample of pedophiles and hebephiles. *Sexual Abuse: A Journal of Research & Treatment* (online ahead of print). doi:10.1177/1079063210382043
- Nowicki, S., & Duke, M. P. (1974). A locus of control scale for college as well as non-college adults. *Journal of Personality Assessment, 38*, 136-137.
- Paul, B., & Linz, D. P. (2008). The effects of exposure to virtual child pornography on viewer cognitions and attitudes toward deviant sexual behavior. *Communication Research, 35*, 3-38. doi:10.1177/0093650207309359
- Paulhus, D. L. (1998). *Manual for the balanced inventory of desirable responding: Version 7*. Buffalo, NY: Multi-Health Systems.
- Quayle, E., & Taylor, M. (2002). Child pornography and the Internet: Perpetuating a cycle of abuse. *Deviant Behavior, 23*, 331-361. doi:10.1080/01639620290086413
- Ray, J. V., Kimonis, E. R., & Donoghue, C. (2010). Legal, ethical, and methodological considerations in the internet-based study of child pornography offenders. *Behavioral Sciences & the Law, 28*, 84-105. doi:10.1002/bsl.906
- Riegel, D. L. (2004). Effects on boy-attracted pedosexual males of viewing boy erotica (Letter to the Editor). *Archives of Sexual Behaviour, 33*, 321-323. doi:10.1023/B:ASEB.0000029071.89455.53
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality & Social Psychology, 39*, 472-480. doi:10.1037/0022-3514.39.3.472

- Saunders, D. G. (1991). Procedures for adjusting self-reports of violence for social desirability bias. *Journal of Interpersonal Violence, 6*, 336-344. doi:10.1177/088626091006003006
- Seto, M. C., Cantor, J. M., & Blanchard, R. (2006). Child pornography offenses are a valid diagnostic indicator of pedophilia. *Journal of Abnormal Psychology, 115*, 610-615. doi:10.1037/0021-843X.115.3.610
- Seto, M. C., Hanson, R. K., & Babchishin, K. M. (2011). Contact sexual offending by men with online sexual offenses. *Sexual Abuse: A Journal of Research & Treatment, 23*, 124-145. doi:10.1177/1079063210369013
- Seto, M. C., Maric, A., & Barbaree, H. E. (2001). The role of pornography in the etiology of sexual aggression. *Aggression & Violent Behavior, 6*, 35-53. doi:10.1016/S1359-1789(99)00007-5
- Seto, M. C., Wood, J. M., Babchishin, K. M., & Flynn, S. (in press). Online solicitation offenders are different from child pornography offenders and lower risk contact sexual offenders. *Law and Human Behavior*.
- Stinson, J. D., Becker, J. V., & Sales, B. D. (2008). Self-regulation and the etiology of sexual deviance: Evaluating causal theory. *Violence & Victims, 23*, 35-51. doi:10.1891/0886-6708.23.1.35
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). London: Pearson International.
- Taylor, M., & Quayle, E. (2003). *Child pornography: An Internet crime*. Hove, UK: Brunner-Routledge.
- Thornton, D. (2002). Constructing and testing a framework for dynamic risk assessment. *Sexual Abuse: A Journal of Research & Treatment, 14*, 139-154. doi:10.1023/A:1014620214905
- Thornton, D. (unpublished). *Self-esteem scale*. Available from David Thornton, P.O. Box 700, Sand Ridge Secure Treatment Center, 1111 North Road, Mauston, Wisconsin 53948, USA.
- Ward, T., & Beech, A. R. (2006). An integrated theory of sexual offending. *Aggression & Violent Behavior, 11*, 44-63. doi:10.1016/j.avb.2005.05.002
- Ward, T., & Hudson, S. M. (1998). The construction and development of theory in the sexual offending area: A meta-theoretical framework. *Sexual Abuse: A Journal of Research & Treatment, 10*, 47-63. doi:10.1177/107906329801000106
- Ward, T., & Keenan, T. (1999). Child molesters' implicit theories. *Journal of Interpersonal Violence, 14*, 821-838. doi:10.1177/088626099014008003
- Ward, T., & Siegert, R. J. (2002). Toward a comprehensive theory of child sexual abuse: A theory-knitting perspective. *Psychology, Crime & Law, 9*, 319-351. doi:10.1080/10683160208401823
- Webster, S. D., Mann, R. E., Thornton, D., & Wakeling, H. C. (2006). Further validation of the short Self-Esteem Scale with sex offenders. *Legal & Criminological Psychology, 12*, 207-216. doi:10.1348/135532506X114347
- Winder, B., & Gough, B. (2010). "I never touched anybody—that's my defence": A qualitative analysis of internet sex offender accounts. *Journal of Sexual Aggression, 16*, 125-142. doi:10.1080/13552600903503383

Research article

Open Access

The consumption of Internet child pornography and violent and sex offending

Jérôme Endrass¹, Frank Urbaniok¹, Lea C Hammermeister¹, Christian Benz², Thomas Elbert³, Arja Laubacher¹ and Astrid Rossegger*¹

Address: ¹Department of Justice, Psychiatric/Psychological Service, Canton of Zurich, Feldstrasse 42, 8004 Zurich, Switzerland, ²Praxis Dr. Benz, Mühlebachstrasse 42, 8008 Zurich, Switzerland and ³University of Constance, 78457 Constance, Germany

Email: Jérôme Endrass - jerome.endrass@ji.zh.ch; Frank Urbaniok - frank.urbaniok@ji.zh.ch; Lea C Hammermeister - lea.hammermeister@gmail.com ; Christian Benz - forensik@cbez.ch; Thomas Elbert - Thomas.Elbert@Uni-Konstanz.de; Arja Laubacher - arja.laubacher@ji.zh.ch; Astrid Rossegger* - astrid.rossegger@ji.zh.ch

* Corresponding author

Published: 14 July 2009

Received: 7 January 2009

BMC Psychiatry 2009, 9:43 doi:10.1186/1471-244X-9-43

Accepted: 14 July 2009

This article is available from: <http://www.biomedcentral.com/1471-244X/9/43>

© 2009 Endrass et al; licensee BioMed Central Ltd.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

Background: There is an ongoing debate on whether consumers of child pornography pose a risk for hands-on sex offenses. Up until now, there have been very few studies which have analyzed the association between the consumption of child pornography and the subsequent perpetration of hands-on sex offenses. The aim of this study was to examine the recidivism rates for hands-on and hands-off sex offenses in a sample of child pornography users using a 6 year follow-up design.

Methods: The current study population consisted of 231 men, who were subsequently charged with consumption of illegal pornographic material after being detected by a special operation against Internet child pornography, conducted by the Swiss police in 2002. Criminal history, as well as recidivism, was assessed using the criminal records from 2008.

Results: 4.8% (n = 11) of the study sample had a prior conviction for a sexual and/or violent offense, 1% (n = 2) for a hands-on sex offense, involving child sexual abuse, 3.3% (n = 8) for a hands-off sex offense and one for a nonsexual violent offense. When applying a broad definition of recidivism, which included ongoing investigations, charges and convictions, 3% (n = 7) of the study sample recidivated with a violent and/or sex offense, 3.9% (n = 9) with a hands-off sex offense and 0.8% (n = 2) with a hands-on sex offense.

Conclusion: Consuming child pornography alone is not a risk factor for committing hands-on sex offenses – at least not for those subjects who had never committed a hands-on sex offense. The majority of the investigated consumers had no previous convictions for hands-on sex offenses. For those offenders, the prognosis for hands-on sex offenses, as well as for recidivism with child pornography, is favorable.

Background

The legal definition of what constitutes child pornography, as well as the interpretation and enforcement of statutory provisions relating to child pornography, vary

considerably from country to country. Not surprisingly, the definitions of child pornography to be found in the relevant research literature are equally heterogeneous [1-3]. The definitions differ regarding the age boundary of

consenting adult vs. child and in respect to how explicit the sexual depiction of the material must be in order to be considered "illegal pornography". Furthermore, some criminal codes penalize only the production and distribution of illegal pornography, while others criminalize the possession as well.

In April 2002, a new article was introduced into Swiss penal law stating that the possession of pornographic material depicting sexual acts with children, excrement, animals, as well as violent sexual intercourse, is illegal (Art.197 Swiss Penal Code). Accordingly, the production, import, storage, marketing, making available, and presentation of illegal pornography is a punishable offense. Before April 2002, only the trade and production of child pornography was against the law, not its possession. Swiss penal law neither specifies the age which discriminates children from adults, nor does it specifically state the exact characteristics of pornography. However, judicial practice defines children younger than 16 as juveniles, which is also the appointed age of consent [4,5].

The high accessibility of the Internet has changed the consumption of child pornography. According to Cooper, Delmonico and Berg [6], three attributes of the Internet, called the "Triple A Engine", facilitate the consumption of child pornography: Accessibility (millions of websites are accessible 24 hours a day, 7 days a week), affordability (acquiring the material does not demand substantial financial resources), and anonymity (no personal contact with others is needed to consume child pornography). Quayle, Vaughan, and Taylor [7] also underline the importance of the ostensible anonymity of the Internet for the consumption of Internet child pornography, as it does not require contacting a dealer and the material can easily be acquired at home. Furthermore, virtual pornographic material can be stored easily and no strenuous effort is needed to keep the illegal material hidden [8].

One of the most consistent findings when trying to characterize the "typical" user of child pornography is – not surprisingly – that there are only male consumers [1,9-16]. According to Quayle, Erooga, Wright, Taylor and Harbinson [2], it is safe to assume that female child pornography consumers are non-existent. Furthermore, there is evidence that consumers of child pornography have a relatively high educational background. According to Wolak, Finkelhor and Mitchell [16], 38% out of 1,713 convicted consumers of child pornography in the U.S. had a high-school diploma, 21% went to college at some point, 16% held a college diploma, and 4% finished their education at a doctoral level. This finding was corroborated by Riegel [13], who found that 77% of his sample of alleged pornography consumers consisted of college graduates. In the Swiss study of Frei, Erenay, Dittman and Graf [1], one out of three child pornography users reported working in an

executive position or holding an academic degree. Burke, Sowerbutts, Blundell and Sherry [4], as well as O'Brien and Webster [17], found higher scores of intelligence, a better educational background, as well as a higher rate of employment for Internet child pornography consumers than for hands-on sex offenders.

When investigating the prevalence of Internet child pornography consumption, an important practical question is whether consumers of child pornography pose a risk for hands-on sex offenses. Empirical studies use different study designs and samples for answering this question. However, there are three main approaches to be found in the relevant research literature.

Firstly, there are studies that examine the role of child pornography consumption on offending in samples of hands-on sex offenders [10,15]. Following such an approach, Kingston, Fedoroff, Firestone, Curry and Bradford [10] examined convicted hands-on sex offenders and found that the consumption of illegal pornography was a relevant risk factor, namely that those offenders who had consumed illegal pornography were more likely to re-offend – irrespective of their risk-level of recidivism. Howitt [9] investigated convicted hands-on sex offenders, who reported that the source of sexual stimuli did not stem solely from child pornographic material, but also from the cognitive manipulation of legal adult pornography or from seeing arousing images in newspapers and magazines (usually not involving nudity). Unlike Kingston et al. [10], Howitt [9] concluded that it is not possible to establish an association between hands-on sex offenses and the consumption of child pornographic material. Since Kingston et al. [10] and Howitt [9] investigated samples containing only hands-on offenders, it is evident, that the conclusions of these authors cannot be generalized to hands-off offenders.

Secondly, there are studies that examine the prevalence of prior convictions for hands-on sex offenses in populations of child pornography consumers [1,14,15].

Webb, Craissati and Keen [15] compared 90 child pornography consumers with 120 offenders convicted of hands-on sex offenses. The number of offenders with prior convictions for sexual offenses was higher in the group of hands-on sex offenders than in the group of child pornography users. In an investigation by Frei, Erenay, Dittmann and Graf [1], none of the child pornography consumers had a criminal record.

This approach allows an initial conclusion to be drawn regarding the prevalence of hands-on sex offenses for child pornography consumers. However, due to the limitations of retrospective designs, it cannot answer the question of whether child pornography consumption

represents a risk factor for committing hands-on sex offenses in the future.

Thirdly, research designs following up on a sample of offenders convicted of child pornography consumption would appear to be the best approach [14]. So far, there is only one study that has analyzed the association between child pornography consumption and the subsequent perpetration of hands-on sex offenses [14]. In their sample of convicted child pornography consumers, Seto and Eke [14] found a recidivism rate of 1.3% for hands-on sex offenses and 5.3% for hands-off sex offenses in a follow-up time of two and a half years. In this study, 24% of the study sample had been convicted for a hands-on sex offense against a minor. An Internet based survey by Riegel [13] found results pointing in the same direction as Seto and Eke's: Participants identifying themselves as "Boy-Attracted Pedosexual Males (BPM)" were asked whether the consumption of child pornographic material increased the desire to commit sexual acts with minors, 84.5% of the survey sample replied „rarely" or „never". The author interpreted this finding as an indication that the consumption of child pornography alone is not a sufficient risk factor for committing a hands-on sex offense.

Altogether, the empirical literature does not put forward any evidence that the consumers of child pornography pose a considerably increased risk for perpetrating hands-on sex offenses. Instead, the current research literature supports the assumption that the consumers of child pornography form a distinct group of sex offenders. Though some consumers do commit hands-on sex offenses as well – the majority of child pornography users do not. Previous hands-on sex offenses are a relevant risk factor for future hands-on sex offenses among child pornography users, just as they are among sex offenders in general. The consumption of child pornographic material alone does not seem to predict hands-on sex offenses.

The aim of this study was to analyze the characteristics of a sample of child pornography users and the proportion of those who subsequently re-offended with hands-on and hands-off sex offenses.

Methods

Ethical approval

Non-invasive studies and studies that do not examine patients directly are not investigated by the Ethics Commission of the Canton of Zurich, as their ethical soundness is generally assumed. Nonetheless, in order to ensure ethical and judicial approval, the entire research project was presented to the Justice Department of the Canton of Zurich. A second examination was conducted by the Federal Office of Justice in connection with the request for the

criminal records. The study was approved and supported by both authorities.

Sample

On a website owned by the US company „Landslide Productions", illegal pornography was distributed over the Internet [2,18]. When the website was shut down by the US-Postal Service in 1999, it had approximately 75'000 customers worldwide. The user data was handed over to the judicial authorities in the respective countries, which led to well coordinated, international police operations [18]. Through a number of house searches in 2002, a Swiss police operation ("Operation Genesis") revealed over 400 persons suspected of having consumed illegal pornographic material via Landslide Productions Inc. Of these 400 people, only those suspected of child pornography consumption, were included in the study sample. This led to a sample size of $N = 231$.

Data collection

The Department of Public Prosecution provided the judicial files and all necessary information for assessing the socio-demographic and offense related characteristics.

2002 was the cut-off point, with any convictions prior to this date being 'previous convictions'. The follow-up was in 2008, therefore resulting in a six year follow-up period, during which time all new offenses were deemed to be re-offending.

The information on previous convictions was collected from the criminal records.

Recidivism was assessed based on two sources of information, namely the criminal records as well as the database of the Zurich criminal justice system. By using these two sources of information, it was possible to analyze two different definitions of recidivism.

According to a strict definition, recidivism was assumed only if new convictions subsequent to the index offense (child pornography consumption) were registered in the criminal records.

A broader definition of recidivism was introduced including convictions, as well as ongoing investigations and charges, as it is a well known fact that the use of criminal records frequently leads to an underestimation of especially sex and violent recidivism. Thus, in Switzerland, convictions of criminally non-responsible offenders, which often involve sex and violent offenses, are not registered in the official criminal records. Also, the registration of sex and violent offenses in the criminal records often takes several years due to longer investigation and appeal periods.

Statistical analysis

Descriptive statistical analyses were performed to examine the socio-demographic and offense related characteristics of the study sample. In order to investigate further, a stratified analysis was conducted: During the court proceedings, 95% (n = 217) of the sample confessed to having used child pornography, however, the evidence only led to convictions in 55% (n = 127) of the cases. Unlike current legal practice, saving illegal data in the temporary data cache of the computer was not enough for a conviction in 2002 – only if a permanent recording of the illegal material could be proven was it possible to convict the accused. Though only around half of the sample was actually convicted, there were sufficient grounds for assuming that all subjects in the study sample had consumed child pornography, seeing as they had registered with their personal credit cards and confessed to the allegations. Accordingly, the legal fees were also imposed on those offenders who were acquitted. However, this led to two different subsamples which allowed a stratified analysis: the sample of convicted offenders and the sample of acquitted offenders. The aim of the stratified analysis was to determine whether a legal sanction led to a behavioral change regarding the consumption of illegal pornography. Significance was tested with the chi-square test.

All statistical analyses were carried out with STATA SE 10.1.

Results

Socio-demographic characteristics

At the time of offense, the average age of the subjects was 36 years (SD 10.0), with a range from 18 to 65. The majority of the subjects were Swiss nationals (94%, n = 217), 58% (n = 128) were single, 33% (n = 74) were married, 8% (n = 19) were divorced and 1% (n = 3) were widowed. 25% (n = 55) of the study sample had children.

Out of 226 subjects, 45% (n = 102) worked in a position that required a university level diploma, 50% (n = 112) held a job requiring formal vocational training and 5% (n = 12) were unskilled workers. Roughly one third (32%, n = 70) worked in a computer science or engineering-oriented profession, 26% (n = 56) held a blue collar job and 33% (n = 72) worked in the service industry. Nearly half of the study sample worked primarily with a computer at their place of work.

Offense characteristics

Location of pornography consumption (index offense)

95% (n = 218) of the sample had Internet access from home and 30% (n = 68) at work. Even so, child pornography was consumed at work in only four cases (2%) and only one subject actually saved child pornography onto a work computer.

Characteristics of the illegal material

Two subjects (1%) were in possession of pornographic material they had made themselves. 19% (n = 43) of the sample were in possession of more than 5'000 files of illegal pornography. Forty percent (n = 93) of the subjects consumed only child pornography, the rest consumed other types of illegal pornography, such as pornography depicting sexual acts with animals, excrement, or involving brutality. One out of three subjects (33%, n = 77) consumed at least three types of illegal pornography.

Criminal history

Before the police operation "Genesis" in 2002, 4.8% (n = 11) of the study sample had prior convictions for a sex and/or violent offense: Two subjects (1.0%) had prior convictions for hands-on sex offenses involving child sexual abuse, 3.5% (n = 8) subjects had prior convictions for hands-off sex offenses (possession/consumption of illegal pornography) and one subject had a prior conviction for a violent offense.

Recidivism

Applying the *strict definition* of recidivism, 3.0% (n = 7) of all subjects re-offended with a sex and/or violent offense during the six year follow-up. In detail, 2.6% (n = 6) of the study sample recidivated with a hands-off sex offense (consumption of illegal pornography) and 0.4% (n = 1) with a violent offense (bodily harm). No one in the study sample was convicted of a hands-on sex offense.

Applying the *broader definition* of recidivism (including reconvictions, ongoing investigations and charges), the rate of violent and/or sexual recidivism was 6% (n = 14). Nine (3.9%) of the subjects were investigated, charged or convicted for hands-off sex offenses, all of which were due to illegal pornography possession. Two subjects (0.8%) were being investigated, charged or convicted for a hands-on sex offense, namely child sexual abuse. Recidivism with a violent offense was documented in 1.3% (n = 3) of the cases.

Of the 9 subjects who had recidivated with a hands-off sex offense according to the broad definition, none had previously been convicted (before the index offense) for a hands-off sex offense. Of the two subjects who had re-offended with a hands-on sex offense according to the broad definition, one had previously been convicted for a hands-on sex offense.

Table 1 shows the prevalence rates for prior convictions, as well as recidivism rates.

Convicted vs. acquitted consumers of illegal pornography

Stratified analyses of the data revealed several differences between subjects convicted of consuming illegal pornog-

raphy (group: convicted) and those who were acquitted (group: acquitted).

Acquitted offenders were significantly more likely to be married (40% vs. 28%) but did not differ with respect to vocational education or job position.

More frequently, various forms of illegal pornography were found in the group of convicted consumers and these subjects were also more likely to own a collection of this material (30% vs. 5%). Furthermore, they held more subscriptions to commercial websites containing legal pornographic material (28% vs. 10%) and were more likely to be in the possession of commercial (legal) pornographic material recorded on VHS, CDs, and DVDs (19% vs. 4%).

Convicted and acquitted subjects did not differ with respect to prior convictions. However, the two subjects already convicted for a hands-on sex offense, along with the only person previously convicted for a violent offense, were not convicted for the possession of illegal pornography as result of the police operation.

According to the broad definition of recidivism, 7.3% (n = 9) of the convicted group re-offended with a hands-off sex offense while none of the acquitted group did. Vice-versa, none of the convicted group re-offended with a hands-on sex offense while 1.9% (n = 2) of the acquitted group did.

Table 2 shows the significant differences in the consumption pattern of convicted vs. acquitted users of illegal pornography.

Discussion

For the present study, the criminal records of all men charged with child pornography, as a result of the police operation "Genesis", were analyzed. This study is one of the few scientific reports covering a six year follow-up period of a sample of subjects charged with the consumption of child pornographic material.

Descriptive analyses suggest that child pornography users are less likely to be married: While only one out of three subjects was married at the time of the police operations, the census data of the Canton of Zurich reported that 45% of the Swiss male population living in the Canton of Zurich was married. Moreover, the foreign nationals (6%) in the present study were underrepresented in comparison to the 31% of foreign male residents in the Canton of Zurich [19]. This finding is remarkable seeing as this underrepresentation cannot be found for hands-on sex offenses [20]. As in other studies [4,13,16,17], the finding that child pornography consumers are well educated was replicated in the present study: Only 5% of the investigated sample held an unqualified job position – a figure that is rather low compared to the 16% of unskilled workers in the permanent living population of the Canton of Zurich [21].

In summary, our results suggest that users of child pornography are probably well integrated in Swiss society, as the majority of subjects held a job requiring extensive training and were Swiss nationals.

The question of whether consumers of child pornography pose a risk for hands-on sex offenses has not yet been answered. In their sample of child pornography users, Seto und Eke [14] found that 24% of the study sample had a criminal record for a hands-on sex offense against a minor and 15% had a prior conviction for the possession of child pornography. Other studies however, have found low rates of previous convictions for hands-on sex offenses among child pornography consumers [4,15].

In our study, we were able to replicate the finding that the majority of child pornography consumers do not have a criminal record for a violent and/or sex offense. Before the police operation, 3.5% of the study sample had prior convictions for a hands-off sex offense and 1% (n = 2) for hands-on sex offenses involving child sexual abuse. We cannot explain the large difference of prior conviction rates in our sample compared to Seto and Eke [14] – further research would be necessary to find out if they differ

Table 1: Criminal history and recidivism divided into offense categories

	Criminal history (N = 231)		Recidivism (N = 231)	
	% (n)	Strict definition		Broad definition
		% (n)	% (n)	% (n)
Hands-on sex offenses	1.0 (2)	0 (0)	0.8 (2)	
Hands-off sex offenses	3.5 (8)	2.6 (6)	3.9 (9)	
Violent offenses	0.4 (1)	0.4 (1)	1.3 (3)	
Sex and/or violent offenses	4.8 (11)	3.0 (7)	6.0 (14)	

Table 2: Significant differences in the consumption pattern of convicted vs. acquitted users of illegal pornography

		Convicted	Acquitted	χ^2
		% (n)	% (n)	
Type of consumed illegal pornography	Child	86 (109)	48 (50)	37.98*
	Brutality	47 (60)	25 (26)	12.11*
	Excrement	45 (57)	32 (33)	4.16*
	Animals	44 (56)	28 (29)	6.46*
Collection of illegal pornography		30 (38)	5 (5)	23.8*
Subscription to pornographic websites		100 (127)	94 (96)	7.67*
Possession of commercial VHS tapes		28 (36)	10 (10)	12.3*
Possession of commercial CDs and DVDs		19 (24)	4 (4)	12.14*

*p < .05

significantly in regard to socio-economic, educational and/or other variables.

Studies investigating hands-on sex offender populations support the assumption that the consumption of illegal pornography is a relevant risk factor for recidivism [10]. In contrast, Seto and Eke [14] found low recidivism rates for both hands-on (1.3%) and hands-off (5.3%) sex offenses in a follow-up time of two and a half years for their sample of child pornography consumers.

Similar to Seto and Eke [14], we found low rates of recidivism among our sample. When applying the broader definition of recidivism by taking investigations and charges into account, the recidivism rates were 0.8% for hands-on and 3.9% for hands-off sex offenses. These recidivism rates after a follow-up time of six years indicate that the risk of re-offending for child pornography consumers is quite low.

Limitations

The investigated population could be severely biased, seeing as the users needed a credit card and sufficient knowledge of a foreign language (English) in order to gain access to the pornographic material. This could explain the rather elevated proportion of well educated subjects in the study sample and indicates that the investigated sample is most probably not representative for consumers of illegal pornography in Switzerland.

Conclusion

Among the subjects of the present study, only 1% were known to have committed a past hands-on sex offense, and only 1% were charged with a subsequent hands-on sex offense in the 6 year follow-up. The consumption of child pornography alone does not seem to represent a risk factor for committing hands-on sex offenses in the present sample – at least not in those subjects without prior convictions for hands-on sex offenses.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

JE has given substantial contributions to the conception, analysis, and interpretation of the data and helped draft the manuscript. FU and CB developed the idea for the study and developed the study design. LH was involved in the process of data collection and performed the statistical analysis. TE and AL have been involved in revising the manuscript critically. AR was substantially involved in interpreting the results and writing the manuscript. All authors read and approved the final manuscript.

Acknowledgements

We would like to thank the Canton Zurich Department of Public Prosecution, as well as the Sex Offense Department of the Zurich Canton Police for supporting the study.

Further thanks go to Nicole Wetli for proof reading and further manuscript layout.

References

1. Frei A, Erenay N, Dittmann V, Graf M: **Paedophilia on the Internet – a study of 33 convicted offenders in the Canton of Lucerne.** *Swiss Medical Weekly* 2005, **135(33-34):488-494.**
2. Quayle E, Erooga M, Wright L, Taylor M, Harbinson D: **Abuse Images and the Internet.** In *Only Pictures? Therapeutic work with Internet sex offenders* Edited by: Quayle E, Erooga M, Wright L, Taylor M, Harbinson D. Lyme Regis: Russell House Publishing Ltd; 2006:1-11.
3. Taylor M, Quayle E, Holland G: **Child Pornography, the Internet and offending.** *The Canadian Journal of Policy Research* 2001, **2:94-100.**
4. Burke A, Sowerbutts S, Blundell B, Sherry M: **Child Pornography and the Internet: Policing and Treatment Issues.** *Psychiatry, Psychology and Law* 2002, **9(1):79-84.**
5. Kuhnen K: *Kinderpornographie und Internet; Child pornography in the Internet* Goettingen: Hogrefe; 2007.
6. Cooper A, Delmonico DL, Burg R: **Cybersex users, abusers, and compulsives: New findings and implications.** *Cybersex: The dark side of the force A special issue of the Journal of Sexual Addiction & Compulsivity* 2000, **7:5-27.**
7. Quayle E, Vaughan M, Taylor M: **Sex offenders, internet child abuse images and emotional avoidance: The importance of values.** *Aggression and Violent Behavior* 2006, **11(1):1-11.**
8. Quayle E, Erooga M, Wright L, Taylor M, Harbinson D: **Collecting Images.** In *Only Pictures? Therapeutic work with Internet sex offenders*

- Edited by: Quayle E, Erooga M, Wright L, Taylor M, Harbinson D. Lyme Regis: Russell House Publishing Ltd; 2006:119-129.
9. Howitt D: **Pornography and the paedophile: Is it criminogenic?** *Br J Med Psychol* 1995, **68**(Pt 1):15-27.
 10. Kingston DA, Fedoroff P, Firestone P, Curry S, Bradford JM: **Pornography use and sexual aggression: the impact of frequency and type of pornography use on recidivism among sexual offenders.** *Aggressive Behavior* 2008, **34**(4):341-351.
 11. Quayle E, Taylor M: **Child seduction and self-representation on the Internet.** *Cyberpsychol Behav* 2001, **4**(5):597-608.
 12. Quayle E, Taylor M: **Child pornography and the Internet: Perpetuating a cycle of abuse.** *Deviant Behavior* 2002, **23**(4):331-362.
 13. Riegel DL: **Effects on boy-attracted pedosexual males of viewing boy erotica.** *Arch Sex Behav* 2004, **33**(4):321-323.
 14. Seto MC, Eke AW: **The criminal histories and later offending of child pornography offenders.** *Sexual abuse: a journal of research and treatment* 2005, **17**(2):201-210.
 15. Webb L, Craissati J, Keen S: **Characteristics of internet child pornography offenders: a comparison with child molesters.** *Sexual abuse: a journal of research and treatment* 2007, **19**(4):449-465.
 16. Wolak J, Finkelhor D, Mitchell KJ: **Child-Pornography Possessors Arrested in Internet-Related Crimes: Findings From the National Juvenile Online Victimization Study.** Alexandria: National Center for Missing & Exploited Children; 2005.
 17. O'Brien MD, Webster SD: **The construction and preliminary validation of the Internet Behaviours and Attitudes Questionnaire (IBAQ).** *Sex Abuse* 2007, **19**(3):237-256.
 18. Quayle E: **The Impact of Viewing on Offending Behaviour.** In *Child Sexual Abuse And the Internet: Tackling the New Frontier* Edited by: Calder MC. Lyme Regis: Russell House Publishing Ltd; 2004:25-36.
 19. Statistisches Amt des Kantons Zürich: **Wohnbevölkerung nach Heimat und Geschlecht.** 2008 [http://www.statistik.zh.ch/themenportal/themen/daten_detail.php?id=572&tb=1&mr=2].
 20. Endrass J, Rossegger A, Urbaniok F: **Zürcher Forensik Studie. Abschlussbericht zum Modellversuch „Therapieevaluation und Prädiktorenforschung“.** 2007 [<http://www.zurichforensic.org>].
 21. Statistisches Amt des Kantons Zürich: **Erwerbsbevölkerung nach Ausbildung, 2007.** 2008 [http://www.statistik.zh.ch/themenportal/themen/daten_detail.php?id=564&tb=2&mr=2].

Pre-publication history

The pre-publication history for this paper can be accessed here:

<http://www.biomedcentral.com/1471-244X/9/43/prepub>

Publish with **Bio Med Central** and every scientist can read your work free of charge

"BioMed Central will be the most significant development for disseminating the results of biomedical research in our lifetime."

Sir Paul Nurse, Cancer Research UK

Your research papers will be:

- available free of charge to the entire biomedical community
- peer reviewed and published immediately upon acceptance
- cited in PubMed and archived on PubMed Central
- yours — you keep the copyright

Submit your manuscript here:
http://www.biomedcentral.com/info/publishing_adv.asp



Child Pornography Possessors and Child Contact Sex Offenders: A Multilevel Comparison of Demographic Characteristics and Rates of Recidivism

Sexual Abuse: A Journal of
Research and Treatment
2015, Vol. 27(5) 460–478
© The Author(s) 2014
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1079063214521469
sax.sagepub.com



Erik Faust¹, William Bickart¹, Cheryl Renaud¹,
and Scott Camp¹

Abstract

Considerable debate surrounds the topic of whether possessing or distributing online images of child pornography (CP) represents a new type of crime perpetrated by conventional sex offenders (e.g., child contact [CC] sex offenders), or whether individuals who commit these crimes differ from contact sex offenders in meaningful ways. The current study compares groups of Internet (CP) and CC sexual offenders, with each group's sexual offending history exclusively confined to its offense category. *T* tests were used to conduct bivariate comparisons of group demographics and criminal histories. Rates of recidivism were examined using survival curves and Cox proportional hazard regression models. Results showed significant differences on demographic and criminal history variables, with CP offenders demonstrating a lower frequency of prior criminal offending and substance abuse, and higher rates of pre-incarceration employment and level of education. Rates of recidivism were significantly different between the two groups, with CP offenders showing lower rates of re-offense for most measures of recidivism. When controlling for background characteristics and the timing of the event, CC offenders were at much greater risk for having an arrest for a new crime or a non-sexual violent crime than CP offenders. Treatment and policy implications are discussed, along with suggestions for future research.

Keywords

child pornography, child molestation, recidivism, survival analysis

¹Federal Bureau of Prisons, Washington, DC, USA

Corresponding Author:

Erik Faust, Sex Offender Certification Review Branch, Federal Bureau of Prisons, 400 First Street NW, Washington, DC 20534, USA.

Email: efaust@bop.gov

Introduction

Considerable debate surrounds the topic of whether the Internet-facilitated possession or distribution of child pornography (CP) represents a new type of crime perpetrated by conventional sex offenders, or whether those who possess CP constitute a “new” type of offender that differs from the conventional sex offender (Seto & Hanson, 2011). Research in this area has examined similarities and differences between Internet CP and contact sex offenders on demographic and psychological variables, rates of recidivism, and risk factors for re-offense. The first approach to this question has examined the characteristics and recidivism rates of samples of persons convicted of CP offenses, to include subjects both with and without a history of prior contact offenses. The growing literature in this area has yielded important findings such as the proportion of CP offenders with prior contact offenses or future re-offenses (Seto & Eke, 2005). Such research has the advantage of generalizability to CP offenders in criminal justice settings because the criterion for inclusion in the study is simply the commission of a CP offense. However, as will be discussed, studies of this type vary widely in the proportion of CP offenders in the sample who have histories of prior contact offending.

A second approach adopts a more restrictive definition of a CP offender by excluding subjects with any known history of contact offending. There are two advantages of this approach: First, group homogeneity may improve our understanding of within-group (CP-only offenders) characteristics, and between-group (CP vs. contact offenders) differences. Second, CP offenders who lack a history of known contact offenses against children, sometimes referred to as “just pictures” cases (Wood, Seto, Flynn, Wilson-Cotton, & Dedmon, 2009), are a subgroup of particular interest to clinicians. Indeed, representations of Internet CP offenders in the popular media appear to have this type of case in mind when referring to “internet pornography offenders” generally (Bazelon, 2013). The present study adopts this latter approach, using a restrictive definitional criterion to minimize the potential overlap between CP and contact offense histories, in an effort to gain a clearer understanding of the differences between CP and contact sexual offenders on demographic characteristics and rates of re-offending.

Child Pornography

Before the development of the Internet, CP primarily existed as printed materials, photographs, 8-mm reel-to-reel film and videocassettes. The production and duplication of these materials required expensive equipment of the kind not normally found in the average home. To distribute images of child abuse, one had to either personally transport them or rely on a domestic mail carrier. Unsurprisingly, these challenges and risks may have served as barriers to offending for some persons who would have otherwise been inclined to obtain CP. The expansion of the Internet over the past two decades has largely removed these barriers. Various forms of digital media offer quick and easy ways of producing and duplicating sexually explicit images or videos of minors. Furthermore, the Internet allows for the rapid exchange of these images

between users from all parts of the globe. As the ability to store large amounts of data at low cost increases, users are easily able to retain voluminous quantities of images and video. The true quantity of child abuse images stored around the world is incalculable, and the ability of interested individuals to access this data is limited only by the extent of their technical knowledge and their willingness to risk detection. With most homes and businesses offering ready access to a computer and the Internet along with the relative anonymity associated with the massive volume of online transactions, the perceived risk of involvement with child abuse images has diminished considerably.

Legislators, responding to the proliferation of CP, have expanded criminal codes and penalties for CP offenses. Law enforcement agencies have increased the allocation of resources aimed at the detection and apprehension efforts and the prioritization of CP cases in prosecutors' caseloads. The combination of these factors has dramatically increased the population of CP offenders in prison. In the United States, the number of CP cases handled by federal prosecutors increased by over 1000% between 1994 and 2006, and the median sentence received by those convicted of CP offenses increased from 15 to 60 months during the same time period (Motivans & Kyckelhahn, 2007).

Of the many questions regarding CP offending, perhaps the most contentiously debated is the relationship between CP and child contact (CC) sexual offending. As noted above, a proportion of CP offenders also have a history of contact sexual offending. A meta-analysis conducted by Seto and colleagues (Seto, Hanson, & Babchishin, 2011) examined 24 samples of CP offenders and determined that 12% presented histories with officially known contact offenses and 55% with self-report contact offenses (e.g., disclosures of contact offending in the context of treatment or polygraph). The extent of this proportion varied widely across samples. In some samples, none or few of the CP offenders had documented contact offense histories (e.g., Buschman & Bogaerts, 2009; Endrass et al., 2009). At the other extreme were studies that reported a very high prevalence (84.5%) of self-reported prior contact offending in CP offenders (Bourke & Hernandez, 2009).¹ The available evidence points to the conclusion that while some CP offenders are also contact offenders, others confine their offending to CP, with Seto's meta-analysis providing the best current approximation of the proportion in each category.

Comparing Child Pornography and Contact Offenders

Given the lingering questions concerning the degree of overlap between CP and contact offending, interpretation of studies examining the similarities and differences between these populations require some attention as to how a study's CP offender sample was defined. Studies have typically adopted either an offense-specific criterion (i.e., the most recent offense) or a life-history criterion (i.e., the totality of the offender's known offense history). Whether an offender convicted of a CP offense who also had a history of prior contact offenses should be characterized as a "CP offender" is a question beyond the scope of this article. Fortunately, the studies to be cited have explicitly described the criteria for inclusion in their study samples.

With the above caveat in mind, a number of studies have found differences between CP and CC offenders. CP offenders are, on average, older (Babchishin, Hanson, & Hermann, 2011; Elliott, Beech, Mandeville-Norden, & Hayes, 2009), less likely to identify as a minority (Babchishin et al., 2011), more highly educated (Blanchard et al., 2007), and more likely to have skilled or managerial-level employment as well as access to a computer, either at home or work (Babchishin et al., 2011). CC offenders are more likely to be unemployed or work in a manual profession such as retail or labor (Babchishin et al., 2011) and to have more extensive criminal histories than CP offenders.

In addition to the demographic differences shown above, a number of recent studies have compared CP and CC offenders on a variety of structured assessment instruments. Babchishin et al.'s (2011) meta-analysis also found that CP offenders scored significantly higher on three measures of sexual deviance (penile plethysmography, the Sexual Fantasy Questionnaire (Wilson, 1978) and the sexual deviance item of the STABLE-2007). Interestingly, CP offenders demonstrated a higher level of victim empathy than did CC offenders. Babchishin et al. (2011) also found that CC offenders showed more cognitive distortions and a slightly higher degree of emotional identification with children than CP offenders. In 2009, Elliott and colleagues (Elliott et al., 2009) showed that, when compared with CC offenders, CP offenders tended to have lower scores on measures associated with general criminality such as cognitive impulsivity and offense supportive beliefs.

One of the more recent studies was done by McCarthy (2010) who examined the differences between CP offenders with and without a prior history of CC offending. Exploring six areas of Internet sexual activity, she found that CP offenders with a contact offense history were more likely to have a history of illicit drug use and a history of more than one conviction for a sexual crime, and were more likely to network with others with similar sexual interests and had larger CP collections.

Recidivism and Child Pornography Offenders

Research to date in Canada, the United Kingdom, and Switzerland, suggests that CP offenders have relatively low re-offense rates when compared with CC offenders. A recent meta-analysis by Seto et al. (2011) examined a diverse group of online offenders, the majority of which were convicted of CP offenses. The analysis revealed that 4.6% re-offended with a sex crime during the 1.5- to 6-year follow-up period. Of those who recidivated with a sex crime, 43.5% committed a contact offense and 73.9% committed a new CP offense. The numbers did not total to 100% as an offender could have been charged with both types of sex crime.

The CP offender samples studied in Seto's meta-analysis vary in proportion of subjects with histories of prior contact offenses. For example, the sample studied by Faust, Bickart, and Renaud (2009) comprised 870 CP offenders, of whom 9.4% had prior convictions for contact sexual offenses. In contrast, only 2 of the 231 Internet CP subjects in the sample studied by Endrass et al. (2009) had a prior conviction for a contact sexual offense.

In sum, the accumulated evidence from the aforementioned studies suggests that CP offenders have lower rates of re-offense than contact offenders. While, as a group, it would appear that CP offenders present lower risk of re-offense than contact offenders, as individuals they present along all levels of the spectrum of risk. In reference to Internet offenders generally, Seto et al. (2011) asserted it is "a mistake to fail to differentiate online offenders by the risk they pose" (p. 140). In addition, Seto (2013) has noted that much of our knowledge of risk factors for conventional sex offenders may apply to our understanding of risk among CP and that modifications to existing risk measures may yield acceptable predictive accuracy when used with online offenders.

One of the most compelling needs for research on the risk for recidivism posed by CP offenders is to more clearly define the treatment and risk needs of this population. There is a widely supported idea that treatment interventions targeting higher risk populations are the most effective (Andrews & Bonta, 1994). Lack of knowledge about the level of risk posed by CP offenders hinders the effective prioritization of this population, driving correctional administrators to either place all of them in programs for high-risk sex offenders or, alternately, track CP offenders into low-risk, outpatient types of treatment programs. Both approaches are problematic. For CP offenders who are low risk, high-intensity treatment may inadvertently increase their risk for recidivism by their association with their more criminally inclined peers (see Lovins, Lowencamp, & Latessa, 2009; Lowencamp, Latessa, & Holsinger, 2006, for a discussion on treatment and increased recidivism risk among a population of general offenders). Conversely, treating CP offenders who are actually high risk by placing them in low-intensity programs ensures that some unknown proportion of these cases may receive a suboptimal treatment dose (Bourgon & Armstrong, 2006). In sum, given the absence of knowledge of the re-offense risk of CP offenders, correctional agencies are unable to effectively employ a risk-based approach to treatment programming. Recent efforts to validate the Risk Matrix 2000 on CP offenders in the United Kingdom yield evidence of acceptable predictive accuracy, suggesting that an effective risk tool will be at hand in the foreseeable future (Barnett, Wakeling, & Howard, 2010). However, the low overall re-offense base rates among CP offenders may necessitate further research with larger sample sizes or longer follow-up periods (Wakeling, Howard, & Barnett, 2011).

Finally, with the growing but still relatively small number of studies on CP offenders, we have noted some important differences in the definitional criteria for inclusion in a CP offender sample. As a result, the samples studied in prior research vary significantly in the degree to which CP group samples included subjects with a total history that includes both CP and CC offending. We do not argue that one definition or method of sample selection is superior to the other; however, we assert that it is important to be conscious of definitional issues in interpreting the literature in this area of study. Our approach in this study applies a life-history definition of a CP offender, to exclude subjects with known histories of contact offending. We argue that this approach increases the homogeneity of group and provides the clearest contrast between these modes of offending, at least for the purpose of comparing offender characteristics and rates of re-offense.

Present Study

The current study attempts to expand on the literature concerning CP offenders and their risk of recidivating by comparing them with a sample of CC sex offenders. More specifically, the CP offenders in this study encompass the “just pictures” offenders that have been the subject of much debate in the U.S. criminal justice system. Also examined is the degree to which the offender’s status as a CP or CC offender is still relevant when known criminal history and demographic variables are added to a model describing various types of recidivism.

Method

Subjects

The sample was selected from the total population of male sex offenders released from federal (U.S.) custody between 2002 and 2005. Within the U.S. federal prison system, an inmate is classified as a sex offender for case management purposes if he has a current or prior sex offense conviction, either in federal or state jurisdictions. This study included individuals identified as sex offenders using this definition. This selection process yielded an initial sample of 638 offenders. A small minority ($n = 5$) of subjects were serving a sentence for a non-sexual offense, and were included in the sample based on a prior sex offense conviction.

To classify sample subjects as CP or CC offenders, complete criminal histories were examined for offending patterns. Specifically, if an offender was serving time for a CP offense, but had a conviction for a CC offense, either in addition to or at some point prior to their current offense, they were excluded from the analysis. The same held true for offenders serving time for a CC offense, but who had a concurrent or prior conviction for a CP offense.

As a result of the application of the above classification scheme, the CP group comprised 428 offenders who had a history of one or more convictions for the possession or distribution of CP, and no known history of CC sexual offenses.² Of these, all 428 were serving time for a CP index offense. The CC group comprised 210 offenders who had a history of one or more convictions for a contact sexual offense and no history of arrests or convictions for the possession or distribution of CP. Of this group, 205 of the 210 were incarcerated for a CC index offense.

The Federal correctional system’s information management and classification system (SENTRY) was used to collect data on demographic variables such as race, age at release for index offense, ethnicity, and criminal history score. The criminal history score was created by the U.S. Sentencing Commission and is used to calculate the severity of the individual’s criminal history prior to the individuals sentencing for current offense of conviction. Score categories range from 1, least severe (0-1 point) to 6, most severe (13 or more points). Data on current offense, prior offenses, family history, education, and employment were coded from the Pre-Sentence Investigation report (PSI-R) created by U.S. Probation for the U.S. Federal Courts for each offender.

Specific variables coded from the PSI-R were selected due to the fact that they were consistently available (i.e., not typically missing) and had been shown to be predictive of recidivism in other studies (see Faust et al., 2009).

Measuring Recidivism

Recidivism was defined as any arrest for the commission of a new crime or probation violation that occurred between the offender's release from custody and the date of the National Crime Information Center (NCIC) information retrieval (censoring date). Arrest information was taken from (NCIC) reports for each offender. The NCIC is a computerized index of state and federal criminal justice information maintained by the Federal Bureau of Investigation. Not all states report to the NCIC, so multi-state record checks were also performed on all offenders. Results of these record checks were coded along with NCIC reports.

Arrests that were described as technical violations of supervised release were coded as probation violations. An arrest defined as a new criminal event based solely on the post-release status of an arrestee was coded as a probation violation. For example, a sex offender charged with the crime of failing to register was coded as a probation violation. Failing to register is a crime only for those with a status as a sex offender. Conversely, arrests for new criminal behavior that were listed as supervised release violations were coded as new arrests for criminal behavior.

Offenses considered new crimes were broken down into one of four categories. Offenses not involving a sexual element and lacking any violent conduct were categorized as Non-sexual Non-violent (e.g., theft, possession of narcotics, driving under the influence). Those offenses without a sexual element, but that contained violent conduct, were categorized as Violent Non-sexual (e.g., assault, robbery, domestic violence). Offenses with a sexual element were sorted into one of the two remaining categories. Sexual offenses involving direct contact with a victim (e.g., sexual assault of a child) or those with no physical contact but with a targeted victim (e.g., exposure) were coded as Sex Offense Targeted Victim. Finally, any arrests or convictions for possession or distribution of CP were coded as Child Pornography Offense.

Time at Risk for Recidivism

Time at risk was defined as the number of months between the date the offender left custody and the date of arrest or the date of censoring. The censoring date was the date of the NCIC retrieval for those with no arrests or the date of a competing arrest for those arrested on a different type of recidivism. Risk intervals were calculated for each type of recidivism under consideration. This interval was defined as the amount of time between when the offender left custody and the outcome of interest (i.e., type of recidivism), or the censoring date. This yielded a measure of risk for re-offense that controlled for time periods where the offender was out of the risk pool.

Statistical Method

The current analysis started with bivariate comparisons between CP and CC offenders on a number of demographic and criminal history variables. This step was taken to determine the extent of measurable differences between the two groups and to identify potential covariates for a multivariate model assessing the differences between CP and CC offenders.

As there was no fixed follow-up time for the sample, differences in rates of recidivism between the groups were examined in two steps. First, models comparing CP and CC offenders' survival rates were computed using survival curves. Kaplan–Meier estimates provided estimates of the probability of group survival to the point on the graph under examination. Second, as it appeared that CP and CC group comparisons were significant in the survival curves, a comparison of CP and CC offenders was made with multivariate Cox-regression. Variables flagged as significantly different in the bivariate models were tagged as potential covariates for the Cox-regression model. Including covariates provided a step for identifying confounding effects of variables other than CP and CC status. The Cox model produced an estimate of the independent effects of offense type (i.e., CP vs. CC), after controlling for the other covariates (i.e., demographics, criminal history, and mental health factors).

As the number of observed instances of recidivism in the current study was low, with the exception of the “any arrest” outcome, it was necessary to limit the number of independent covariates that were included in the Cox-regression models. As the primary focus was CP/CC differences, the decision was made to utilize stepwise regression techniques (forward selection) to obtain the final models. In all models, offense type (CP or CC) was included. As the primary focus of the analysis was directed at interpreting this variable, any resulting discrepancies between models in terms of the variables included were not theoretically problematic.

Results

Sample Characteristics

Of the full sample of sex offenders, 32% ($n = 210$) were classified as CC offenders while 68% ($n = 428$) fell into the CP category. Demographic characteristics are presented in Table 1.

CP offenders were significantly different from CC offenders on all of the included demographic variables. CP offenders were significantly older than CC offenders when they were released from prison (4 years older on average). CC offenders were significantly less likely to have been married at the time of their arrest for their current incarceration and significantly less likely to have been employed prior to their arrest. CP offenders were also disproportionately White.

Table 1 also shows that CP offenders were significantly different from CC offenders on all but one of the observed historical variables. Specifically, CP offenders were significantly older (10 years on average) than CC offenders when first arrested. They were also significantly less likely to have a history of substance abuse issues and to report having been sexually abused as a child. CP offenders were more likely to have

Table 1. Characteristics of the Child Pornography (CP; $n = 428$) and Child Contact (CC; $n = 210$) Samples.

	CP (%)	CC (%)
Demographics		
Race		
African American	5 (1.2)	38 (18.2)
White	399 (93.0)	43 (20.5)*
Asian	8 (1.9)	0 (0.0)
Native American	1 (0.2)	115 (55.0)
Hispanic	16 (3.7)	14 (6.7)
Age at release (M)	43.0 ($SD = 11.4$)	39.1 ($SD = 12.1$)*
Education (M years completed)	13.7 ($SD = 2.4$)	11.2 ($SD = 2.6$)*
Married (at time of arrest)	141 (32.9)	49 (23.4)*
Employed (at time of arrest)	365 (85.8)	128 (61.0)*
Criminal history and mental health		
Age at first arrest (mean)	33.7	23.7*
Prior substance abuse	59 (13.7)	90 (43.1)*
Mental health treatment	119 (28.0)	48 (22.8)
Sexually abused as child	50 (11.7)	37 (17.6)*
No prior arrests/convictions	243 (58.0)	53 (25.2)*
Criminal history score	0.59 ($SD = 1.77$)	2.23 ($SD = 5.1$)*
Recidivism		
New crime as first arrest	39 (9.1)	54 (25.7)
Probation violation as first arrest	82 (19.2)	81 (38.6)
Non-sexual non-violent	27 (6.3)	56 (26.7)
Non-sexual violent	6 (1.4)	30 (14.3)
Sexual (w/targeted victim)	13 (3.0)	12 (5.7)
Sexual (child pornography)	7 (1.6)	0 (0.0)

*Indicates statistical significance at $p \leq .05$.

no prior arrests or convictions than CC offenders. This was also reflected in the finding that CP offenders had criminal history scores that were, on average, two points lower than scores of CC offenders. Finally, the CP group did not differ from the CC group in terms of whether they had a documented history of mental health treatment.

The follow-up period for the full sample ranged from 1 to 9 years, with an average of 4.8 years ($SD = 1.5$). During this period, 256 (41.1%) persons in the sample were arrested at least once. Table 1 shows the frequencies of arrests for the categories previously described. Overall, the majority of arrests were for probation violations (63.6%) followed by non-sexual non-violent offenses.

Survival Curves: CP Versus CC

A survival curve representing differences in survival rates and corresponding confidence intervals for an arrest for a new crime as first arrest after release is shown in

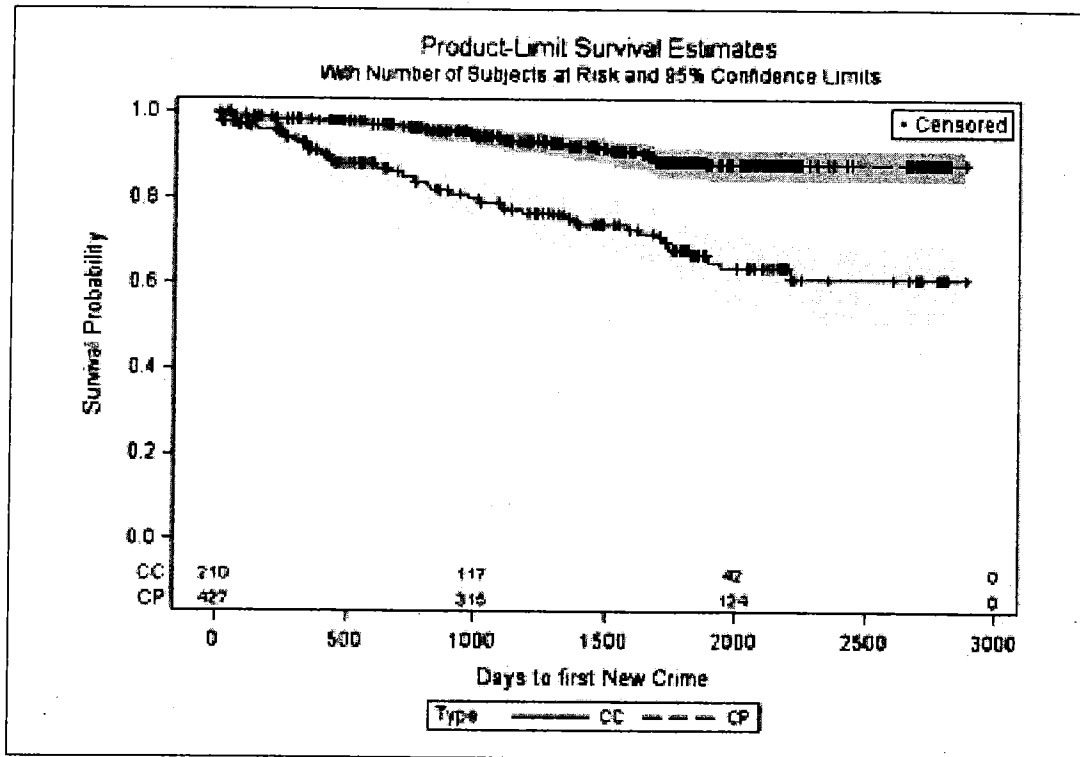


Figure 1. Survival curves for days to first crime comparing CP ($n = 428$) and CC ($n = 210$) offenders, with number of subjects at risk and 95% confidence intervals.

Note. CP = child pornography; CC = child contact.

Figure 1. As the graph indicates, in bivariate comparisons, CC offenders have lower survival rates for all points in time.

The survival curve for a probation violation is depicted in Figure 2. The survival rate for CP and CC offenders was not statistically distinguishable until about 2,000 days, or 5.5 years. At that point, the survival rates diverged, with CP offenders surviving at a higher rate. The large drop-off noted at the end of the curve for both groups is likely an artifact of the small sample size remaining at these time points and the infrequency of these events.

Non-sexual non-violent offending was examined next (not shown). The pattern shown here was similar to the results for probation violations: CP offenders eventually survived at a higher rate than CC offenders, but this difference was not statistically evident until later points in time. In this case, the differences started to emerge between 1,500 and 2,000 days from initial release from custody.

Non-sexual violent offending is the focus of Figure 3. As seen here, CP offenders had higher survival rates than CC offenders for all time periods examined. CC offenders had higher rates of re-offending, and the groups' differences showed up much earlier than that for the other offense types examined.

The final re-offense type examined is sexual offending against a targeted victim. The results (not shown) suggest that there was limited offending of this type overall, and little distinction between CP and CC offenders that there was little distinction

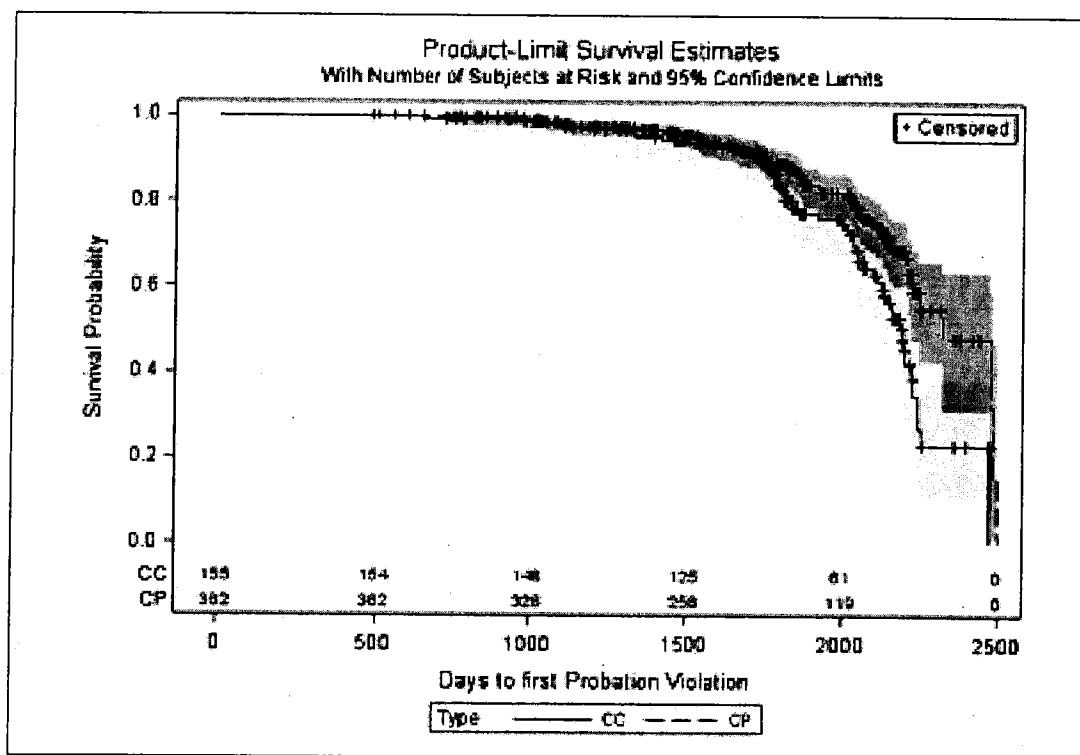


Figure 2. Survival curves for days to first probation violation comparing CP ($n = 428$) and CC ($n = 210$) offenders, with number of subjects at risk and 95% confidence intervals. Note. CP = child pornography; CC = child contact.

between CP and CC offenders, or much offending of this type in general. The lack of differentiation between the two groups is not surprising given the low frequency of this event.

In summary, the survival curves indicated that, when controlling for time at risk, there were significant differences between CP and CC offenders with regard to all measures of recidivism, with the exception of sexual re-offending. The greatest differences were noted for new crime as first arrest and non-sexual violent crimes.

Survival Analysis

The next stage of the analysis utilized Cox proportional hazard models to test the extent to which significant group differences observed in the survival curves remained when demographic and criminal history variables were considered.

The results for the Cox proportional hazard models are shown in Table 2. Only the effect for offense type (CP compared with CC) is reported in the table for the five measures of recidivism examined. The identification of the statistically significant controls used forward stepwise Cox proportional regression. Given that interpretation of the control variables was not the purpose of the current study, the parameters for the control variables were not reported in Table 2.

Several significant relationships found in the survival curve analysis were no longer significant when examined with the inclusion of the background characteristics.

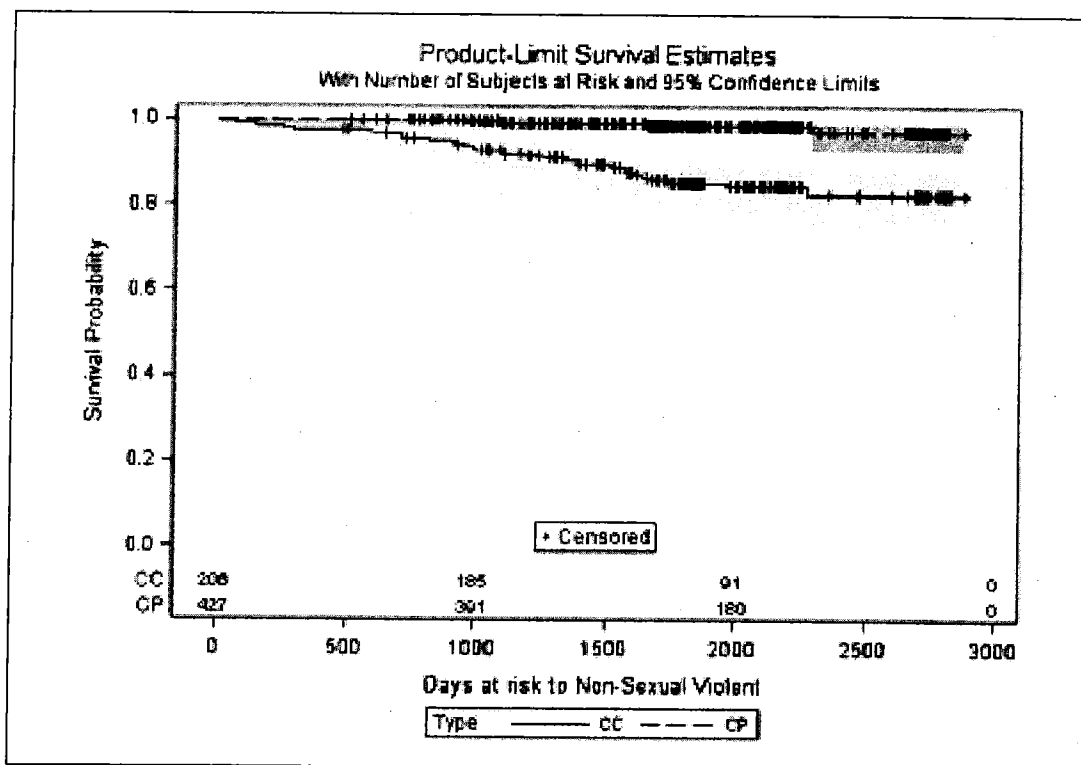


Figure 3. Survival curves for days to non-sexual violent comparing CP ($n = 428$) and CC ($n = 210$) offenders, with number of subjects at risk and 95% confidence intervals.

Note. CP = child pornography; CC = child contact.

Table 2. Effect of Offense Type (CC vs. CP) for Different Measures of Recidivism.

Outcome	Estimate	Hazard ratio	SE	χ^2	Pr > χ^2
New crime as first arrest	0.62071	1.860	0.22648	7.5111	.0061*
Probation violation as first arrest	-0.30164	0.740	0.24363	1.5329	.2157
Non-sexual non-violent	0.30239	1.353	0.27317	1.2254	.2683
Non-sexual violent	1.89129	6.628	0.45976	16.9210	<.0001*
Sexual (w/targeted victim)	0.14985	1.162	0.37312	0.1613	.6880

Note. CP = child pornography; CC = child contact.

*Indicates statistical significance at $p \leq .05$.

For example, the effect of offender type (CP or CC) was no longer significant when examining probation violations and arrests for non-sexual non-violent crimes with the inclusion of background characteristics. The recidivism types that remained significant were those for New Crime and non-sexual violent offenses. For a new crime arrest, the hazard rate for CC offenders was 86% higher than the hazard rate for CP offenders. For non-sexual violent arrests, CC offenders had a hazard rate that was almost 563% higher than the hazard rate for CP offenders. These findings indicate that

when controlling for background characteristics and the timing of the event, CC offenders were at much greater risk for having an arrest for a new crime or a non-sexual violent crime than CP offenders.

The results for targeted sexual recidivism are also presented in Table 2. There were too few instances of targeted sexual offending for any reliable statistical analysis. None of the independent variables considered here predicted this outcome. Possession of CP is not shown in a table as no CC offenders were arrested for this during the observation period.

In summary, the Cox models confirmed a few of the relationships shown in the survival curves: CC offenders were at higher risk for a new arrest and for non-sexual violent than CP offenders. For probation violations, however, differences between CP and CC offenders were no longer significant as they were in the survival curves. The significant relationship between offender type and non-sexual non-violent arrests was also no longer significant when examined in the context of significant background characteristics.

Discussion

The current study examined a sample of released correctional inmates who were identified as sexual offenders and compared those with a history of possession or distribution of CP to those with a history of contact sexual offenses against children. Overall, our results indicated that these two groups differed on a number of demographic and criminal history variables. They were also different from one another when it came to an examination of several types of recidivism.

The differences in demographic variables may be relevant to the respective processes for CP and CC offending. For example, it is possible that many CP offenders and CC offenders share a common underlying offense motivation (e.g., pedophilic interest), but the modality of offending is influenced by the individual's access to, and familiarity with, the Internet. The degree of familiarity and access may, in turn, be related to his employment status, educational level, and related factors. Despite the presumed ubiquity of the Internet, a recent survey of 5,005 adult Americans found that a large segment of the population continued to lack home access to the Internet. For example, only 24% of persons who lacked a high school diploma had broadband at home, compared with 86% of college graduates (Horrigan, 2010). Although our study did not examine the extent to which our subjects had Internet access, given the demographic differences between the two groups, it is likely that a smaller proportion of the CC offender group had ready access to the Internet, or the skills to use it.

We also found that the CP and CC groups differed on many of the personal and criminal history variables. While the groups did not differ in terms of whether they had documented histories of mental health treatment, significantly fewer CP offenders had documented histories of substance abuse and child sexual abuse than CC offenders. CP offenders were also more likely to be first-time offenders than were CC offenders. In addition, CP offenders were, on average, older than CC offenders when first arrested. This suggests that, compared with the CC group, CP offenders either began

to engage in criminal behavior significantly later in life, or were better able to conceal their criminal behavior from law enforcement for a significantly longer period of time. In sum, our results are consistent with the findings of other studies, indicating that CP offenders, compared with contact offenders, tend to display fewer factors associated with a criminal lifestyle (substance abuse, criminal history) and more factors associated with pro-social orientation (marriage, employment, education).

The results of the survival curve analysis of the differences in rates of recidivism showed that when examined at the bivariate level, CP offenders were less likely to be rearrested for most of the types of recidivism. This is consistent with findings from other studies that had a more liberal definition of CP offending (see Webb, Craissati, & Keen, 2007), or who examined CP offenders without comparing them with a group of CC offenders (Seto et al., 2011).

Previous studies have increased our understanding of CP offenders by comparing the number of offenses known to law enforcement with the number of prior self-reported contact offenses offenders disclosed during a polygraph or in treatment (Bourke & Hernandez, 2009; Wood et al., 2009). These findings have been used to advance the argument that many, if not most, CP offenders are also contact offenders. As noted by Bourke and Hernandez (2009), the number of prior contact offenses acknowledged by CP offenders “challenges the often repeated assertion that CP offenders are ‘only’ involved with ‘pictures’” (p. 188). However, our findings suggest that whatever the extent of overlap between CP and contact offending, this relationship does not carry forward into future offending, at least with respect to non-sexual offending. Our study, consistent with others cited above, adds to the growing consensus that CP offenders are, as a group, comparatively low risk for recidivism compared with CC offenders.

Our finding, that offense type (i.e., CP vs. CC) was predictive of any future criminal activity, was still present for two of the five types of recidivism examined when controlling for significant demographic and criminal history variables. Given the current study examined a limited number of background characteristics, it is possible that group differences in recidivism would disappear with the inclusion of other variables typically associated with risk, such as psychopathy, for example. Moreover, there may be protective factors for re-offense that differentially impact recidivism for each group.

Elliott et al. (2009) found that compared with offline offenders, online offenders tended to have less external locus of control, and lower levels of impulsivity. Thus, it is possible that these constructs serve as protective factors for a significant subset of CP offenders. Given that the pre-offense lives of CP offenders were characterized by pro-social rewards (better education, marriage, employment), it may also be that the potential loss of these rewards through criminal conviction/incarceration also served as a greater deterrent for re-offense among CP offenders than CC offenders whose lives offered fewer of those rewards. Although our findings did show that some CP offenders went on to sexually abuse a child, most did not. This points to existence of a subset of CP offenders who are distinct from those who have CC offenses (Babchishin et al., 2011). We should note however, that the sample purposively excluded mixed

offenders (i.e., those who had a history of CP and CC offending). Therefore, there may be offense processes that occur for this group that are wholly different than for the two groups studied here and that which we were unable to capture in our analysis.

Treatment Implications

There are significant treatment implications to our findings. First, because CP offenders who recidivate tend to do so sexually, programs serving these offenders are advised to concentrate on factors related to sexual deviancy and sexual self-regulation. The treatment protocol for CP offenders developed by Quayle, Erooga, Wright, Taylor, and Harbinson (2006) places an appropriate emphasis on the escalation of sexual fantasy and its influence on the offense process. Deficits in emotional self-regulation or intimacy may also be appropriate treatment targets, but future research is necessary to determine whether these stable dynamic factors are appropriate targets with CP offenders as they appear to be with contact offenders.

The second treatment implication is that, given the low overall re-offense rates of Internet CP offenders, correctional treatment programs are unlikely to achieve significant reduction in recidivism in directing services toward this group. As noted above, it is highly desirable to reserve high-intensity treatment for higher risk offenders, and afford lower intensity services to lower risk inmates. As far as the available empirical evidence is concerned, it appears warranted to view Internet CP offenders as a low-risk population, requiring less intensive interventions. As more of these offenders appear in therapy sessions or treatment groups, we are wise to pause and consider what we hope to achieve with this population. Our results suggest that significant reductions in recidivism are unlikely due to the low overall re-offense base rate of CP offenders.

It should be clarified that if CP offenders as a group are low risk, as individuals they present at all levels of the spectrum of risk. There is increasing consensus that static and dynamic risk factors for contact offenders may also be applied to the CP population (Hanson & Babchishin, 2009; Seto, 2009a, 2009b). Based on this, we might place into intensive programs those CP offenders who present with factors known to be associated with risk among sex offenders in general, such as those who are younger or who have histories of prior sexual or non-sexual offenses. One of the most important risk factors for contact sexual offenders is paraphilic arousal for/interest in children. It is not clear if sexual deviancy is a risk factor for future offending among CP offenders, and if so, how this can be assessed. Recently, there have been efforts to isolate CP offense characteristics related to sexual deviancy to determine whether they are suggestive of elevated risk (e.g., number of images; level of organization of the offender's CP collection; age and gender of children in images; Seto, 2009b). However, much research still needs to be done before we can determine which factors reliably predict risk among CP offenders.

Agencies providing treatment programs for CP offenders are advised to conduct research to ensure that these programs are actually reducing rates of re-offense in the clinical population. Moreover, there is good reason to broaden program evaluation outcome criteria to include measures of quality of life and wellness. In our sample, CP

offenders were similar to CC offenders in terms of the numbers in each group with documented prior mental health treatment. In addition, we found that offenders in the CC group were more likely than those in the CP group to have documented substance abuse and child sexual abuse histories. However, other researchers have begun to find that CP offenders are more likely than CC offenders to present with psychological difficulties (Webb et al., 2007) and deficits in interpersonal functioning and affective difficulties (Laulik, Allam, & Sheridan, 2007). Therefore, interventions aimed at improving intimacy and emotional self-regulation skills may be valuable with this population. In addition, anecdotal evidence from clinicians suggests that many CP offenders are distressed by their inability to effectively manage their sexual thoughts, and may benefit from programs designed to build sexual self-regulation skills. Even in the absence of appreciable change in the offender's likelihood of re-offense, such interventions have the potential to greatly improve the lives of treatment participants. Of course, from a resource allocation perspective within correctional agencies, programs aimed at reducing recidivism among higher risk offenders may have greater priority than those addressing treatment targets that are not directly related to risk of re-offense.

Limitations

While this study provided a representative sample of CP offenders, one limitation of this study is the representativeness of the CC offenders. More specifically, our sample of offenders serving time for child molestation or sexual assault comprised largely offenders from the District of Columbia, tribal lands, and to a lesser extent, military bases and national parks. This is apparent in the disproportionate number of Native Americans in the CC group. This is mainly due to the fact that, in the United States most child sex offenses that contain an element of contact fall under the jurisdiction of the state. It is, therefore, possible that these offenders would not be representative of child sexual abusers one might find in a state sample.

Analyzing recidivism for sexual offenses was problematic because of the relatively low rates of rearrest during the observed follow-up period. This was especially true for contact sexual recidivism, wherein rates were so low as to preclude the finding of any significant differences between the two groups. A post hoc power analysis revealed that we would either have to increase our sample size threefold, or extend our observation period by a minimum of 10 years to obtain enough observations to find a significant difference between the two groups.

Conclusion

Although the results of the current study should be interpreted within the context of these methodological limitations, this study makes a meaningful contribution to our understanding of Internet CP offenders. However, much additional research is needed to help us understand this relatively new population of offenders. The current study suggests that in many, if not most cases, we should consider and treat CP offenders differently from how we do contact offenders. However, in some cases, perhaps a

minority of cases, CP offenders may be more similar to contact offenders than they are different. Identifying those factors that distinguish the latter group from the former should be prioritized in future investigations.

Authors' Note

Opinions expressed in this manuscript are those of the authors and do not necessarily represent the position of the Federal Bureau of Prisons or the U.S. Department of Justice.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Notes

1. This latter sample, characterized as an outlier, was excluded from the meta-analysis.
2. Evidence of prior child contact offending was expanded beyond simple convictions and included arrests and allegations. If any evidence of these was found, the child pornography (CP) offender was considered to have a history of contact offending and was removed from the analysis.

References

- Andrews, D. A., & Bonta, J. (1994). *The psychology of criminal conduct*. Cincinnati, OH: Anderson Publishing.
- Babchishin, K. M., Hanson, R. K., & Hermann, C. A. (2011). The characteristics of online sex offenders: A meta-analysis. *Sexual Abuse: A Journal of Research and Treatment, 23*, 92-123.
- Barnett, G. D., Wakeling, H. C., & Howard, P. D. (2010). An examination of the predictive validity of the Risk Matrix 2000 in England and Wales. *Sexual Abuse: A Journal of Research and Treatment, 22*, 443-470.
- Bazelon, E. (2013, April 25). Passive pedophiles: Are child porn viewers less dangerous than we thought? *Slate Magazine*. Retrieved from <http://www.slate.com>
- Blanchard, R., Kolla, N. J., Cantor, J. M., Klassen, P. E., Dickey, R., Kuban, M. E., & Blak, T. (2007). IQ, handedness, and pedophilia in adult male patients stratified by referral source. *Sexual Abuse: A Journal of Research and Treatment, 19*, 285-309.
- Bourgon, G., & Armstrong, B. (2006). Transferring the principles of effective treatment into a "Real World" setting. *Criminal Justice and Behavior, 32*, 3-25.
- Bourke, M. L., & Hernandez, A. E. (2009). The "Butner Redux": A report of the incidence of hands-on child victimization by child pornography offenders. *Journal of Family Violence, 24*, 183-191.
- Buschman, J., & Bogaerts, S. (2009). Polygraph testing internet offenders. In D. Wilcox (Ed.), *The use of polygraph in assessing, treating, and supervising sex offenders: A practitioner's guide* (pp. 111-126). Chichester, UK: Wiley-Blackwell.

- Elliott, I. A., Beech, A. R., Mandeville-Norden, R., & Hayes, E. (2009). Psychological profiles of Internet sexual offenders: Comparisons with contact sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 21*, 76-92.
- Endrass, J., Urbaniok, F., Hammermeister, L. C., Benz, C., Elbert, T., Laubacher, A., & Rossegger, A. (2009). The consumption of Internet CP and violent and sex offending. *BMC Psychiatry, 9*, Article 43. Retrieved from www.biomedcentral.com
- Faust, E., Bickart, W., & Renaud, C. (2009, October). *Predictors of re-offense among a sample of federally convicted child pornography offenders*. Paper presented at the 28th Annual Conference of the Association for the Treatment of Sexual Abusers, Dallas, Texas.
- Hanson, R. K., & Babchishin, K. M. (2009, April 5-7). *How should we advance our knowledge of risk assessment for internet sexual offenders?* Paper presented at the Global Symposium for Examining the Relationship Between Online and Offline Offenses and Preventing the Sexual Exploitation of Children, The Injury Prevention Research Center, The University of North Carolina, Chapel Hill.
- Horrigan, J. B. (2010). *Broadband adoption and use in America* (OBI Working Paper Series No. 1). Washington, DC: Federal Communication Commission.
- Laulik, S., Allam, J., & Sheridan, L. (2007). An investigation into maladaptive personality functioning in internet sex offenders. *Psychology, Crime & Law, 13*, 523-535.
- Lovins, B., Lowencamp, C. T., & Latessa, E. (2009). Applying the risk principle to sex offenders: Can treatment make some sex offenders worse? *The Prison Journal, 89*, 344-357.
- Lowencamp, C. T., Latessa, E., & Holsinger, A. (2006). The risk principle in action: What have we learned from 13,676 offenders and 97 correctional programs? *Crime & Delinquency, 51*, 1-17.
- McCarthy, Jennifer, A. (2010). Internet sexual activity: A comparison between contact and non-contact child pornography offenders. *Journal of Sexual Aggression, 16*, 181-195.
- Motivans, M., & Kyckelhahn, T. (2007). *Federal prosecution of child sex exploitation offenders, 2006* (Bureau of Justice Statistics Bulletin, Report No. NCJ 219412). Washington, DC: Bureau of Justice Statistics.
- Quayle, E., Erooga, M., Wright, L., Taylor, M., & Harbinson, D. (2006). *Only pictures? Therapeutic work with internet sex offenders*. Lyme Regis, UK: Russell House Publishing.
- Seto, M. C. (2009a, April 5-7). *Assessing the risk posed by child pornography offenders*. Paper presented at the Global Symposium for Examining the Relationship Between Online and Offline Offenses and Preventing the Sexual Exploitation of Children, The Injury Prevention Research Center, The University of North Carolina, Chapel Hill.
- Seto, M. C. (2009b, October). *A picture is worth a thousand words: What do we know about child pornography offenders*. Presented at the annual meeting of the Association for the Treatment of Sexual Abusers, Dallas, TX.
- Seto, M. C. (2013). *Internet sex offenders*. Washington, DC: American Psychological Association.
- Seto, M. C., & Eke, A. (2005). The criminal histories and later offending of child pornography offenders. *Sexual Abuse: A Journal of Research and Treatment, 17*, 201-210.
- Seto, M. C., & Hanson, R. K. (2011). Introduction to special issue on internet-facilitated sexual offending. *Sexual Abuse: A Journal of Research and Treatment, 23*, 3-6.
- Seto, M. C., Hanson, R. K., & Babchishin, K. M. (2011). Contact sexual offending by men with online sexual offenses. *Sexual Abuse: A Journal of Research and Treatment, 23*, 124-145.
- Wakeling, H. C., Howard, P., & Barnett, G. (2011). Comparing the validity of the RM2000 scales and OGRS3 for predicting recidivism by internet sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 23*, 146-168.

- Webb, L., Craissati, J., & Keen, S. (2007). Characteristics of internet child pornography offenders: A comparison with child molesters. *Sexual Abuse: A Journal of Research and Treatment, 19*, 449-465.
- Wilson, G. D. (1978). *The secrets of sexual fantasy*. London, England: Dent.
- Wood, J. M., Seto, M. C., Flynn, S., Wilson-Cotton, S., & Dedmon, P. (2009, October). *Is it "just" pictures? The use of polygraph with internet offenders who deny abusive sexual contact*. Poster session presented at the annual meeting of the Association for the Treatment of Sexual Abusers, Dallas, TX.

THE JOURNAL OF PHILOSOPHY

VOLUME LXVIII, NO. 1, JANUARY 14, 1971

FREEDOM OF THE WILL AND THE CONCEPT OF A PERSON

WHAT philosophers have lately come to accept as analysis of the concept of a person is not actually analysis of *that* concept at all. Strawson, whose usage represents the current standard, identifies the concept of a person as "the concept of a type of entity such that *both* predicates ascribing states of consciousness *and* predicates ascribing corporeal characteristics . . . are equally applicable to a single individual of that single type."¹ But there are many entities besides persons that have both mental and physical properties. As it happens—though it seems extraordinary that this should be so—there is no common English word for the type of entity Strawson has in mind, a type that includes not only human beings but animals of various lesser species as well. Still, this hardly justifies the misappropriation of a valuable philosophical term.

Whether the members of some animal species are persons is surely not to be settled merely by determining whether it is correct to apply to them, in addition to predicates ascribing corporeal characteristics, predicates that ascribe states of consciousness. It does violence to our language to endorse the application of the term 'person' to those numerous creatures which do have both psychological and material properties but which are manifestly not persons in any normal sense of the word. This misuse of language is doubtless innocent of any theoretical error. But although the offense is "merely

¹ P. F. Strawson, *Individuals* (London: Methuen, 1959), pp. 101–102. Ayer's usage of 'person' is similar: "it is characteristic of persons in this sense that besides having various physical properties . . . they are also credited with various forms of consciousness" [A. J. Ayer, *The Concept of a Person* (New York: St. Martin's, 1963), p. 82]. What concerns Strawson and Ayer is the problem of understanding the relation between mind and body, rather than the quite different problem of understanding what it is to be a creature that not only has a mind and a body but is also a person.

verbal," it does significant harm. For it gratuitously diminishes our philosophical vocabulary, and it increases the likelihood that we will overlook the important area of inquiry with which the term 'person' is most naturally associated. It might have been expected that no problem would be of more central and persistent concern to philosophers than that of understanding what we ourselves essentially are. Yet this problem is so generally neglected that it has been possible to make off with its very name almost without being noticed and, evidently, without evoking any widespread feeling of loss.

There is a sense in which the word 'person' is merely the singular form of 'people' and in which both terms connote no more than membership in a certain biological species. In those senses of the word which are of greater philosophical interest, however, the criteria for being a person do not serve primarily to distinguish the members of our own species from the members of other species. Rather, they are designed to capture those attributes which are the subject of our most humane concern with ourselves and the source of what we regard as most important and most problematical in our lives. Now these attributes would be of equal significance to us even if they were not in fact peculiar and common to the members of our own species. What interests us most in the human condition would not interest us less if it were also a feature of the condition of other creatures as well.

Our concept of ourselves as persons is not to be understood, therefore, as a concept of attributes that are necessarily species-specific. It is conceptually possible that members of novel or even of familiar nonhuman species should be persons; and it is also conceptually possible that some members of the human species are not persons. We do in fact assume, on the other hand, that no member of another species is a person. Accordingly, there is a presumption that what is essential to persons is a set of characteristics that we generally suppose—whether rightly or wrongly—to be uniquely human.

It is my view that one essential difference between persons and other creatures is to be found in the structure of a person's will. Human beings are not alone in having desires and motives, or in making choices. They share these things with the members of certain other species, some of whom even appear to engage in deliberation and to make decisions based upon prior thought. It seems to be peculiarly characteristic of humans, however, that they are able to form what I shall call "second-order desires" or "desires of the second order."

Besides wanting and choosing and being moved *to do* this or that, men may also want to have (or not to have) certain desires and motives. They are capable of wanting to be different, in their preferences and purposes, from what they are. Many animals appear to have the capacity for what I shall call "first-order desires" or "desires of the first order," which are simply desires to do or not to do one thing or another. No animal other than man, however, appears to have the capacity for reflective self-evaluation that is manifested in the formation of second-order desires.²

I

The concept designated by the verb 'to want' is extraordinarily elusive. A statement of the form "*A* wants to *X*"—taken by itself, apart from a context that serves to amplify or to specify its meaning—conveys remarkably little information. Such a statement may be consistent, for example, with each of the following statements: (a) the prospect of doing *X* elicits no sensation or introspectible emotional response in *A*; (b) *A* is unaware that he wants to *X*; (c) *A* believes that he does not want to *X*; (d) *A* wants to refrain from *X*-ing; (e) *A* wants to *Y* and believes that it is impossible for him both to *Y* and to *X*; (f) *A* does not "really" want to *X*; (g) *A* would rather die than *X*; and so on. It is therefore hardly sufficient to formulate the distinction between first-order and second-order desires, as I have done, by suggesting merely that someone has a first-order desire when he wants to do or not to do such-and-such, and that he has a second-order desire when he wants to have or not to have a certain desire of the first order.

As I shall understand them, statements of the form "*A* wants to *X*" cover a rather broad range of possibilities.³ They may be true even when statements like (a) through (g) are true: when *A* is unaware of any feelings concerning *X*-ing, when he is unaware that he wants to *X*, when he deceives himself about what he wants and

² For the sake of simplicity, I shall deal only with what someone wants or desires, neglecting related phenomena such as choices and decisions. I propose to use the verbs 'to want' and 'to desire' interchangeably, although they are by no means perfect synonyms. My motive in forsaking the established nuances of these words arises from the fact that the verb 'to want', which suits my purposes better so far as its meaning is concerned, does not lend itself so readily to the formation of nouns as does the verb 'to desire'. It is perhaps acceptable, albeit graceless, to speak in the plural of someone's "wants." But to speak in the singular of someone's "want" would be an abomination.

³ What I say in this paragraph applies not only to cases in which 'to *X*' refers to a possible action or inaction. It also applies to cases in which 'to *X*' refers to a first-order desire and in which the statement that '*A* wants to *X*' is therefore a shortened version of a statement—"A wants to want to *X*"—that identifies a desire of the second order.

believes falsely that he does not want to *X*, when he also has other desires that conflict with his desire to *X*, or when he is ambivalent. The desires in question may be conscious or unconscious, they need not be univocal, and *A* may be mistaken about them. There is a further source of uncertainty with regard to statements that identify someone's desires, however, and here it is important for my purposes to be less permissive.

Consider first those statements of the form "*A* wants to *X*" which identify first-order desires—that is, statements in which the term 'to *X*' refers to an action. A statement of this kind does not, by itself, indicate the relative strength of *A*'s desire to *X*. It does not make it clear whether this desire is at all likely to play a decisive role in what *A* actually does or tries to do. For it may correctly be said that *A* wants to *X* even when his desire to *X* is only one among his desires and when it is far from being paramount among them. Thus, it may be true that *A* wants to *X* when he strongly prefers to do something else instead; and it may be true that he wants to *X* despite the fact that, when he acts, it is not the desire to *X* that motivates him to do what he does. On the other hand, someone who states that *A* wants to *X* may mean to convey that it is this desire that is motivating or moving *A* to do what he is actually doing or that *A* will in fact be moved by this desire (unless he changes his mind) when he acts.

It is only when it is used in the second of these ways that, given the special usage of 'will' that I propose to adopt, the statement identifies *A*'s will. To identify an agent's will is either to identify the desire (or desires) by which he is motivated in some action he performs or to identify the desire (or desires) by which he will or would be motivated when or if he acts. An agent's will, then, is identical with one or more of his first-order desires. But the notion of the will, as I am employing it, is not coextensive with the notion of first-order desires. It is not the notion of something that merely inclines an agent in some degree to act in a certain way. Rather, it is the notion of an *effective* desire—one that moves (or will or would move) a person all the way to action. Thus the notion of the will is not coextensive with the notion of what an agent intends to do. For even though someone may have a settled intention to do *X*, he may nonetheless do something else instead of doing *X* because, despite his intention, his desire to do *X* proves to be weaker or less effective than some conflicting desire.

Now consider those statements of the form "*A* wants to *X*" which identify second-order desires—that is, statements in which the term

'to X' refers to a desire of the first order. There are also two kinds of situation in which it may be true that *A* wants to want to X. In the first place, it might be true of *A* that he wants to have a desire to X despite the fact that he has a univocal desire, altogether free of conflict and ambivalence, to refrain from X-ing. Someone might want to have a certain desire, in other words, but univocally want that desire to be unsatisfied.

Suppose that a physician engaged in psychotherapy with narcotics addicts believes that his ability to help his patients would be enhanced if he understood better what it is like for them to desire the drug to which they are addicted. Suppose that he is led in this way to want to have a desire for the drug. If it is a genuine desire that he wants, then what he wants is not merely to feel the sensations that addicts characteristically feel when they are gripped by their desires for the drug. What the physician wants, insofar as he wants to have a desire, is to be inclined or moved to some extent to take the drug.

It is entirely possible, however, that, although he wants to be moved by a desire to take the drug, he does not want this desire to be effective. He may not want it to move him all the way to action. He need not be interested in finding out what it is like to take the drug. And insofar as he now wants only to *want* to take it, and not to *take* it, there is nothing in what he now wants that would be satisfied by the drug itself. He may now have, in fact, an altogether univocal desire *not* to take the drug; and he may prudently arrange to make it impossible for him to satisfy the desire he would have if his desire to want the drug should in time be satisfied.

It would thus be incorrect to infer, from the fact that the physician now wants to desire to take the drug, that he already does desire to take it. His second-order desire to be moved to take the drug does not entail that he has a first-order desire to take it. If the drug were now to be administered to him, this might satisfy no desire that is implicit in his desire to want to take it. While he wants to want to take the drug, he may have *no* desire to take it; it may be that *all* he wants is to taste the desire for it. That is, his desire to have a certain desire that he does not have may not be a desire that his will should be at all different than it is.

Someone who wants only in this truncated way to want to X stands at the margin of preciosity, and the fact that he wants to want to X is not pertinent to the identification of his will. There is, however, a second kind of situation that may be described by '*A* wants to want to X'; and when the statement is used to describe a

situation of this second kind, then it does pertain to what *A* wants his will to be. In such cases the statement means that *A* wants the desire to *X* to be the desire that moves him effectively to act. It is not merely that he wants the desire to *X* to be among the desires by which, to one degree or another, he is moved or inclined to act. He wants this desire to be effective—that is, to provide the motive in what he actually does. Now when the statement that *A* wants to want to *X* is used in this way, it does entail that *A* already has a desire to *X*. It could not be true both that *A* wants the desire to *X* to move him into action and that he does not want to *X*. It is only if he does want to *X* that he can coherently want the desire to *X* not merely to be one of his desires but, more decisively, to be his will.⁴

Suppose a man wants to be motivated in what he does by the desire to concentrate on his work. It is necessarily true, if this supposition is correct, that he already wants to concentrate on his work. This desire is now among his desires. But the question of whether or not his second-order desire is fulfilled does not turn merely on whether the desire he wants is one of his desires. It turns on whether this desire is, as he wants it to be, his effective desire or will. If, when the chips are down, it is his desire to concentrate on his work that moves him to do what he does, then what he wants at that time is indeed (in the relevant sense) what he wants to want. If it is some other desire that actually moves him when he acts, on the other hand, then what he wants at that time is not (in the relevant sense) what he wants to want. This will be so despite the fact that the desire to concentrate on his work continues to be among his desires.

II

Someone has a desire of the second order either when he wants simply to have a certain desire or when he wants a certain desire to be his will. In situations of the latter kind, I shall call his second-order desires "second-order volitions" or "volitions of the second order." Now it is having second-order volitions, and not having second-order desires generally, that I regard as essential to being a person. It is

⁴ It is not so clear that the entailment relation described here holds in certain kinds of cases, which I think may fairly be regarded as nonstandard, where the essential difference between the standard and the nonstandard cases lies in the kind of description by which the first-order desire in question is identified. Thus, suppose that *A* admires *B* so fulsomely that, even though he does not know what *B* wants to do, he wants to be effectively moved by whatever desire effectively moves *B*; without knowing what *B*'s will is, in other words, *A* wants his own will to be the same. It certainly does not follow that *A* already has, among his desires, a desire like the one that constitutes *B*'s will. I shall not pursue here the questions of whether there are genuine counterexamples to the claim made in the text or of how, if there are, that claim should be altered.

logically possible, however unlikely, that there should be an agent with second-order desires but with no volitions of the second order. Such a creature, in my view, would not be a person. I shall use the term 'wanton' to refer to agents who have first-order desires but who are not persons because, whether or not they have desires of the second order, they have no second-order volitions.⁵

The essential characteristic of a wanton is that he does not care about his will. His desires move him to do certain things, without its being true of him either that he wants to be moved by those desires or that he prefers to be moved by other desires. The class of wantons includes all nonhuman animals that have desires and all very young children. Perhaps it also includes some adult human beings as well. In any case, adult humans may be more or less wanton; they may act wantonly, in response to first-order desires concerning which they have no volitions of the second order, more or less frequently.

The fact that a wanton has no second-order volitions does not mean that each of his first-order desires is translated heedlessly and at once into action. He may have no opportunity to act in accordance with some of his desires. Moreover, the translation of his desires into action may be delayed or precluded either by conflicting desires of the first order or by the intervention of deliberation. For a wanton may possess and employ rational faculties of a high order. Nothing in the concept of a wanton implies that he cannot reason or that he cannot deliberate concerning how to do what he wants to do. What distinguishes the rational wanton from other rational agents is that he is not concerned with the desirability of his desires themselves. He ignores the question of what his will is to be. Not only does he pursue whatever course of action he is most strongly inclined to pursue, but he does not care which of his inclinations is the strongest.

Thus a rational creature, who reflects upon the suitability to his desires of one course of action or another, may nonetheless be a wanton. In maintaining that the essence of being a person lies not in reason but in will, I am far from suggesting that a creature without reason may be a person. For it is only in virtue of his rational

⁵ Creatures with second-order desires but no second-order volitions differ significantly from brute animals, and, for some purposes, it would be desirable to regard them as persons. My usage, which withholds the designation 'person' from them, is thus somewhat arbitrary. I adopt it largely because it facilitates the formulation of some of the points I wish to make. Hereafter, whenever I consider statements of the form "*A* wants to want to *X*," I shall have in mind statements identifying second-order volitions and not statements identifying second-order desires that are not second-order volitions.

capacities that a person is capable of becoming critically aware of his own will and of forming volitions of the second order. The structure of a person's will presupposes, accordingly, that he is a rational being.

The distinction between a person and a wanton may be illustrated by the difference between two narcotics addicts. Let us suppose that the physiological condition accounting for the addiction is the same in both men, and that both succumb inevitably to their periodic desires for the drug to which they are addicted. One of the addicts hates his addiction and always struggles desperately, although to no avail, against its thrust. He tries everything that he thinks might enable him to overcome his desires for the drug. But these desires are too powerful for him to withstand, and invariably, in the end, they conquer him. He is an unwilling addict, helplessly violated by his own desires.

The unwilling addict has conflicting first-order desires: he wants to take the drug, and he also wants to refrain from taking it. In addition to these first-order desires, however, he has a volition of the second order. He is not a neutral with regard to the conflict between his desire to take the drug and his desire to refrain from taking it. It is the latter desire, and not the former, that he wants to constitute his will; it is the latter desire, rather than the former, that he wants to be effective and to provide the purpose that he will seek to realize in what he actually does.

The other addict is a wanton. His actions reflect the economy of his first-order desires, without his being concerned whether the desires that move him to act are desires by which he wants to be moved to act. If he encounters problems in obtaining the drug or in administering it to himself, his responses to his urges to take it may involve deliberation. But it never occurs to him to consider whether he wants the relations among his desires to result in his having the will he has. The wanton addict may be an animal, and thus incapable of being concerned about his will. In any event he is, in respect of his wanton lack of concern, no different from an animal.

The second of these addicts may suffer a first-order conflict similar to the first-order conflict suffered by the first. Whether he is human or not, the wanton may (perhaps due to conditioning) both want to take the drug and want to refrain from taking it. Unlike the unwilling addict, however, he does not prefer that one of his conflicting desires should be paramount over the other; he does not prefer that one first-order desire rather than the other should con-

stitute his will. It would be misleading to say that he is neutral as to the conflict between his desires, since this would suggest that he regards them as equally acceptable. Since he has no identity apart from his first-order desires, it is true neither that he prefers one to the other nor that he prefers not to take sides.

It makes a difference to the unwilling addict, who is a person, which of his conflicting first-order desires wins out. Both desires are his, to be sure; and whether he finally takes the drug or finally succeeds in refraining from taking it, he acts to satisfy what is in a literal sense his own desire. In either case he does something he himself wants to do, and he does it not because of some external influence whose aim happens to coincide with his own but because of his desire to do it. The unwilling addict identifies himself, however, through the formation of a second-order volition, with one rather than with the other of his conflicting first-order desires. He makes one of them more truly his own and, in so doing, he withdraws himself from the other. It is in virtue of this identification and withdrawal, accomplished through the formation of a second-order volition, that the unwilling addict may meaningfully make the analytically puzzling statements that the force moving him to take the drug is a force other than his own, and that it is not of his own free will but rather against his will that this force moves him to take it.

The wanton addict cannot or does not care which of his conflicting first-order desires wins out. His lack of concern is not due to his inability to find a convincing basis for preference. It is due either to his lack of the capacity for reflection or to his mindless indifference to the enterprise of evaluating his own desires and motives.⁶ There is only one issue in the struggle to which his first-order conflict may lead: whether the one or the other of his conflicting desires is the stronger. Since he is moved by both desires, he will not be altogether satisfied by what he does no matter which of them is effective. But it makes no difference *to him* whether his craving or his aversion gets the upper hand. He has no stake in the conflict between them and so, unlike the unwilling addict, he can neither

⁶ In speaking of the evaluation of his own desires and motives as being characteristic of a person, I do not mean to suggest that a person's second-order volitions necessarily manifest a *moral* stance on his part toward his first-order desires. It may not be from the point of view of morality that the person evaluates his first-order desires. Moreover, a person may be capricious and irresponsible in forming his second-order volitions and give no serious consideration to what is at stake. Second-order volitions express evaluations only in the sense that they are preferences. There is no essential restriction on the kind of basis, if any, upon which they are formed.

win nor lose the struggle in which he is engaged. When a *person* acts, the desire by which he is moved is either the will he wants or a will he wants to be without. When a *wanton* acts, it is neither.

III

There is a very close relationship between the capacity for forming second-order volitions and another capacity that is essential to persons—one that has often been considered a distinguishing mark of the human condition. It is only because a person has volitions of the second order that he is capable both of enjoying and of lacking freedom of the will. The concept of a person is not only, then, the concept of a type of entity that has both first-order desires and volitions of the second order. It can also be construed as the concept of a type of entity for whom the freedom of its will may be a problem. This concept excludes all wantons, both infrahuman and human, since they fail to satisfy an essential condition for the enjoyment of freedom of the will. And it excludes those suprahuman beings, if any, whose wills are necessarily free.

Just what kind of freedom is the freedom of the will? This question calls for an identification of the special area of human experience to which the concept of freedom of the will, as distinct from the concepts of other sorts of freedom, is particularly germane. In dealing with it, my aim will be primarily to locate the problem with which a person is most immediately concerned when he is concerned with the freedom of his will.

According to one familiar philosophical tradition, being free is fundamentally a matter of doing what one wants to do. Now the notion of an agent who does what he wants to do is by no means an altogether clear one: both the doing and the wanting, and the appropriate relation between them as well, require elucidation. But although its focus needs to be sharpened and its formulation refined, I believe that this notion does capture at least part of what is implicit in the idea of an agent who *acts* freely. It misses entirely, however, the peculiar content of the quite different idea of an agent whose *will* is free.

We do not suppose that animals enjoy freedom of the will, although we recognize that an animal may be free to run in whatever direction it wants. Thus, having the freedom to do what one wants to do is not a sufficient condition of having a free will. It is not a necessary condition either. For to deprive someone of his freedom of action is not necessarily to undermine the freedom of his will. When an agent is aware that there are certain things he is not free to do, this doubtless affects his desires and limits the

range of choices he can make. But suppose that someone, without being aware of it, has in fact lost or been deprived of his freedom of action. Even though he is no longer free to do what he wants to do, his will may remain as free as it was before. Despite the fact that he is not free to translate his desires into actions or to act according to the determinations of his will, he may still form those desires and make those determinations as freely as if his freedom of action had not been impaired.

When we ask whether a person's will is free we are not asking whether he is in a position to translate his first-order desires into actions. That is the question of whether he is free to do as he pleases. The question of the freedom of his will does not concern the relation between what he does and what he wants to do. Rather, it concerns his desires themselves. But what question about them is it?

It seems to me both natural and useful to construe the question of whether a person's will is free in close analogy to the question of whether an agent enjoys freedom of action. Now freedom of action is (roughly, at least) the freedom to do what one wants to do. Analogously, then, the statement that a person enjoys freedom of the will means (also roughly) that he is free to want what he wants to want. More precisely, it means that he is free to will what he wants to will, or to have the will he wants. Just as the question about the freedom of an agent's action has to do with whether it is the action he wants to perform, so the question about the freedom of his will has to do with whether it is the will he wants to have.

It is in securing the conformity of his will to his second-order volitions, then, that a person exercises freedom of the will. And it is in the discrepancy between his will and his second-order volitions, or in his awareness that their coincidence is not his own doing but only a happy chance, that a person who does not have this freedom feels its lack. The unwilling addict's will is not free. This is shown by the fact that it is not the will he wants. It is also true, though in a different way, that the will of the wanton addict is not free. The wanton addict neither has the will he wants nor has a will that differs from the will he wants. Since he has no volitions of the second order, the freedom of his will cannot be a problem for him. He lacks it, so to speak, by default.

People are generally far more complicated than my sketchy account of the structure of a person's will may suggest. There is as much opportunity for ambivalence, conflict, and self-deception with regard to desires of the second order, for example, as there is with regard to first-order desires. If there is an unresolved conflict among

someone's second-order desires, then he is in danger of having no second-order volition; for unless this conflict is resolved, he has no preference concerning which of his first-order desires is to be his will. This condition, if it is so severe that it prevents him from identifying himself in a sufficiently decisive way with *any* of his conflicting first-order desires, destroys him as a person. For it either tends to paralyze his will and to keep him from acting at all, or it tends to remove him from his will so that his will operates without his participation. In both cases he becomes, like the unwilling addict though in a different way, a helpless bystander to the forces that move him.

Another complexity is that a person may have, especially if his second-order desires are in conflict, desires and volitions of a higher order than the second. There is no theoretical limit to the length of the series of desires of higher and higher orders; nothing except common sense and, perhaps, a saving fatigue prevents an individual from obsessively refusing to identify himself with any of his desires until he forms a desire of the next higher order. The tendency to generate such a series of acts of forming desires, which would be a case of humanization run wild, also leads toward the destruction of a person.

It is possible, however, to terminate such a series of acts without cutting it off arbitrarily. When a person identifies himself *decisively* with one of his first-order desires, this commitment "resounds" throughout the potentially endless array of higher orders. Consider a person who, without reservation or conflict, wants to be motivated by the desire to concentrate on his work. The fact that his second-order volition to be moved by this desire is a decisive one means that there is no room for questions concerning the pertinence of desires or volitions of higher orders. Suppose the person is asked whether he wants to want to want to concentrate on his work. He can properly insist that this question concerning a third-order desire does not arise. It would be a mistake to claim that, because he has not considered whether he wants the second-order volition he has formed, he is indifferent to the question of whether it is with this volition or with some other that he wants his will to accord. The decisiveness of the commitment he has made means that he has decided that no further question about his second-order volition, at any higher order, remains to be asked. It is relatively unimportant whether we explain this by saying that this commitment implicitly generates an endless series of confirming desires of higher orders, or by saying that the commitment is tanta-

mount to a dissolution of the pointedness of all questions concerning higher orders of desire.

Examples such as the one concerning the unwilling addict may suggest that volitions of the second order, or of higher orders, must be formed deliberately and that a person characteristically struggles to ensure that they are satisfied. But the conformity of a person's will to his higher-order volitions may be far more thoughtless and spontaneous than this. Some people are naturally moved by kindness when they want to be kind, and by nastiness when they want to be nasty, without any explicit forethought and without any need for energetic self-control. Others are moved by nastiness when they want to be kind and by kindness when they intend to be nasty, equally without forethought and without active resistance to these violations of their higher-order desires. The enjoyment of freedom comes easily to some. Others must struggle to achieve it.

IV

My theory concerning the freedom of the will accounts easily for our disinclination to allow that this freedom is enjoyed by the members of any species inferior to our own. It also satisfies another condition that must be met by any such theory, by making it apparent why the freedom of the will should be regarded as desirable. The enjoyment of a free will means the satisfaction of certain desires—desires of the second or of higher orders—whereas its absence means their frustration. The satisfactions at stake are those which accrue to a person of whom it may be said that his will is his own. The corresponding frustrations are those suffered by a person of whom it may be said that he is estranged from himself, or that he finds himself a helpless or a passive bystander to the forces that move him.

A person who is free to do what he wants to do may yet not be in a position to have the will he wants. Suppose, however, that he enjoys both freedom of action and freedom of the will. Then he is not only free to do what he wants to do; he is also free to want what he wants to want. It seems to me that he has, in that case, all the freedom it is possible to desire or to conceive. There are other good things in life, and he may not possess some of them. But there is nothing in the way of freedom that he lacks.

It is far from clear that certain other theories of the freedom of the will meet these elementary but essential conditions: that it be understandable why we desire this freedom and why we refuse to ascribe it to animals. Consider, for example, Roderick Chisholm's quaint version of the doctrine that human freedom entails an ab-

sence of causal determination.⁷ Whenever a person performs a free action, according to Chisholm, it's a miracle. The motion of a person's hand, when the person moves it, is the outcome of a series of physical causes; but some event in this series, "and presumably one of those that took place within the brain, was caused by the agent and not by any other events" (18). A free agent has, therefore, "a prerogative which some would attribute only to God: each of us, when we act, is a prime mover unmoved" (23).

This account fails to provide any basis for doubting that animals of subhuman species enjoy the freedom it defines. Chisholm says nothing that makes it seem less likely that a rabbit performs a miracle when it moves its leg than that a man does so when he moves his hand. But why, in any case, should anyone *care* whether he can interrupt the natural order of causes in the way Chisholm describes? Chisholm offers no reason for believing that there is a discernible difference between the experience of a man who miraculously initiates a series of causes when he moves his hand and a man who moves his hand without any such breach of the normal causal sequence. There appears to be no concrete basis for preferring to be involved in the one state of affairs rather than in the other.⁸

It is generally supposed that, in addition to satisfying the two conditions I have mentioned, a satisfactory theory of the freedom of the will necessarily provides an analysis of one of the conditions of moral responsibility. The most common recent approach to the problem of understanding the freedom of the will has been, indeed, to inquire what is entailed by the assumption that someone is morally responsible for what he has done. In my view, however, the relation between moral responsibility and the freedom of the will has been very widely misunderstood. It is not true that a person is morally responsible for what he has done only if his will was free when he did it. He may be morally responsible for having done it even though his will was not free at all.

A person's will is free only if he is free to have the will he wants. This means that, with regard to any of his first-order desires, he is free either to make that desire his will or to make some other first-

⁷ "Freedom and Action," in K. Lehrer, ed., *Freedom and Determinism* (New York: Random House, 1966), pp. 11-44.

⁸ I am not suggesting that the alleged difference between these two states of affairs is unverifiable. On the contrary, physiologists might well be able to show that Chisholm's conditions for a free action are not satisfied, by establishing that there is no relevant brain event for which a sufficient physical cause cannot be found.

order desire his will instead. Whatever his will, then, the will of the person whose will is free could have been otherwise; he could have done otherwise than to constitute his will as he did. It is a vexed question just how 'he could have done otherwise' is to be understood in contexts such as this one. But although this question is important to the theory of freedom, it has no bearing on the theory of moral responsibility. For the assumption that a person is morally responsible for what he has done does not entail that the person was in a position to have whatever will he wanted.

This assumption *does* entail that the person did what he did freely, or that he did it of his own free will. It is a mistake, however, to believe that someone acts freely only when he is free to do whatever he wants or that he acts of his own free will only if his will is free. Suppose that a person has done what he wanted to do, that he did it because he wanted to do it, and that the will by which he was moved when he did it was his will because it was the will he wanted. Then he did it freely and of his own free will. Even supposing that he could have done otherwise, he would not have done otherwise; and even supposing that he could have had a different will, he would not have wanted his will to differ from what it was. Moreover, since the will that moved him when he acted was his will because he wanted it to be, he cannot claim that his will was forced upon him or that he was a passive bystander to its constitution. Under these conditions, it is quite irrelevant to the evaluation of his moral responsibility to inquire whether the alternatives that he opted against were actually available to him.⁹

In illustration, consider a third kind of addict. Suppose that his addiction has the same physiological basis and the same irresistible thrust as the addictions of the unwilling and wanton addicts, but that he is altogether delighted with his condition. He is a willing addict, who would not have things any other way. If the grip of his addiction should somehow weaken, he would do whatever he could to reinstate it; if his desire for the drug should begin to fade, he would take steps to renew its intensity.

The willing addict's will is not free, for his desire to take the drug will be effective regardless of whether or not he wants this desire to constitute his will. But when he takes the drug, he takes it freely and of his own free will. I am inclined to understand his situation as involving the overdetermination of his first-order de-

⁹ For another discussion of the considerations that cast doubt on the principle that a person is morally responsible for what he has done only if he could have done otherwise, see my "Alternate Possibilities and Moral Responsibility," this JOURNAL, LXVI, 23 (Dec. 4, 1969): 829-839.

sire to take the drug. This desire is his effective desire because he is physiologically addicted. But it is his effective desire also because he wants it to be. His will is outside his control, but, by his second-order desire that his desire for the drug should be effective, he has made this will his own. Given that it is therefore not only because of his addiction that his desire for the drug is effective, he may be morally responsible for taking the drug.

My conception of the freedom of the will appears to be neutral with regard to the problem of determinism. It seems conceivable that it should be causally determined that a person is free to want what he wants to want. If this is conceivable, then it might be causally determined that a person enjoys a free will. There is no more than an innocuous appearance of paradox in the proposition that it is determined, ineluctably and by forces beyond their control, that certain people have free wills and that others do not. There is no incoherence in the proposition that some agency other than a person's own is responsible (even *morally* responsible) for the fact that he enjoys or fails to enjoy freedom of the will. It is possible that a person should be morally responsible for what he does of his own free will and that some other person should also be morally responsible for his having done it.¹⁰

On the other hand, it seems conceivable that it should come about by chance that a person is free to have the will he wants. If this is conceivable, then it might be a matter of chance that certain people enjoy freedom of the will and that certain others do not. Perhaps it is also conceivable, as a number of philosophers believe, for states of affairs to come about in a way other than by chance or as the outcome of a sequence of natural causes. If it is indeed conceivable for the relevant states of affairs to come about in some third way, then it is also possible that a person should in that third way come to enjoy the freedom of the will.

HARRY G. FRANKFURT

The Rockefeller University

¹⁰ There is a difference between being *fully* responsible and being *solely* responsible. Suppose that the willing addict has been made an addict by the deliberate and calculated work of another. Then it may be that both the addict and this other person are fully responsible for the addict's taking the drug, while neither of them is solely responsible for it. That there is a distinction between full moral responsibility and sole moral responsibility is apparent in the following example. A certain light can be turned on or off by flicking either of two switches, and each of these switches is simultaneously flicked to the "on" position by a different person, neither of whom is aware of the other. Neither person is solely responsible for the light's going on, nor do they share the responsibility in the sense that each is partially responsible; rather, each of them is fully responsible.

First Report of the Collaborative Outcome Data Project on the Effectiveness of Psychological Treatment for Sex Offenders¹

R. Karl Hanson,^{2,8} Arthur Gordon,³ Andrew J. R. Harris,²
Janice K. Marques,⁴ William Murphy,⁵ Vernon L. Quinsey,⁶
and Michael C. Seto⁷

This meta-analytic review examined the effectiveness of psychological treatment for sex offenders by summarizing data from 43 studies (combined n = 9,454). Averaged across all studies, the sexual offence recidivism rate was lower for the treatment groups (12.3%) than the comparison groups (16.8%, 38 studies, un-weighted average). A similar pattern was found for general recidivism, although the overall rates were predictably higher (treatment 27.9%, comparison 39.2%, 30 studies). Current treatments (cognitive-behavioral, k = 13; systemic, k = 2) were associated with reductions in both sexual recidivism (from 17.4 to 9.9%) and general recidivism (from 51 to 32%). Older forms of treatment (operating prior to 1980) appeared to have little effect. Future directions for improving the quality of sex offender treatment outcome evaluations are discussed.

KEY WORDS: sex offender treatment; evaluation; recidivism; meta-analysis.

¹The views expressed are those of the authors and do not necessarily reflect the positions of the Association for the Treatment of Sexual Abusers, the Department of the Solicitor General of Canada, the Correctional Service of Canada, or the California Department of Mental Health.

²Corrections Research, Department of the Solicitor General of Canada, Ottawa, Canada.

³Clearwater Treatment Centre, Monroe, Washington.

⁴California Department of Mental Health, Sacramento, California.

⁵University of Tennessee-Memphis, Memphis, Tennessee.

⁶Queen's University, Kingston, Ontario.

⁷Centre for Addiction and Mental Health, Toronto, Ontario.

⁸To whom correspondence should be addressed at Corrections Research, Department of the Solicitor General of Canada, 340 Laurier Avenue West, Ottawa, Canada K1A 0P8; e-mail: hansonk@sgc.gc.ca.

If treatment is to be widely used in the management of sex offenders, then it is important that it works. Despite more than 35 review papers since 1990, and a review of reviews (United States General Accounting Office, 1996), researchers and policy-makers have yet to agree on whether treatment effectively reduces sexual recidivism.

This lack of consensus is rooted in inherent difficulties with the evaluation of sex offender treatment programs. On the surface, the evaluation process appears straightforward: The sexual offence recidivism rate of a treated group of sex offenders should be compared to the recidivism rate of an equivalent group of offenders who did not receive treatment. Researchers who attempt such comparisons are faced, however, with the challenge of low recidivism rates even among untreated offenders (Barbaree, 1997). On average, only 10–15% of sex offenders are detected committing a new sexual offence after 4–5 years (Hanson & Bussière, 1998). The typical treatment program provides service to relatively few offenders. To achieve sufficient statistical power, researchers who initiate new studies have to wait many years before treatment effects can be detected. Those who choose to evaluate existing programs must use post hoc comparison groups, often of questionable comparability.

One way to increase statistical power is to aggregate studies through meta-analysis (e.g., Cooper & Hedges, 1994). By combining the findings of numerous individual studies, the resulting sample size can be sufficient to detect even small effects. To date, three meta-analyses of the treatment outcome literature for sex offenders have been published (Alexander, 1999; Gallagher, Wilson, Hirschfield, Coggeshall, & Mackenzie, 1999; Hall, 1995b).

Alexander (1999) summarized the recidivism rates of separate groups of untreated and treated sex offenders. The treated and untreated sex offenders, in most cases, came from different studies. Consequently, it was difficult to tell whether any observed differences could be attributed to treatment effects or to differences in follow-up periods, offender samples, recidivism criteria, or other design features. Although she concluded there was evidence for an overall treatment effect, Alexander's results contained some anomalies. For example, she found lower recidivism rates for treated versus untreated child molesters, and for treated versus untreated rapists, but there was no significant treatment effect for combined samples of rapists and child molesters. Critics could argue there was too much method variance across studies to allow for clear conclusions.

Hall's meta-analysis attempted to control for this method variance by including only studies that included a comparison group (Hall, 1995b). Rather than summarizing overall recidivism rates, Hall defined the difference in recidivism rates between each treatment and comparison group as the outcome criterion. Hall only examined studies ($k = 12$) that appeared after Furby, Weinrott and Blackshaw's discouraging narrative review of the early (largely pre-1980) treatment outcome literature (Furby, Weinrott, & Blackshaw, 1989). This meta-analysis found a small, but significant, overall treatment effect ($r = .12$), and concluded that medical

treatments and comprehensive cognitive-behavioral treatments were both superior to purely behavioral treatments.

A major criticism of Hall's meta-analysis is that the strongest treatment effects came from comparisons between treatment completers and dropouts (Hall, 1995b). Such comparisons are difficult to interpret because those who drop out of treatment are likely to have characteristics related to recidivism risk, such as youth, impulsivity, and antisocial personality (Wierzbicki & Pekarik, 1993). When the dropout studies were removed from Hall's meta-analysis, the treatment effect was no longer significant (Hall, 1995b; Harris, Rice, & Quinsey, 1998).

Of the three meta-analyses, Gallagher et al.'s is the most comprehensive and technically sophisticated (Gallagher et al., 1999). Gallagher et al. considered 25 comparison-group studies examining psychological or hormonal treatments. Like Hall (1995b), they concluded that there was a significant treatment effect for cognitive-behavioral treatments. Unlike Hall, they found insufficient evidence to support medical/hormonal treatments. The apparent effectiveness of medical/hormonal treatments in Hall's review could be attributed to a single study of physical castration in Germany (Wille & Beier, 1989).

Although Gallagher et al. (1999) made some effort to restrict their analysis to well-controlled studies, they nevertheless included a number of studies (6 out of 25) in which bias could be expected (e.g., comparing completers to treatment dropouts). As well, they included early studies of programs that showed greater treatment effects than those revealed in subsequent analyses. For example, the more recent treatment effects reported by California's experimental program (Marques & Day, 1998) were weaker than the effect reported in the earlier study (Marques, Day, Nelson, & West, 1994) that Gallagher et al.'s analysis included. Another study that Gallagher et al. consider to provide "strong evidence" for cognitive-behavioral treatment (Nicholaichuk, Gordon, Andre, & Gu, 1995) contained a subtle methodological bias that may have inflated the treatment effect (Hanson & Nicholaichuk, 2000). Because the comparison group were released earlier than the treatment group, the records of the nonrecidivists were more likely to go missing from the comparison group than from the treatment group.

Gallagher et al.'s review has not resolved the controversy concerning treatment effectiveness and it is unlikely that the controversy will be resolved in the near future (Gallagher et al., 1999). All studies, no matter how well conceived, are open to alternate interpretations; experts can legitimately disagree as to the information value of studies containing more or less serious threats to validity (Hanson, 1997). In this context, the Collaborative Outcome Data Project Committee⁹ was

⁹The committee members (listed as the coauthors of this paper) are researchers committed to the empirical evaluation of sex offender treatment programs who met through the Association for the Treatment of Sexual Abusers (ATSA). Although ATSA has provided administrative support for this project (e.g., providing meeting rooms at its annual conferences, advertising the project), the goals of the collaborative project were scientific, and the committee's reports should not be considered products of ATSA or any other organization.

formed in 1997, with the goals of organizing the existing outcome literature and encouraging new evaluation projects to be conducted in a manner that contributes to scientific knowledge.

The committee's first challenge was distinguishing between research designs on the basis of potential threats to validity. A detailed coding manual was developed that included over 100 variables describing the treatments and another 100 variables describing the research designs. Available studies, however, rarely collected and reported such detailed information. Consequently, the analyses reported in the current report were based on broad classifications. These broad classifications obscure potentially important distinctions; nevertheless, the analyses of these categories yielded some interesting results and provide direction for future research.

The major research design classification used in this meta-analysis was based on how offenders were assigned to the treatment and comparison groups. Any number of features can influence perceptions of study quality; however, Bangert-Drowns, Wells-Parker, and Chevillard (1997) found that ratings of study quality were most strongly linked to methods of subject assignment. Consequently, the studies were divided as follows: (a) studies in which preexisting group differences would not be expected (random assignment), (b) studies in which equivalence was not assured, but where there were no obvious reasons for group differences (incidental assignment), and (c) studies in which differences would be expected (dropouts, assignment based on need).

Random assignment is a strong method for equating groups, but no method guarantees equivalence. It is always possible for the groups to differ through purely random processes (see Marques, 1999). Random assignment studies have the important feature, however, that even if a particular comparison finds the treated and untreated groups to differ purely due to chance, such differences would "wash out" as more random assignment studies are completed.

In contrast, mismatched groups are expected when the decision to attend treatment is made by the offender, the program, or both (e.g., comparison groups composed of treatment refusers, dropouts, or offenders considered by staff to be high need or low need). Such designs have relatively little probative value because the treatment and comparison groups would be expected to differ on any number of relevant risk factors (e.g., offender compliance, impulsivity, or attitudes toward authority), and such differences would not "wash out" as the number of such studies increased.

Most sex offender treatment outcome studies have attempted to create equivalent groups through matching on risk-related variables rather than random assignment. For example, some studies created comparison groups from offenders sentenced in the same jurisdiction prior to the implementation of the treatment program, or from offenders explicitly matched on risk-related variables. When there was no obvious reason to expect pretreatment group differences, these studies were considered "incidental assignment."

Some studies led to considerable debate as to their appropriate classification. Such classification difficulties can partly be attributed to the subjectivity of the global coding system, but they also reflect legitimate differences concerning judgments of study quality. There are no perfect studies in the sex offender field, nor in any other field for that matter. What is a tolerable lapse to one expert could be a fatal flaw to another. One of the objectives of the Collaborative Outcome Data Project, and this current report, is to promote professional debate concerning the relative quality of treatment outcome studies for sex offenders.

Not only is it worth distinguishing between different types of research designs, it is also important to distinguish between different types of treatment. Many of the studies reviewed by Furby et al. (1989) examined treatments delivered in the 1960s and 1970s that would not meet current standards of practice. Defining standards for effective treatment is difficult given the active debate about whether treatment works at all. Nevertheless, sex offender treatment has evolved during the last 20 years, guided partly by theory (e.g., Laws, 1989) and partly by the research on "what works" for offenders in general (e.g., Andrews et al., 1990; Lösel, 1995). Programs considered most likely to be effective are those that target a range of criminogenic needs (e.g., attitudes tolerant of sexual assault, lifestyle impulsivity, deviant sexual interests) by teaching relevant skills in a manner appropriate for the learning style and receptivity of the offender.

Most treatment programs, however, were not sufficiently documented to allow ratings of treatment quality to be made with any confidence. Consequently, the current meta-analysis examined a simple distinction between older and current treatments. The criteria used for "current" were any treatment still being offered, or any cognitive-behavioral treatment delivered after 1980. Although a number of different approaches are potentially effective, sex offender treatment providers have increasingly put their faith in some version of cognitive-behavioral treatment.

The current study is the first report of an ongoing project that aims to include all credible studies of sex offender treatment. The studies considered in this report were those identified as of May 2000, in which sex offenders receiving psychological treatment were compared to sex offenders receiving no treatment or a form of treatment judged to be inadequate or inappropriate. Future reports will examine medical and drug treatments, and the effects of treatment on different types of sex offenders (e.g., child molesters, rapists).

METHOD

Selection of Studies

Computer searches of both PsycLIT and the National Criminal Justice Reference System (NCJRS) were conducted using the following key terms: sex(ual)

offender, rape, rapist, child molester, pedophile, pedophilia, exhibitionist, exhibitionism, sexual assault, incest, voyeur, frotteur, indecent exposure, sexual deviant, paraphilia(c), and treatment, outcome, recidivism, recidivist, recidivate, reoffend, reoffense, relapse, and failure. Additional articles were sought through the examination of the reference lists of the collected articles and those of review articles in this area. Finally, letters were sent to 30 established researchers in the field of sex offender recidivism requesting overlooked or as-yet unpublished manuscripts or data.

To be included in the present analysis, a study had to compare the recidivism rates (sexual or general) of a sample of treated sex offenders with a comparison group of sex offenders. The same recidivism criteria must have been used for both groups, and the recidivism rates must have been reported for approximately the same follow-up period. The combined sample must have been at least 10 (5 offenders in each group). The programs must have provided predominantly psychological treatment (e.g., group therapy, aversive conditioning), although a few studies included some offenders who received various forms of medication.

As of May 2000, our search yielded a total of 43 usable studies of psychological treatment for sex offenders (see Table I). This should not be considered an exhaustive list, but it contains more than twice the number of studies of the largest previous review (Gallagher et al., 1999, 20 studies of psychological treatment).

When different articles reported findings based on the same sample of offenders (or overlapping samples), the results were coded from the article reporting on the largest sample size and longest follow-up period. The same sample, however, could provide more than one design (e.g., random assignment as well as dropouts vs. completers). Table I provides descriptive information for the strongest design for each sample.

For one program (RTC Ontario), the results from two reports were combined (averaged) because the committee could not agree on which report to include (Davidson, 1984; Looman, Abracen, & Nicholaichuk, 2000). Two studies (Abracen, Looman, & Nicholaichuk, 1999; Mander, Atrops, Barnes, & Munafo, 1996) were not included following personal communications from the authors indicating unresolved anomalies in their data (Barnes, November 17, 1999; Looman et al., 2000). Different information was often drawn from different sources (e.g., recidivism information from a research study and the program description from an unpublished internal report). For 17 studies, the authors of the original reports coded the studies or provided supplemental information not available in the written documentation or both. Studies were classified as published ($k = 23$) or unpublished ($k = 20$) based on whether the recidivism data used for the meta-analysis were published in a book or journal.

Most of the studies were based on American ($k = 21$) or Canadian samples ($k = 16$), with five studies from the United Kingdom and one from New Zealand. The studies were mostly recent (median publication year = 1996), with 10 (23%) produced in 1999 or later (1977–2000). Total sample size ranged from 14 to 627

(median of 155). Most of the studies focused on adult male sex offenders. Four studies specifically examined adolescent sex offenders. Only one study (Barnes & Peterson, 1997) indicated that their sample contained female offenders (<5% of their total sample) and none of these women had sexually recidivated.

Of the 43 programs, 23 were offered in institutions, 17 in the community, and 3 in both settings. The major sponsor of the programs was corrections ($k = 26$), followed by health ($k = 9$) and private clinics ($k = 8$). Treatment was delivered between 1965 and 1999, with approximately 80% of the offenders receiving treatment after 1980. Most studies examined specialized sex offender treatment programs, although three studies examined the response of sex offenders to programs designed for general offenders (Borduin, Henggeler, Blaske, & Stein, 1990; Nutbrown & Stasiak, 1987; Robinson, 1995).

Recidivism was defined by reconviction in 8 studies and rearrest in 11 studies. Twenty studies used broad definitions of recidivism that included parole violations, readmissions to institutions, or unofficial community reports or all of these. The most common source of recidivism information was national criminal justice records ($k = 26$) followed by state/provincial records ($k = 19$). Additional sources of information (e.g., child protection records, self-reports) were used in 9 studies. For 6 studies, the source of the recidivism information was not specified. Thirteen studies reported only sexual recidivism, 5 studies reported only general (any) recidivism, and 25 studies reported on both sexual and general recidivism.

The average follow-up periods ranged from 12 months to 16 years, with a median of 46 months for both the treatment and comparison groups.

Coding Categories

Studies were assigned to one of the following six research-design categories: (a) random assignment (versus no treatment or alternate treatment); (b) incidental assignment (versus no treatment or alternative treatment); (c) any treatment attendance (including dropouts) versus treatment refusers; (d) treatment completers versus dropouts; (e) dropouts versus refusers; and (f) assignment based on need (e.g., treatment given to those assessed as requiring treatment).

In most cases, the "refusers" were offenders in the comparison group who were assessed and offered treatment, but declined to participate. Comparison groups could also be coded as "refusers" when the treated sample comprised volunteers who were heavily screened before being admitted.

The 17 incidental assignment studies included comparison groups drawn from the following sources: offenders released before the implementation of the treatment program ($k = 5$), offenders matched from archives of criminal history records ($k = 3$), offenders receiving an earlier version of the treatment program

Table I. Studies Used in the Meta-Analysis

ID	Study	Type of treatment	Strongest design	Years of follow-up	Sample size		Sexual recidivism rates		Odds ratio (sexual)	Any recidivism		Odds ratio (any)
					Treatment	Comparison	Treatment	Comparison		Treatment	Comparison	
1	Alberta Hospital	Cog.-beh. ^c	Dropouts	5	194	157	.04	.08	0.43	.16	.34	0.39
2	Allam (1998, 1999)	Cog.-beh. ^c	Incidental—treatment not condition of sentence & matched on risk	1	153	74	.03	.08	0.39	.13	.42	0.21
3	Bakker, Hudson, Wales, & Riley (1999)	Cog.-beh. ^c	Incidental—prior to program implementation	8	238	283	.09	.19	0.45			
4	Barnes & Peterson (1997)	Cog.-beh. ^c	Volunteers/Refusers	3	147	138	.03	.09	0.39	.12	.26	0.40
5	Berlin et al. (1991)	Psychoth.	Dropouts	5	257	206	.05	.15	0.28			
6	Bluglass (1980)	Psychoth.	Need	5	43	57				.42	.33	1.43
7	Borduin et al. (1990, 2000) ^e	Systemic ^c	Random	8	24	24	.13	.42	0.22	.25	.88	0.08 ^b
8	Bremer (1992)	Psychoth.	Dropouts	—	66	27	.18	.11	1.61			
9	Clearwater	Cog.-beh. ^c	Incidental—matching from archives	5	245	218	.13	.24	0.47			
10	CS/RESORS (1991)	Cog.-beh. ^c	Incidental—variable program integrity	3	335	181	.05	.04	1.19			
11	Dwyer	Cog.-beh. ^c	Dropouts	8	125	55	.06	.16	0.35	.09	.20	0.39
12	Florida	Psychoth.	Need	1	39	199	.05	.05	1.20	.13	.18	0.74
13	Guarino-Ghezzi & Kimball (1998) ^e	Cog.-beh. ^c	Incidental—Administrative alternate treatments	1	33	25	.00	.04	0.24	.30	.48	0.48
14	Hall (1995a)	Cog.-beh. ^c	Volunteers/Refusers	1	24	6	.00	.17	0.07	.21	.50	0.28
15	Hanson, Steffy, & Gauthier (1992, 1993)	Psychoth.	Incidental—prior to program implementation; administrative	16	102	89	.37	.33	1.22	.63	.61	1.09
16	Hersh, Baldwin, & Gray-Little (1999)	Cog.-beh. ^c	Dropouts	—	285	100				.38	.59	0.43
17	Huot (1999)	Cog.-beh. ^c	Volunteers/Refusers	7	92	159	.16	.19	0.82			
18	Kramer (1985)	Behavioral	Incidental—change in program	—	37	19	.05	.32	0.15	.14	.47	0.19
19	Lab et al. (1993) ^e	Cog.-beh. ^c	Need	2	46	109	.02	.04	0.77	.26	.20	1.41
20	Lindsay	Cog.-beh. ^c	Incidental—longer versus shorter probation orders	—	7	7	.00	.57	0.05			

21	La Macaza	Cog.-beh. ^c	Incidental—prior to program implementation	3	65	56	.06	.21	0.41	.14	.47	0.19
22	Marques	Cog.-beh. ^c	Random	5	190	225	.16	.16	1.06	.65	.59	1.30
23	Marshall & Barbaree (1988)	Cog.-beh. ^c	Dropouts	4	68	58	.13	.34	0.30			
24	Marshall et al. (1991)	Cog.-beh. ^c	Incidental—change in program	7	17	23	.24	.35	0.50			
25	McGrath et al. (1998)	Cog.-beh. ^c	Incidental—alternate treatment	5	71	32	.01	.16	0.11	.10	.34	0.22
26	McGuire (2000)	Cog.-beh. ^c	Dropouts	—	54	14	.00	.07	0.08	.04	.07	0.43
27	Missouri	Cog.-beh. ^c	Dropouts	4	105	156	.05	.13	0.36	.23	.41	0.43
28	Nutbrown & Stasiak (1987)	Psychoth.	Incidental—administrative	3	59	11				.20	.55	0.22
29	Perkins (1987)	Cog.-beh.	Incidental—various methods	—	62	12	.32	.17	3.38	.48	.57	0.72
30	JJ Peters	Psychoth.	Random	—	148	83	.14	.07	1.96	.55	.60	0.82
31	Pinel	Cog.-beh. ^c	Dropouts	6	117	55	.25	.24	1.05	.37	.56	0.45
32	Procter (1996)	Cog.-beh. ^c	Incidental—prior to program implementation	4	54	54	.07	.15	0.49			
33	Rattenbury (1986)	Unknown	Need	6	69	69	.22	.14	1.61	.39	.36	1.13
34	Rice et al. (1991)	Behavioral	Need	6	51	85	.51	.28	2.61	.65	.54	1.54
35	Robinson (1995)	Cog.-beh. ^c	Random	6	189	46				.30	.46	0.51
36	RHC Pacific	Cog.-beh. ^c	Need	2	38	29	.08	.00	5.82	.34	.21	1.19
37	RJC Ontario 1976/1989	Cog.-beh. ^c	Incidental—matched from archives/prior to program	5	95	95	.26	.32	0.78			
38	Saskatchewan	Cog.-beh. ^c	Incidental—matched from archives	2	26	35	.12	.03	3.43			
39	Twin Rivers	Cog.-beh. ^c	Volunteers/Refusers	3	209	97	.02	.08	0.23	.15	.25	0.53
40	Walker (2000)	Systemic ^c	Dropouts	2	44	62	.00			.00	.11	0.08
41	Warkworth	Cog.-beh. ^c	Volunteers/Refusers	3	312	85	.06	.06	0.92	.13	.15	0.78
42	Washington	Mixed	Volunteers/Refusers	7	321	306	.11	.14	0.75	.20	.52	0.23
43	Worling & Curwen (1998) ^a	Systemic ^c	Incidental—referred for assessment only	—	85	46	.12	.13	0.87			

Note. Cog.-beh. - Cognitive-behavioral treatment.

^aDenotes a study of adolescent sex offenders.

^bAny recidivism from Borduin et al. (1990), $n = 16$.

^cDenotes a current treatment.

($k = 2$), and offenders who received no treatment ($k = 2$) or treatment judged to be lower in quality ($k = 3$) due to administrative reasons, such as program unavailability or insufficient time remaining in their sentence.

The distinctions between designs were usually clear (see Discussion of reliability below). The following are some of the more controversial decisions and are described to help illustrate the boundaries of the coding categories. Robinson (1995) randomly assigned offenders to treatment or a waiting list condition. The assignment was not pure, however, because 27% (199 of 740) of the waiting list group subsequently received treatment and were placed in the treatment sample ($n = 3,531$). The majority of the committee considered this to be a random assignment study because all offenders initially expressed interest in participating and the primary reasons for switching from the comparison group to the treatment group was the lengthy sentence being served by the offender (which, if anything, should decrease treatment effects).

Marshall and Barbaree (1988) compared a treatment group to offenders who expressed interest in receiving treatment, were assessed at the community clinic, but did not attend treatment because they "lived too far away." This study was coded as "refusers/drop-outs" because the offenders' motivation may have been a factor influencing how far away is "too far."

In the study by McGrath, Hoke, and Vojtisek (1998), the offenders could choose between specialized group treatment and individual treatment. Although the offenders had a choice of which treatment they received, the study was coded as incidental assignment because the offenders' choices appeared to be based mainly on administrative reasons (e.g., they were already involved with a therapist that they liked).

In Allam's study, the comparison group included offenders who were assessed in presentence reports as appropriate for treatment, but treatment was not made a condition of probation so they did not attend (Allam, 1999). The study was coded incidental assignment because it appears that the judges' determination of who received treatment was not based on the offenders' risk level or their willingness to attend treatment. The untreated offenders were slightly at higher risk than the treated offenders were based on an actuarial measure of risk for sexual offence recidivism (Structured Anchored Clinical Judgment, see Hanson & Thornton, 2000).

The comparison subjects in Worling and Curwen (1998) were adolescent offenders referred by other treatment agencies for specialized assessment, not treatment. This study was considered incidental assignment because the program did not determine who would receive treatment, although need for treatment may have been determined by the referring agencies. The effect size calculated in the current study, however, was substantially smaller than that reported by Worling and Curwen because the present analysis included treatment dropouts with the treatment group, not the comparison group.

Some of the committee recommended completely removing the study by Nicholaichuk et al. (2000) because of a known artefact in the data (Hanson & Nicholaichuk, 2000). The majority decision was to retain the study as incidental assignment, but to use only the data in which the chances of corruption were small.

The type of treatment was initially categorized as (a) cognitive-behavioral ($k = 29$), (b) behavioral ($k = 2$), (c) systemic ($k = 3$), or (d) other psychotherapeutic ($k = 7$). In two studies, the nature of the treatment was unknown. The studies were then grouped as "current" or "non-current." Current treatments met one of the following criteria: (a) any treatment currently being offered (1998–2000), either at the original site, or at other sites via treatment manuals; or (b) all cognitive-behavioral treatments given to offenders after 1980. This definition of "current" identified 27 studies of cognitive-behavioral treatment and three studies of systemic treatment (2 of adolescents; 1 of incest offenders). Systemic treatment aims to change offending behavior by addressing the needs of the family and other social systems influencing the individual, such as school, peers, and courts (Swenson, Henggeler, & Schoenwald, 2001).

Coding Procedure

All published and unpublished documentation was collected for each study. One of the three trained raters (psychology graduate students) then coded the study using a standardized coding manual (containing over 250 variables, such as sample size, follow-up period, methods of treatment used). The authors of the original study were contacted for clarification when insufficient information was available concerning crucial variables (e.g., method of subject assignment). Five studies were coded by the committee directly from the original data (Clearwater, CS/RESORS, Hanson, Alberta Hospital, Pinel). As well, the authors of four of the original reports coded all the data except for the design classification, which was done by the committee. The initial codings were reviewed by one of the committee members (R. K. H.). Most of the disagreements involved inattention or clerical errors, which were immediately resolved when the relevant information was identified. Even when the initial two raters agreed, potentially controversial decisions were referred to the committee. In the few cases where consensus could not be reached, the final coding was based on majority opinion of the committee.

To evaluate the reliability of the design classification, an independent rater identified the strongest design for each study (random, incidental, refusers, dropouts, or need, in that order). The rater, a graduate student in psychology, had no previous involvement with this project but had prior experience with sex offender research. The raters' judgments were identical for 35 of the 45 ratings

(78% agreement, $\kappa = .71$). This level of rater reliability is similar to that found in other meta-analyses (Bangert-Drowns et al., 1997).

Whenever possible, data were coded to fit the research design that minimized the likelihood of preexisting differences between the treatment and comparison groups. Consequently, the recidivism rates reported in Table I do not always correspond to those reported in the original articles. If sufficient information was available, dropouts were included in the treatment group. If survival data were presented, recidivism rates were taken directly from the graph for a standard follow-up period. This time period was somewhat before the end of the longest possible follow-up period because survival curves are unstable when a small number of offenders ($n < 20$) remain in the sample.

Index of Treatment Effectiveness

The basic outcome data were 2×2 tables containing the recidivism outcomes of the treatment and comparison groups. Several different statistics, such as rate ratios and phi, can be used to summarize 2×2 tables for the purpose of meta-analysis. Following the recommendation of Fleiss (1994), the index selected was the odds ratio, which is defined as follows: $(\text{recid}_t/\text{nonrecid}_t)/(\text{recid}_c/\text{nonrecid}_c)$, where recid_t is the number of recidivists in the treatment group, nonrecid_t is the number of nonrecidivists in the treatment group, recid_c is the number of recidivists in the comparison group, and nonrecid_c is the number of nonrecidivists in the comparison group.

In contrast to other common effect size indicators, the odds ratio is relatively unaffected by arbitrary design features, such as the proportion of offenders in the treatment and comparison groups, or the overall recidivism rate (Fleiss, 1994). As recommended by Fleiss, a value of 0.5 was added to each cell to minimize bias and to permit the analysis of tables containing empty cells.

Values of the odds ratio can range from very small (e.g., $< .01$) to very large (e.g., > 100) with values of 1.0 indicating no difference between the groups. Small values of the odds ratio indicate treatment effectiveness, that is, lower recidivism rates in the treatment than comparison groups. When the recidivism base rate is low, the odds ratio approximates the rate ratio. For example, an odds ratio of 0.70 can be interpreted as follows: for every 100 untreated sex offenders who recidivate, only 70 treated sex offenders will recidivate.

Summarizing Findings

Standard meta-analytic procedures were used to summarize the results across studies (Hedges, 1994; Hedges & Olkin, 1985). Variability across studies was indexed by the Q statistic: $Q = \sum w_i (\text{LOR}_i - \text{LOR}_m)^2$, where LOR_i is the natural

log of the odds ratio for each sample, w_i is the weight for each sample (equal to the inverse of its variance $- SE^2$), and LOR_m is the weighted grand mean ($\sum w_i LOR_i / \sum w_i$). The Q statistic is distributed as χ^2 with degrees of freedom equal to $k - 1$, where k is the number of studies.

Statistical tests were conducted on the log of the odds ratio [$\log(n_{11}n_{22}/n_{12}n_{21})$] because the standard error of the log odds ratio is easily defined as $(1/n_{11} + 1/n_{12} + 1/n_{21} + 1/n_{22})^{1/2}$ (n_{11} , n_{12} , n_{21} , and n_{22} are the cells of a 2×2 table). The reported statistics, however, were transformed back into odds ratios for ease of interpretation.

RESULTS

The 43 studies examined a total of 5,078 treated sex offenders and 4,376 untreated sex offenders. Averaged across all studies, the sexual offence recidivism rate was lower for the treatment groups (12.3%) than the comparison groups (16.8%, 38 studies, unweighted average). A similar pattern was found for general recidivism, although the overall rates were predictably higher (treatment 27.9%, comparison 39.2%, 30 studies). These recidivism rates were based on an average 46-month follow-up period using the variety of recidivism criteria reported in the original studies.

Sexual Recidivism

Table II presents the meta-analytic summary of the results for sexual recidivism. Averaged across all types of treatment and all research designs, there was a small advantage for the treated versus the untreated offenders (OR = 0.81). Given that the confidence interval (0.71–0.94) did not include “1.0,” the effect was statistically significant. There was, however, considerable variability across studies, as indicated by a large Q statistic (145.02, $df = 37$, $p < .001$). The treatment effect was much stronger in the unpublished studies (OR = 0.65, 95% CI of 0.52–0.81, $k = 17$) than in the published studies (OR of 0.95, 95% CI of 0.79–1.15, $k = 21$).

Three random assignment studies used sexual recidivism as the outcome variable. These diverse studies produced diverse results. Borduin, Schaeffer, and Heilblum (2000) found a significant effect of multisystemic treatment for adolescent sex offenders (OR = 0.22). Romero and Williams (1983) found that weekly, unstructured group psychotherapy was associated with a nonsignificant increase in sexual recidivism (OR = 1.90). Marques (1999) found no difference for offenders receiving cognitive-behavioral treatment and the comparison group (OR = 1.09). Overall, the odds ratio associated with the three random assignment studies was 1.03 (95% CI of 0.67–1.59), with more variability between the studies than would be expected by chance ($Q = 6.36$, $df = 2$, $p < .05$).

Table II. Treatment Effectiveness for Reducing Sexual Offence Recidivism

Studies	Odds ratio	95% CI	<i>Q</i>	<i>n</i> (<i>k</i>)
All	0.81	0.70/0.93	145.02***	8,164 (38)
Research designs				
Random assignment	1.03	0.67/1.59	6.36*	694 (3)
Incidental assignment	0.62	0.50/0.77	28.98*	2,948 (17)
Completers vs. dropouts	0.47	0.36/0.61	21.50	2,732 (18)
Any attendance vs. refusers	0.90	0.71/1.14	24.93**	2,892 (11)
Dropouts vs. refusers	1.67	0.91/3.06	2.69	353 (4)
Assignment based on need	3.10	2.15/4.48	11.10*	1,130 (6)
Treatment comparisons				
Current treatments				
Adults	0.61	0.48/0.76	21.17*	2,779 (12)
Adolescents	0.50	0.22/1.13	2.53	237 (3)
Total	0.60	0.48/0.75	23.89*	3,016 (15)
Institutional (current)				
Adults	0.62	0.48/0.80	12.31*	1,771 (6)
Adolescents	0.24	0.01/6.24		58 (1)
Total	0.61	0.48/0.79	12.62*	1,829 (7)
Community (current)				
Adults	0.57	0.34/0.95	8.78	1,008 (6)
Adolescents	0.53	0.23/1.22	2.32	179 (2)
Total	0.56	0.36/0.86	11.12	1,187 (8)
Non-current treatment	1.19	0.77/1.86	8.19	626 (5)

Note. 95% CI is the 95% confidence interval for the odds ratio, *Q* is a measure of between study variability (small values indicate less variability), *n* is the total number of offenders, and *k* is the number of studies.

p* < .05. *p* < .01. ****p* < .001.

On average, the 17 studies using incidental assignment were associated with significant reductions in sexual recidivism (OR = 0.62, 95% CI of 0.50–0.77) with more variability than would be expected by chance (*Q* = 29.0, *df* = 16, *p* < .05).

Those offenders who dropped out of treatment had consistently higher sexual recidivism rates than those who completed treatment (OR of 0.47). The effect was consistent across the 18 studies (*Q* = 21.50, *df* = 17, *p* > .10).

Offenders who refused treatment, however, did not appear to be at higher risk than offenders who attended any treatment (including dropouts). The odds ratio was 0.90 with significant variability across studies (*Q* = 24.93, *df* = 10, *p* < .01). The four studies that directly compared dropouts to refusers found higher sexual recidivism rates among the dropouts than the refusers (OR of 1.67), but the effect was not statistically significant.

Offenders referred to treatment based on perceived need had significantly higher sexual recidivism rates than the offenders considered not to need treatment (OR of 3.10). The only study not finding this pattern was Lab, Shields, and Schondel (1993), in which treatment was provided to offenders with the lowest perceived risk. When this outlier was removed the effect for need-based assignment increased to 3.38 with no significant variability (*Q* = 8.92, *df* = 4, *p* > .05).

The remarkably consistent effects found when the comparison groups included dropouts or those assessed as not needing treatment suggests that the results of these studies are more related to the method of subject selection than to the treatment received. Consequently, comparisons between treatments were conducted using only the incidental and random assignment studies. These two types of studies were combined because there were only two random assignment studies that examined current treatment: Borduin et al. (1990, 2000), who found a significant treatment effect, and Marques (1999), who did not. It should be noted that the Marques (1999) data used in the current study were the preliminary 1995 results; the final report from this study has yet to be released.

On average, the 20 incidental/random studies were associated with an overall treatment effect (OR = 0.69; 95% CI of 0.56–0.84), with substantial variability across studies ($Q = 39.63$, $df = 19$, $p < .01$, $n = 3,642$). For the 15 studies of current treatment, the odds ratio was 0.60 (95% CI of 0.48–0.76), with significant variability ($Q = 23.89$, $df = 14$, $p < .05$). The weighted average across these 15 studies corresponds to a sexual recidivism rate of 9.9% for the treatment groups ($n = 1,638$) compared to a rate of 17.4% for the comparison groups ($n = 1,378$, medians of 9.2 and 15.6%).

The treatment effect remained significant when considering only studies in which dropouts were explicitly included with the treatment group (OR of 0.56, 95% CI of 0.35–0.91, $Q = 12.34$, $df = 6$, $p > .05$, $k = 7$). In contrast, noncurrent treatments had no effect on reducing sexual recidivism (OR of 1.19; $k = 5$).

Studies that compared a current treatment to an alternate form of treatment tended to find larger treatment effects (OR of 0.28, 95% CI of 0.15–0.54, 6 studies, $n = 708$; $Q = 3.62$, *ns*) than did studies that compared current treatments to an untreated comparison group (OR of 0.64, 95% CI of 0.51–0.81, 10 studies, $n = 2,753$; $Q = 15.71$, *ns*).

Current treatments appeared to be equally effective for adults (OR of 0.61) and adolescents (OR of 0.50). None of the effects were statistically significant for the adolescent programs, however, due to the small sample size (total $n = 237$; $k = 3$).

Institutional treatment (OR of 0.52) and community treatment (OR of 0.56) were both associated with reductions in sexual recidivism. There was relatively little variability across the studies, with the amount of variability in the community treatment studies being no more than would be expected by chance ($Q = 11.12$, $df = 7$, $p > .05$).

The effects were similar for institutional programs treating adults (OR of 0.62) and adolescents (OR of 0.24), although it was difficult to make a comparison because only one study examined an institutional program for adolescents (Guarino-Ghezzi & Kimball, 1998). Current community treatments were associated with reductions in sexual recidivism for adults and adolescents (OR of 0.57 and 0.53, respectively). Again, the effect for the adolescents was not significant due to low sample size ($n = 179$, $k = 2$).

Table III. Treatment Effectiveness for Reducing General (Any) Recidivism

Studies	Odds ratio	95% CI	<i>Q</i>	<i>n</i> (<i>k</i>)
All	0.56	0.50/0.64	120.08***	6,075 (31)
Research designs				
Random assignment	0.92	0.69/1.22	10.61*	897 (4)
Incidental assignment	0.52	0.40/0.68	34.70***	1,176 (10)
Completers vs. dropouts	0.38	0.30/0.47	8.56	2,202 (14)
Any attendance vs. refusers	0.47	0.39/0.58	48.26***	2,274 (8)
Dropouts vs. refusers	0.85	0.42/1.73	0.18	123 (2)
Assignment based on need	1.30	0.94/1.82	2.26	834 (6)
Treatment comparisons				
Current treatments				
Adults	0.59	0.45/0.78	33.00***	1,101 (5)
Adolescents	0.35	0.13/0.91	2.05	74 (2)
Total	0.57	0.44/0.74	36.12***	1,175 (7)
Institutional (current)				
Adults	0.82	0.60/1.13	15.76***	771 (3)
Adolescents	0.48	0.17/1.39		58 (1)
Total	0.79	0.58/1.07	16.66***	829 (4)
Community (current)				
Adults	0.21	0.12/0.37	0.01	330 (2)
Adolescents	0.08	0.01/0.75		16 (1)
Total	0.20	0.12/0.35	0.73	346 (3)
Non-current treatment	0.84	0.63/1.12	13.11*	898 (7)

Note. 95% CI is the 95% confidence interval for the odds ratio, *Q* is a measure of between study variability (small values indicate less variability), *n* is the total number of offenders, and *k* is the number of studies.

p* < .05. **p* < .001.

General Recidivism

The treatment effects for general recidivism were similar to the effects for sexual recidivism (See Table III). Across all studies (*n* = 31), treated offenders had significantly lower general recidivism rates than untreated offenders (OR of 0.56), with substantial variability across studies (*Q* = 120.08, *df* = 30, *p* < .001). The 16 published studies (OR of 0.59, 95% CI of 0.49–0.70) and the 15 unpublished studies (OR of 0.54, 95% CI of 0.46–0.64) showed similar results.

Two of the four random assignment studies found significant treatment effects. Robinson (1995) found a cognitive skills training program to be associated with a significant reduction in general offending (OR of 0.51). Similarly, Borduin et al. (1990) found that multisystemic treatment reduced general recidivism among adolescents (OR = 0.08, *p* < .05). The Borduin et al. results need to be interpreted cautiously, however, because they were based on a sample of only 16 subjects (8 per group); the general recidivism rate was not reported in the larger extension of the study (Borduin et al., 2000). Romero and Williams (1983), however, found no significant effect for unstructured group psychotherapy for adult offenders (OR of 0.82) nor did Marques (1999) find any effect for a cognitive-behavioral program

(ORs of 1.30). Overall, the random assignment studies were associated with a non-significant odds ratio of 0.92 (95% CI of 0.69–1.22), with significant variability ($Q = 10.61$, $df = 3$, $p < .05$).

The 10 incidental assignment studies were associated with a reduction in general recidivism (OR of 0.52, 95% CI of 0.40–0.68) with significant variability ($Q = 34.70$, $df = 9$, $p < .001$).

Offenders who completed treatment had consistently lower general recidivism rates than those who failed to complete treatment (OR of 0.38) and the effect was consistent across studies ($Q = 8.56$, $df = 13$, $p > .75$). In contrast to the findings for sexual recidivism, however, those who refused sex offender treatment were more likely to recidivate with any offence than those who attended any treatment (OR of 0.47, with significant variability). The two studies that compared dropouts with refusers on general recidivism found similar rates for both groups (both relatively high risk). Studies in which offenders were assigned to sex offender treatment based on perceived need showed similar rates of general recidivism for both the treated and untreated groups (OR of 1.30, 95% CI of 0.94–1.82, $Q = 2.26$, $df = 5$, $p > .50$).

When the analysis was restricted to the incidental and random-assignment studies, the odds ratio was 0.69 (95% CI of 0.57–0.84, $k = 13$). The effect was higher for current treatments (OR of 0.57; 95% CI of 0.44–0.74; $k = 7$), than for noncurrent treatment (OR of 0.84, 95% CI of 0.63–1.12, $k = 7$). A weighted average for the 7 studies of current treatments resulted in a general recidivism rate of 32.3% for the treated offenders ($n = 709$) and 51.3% for the comparison groups ($n = 466$) (medians of 25 and 46%, respectively).

As with sexual recidivism, studies that compared a current treatment to an alternate form of treatment tended to find larger treatment effects (OR of 0.28, 95% CI of 0.14–0.57, 3 studies, $n = 177$) than studies that compared current treatments to an untreated comparison group (OR of 0.64, 95% CI of 0.48–0.85, 4 studies, $n = 998$).

Treatment reduced general recidivism significantly for both adults (OR of 0.59) and adolescents (OR of 0.35).

Current community treatments appeared to have a stronger effect on general recidivism (OR of 0.20; 95% CI of 0.12–0.35; $k = 3$) than did treatment provided in institutions (OR of 0.79; 95% CI of 0.58–1.07; $k = 3$). This difference should be interpreted cautiously, however, given the small number of studies and the significant variability in the effectiveness of the institutional treatments ($Q = 16.66$, $df = 3$, $p < .001$). The relative effectiveness of community versus institutional treatment appeared similar for adults and adolescents, but there was only one study of institutional treatment and one study of community treatment for adolescents.

An important question is the extent to which sex offender specific treatment is effective in reducing general recidivism. The four studies (1 random; 3 incidental) of current, sex offender specific treatment for adults found a significant reduction

in general recidivism (OR of 0.61, 95% CI of 0.45–0.82, $Q = 32.79$, $df = 3$, $p < .001$, $n = 866$).

DISCUSSION

The current review, like previous quantitative reviews (Gallagher et al., 1999; Hall, 1995b), found that the recidivism rates of treated sex offenders were lower than the recidivism rates of untreated sex offenders. Given the large numbers in the current study (more than 9,000 offenders in 43 studies), this pattern of results cannot be seriously disputed. What can be disputed are the reasons for the group differences. Did the treatment reduce the offenders' recidivism rates, or were the observed differences produced by unintended consequences of the research designs? We believe that the balance of available evidence suggests that current treatments reduce recidivism, but that firm conclusions await more and better research.

The strongest research designs are those in which offenders are randomly assigned to treatment, but there are very few of such studies. Borduin et al. (1990, 2000) found multisystemic treatment to be effective with adolescent sex offenders, but this form of treatment has yet to be evaluated in other settings, and is difficult to apply to adult sex offenders. Robinson (1995) found that a cognitive skills training program reduced general recidivism among sex offenders. Robinson's (Robinson, 1995) findings, however, are best considered part of the already well-established research on "what works" with general offenders (e.g., Lösel, 1995). There is only one random assignment study examining a current sex offender specific treatment (Sex Offender Evaluation and Treatment Project SOTEP; Marques, 1999), which, so far, has not found a positive effect of treatment. Rather than limit the entire sex offender treatment debate to the strengths and weaknesses of the SOTEP study, the Collaborative Project considered research studies using methods other than random assignment.

Studies comparing treatment completers to dropouts consistently found higher recidivism rates for the dropouts, regardless of the type of treatment provided. Even in studies where there was no difference between the treatment group and the untreated comparison groups, the treatment dropouts did worse. Consequently, treatment dropout studies cannot be used to evaluate the effectiveness of treatment (except in the discouraging case where dropouts do better than completers).

Dropouts can be high risk to reoffend for a number of reasons. They are likely to have preexisting characteristics associated with recidivism risk (e.g., youth, impulsivity, and unstable lifestyles; Wierzbicki & Pekarik, 1993) and the factors motivating treatment termination are often themselves correlated with recidivism (e.g., offender hostility toward authority, noncompliance). It is also possible that

interrupted treatment makes offenders worse. The initial stages of treatment can introduce offenders to deviant role models, cognitive distortions, and a wide range of novel, sexually deviant fantasies and behaviors. Although the mechanisms have yet to be identified, the consistent findings suggest that failure to complete sex offender treatment is a reliable and robust predictor of recidivism.

A somewhat surprising finding was that offenders who refused treatment were not at higher risk for sexual recidivism than offenders who started treatment. Treatment refusers, however, were at relatively high risk for general recidivism. Several explanations for this pattern of results are available. Some offenders may realistically conclude that they do not require treatment. Refusing treatment may not be a marker of sexual deviance; instead, it may be associated with a generally non-cooperative, antisocial lifestyle. There was, however, significant variability across studies and further research is required to determine when, if ever, treatment refusal is associated with an increased risk. The current results, however, are a challenge to evaluators who routinely use "treatment refusal" as a poor prognostic indicator.

Studies that compared sex offenders who "needed" treatment to less needy offenders consistently found worse outcomes for the treatment group. It appears that evaluators are better able to identify high risk offenders than to change them. The results of need-based assignment studies are difficult to interpret because their outcome is determined by the competing influences of the need assessment and treatment.

Most of the evidence for treatment effectiveness came from incidental assignment studies. In these studies, there was no obvious, a priori reason that the offenders would be higher or lower in risk than the comparison group. Neither the offender nor the program determined who would receive treatment, and there were no other obvious factors that should bias the composition of the groups. The incidental assignment studies found an overall effect for treatment as well as variation across treatments. Current treatments (any treatment currently offered and cognitive-behavioral treatments offered since 1980) were associated with a significant reduction in both sexual and general recidivism whereas the older treatments were not.

When the random and incidental assignment studies were combined, current treatments were associated with reductions in both sexual recidivism (from 17.3 to 9.9%), and general (any) recidivism (from 51 to 32%). These reductions were not large, but they were statistically reliable and large enough to be of practical significance.

Although care was taken to identify and code studies in a manner that minimized preexisting group differences, it is always possible that the studies included hidden biases. The task for those concerned with the empirical evaluation of sex offender treatment programs is to identify and describe potential threats to validity. The importance of potential threats can then be debated and, wherever possible, empirically evaluated.

Consider, for example, a cohort design in which the comparison group included a sample of offenders from the 10 years prior to the implementation of the treatment program in 1990. One potential threat to validity is a cohort effect on recidivism rates: the chances of being reconvicted for sexual offence may be higher (or lower) in the 1990s than in the 1980s. Such cohort effects may be dismissed as trivial, but significant cohort effects have been documented. In the United Kingdom, the chances of a reported sexual offence resulting in a conviction dropped from 37% in 1981 to 17% in 1997 (Friendship & Thornton, 2001). Providing evidence that the outcome criteria did not undergo substantial change during the study period could increase the validity of cohort designs.

In many cases, however, the information required to examine threats to validity is not available. This lack of information can partly be attributed to a lack of diligence, but there is a more fundamental problem: uncertainty concerning what information needs to be collected. Even experts disagree as to the most important threats to validity in sex offender treatment outcome studies. Some guidance can be drawn from standard texts on research methodology (e.g., Campbell & Stanley, 1966), but the most salient factors vary with the research questions and the current state of knowledge in the field (Bangert-Drowns et al., 1997). A major aim of the Collaborative Outcome Data project is to promote debate and research concerning the essential requirements of sex offender treatment outcome studies.

It is interesting to note, however, that previous meta-analytic reviews have not found more methodologically rigorous research studies produce results substantially different from less rigorous studies (e.g., Redondo, Sánchez-Meca, & Garrido, 1999). Redondo et al.'s meta-analysis of European outcome studies for general offenders found that the highest quality designs were associated with the largest effect sizes (Redondo et al., 1999). In a meta-analysis of 191 remedial programs for intoxicated drivers, Bangert-Drowns et al. (1997) found that study quality was more related to the variability in the findings than to the effect size. As study quality increased, the results converged around the mean value.

The encouraging results of the current review raises questions as to why previous reviews have been inconclusive (e.g., United States General Accounting Office, 1996). First, the present results suggest that early reviewers had good reason to be sceptical: older treatment programs were associated with a slight (nonsignificant) increase in sexual recidivism (OR of 1.19). The treatment of sex offenders, however, has changed considerably since the 1970s. Studies of newer forms of treatment have only recently become available. Most of the studies in the current review were produced after 1995 and 23% were only available after 1999. All but one of the 1999/2000 studies were still unpublished at the time of this writing, resulting in larger treatment effects for the unpublished studies than the published studies.

Another reason that treatment effect may appear ephemeral is the low statistical power of the typical outcome study (Barbaree, 1997). Although the relative

reduction in recidivism rate was substantial (approximately 40%), the absolute reduction in recidivism rates was modest (7%), even among the better-designed studies of current treatments. Given this modest absolute reduction and a median sample size of 85 treated subjects, the average study would be expected to obtain significant results only 25% of the time (difference between .17 and .10; $\alpha = .05$, two-tailed; Cohen, 1988). Only 6 of the 15 current treatment studies were statistically significant in the original reports. Although some of the variability could be attributed to different samples and treatments, this number of nonsignificant findings is expected given low statistical power.

DIRECTIONS FOR FUTURE RESEARCH

This is the first report of the ongoing Collaborative Outcome Data project. There is much to learn about the effectiveness of treatment for sex offenders, and knowledge can only accumulate as new studies are made available. Clinicians can make a significant contribution to this project by organizing their records in a manner conducive to systematic evaluation (Hanson, 2000). Researchers can contribute by producing high-quality studies and making them available for systematic integration. Sample size matters less than the care taken to promote equivalence between the treatment and comparison groups. Ideally, this would involve random assignment. The accumulated evidence of small, nonsignificant studies (e.g., $n < 20$) can potentially yield valuable conclusions.

Although the meta-analysis provided evidence about the overall effectiveness of treatment, it provided little direction on how to improve current practise. The treatments that appeared effective were recent programs providing some form of cognitive-behavioral treatment, and, for adolescent sex offenders, systemic treatment aimed at a range of current life problems (e.g., family, school, peers). Further research is needed in order to make reliable distinctions between types of treatment and types of offenders. Different sex offenders would be expected to have different treatment needs; not all treatment would be expected to benefit all offenders (Marques, 1999).

ACKNOWLEDGMENTS

We thank Rishi Balla, Craig Dowden, Melanie Morrison, and Kevin Nunes for assistance with coding the articles. We also express our appreciation to the Association for the Treatment of Sexual Abusers for its administrative support of this project. Thanks also to all the clinicians and researchers who responded to our queries, provided access to their original data and/or assistance with the coding: Jeffrey Abracen, Jayne Allam, Howard Barbaree, David Day (who independently reanalysed our data), Christopher Earls, Stephen Kramer, Roxanne Lieb, Jan

Looman, Timothy McGuire, Michael Miner, Terry Nicholaichuk, Richard Packard, Katherine Peterson, Jean Proulx, John Reddon, Marnie Rice, Greg Schiller, Marylee Stephenson, Lea Studer, and Thomas Wilson. This project would not have been possible without their help.

REFERENCES

Note. References marked with an asterisk indicate studies included in the meta-analysis. The name of the setting is given at the end of the reference when the studies that correspond to a single setting cannot be identified by the name of the first author.

- Abracen, J., Looman, J., & Nicholaichuk, T. (1999). *Recidivism among treated sexual offenders and matched comparison subjects: Data from the Regional Treatment Centre (Ontario) post-1989 sample*. Unpublished manuscript, Regional Treatment Centre, Correctional Service of Canada, Kingston, Ontario.
- Alexander, M. (1999). Sexual offender treatment efficacy revisited. *Sexual Abuse: A Journal of Research and Treatment*, 11, 101–116.
- *Allam, J. (1998). *Community-based treatment for sex offenders: An evaluation*. Birmingham, U.K.: University of Birmingham.
- *Allam, J. (1999). *Effective practice in work with sex offenders: A re-conviction study comparing treated and untreated offenders*. West Midlands Probation Service Sex Offender Unit. (Available from Jayne Allam WMPS SOU, 826 Bristol Road, Selly Oak, Birmingham, West Midlands, B29 6NA)
- Andrews, D. A., Zinger, E., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work? A clinically-relevant and psychologically informed meta-analysis. *Criminology*, 28, 369–404.
- *Bakker, L., Hudson, S., Wales, D., & Riley, D. (1999). *"And there was light": An evaluation of the Kia Marama Treatment Programme for New Zealand sex offenders against children*. Unpublished report. New Zealand.
- Bangert-Drowns, R. L., Wells-Parker, E., & Chevillard, I. (1997). Assessing the methodological quality of research in narrative reviews and meta-analyses. In K. J. Bryant, M. Windle, & S. G. West (Eds.), *The science of prevention: Methodological advances from alcohol and substance abuse research* (pp. 405–429). Washington, DC: American Psychological Association.
- Barbaree, H. E. (1997). Evaluating treatment efficacy with sexual offenders: The insensitivity of recidivism studies to treatment effects. *Sexual Abuse: A Journal of Research and Treatment*, 9, 111–128.
- *Barbaree, H. E., & Seto, M. C. (1998). *The ongoing follow-up of sex offenders treated at the Warkworth Sexual Behaviour Clinic*. Research Report prepared for the Correctional Service of Canada. [Warkworth]
- *Barnes, J. M., & Peterson, K. D. (1997). The Kentucky Sex Offender Treatment Program. *Commonwealth of Kentucky, Justice Cabinet, Department of Corrections, Division of Mental Health*. Kentucky State Reformatory, Kentucky.
- *Berlin, F. S., Hunt, W. P., Malin, M. H., Dyer, A., Lehne, G. K., & Dean, S. (1991). A five-year plus follow-up survey of criminal recidivism within a treated cohort of 406 pedophiles, 111 exhibitionists and 109 sexual aggressives: Issues and outcomes. *American Journal of Forensic Psychiatry*, 12(3), 5–28.
- *Berliner, M. L., Schram, D., Miller, L. L., & Milloy, C. D. (1995). A sentencing alternative for sex offenders: A study of decision making and recidivism. *Journal of Interpersonal Violence*, 10(4), 487–502. [Washington]
- *Bluglass, R. (1980). Indecent exposure in the West Midlands. In D. West (Ed.), *Sex offenders in the criminal justice system* (pp. 171–180). Cambridge: Cambridge Institute of Criminology.
- *Borduin, C. M., Henggeler, S. W., Blaske, D. M., & Stein, R. J. (1990). Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 34, 105–113.

- *Borduin, C. M., Schaeffer, C. M., & Heilblum, N. (2000, May). *Multi-systemic treatment of juvenile sexual offenders: A progress report*. Paper presented at the 6th International Conference on the Treatment of Sexual Offenders, Toronto.
- *Bremer, J. F. (1992). Serious juvenile sex offenders: Treatment and long-term follow-up. *Psychiatric Annals*, 22(6), 326-332.
- Campbell, D. T., & Stanley, J. C. (1966). *Experimental and quasi-experimental designs for research*. Chicago: Rand McNally.
- *Clelland, S. R., Studer, L. H., & Reddon, J. R. (1998). Follow-up report of rapists treated in a forensic psychiatric hospital. *Violence and Victims*, 13(1), 79-86. [Alberta Hospital]
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cooper, H., & Hedges, L. V. (Eds.). (1994). *The handbook of research synthesis*. New York: Sage.
- *CS/RESORS. (1991). *An evaluation of community sex offender programs in the Pacific Region* (No.21803-0-A602/01-XSB). Vancouver, BC: Author.
- *Davidson, P. R. (1984, January). *Behavioural treatment for incarcerated sex offenders: Post-release outcome*. Paper presented at the Sex Offender Assessment and Treatment Conference, Kingston, ON. [RTC Ontario]
- *Dwyer, S. M. (1997). Treatment outcome study: Seventeen years after sexual offender treatment. *Sexual Abuse: A Journal of Research and Treatment*, 9(2), 149-160. [Dwyer]
- *Earls, C. M. (1997). Étude sur la récidive. *Clinique La Macaza Bulletin d'information*, 2(1), 1-2. [La Macaza]
- *Earls, C. M., Martin, I., & Bélanger, H. (October 18, 1999). *La Macaza outcome study*. Unpublished raw data. [La Macaza]
- **Evaluation of sex offender rehabilitation programs in the state of Florida*. (1977). Department of Health and Rehabilitative Services. Mental Health Program Office, Tallahassee, FL. [Florida]
- Fleiss, J. L. (1994). Measures of effect size for categorical data. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 245-260). New York: Sage.
- Friendship, C., & Thornton, D. (2001). Sexual reconviction for sexual offenders discharged from prison in England and Wales. *British Journal of Criminology*, 41, 285-292.
- Furby, L., Weinrott, M. R., Blackshaw, L. (1989). Sex offender recidivism: A review. *Psychological Bulletin*, 105, 3-30.
- Gallagher, C. A., Wilson, D. B., Hirschfield, P., Coggeshall, M. B., & MacKenzie, D. L. (1999). A quantitative review of the effects of sex offender treatment on sexual reoffending. *Corrections Management Quarterly*, 3, 19-29.
- *Gordon, A., & Packard, R. (1998). *The impact of community maintenance treatment on sex offender recidivism*. Paper presented at the 17th annual meeting of the Association for the Treatment of Sexual Abusers, Vancouver, BC. [Twin Rivers]
- *Guarino-Ghezzi, S., & Kimball, L. M. (1998). Juvenile sex offenders in treatment. *Corrections Management Quarterly*, 2(1), 45-54.
- *Hall, G. C. N. (1995a). The preliminary development of theory-based community treatment for sexual offenders. *Professional Psychology: Research and Practice*, 26(5), 478-483.
- Hall, G. C. N. (1995b). Sexual offender recidivism revisited: A meta-analysis of recent treatment studies. *Journal of Consulting and Clinical Psychology*, 63, 802-809.
- Hanson, R. K. (1997). How to know what works with sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 9, 129-145.
- Hanson, R. K. (2000). Treatment outcome and evaluation problems (and solutions). In D. R. Laws, S. M. Hudson, & A. Ward (Eds.), *Remaking relapse prevention with sex offenders: A sourcebook* (pp. 485-499). Thousand Oaks, CA: Sage.
- Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology*, 66, 348-362.
- *Hanson, R. K., & Nicholaichuk, T. (2000). A cautionary note regarding Nicholaichuk et al. (2000). *Sexual Abuse: A Journal of Research and Treatment*, 12, 289-293. [Clearwater]
- *Hanson, R. K., Steffy, R. A., & Gauthier, R. (1992). *Long-term follow-up of child molesters: Risk prediction and treatment outcome* (User Report No. 1992-02). Ottawa: Corrections Branch, Ministry of the Solicitor General of Canada.

- *Hanson, R. K., Steffy, R. A., & Gauthier, R. (1993). Long-term recidivism of child molesters. *Journal of Consulting and Clinical Psychology, 61*, 646–652.
- Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*, 119–136.
- Harris, G. T., Rice, M. E., & Quinsey, V. L. (1998). Appraisal and management of risk in sexual aggression: Implications for criminal justice policy. *Psychology, Public Policy, and Law, 4*, 73–115.
- Hedges, L. V. (1994). Fixed effect models. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 285–299). New York: Sage.
- Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. New York: Academic Press.
- *Hersh, K., Baldwin, K., & Gray-Little, B. (1999, September). *Treatment completion and recidivism among incarcerated sex offenders*. Paper presented at the annual conference of the Association for the Treatment of Sexual Abusers, Orlando, FL.
- *Huot, S. (1999, April). *Minnesota study of sex offender recidivism*. Unpublished data.
- *Kramer, S. P. (1985). *Sex offender treatment and tracking: Problems, perspectives and outcomes in the Utah criminal justice system*. Unpublished manuscript.
- *Lab, S. P., Shields, G., & Schondel, C. (1993). Research note: An evaluation of juvenile sexual offender treatment. *Crime and Delinquency, 39*(4), 543–553.
- Laws, D. R. (Ed.). (1989). *Relapse prevention with sex offenders*. New York: Guilford.
- *Lindsay, W. R., Marshall, I., & Neilson, C. (1998). The treatment of men with a learning disability convicted of exhibitionism. *Research in Developmental Disabilities, 19*(4), 295–316.
- *Lindsay, W. R., Neilson, C. Q., & Morrison, F. (1998). The treatment of six men with a learning disability convicted of sex offences with children. *British Journal of Clinical Psychology, 37*, 83–89.
- *Lindsay, W. R., & Smith, A. H. W. (1998). Response to treatment for sex offenders with intellectual disability: A comparison of men with 1- and 2-year probation sentences. *Journal of Intellectual Disability Research, 42*, 346–353.
- *Looman, J., Abracen, J., & Nickolaichuk, T. P. (2000). Recidivism among treated sexual offenders and matched controls: Data from the Regional Treatment Centre (Ontario). *Journal of Interpersonal Violence, 15*, 279–290. [RTC Ontario]
- Lösel, F. (1995). The efficacy of correctional treatment: A review and synthesis of meta-evaluations. In J. McGuire (Ed.), *What works: Reducing reoffending* (pp. 79–114). Chichester: Wiley.
- Mander, A. M., Atrops, M. E., Barnes, A. R., & Munafo, R. (1996). *Sex offender treatment program: Initial recidivism study*. Unpublished report, Alaska Department of Corrections Offenders Programs, Alaska Justice Statistical Analysis Unit Justice Center and University of Alaska, Anchorage.
- *Marques, J. K. (1999). How to answer the question, “Does sex offender treatment work?” *Journal of Interpersonal Violence, 14*(4), 437–451.
- *Marques, J. K., & Day, D. M. (May, 1998). *Sex offender treatment evaluation project: Progress report (May, 1998)*. Sacramento, CA: California Department of Mental Health.
- *Marques, J. K., Day, D. M., Nelson, C., & West, M. A. (1993). Findings and recommendations from California’s experimental treatment program. In G. C. N. Hall, R. Hirschman, J. R. Graham, & M. S. Zaragoza (Eds.), *Sexual aggression: Issues in etiology, assessment and treatment* (pp. 197–214). Washington, DC: Taylor and Francis.
- *Marques, J. K., Day, D. M., Nelson, C., & West, M. A. (1994). Effects of cognitive-behavioral treatment on sex offenders recidivism: Preliminary results of a longitudinal study. *Criminal Justice and Behavior, 21*, 28–54.
- *Marshall, W. L., & Barbaree, H. E. (1988). The long-term evaluation of a behavioral treatment program for child molesters. *Behaviour Research and Therapy, 26*(6), 499–511.
- *Marshall, W. L., Eccles, A., & Barbaree, H. E. (1991). The treatment of exhibitionists: A focus on sexual deviance versus cognitive and relationship features. *Behaviour Research and Therapy, 29*, 129–135.
- *Martin, I. (1998). *Efficacité d'un programme cognitif-behavioural institutionnel pour délinquants sexuels*. Unpublished doctoral dissertation, Department of Psychology, University of Montreal. [La Macaza]
- *McGrath, R. J., Hoke, S. E., & Vojtisek, J. E. (1998). Cognitive-behavioral treatment of sex offenders. *Criminal Justice and Behavior, 25*(2), 203–225.

- *McGuire, T. J. (2000). Correctional institution based sex offender treatment: A lapse behavior study. *Behavioural Sciences and the Law*, 18, 57–71.
- *Meyer, L. C., & Romero, J. (1980). *A ten year follow-up of sex offender recidivism*. Pennsylvania, PA: Joseph J. Peters Institute. [JJ Peters]
- *Miner, M., & Dwyer, S. M. (1995). Analysis of dropouts from outpatient sex offender treatment. *Journal of Psychology and Human Sexuality*, 7(3), 77–93. [Dwyer]
- *The Missouri Sexual Offender Program. (1989). *Updated figures for Missouri sex offender study*. Department of Corrections, Division of Classification and Treatment, Jefferson City, MO. [Missouri]
- *Mulloy, R., & Smiley, W. C. (1996). *Recidivism and treated sex offenders*. Paper presented at the International Congress of Psychologists, Montreal, QC. [RHC Pacific]
- *Nicholaichuk, T. P. (1996). Sex offender treatment priority: An illustration of the risk/need principle. *Forum on Corrections Research*, 8(2), 30–32. [Saskatchewan]
- Nicholaichuk, T., Gordon, A., Andre, G., & Gu, D. (1995). *Outcome of the Clearwater Sex Offender Treatment Program: A matched comparison between treated and untreated offenders*. Unpublished manuscript, Regional Psychiatric Centre, Saskatoon, Saskatchewan, Canada.
- *Nicholaichuk, T., Gordon, A., Gu, D., & Wong, S. (2000). Outcome of an institutional sexual offender treatment program: A comparison between treated and matched untreated offenders. *Sexual Abuse: A Journal of Research and Treatment*, 12, 139–153. [Clearwater]
- *Nutbrown, V., & Stasiak, E. (1987). Research monograph: A retrospective analysis of O.C.I. cost effectiveness 1977–1981. *Ontario Correctional Institute*, 2, 1–16.
- *Pellerin, B., Proulx, J., Ouimet, M., Paradis, Y., McKibben, A., & Aubut, J. (1996). Étude de la recidive post-traitement chez des agresseurs sexuels judiciaires. *Criminologie*, 29, 85–108. [Pinel]
- *Perkins, D. (1987). A psychological treatment programme for sexual offenders. In B. J. McGurk, D. M. Thornton, & M. Williams (Eds.), *Applying Psychology to Treatment: Theory & Practice* (pp. 192–217). Her Majesty's Stationary Office, London.
- *Pierson, T. A. (1988). *The Missouri Sexual Offender Program: Inmate Characteristics and Recidivism Analysis, 1984–1985 releases*. Department of Corrections, Division of Classification and Treatment, Jefferson City, MO. [Missouri]
- *Proctor, E. (1996). A five-year outcome evaluation of a community-based treatment program for convicted sexual offenders run by the probation service. *Journal of Sexual Aggression*, 2, 3–16.
- *Proulx, J., Ouimet, M., Pellerin, B., Paradis, Y., McKibben, A., & Aubut, J. (1998). *Posttreatment recidivism rates in sexual aggressors: A comparison between dropout and nondropout subjects* (No. 98-22). Les cahiers de l'école de criminologie, University of Montreal, Montreal, Quebec. [Pinel]
- *Quinsey, V. L., Khanna, A., & Malcolm, P. B. (1998). A retrospective evaluation of the Regional Treatment Centre sex offender treatment program. *Journal of Interpersonal Violence*, 13, 621–644. [RTC Ontario]
- *Rattenbury, F. R. (1986). *The outcomes of hospitalized and incarcerated sex offenders: A study of offender types, recidivism rates, and identifying characteristics of the repeat offender*. Unpublished doctoral dissertation, School of Loyola University of Chicago, IL.
- Redondo, A., Sánchez-Meca, J., & Garrido, V. (1999). The influence of treatment programmes on the recidivism of juvenile and adult offenders: An European meta-analytic review. *Psychology, Crime and Law*, 5, 251–278.
- **Report on treatment programs for sex offenders: Summary and recommendations*. (1984). In conjunction with the Governor's Task Force on Sex Offenders and Their Victims, Florida Mental Health Institute, Tampa, FL. [Florida]
- *Rice, M. E., Quinsey, V. L., & Harris, G. T. (1991). Sexual recidivism among child molesters released from a maximum security psychiatric institution. *Journal of Consulting and Clinical Psychology*, 59, 381–386.
- *Robinson, D. (1995). *The impact of cognitive skills training on post-release recidivism among Canadian federal offenders* (No. R-41). Ottawa, ON, Correctional Service Canada, Correctional Research and Development.
- *Romero, J. J., & Williams, L. M. (1983). Group psychotherapy and intensive probation supervision with sex offenders. *Federal Probation*, 47, 36–42. [JJ Peters]
- *Seto, M. C., & Barbaree, H. E. (1999). Psychopathy, treatment behavior, and sex offender recidivism. *Journal of Interpersonal Violence*, 14, 1235–1248. [Warkworth]

- **Sex offender programs: Program manuals, descriptions, evaluations, & research.* (1998). Regional Health Centre (Pacific). [RHC Pacific]
- **Sex offenses in Washington State: 1998 update.* (1998). Washington State Institute for Public Policy, Olympia, WA. [Washington]
- *Smiley, W. C., & Mulloy, R. (1995). *Treatment of sex offenders: Does intervention work?* Unpublished Manuscript. [RHC Pacific]
- *Song, L., & Lieb, R. (1995). *Washington state sex offenders: Overview of recidivism studies.* Olympia, WA: Washington State Institute for Public Policy. [Twin Rivers; Washington]
- *Studer, L. H., & Reddon, J. R. (1998). Treatment may change risk prediction for sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 10, 181. [Alberta Hospital]
- *Studer, L. H., Reddon, J. R., Roper, V., & Estrada, L. (1994). *Sexual offender recidivism: An evaluation of the Phoenix program.* Alberta Hospital, Edmonton, AB. [Alberta Hospital]
- Swenson, C. C., Henggeler, S. W., & Schoenwald, S. K. (2001). Family-based treatments. In C. R. Hollin (Ed.), *Handbook of offender assessment and treatment* (pp. 205–220). Chichester, U.K.: Wiley.
- United States General Accounting Office. (1996). *Sex offender treatment: Research results inconclusive about what works to reduce recidivism.* Washington, DC: Author.
- *Walker, D. W. (2000). The treatment of adult male child molesters through group family intervention. In A. P. Colmenárez & R. H. Serrano (Eds.), *Violencia* (pp. 191–197). Caracas, Venezuela: Universidad Central de Venezuela.
- Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy drop-out. *Professional Psychology: Research and Practice*, 24, 190–195.
- Wille, R., & Beier, K. M. (1989). Castration in Germany. *Annals of Sex Research*, 2, 103–133.
- *Worling, J. R., & Curwen, T. (1998). *The adolescent sexual offender project: A 10-year follow-up study.* SAFE-T Program (Sexual Abuse: Family Education & Treatment) Thistleton Regional Centre for Children & Adolescents & Probation and Community Services, Ontario Ministry of Community and Social Services: Toronto, ON.

Code of Ethics

of the

National Association of Social Workers



National Association of Social Workers

professional, social, or business. Dual or multiple relationships can occur simultaneously or consecutively.)

(d) When social workers provide services to two or more people who have a relationship with each other (for example, couples, family members), social workers should clarify with all parties which individuals will be considered clients and the nature of social workers' professional obligations to the various individuals who are receiving services. Social workers who anticipate a conflict of interest among the individuals receiving services or who anticipate having to perform in potentially conflicting roles (for example, when a social worker is asked to testify in a child custody dispute or divorce proceedings involving clients) should clarify their role with the parties involved and take appropriate action to minimize any conflict of interest.

1.07 Privacy and Confidentiality

(a) Social workers should respect clients' right to privacy. Social workers should not solicit private information from clients unless it is essential to providing services or conducting social work evaluation or research. Once private information is shared, standards of confidentiality apply.

(b) Social workers may disclose confidential information when appropriate with valid consent from a client or a person legally authorized to consent on behalf of a client.

(c) Social workers should protect the confidentiality of all information obtained in the course of professional service, except for compelling professional reasons. The general expectation that social workers will keep information confidential does not apply when disclosure is necessary to prevent serious, foreseeable, and imminent harm to a client or other identifiable person. In all instances, social workers should disclose the least amount of confidential information necessary to achieve the desired purpose; only information that is directly relevant to the purpose for which the disclosure is made should be revealed.

(d) Social workers should inform clients, to the extent possible, about the disclosure of confidential information and the potential consequences, when feasible before the disclosure is made. This applies whether social workers disclose confidential information on the basis of a legal requirement or client consent.

- (e) Social workers should discuss with clients and other interested parties the nature of confidentiality and limitations of clients' right to confidentiality. Social workers should review with clients circumstances where confidential information may be requested and where disclosure of confidential information may be legally required. This discussion should occur as soon as possible in the social worker-client relationship and as needed throughout the course of the relationship.
- (f) When social workers provide counseling services to families, couples, or groups, social workers should seek agreement among the parties involved concerning each individual's right to confidentiality and obligation to preserve the confidentiality of information shared by others. Social workers should inform participants in family, couples, or group counseling that social workers cannot guarantee that all participants will honor such agreements.
- (g) Social workers should inform clients involved in family, couples, marital, or group counseling of the social worker's, employer's, and agency's policy concerning the social worker's disclosure of confidential information among the parties involved in the counseling.
- (h) Social workers should not disclose confidential information to third-party payers unless clients have authorized such disclosure.
- (i) Social workers should not discuss confidential information in any setting unless privacy can be ensured. Social workers should not discuss confidential information in public or semipublic areas such as hallways, waiting rooms, elevators, and restaurants.
- (j) Social workers should protect the confidentiality of clients during legal proceedings to the extent permitted by law. When a court of law or other legally authorized body orders social workers to disclose confidential or privileged information without a client's consent and such disclosure could cause harm to the client, social workers should request that the court withdraw the order or limit the order as narrowly as possible or maintain the records under seal, unavailable for public inspection.
- (k) Social workers should protect the confidentiality of clients when responding to requests from members of the media.
- (l) Social workers should protect the confidentiality of clients' written and electronic records and other sensitive information. Social workers should take reasonable steps to ensure that clients' records are stored in

a secure location and that clients' records are not available to others who are not authorized to have access.

(m) Social workers should take precautions to ensure and maintain the confidentiality of information transmitted to other parties through the use of computers, electronic mail, facsimile machines, telephones and telephone answering machines, and other electronic or computer technology. Disclosure of identifying information should be avoided whenever possible.

(n) Social workers should transfer or dispose of clients' records in a manner that protects clients' confidentiality and is consistent with state statutes governing records and social work licensure.

(o) Social workers should take reasonable precautions to protect client confidentiality in the event of the social worker's termination of practice, incapacitation, or death.

(p) Social workers should not disclose identifying information when discussing clients for teaching or training purposes unless the client has consented to disclosure of confidential information.

(q) Social workers should not disclose identifying information when discussing clients with consultants unless the client has consented to disclosure of confidential information or there is a compelling need for such disclosure.

(r) Social workers should protect the confidentiality of deceased clients consistent with the preceding standards.

1.08 Access to Records

(a) Social workers should provide clients with reasonable access to records concerning the clients. Social workers who are concerned that clients' access to their records could cause serious misunderstanding or harm to the client should provide assistance in interpreting the records and consultation with the client regarding the records. Social workers should limit clients' access to their records, or portions of their records, only in exceptional circumstances when there is compelling evidence that such access would cause serious harm to the client. Both clients' requests and the rationale for withholding some or all of the record should be documented in clients' files.

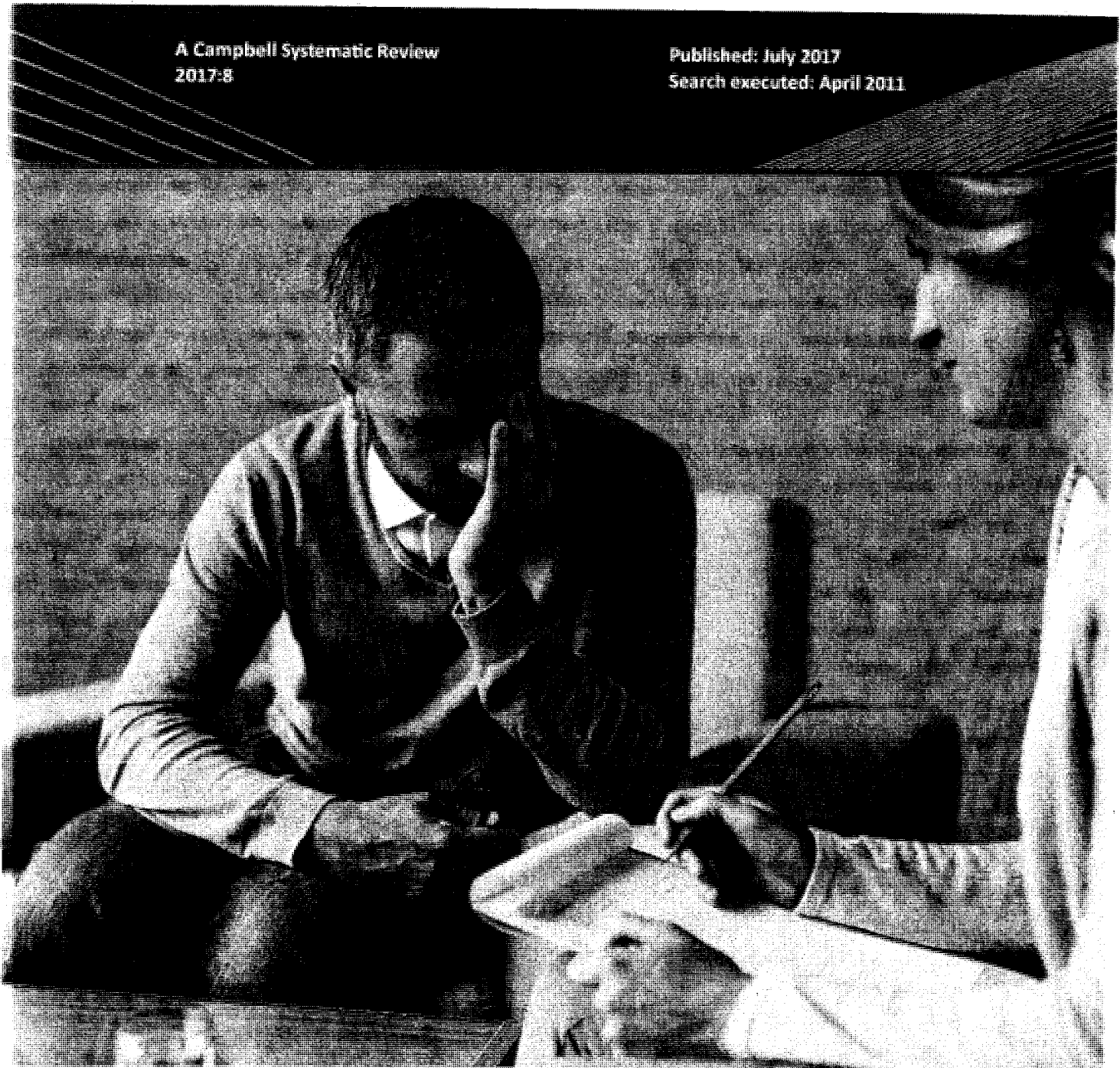
(b) When providing clients with access to their records, social workers should take steps to protect the confidentiality of other individuals identified or discussed in such records.

Sexual offender treatment for reducing recidivism among convicted sex offenders: a systematic review and meta-analysis

Martin Schmucker and Friedrich Lösel

A Campbell Systematic Review
2017:8

Published: July 2017
Search executed: April 2011



Background

Sexual offending is a topic of particularly high concern in the general public, mass media and in crime policy making. Accordingly, many governments of industrialized countries have implemented not only more punitive measures but have also invested in treatment of sexual offenders to reduce recidivism. However, there is much controversy about the effectiveness of sex offender treatment, in particular with regard to methodological issues of evaluation (e.g. Marshall & Marshall, 2010; Rice & Harris, 2003; Seto et al., 2008). A general conclusion and consensus on 'what works' in this field is complicated by various issues (Lösel & Schmucker, 2017):

1. Sexual offending is a very heterogeneous category that contains, for example, various forms of child molesting, rape, exhibitionism, distribution and consumption of child pornography on the internet and other forms.
2. There are very different types of sexual offenders such as those with (or without) a deviant sexual preference (paraphilia), an antisocial personality, an opportunistic orientation, neuropsychological deficits, and so forth (Robertiello & Terry, 2007).
3. Although there is much research on static and dynamic risk factors for reoffending and structured risk assessment instruments (e.g. Hanson & Morton-Bourgon, 2009), the knowledge about the origins and causal mechanisms is less clear (e.g. Mann et al., 2010; Ward et al., 2005).
4. Treatment approaches are heterogeneous, ranging from psychosocial interventions such as cognitive-behavioral programs and relapse prevention or psychodynamic therapy to organic interventions such as hormonal treatment by medication or surgical castration, and some of these categories embrace rather different therapeutic measures in themselves (e.g. Marshall et al., 1998; McGrath et al., 2010).
5. Sound treatment evaluation is difficult because in various jurisdictions serious sexual offenders cannot simply be left untreated in control groups, the base rate of sexual recidivism is relatively low, and with regard to sexual reoffending longer follow-up periods are required compared to other fields of correctional intervention.

For such reasons controlled evaluations of programs for sexual offenders are less frequent than in general or violent offender treatment, particularly outside North America (Lipsey & Cullen, 2007; Lösel, 2012). However, over the last 20 years the number of studies has increased and more than a dozen systematic reviews or meta-analyses have been carried out (for overviews see Corabian et al., 2011; Lösel & Schmucker, 2014, 2017). Although there is overlap between these syntheses, they vary substantially with regard to the included primary studies, coding schemes, methods of effect size calculation and integration as well as the investigation of outcome moderators. Some meta-analyses concentrated on psychotherapeutic/psychosocial interventions only (e.g. Hanson et al., 2002), whereas others also included hormonal medication and surgical castration (Lösel & Schmucker, 2005). Within the category of psychotherapeutic/psychosocial interventions the specific treatment programs not only vary considerably but also share similarities. For example, the contents of cognitive-behavioral treatment (CBT), such as reducing deviant sexual attitudes, improving self-control, enhancing social skills, promoting perspective taking, or coping with stressors, overlap with those of relapse prevention programs that focus on avoidance or coping

with risk situations. Multi-systemic therapy for young sexual offenders and social therapy/therapeutic communities make particular use of the social context of the clients, but also incorporate elements from CBT, attachment and psychodynamic approaches. Hormonal treatment is used for subgroups of paraphilic offenders or others who are mainly motivated by sexual drive and not by dominance or other motivations. Medication is normally not used alone but accompanied by psychotherapy and other interventions. The available research syntheses also vary with regard to the countries of origin or language (e.g. most concentrated on reports in English), outcome criteria (e.g. reoffending versus other variables) and – in particular – methodological quality of the studies included.

Given this diversity of interventions, it is not surprising that the magnitude of treatment effects vary substantially (Lösel & Schmucker, 2014), although the two most comprehensive meta-analyses revealed similar results with regard to those types of treatment in which they overlapped (psychosocial interventions; Hanson et al., 2002; Lösel & Schmucker, 2005). However, due to the low number of high quality evaluations, i.e. randomized controlled trials (RCTs) or good quasi-experiments with equivalent control groups, the results of these reviews should not be seen as a definite answer to 'what works in sexual offender treatment' but rather as steps in a development to establish a sound evidence base. A good example for such a process is the review of Hanson et al. (2009) that showed that the Risk-Need-Responsivity (RNR) model of offender treatment (Andrews & Bonta, 2010) can be transferred from general to sexual offender treatment.

Objectives

Building on and updating our previous meta-analysis (Lösel & Schmucker, 2005) we meta-analytically integrate methodologically sound experimental and quasi-experimental studies that estimate the effects of treatment for sexual offenders on recidivism. This should provide the currently most valid international database on the effects of sexual offender treatment. Apart from the general question if treatment works for sexual offenders, the meta-analysis aims at analyzing characteristics that moderate treatment success.

Methods¹

Criteria for considering studies for this review

In order to be eligible for the meta-analysis, primary studies had to have the following characteristics:

1. *Study of male sexual offenders.* Participants had to have been convicted of a sexual offence or to have committed acts of illegal sexual behavior that would have led to a conviction if officially prosecuted. Studies on female sex offenders were not eligible. From the little that is known about female sex offending, we have to assume that it is not just a blueprint of its male counterpart (e.g. Freeman & Sandler, 2008).
2. *Evaluation of treatment.* No restrictions were made on the kind of intervention applied as long as it aimed to reduce recidivism (i.e., psychosocial as well as organic treatment modes such as hormonal medication by medroxyprogesterone or cyproterone acetate and surgical castration were eligible). However, interventions had to incorporate therapeutic measures; purely deterrent or punishing approaches were not included. Treatment did not have to be specifically tailored for sexual offenders. General offender treatment programs were eligible if the study addressed at least a subgroup of sexual offenders and reported separate results for these in both the treated and control groups.
3. *Study design.* The study had to report the same recidivism outcome for the treatment group (TG) and a control group (CG) not receiving the program under investigation. Apart from randomized studies, we included comparisons from quasi-experimental designs if there were no serious doubts regarding the equivalence of treatment and control groups. This included studies that used appropriate matching procedures, demonstrated equivalence by comparison of and/or statistical control for relevant variables. Equivalence was also assumed if the criteria of the incidental assignment did not relate to risks of reoffending such as availability of treatment in a certain region/at a certain time. These aspects were reflected in our adaptation of the Maryland Scientific Methods Scale (see Farrington et al., 2002). Level 3 or above had to be reached in order to be eligible. Our adaptation is slightly stricter and a little more differentiated at the upper end of the scale that is of special interest for the synthesis of methodologically sound studies. We used the following categories:
 - *Level 1: No control or comparison group.*
 - *Level 2: Nonequivalent comparison group.* Differences on relevant variables effecting recidivism are reported or are to be expected (e.g., treatment dropouts, subjects who refuse treatment).

¹ The methodology of this review is based on the published protocol (Lösel & Schmucker, 2009)

- *Level 3: Incidental assignment but equivalent control group.* No serious doubts that assignment resulted in equivalent groups, or sound statistical control of potential differences.²
- *Level 4: Matching procedures.* Systematic strategy to attain equivalence of the control group (e.g. theoretically sound matching or propensity score techniques).
- *Level 5: Random assignment of treated and untreated subjects.* This level also required absence of selective attrition (in case of selective attrition studies were downgraded or excluded depending on its severity).

CGs could consist of untreated offenders or offenders receiving “treatment as usual” or another kind of treatment that differed from the evaluated program in content, intensity and specificity. Waiting-list control groups were included if the design allowed testing of a program effect (see outcome measures).

4. *Measure of recidivism as outcome.* An indication of officially registered new offences had to be included as a dependent variable. Although recidivism is not a very sensitive indicator of treatment effects (e.g. Barbaree, 1997), it is politically and practically most relevant. We followed a broad definition of recidivism (sexual as well as non-sexual offences). Studies could use criteria such as arrest, charge, conviction or incarceration as long as these definitions drew on officially registered recidivism. In contrast, primary studies focusing exclusively on changes in measures of personality, attitudes, hormone levels, problem behaviors, clinical ratings of improvement, and the like were not included. Self-reported offending was also not included because of the severe risk of biased reporting (i.e. denial of offences).
5. *Sample size.* Studies had to contain a minimum total sample size of 10 persons with at least 5 offenders in each group. This also excluded case reports. We kept this criterion low because clinical studies on sex offenders are often small-scale.
6. *Sufficient data for effect size computation.* Studies had to report outcomes in a way permitting the calculation of effect size estimates.
7. *Country of origin.* No restrictions were made as to where studies were conducted. For economic reasons, we restricted our analysis to studies reported in English, German, French, Dutch, or Swedish language.
8. *Published and unpublished studies.* Published as well as unpublished studies were eligible. There were no restrictions regarding the time of publication.

Search methods for identification of studies

The study pool of the present analysis was based on the broad search of 2,039 documents that was reported in Lösel and Schmucker (2005) and updated to cover studies issued prior to 2010. Thus it concerned at least six more years of primary research than the previous meta-analysis.³ The coding was also updated for new information where necessary.

² As an example, the treatment program evaluated by Lab et al. (1993) was originally intended for low to medium risk youths only, but in fact the risk scores of CG youths assigned to non-specific programming did not substantially differ and the groups were also comparable on a number of other characteristics. We therefore assumed that potential outcome differences could be plausibly interpreted as representing treatment effects and rated it on Level 3.

³ Carrying out and publishing a comprehensive meta-analysis takes a lot of time. Therefore, trying to keep a review updated can create a vicious cycle that is in conflict with timely publication. We are aware of a few more recent studies that are not included in our review. We also know about two studies with large samples, however, after some waiting time the latter findings have not yet been released. Therefore, we felt that the current analysis should now be published. To check the robustness of our findings, we assessed the available more recent studies and found that they were generally in accordance with our main results. The respective studies are briefly reported in Appendix 1.

The search used as many sources as possible to achieve a comprehensive international study pool that included both published and unpublished evaluations (see Schmucker & Lösel, 2011). The sources included:

1.1.1 Searches in electronic literature and research databases

We searched multiple databases which tapped different academic subjects:

- C2-SPECTR
- Center for Sex Offender Management (CSOM) documents database
- Cochrane Library
- Dissertation Abstracts International
- ERIC
- KrimLit Beta II
- MedLine
- National Criminal Justice Reference Service (NCJRS)
- PAVNET Online
- PsycInfo
- Psyn dex
- Social Services Abstracts
- Sociological Abstracts
- UK National Health Service National Research Register

While such databases usually only cover published reports, some of the databases also refer to unpublished material. Usually the search combined four different keyword clusters: 1) (abnormal/delinquent) sexual behavior (e.g. sexual, paraphilia, molestation etc.); 2) criminal conduct and population (e.g. criminal, offenders, prison etc.); 3) therapeutic intervention (therapy, treatment, corrections etc.) and 4) outcome research (e.g. effectiveness, outcomes, recidivism etc.). The following terms were used to search four topical clusters:

Search cluster	Terms used
Cluster 1: (abnormal/delinquent) sexual behavior	sex* or parafil* or rape or rapist or molest* or exhibitionis* or voyeur* or pedophil* or incest* or fetish* or necrophil* or frotteur*
Cluster 2: criminal conduct and population	offen* or crim* or delinquen* or perpetrator* or prison*
Cluster 3: therapeutic intervention	treat* or therapy or psychotherapy or intervention or training or correction* or rehabilitation or prevention or management
Cluster 4: outcome research	evaluation or evaluate or evaluated or outcome or outcomes or effect or effects or effectiveness or impact or recidivism or re-offen* or reoffen* or follow-up or followup or relapse

Search terms were individually adapted to the specific layout and search options the databases allowed for in order to construct manageable, but albeit comprehensive results.

1.1.2 Searching other resources

Apart from electronic databases our search used a number of additional sources to further enhance the comprehensiveness of our search:

- *Previous reviews* on sexual offender treatment were scanned for included studies.
- *Primary studies* were scanned for cross references (*snowball method*).

- *Handsearches of pertinent journals.* Available journals that are known to publish articles relevant to the topic at hand were searched manually. This search included 16 journals (e.g. Aggression and Violent Behavior; Criminal Behaviour and Mental Health; Journal of Sexual Aggression; Psychology, Crime & Law; Sexual Abuse).
- *Internet search.* We also conducted internet searches primarily to find unpublished material. Obviously, the internet cannot be searched in full as it constitutes a rather loosely organized pool of information (Schmucker & Lösel, 2011). We visited the internet representations of pertinent institutions (e.g. Departments of Corrections, Ministries of Justice), searched them for information on relevant studies and followed indications of such research until we could locate the referenced material.
- *Personal inquiries.* We personally contacted experts in the field of sexual offender research and asked for own or other studies that would contribute to our study pool.

1.1.3 Managing studies located incidentally

Sometimes relevant studies are found incidentally (e.g. in the course of another but related literature search; content alerts of journals and the like). There is the danger that incidentally located studies might bias the study pool depending on the special research interests or typically scanned sources. One might decide to drop such studies from the pool. On the other hand, the aim of a comprehensive review is to include all studies that are available. Our decision was to include such incidentally located studies but to document that they were identified in this way. However, we found that we had either located such studies by our systematic literature search as well or they did not meet the eligibility criteria on closer inspection.

Data collection and analysis

1.1.4 Data extraction and management

A broad range of variables were coded for descriptive purposes although not all relevant variables were reported in all reports. The coding of study characteristics followed a detailed coding manual that was extended from our previous meta-analysis (Lösel & Schmucker, 2005).

For each study/comparison general features (e.g. type and year of publication, country), characteristics of the sample (e.g. age, offence types, voluntariness of treatment participation, risk of reoffending), treatment variables (e.g. basic treatment concept, setting, format of the treatment) and methodological features (e.g. Maryland Scale rating, follow-up interval). Table 1 shows the main basic variables describing the pool of included comparisons.

All studies were independently coded by the first author and a trained member of our research team with experience in the field of offender treatment evaluation. Inter-rater agreement varied across the variables but was overall similar to our previous meta-analysis (Lösel & Schmucker, 2005). Especially important categories such as treatment type or quality of evaluation design reached nearly 100% and no variable was below 60%. Relatively low agreement was mostly due to discrepancies regarding the missing status of a variable (e.g. author affiliation was coded as missing more often by the second coder due to a lack of knowledge of affiliation networks for sex offender treatment specifically). In case of disagreement of the coders we had a group discussion in the research team to reach consensus.

1.1.5 Measures of treatment effect

Usually, the outcomes are reported in terms of recidivism rates for treated and untreated participants. We thus chose the odds ratio (*OR*) as effect size measure (see Fleiss et al., 1994). The following formulas were used for recidivism rates (*p*) and absolute number of successes and failures in the treated group (*TG*) and comparison group (*CG*) respectively:

$$OR = \frac{p_{CG} \times (1 - p_{TG})}{p_{TG} \times (1 - p_{CG})} \quad \text{and} \quad OR = \frac{TG_{Success} \times CG_{Failure}}{TG_{Failure} \times CG_{Success}}$$

If any of these frequencies equaled zero, 0.5 was added to each frequency. Some studies reported more sophisticated statistical analyses that controlled for differences between *TGs* and *CGs*. In such cases, we used these results instead of the simple recidivism rates. In logistic regression, the coefficients equal the natural log of the *OR* (*LOR*), and as an exponent to *e* this equals the *OR* (see Fleiss, 1994). The result for the treatment variable could thus be transferred directly. In Cox regression, results are reported in the form of a risk ratio, which is similar but not identical to the *OR*. We used the risk ratio (*RR*) to estimate a recidivism rate for the *CG* corrected for the group differences considered in the Cox regression model ($p_{CG} = RR \times p_{TG}$ or $p_{CG} = RR / p_{TG}$, depending on the coding of the treatment variable in the primary study). We then calculated the *OR* substituting the estimated *CG* recidivism rate following the above formula. Few studies reported other test statistics that could not be transformed readily into *ORs*. In these cases, we used standard procedures to calculate Cohen's *d* (see Lipsey & Wilson, 2001) and then converted these into odds ratios using

$$LOR = \frac{\pi}{\sqrt{3}} \times d \quad (\text{Hasselblad \& Hedges, 1995, Formula 4, re-arranged}) \quad \text{and} \quad OR = e^{LOR}.$$

Studies often reported multiple outcome variables. Different domains of recidivist behavior (i.e., sexual, violent, or general recidivism) were always analyzed separately. If a study reported different indicators of failure (i.e., charge, arrest, or conviction) for a common construct of interest, we would code effect sizes separately and then average them to a single effect size. In fact, this did not occur for any of the studies included in the final sample. To check whether different definitions of recidivism systematically relate to effect sizes, we subjected this to a moderator analysis and found no significant impact (see results section).

Some studies reported separate results for different offender types or risk groups, but did not meet criteria for independent comparisons as defined below. Here, we calculated effect sizes separately for the subgroups and used the weighted average to obtain a study effect size (see Fleiss, 1994).

Whenever possible, participants who dropped out of treatment were included in the treatment group ("intent to treat" analysis).

1.1.6 Unit of analysis issues

Sometimes references report more than one study. We then referred to the individual studies as the units of analysis. If a study contained multiple dependent (sub-)samples, we used the comparison with the highest internal validity. For example, if a study compared recidivism rates for the total sample of treated/untreated participants and additionally matched a subsample of these groups on relevant characteristics, we would use the latter comparison. Some primary studies present results for different independent subsamples (e.g. separated according to offence types). In those cases we used the subsamples as units of analysis when this would improve equivalence between treated and control groups and the report allowed for a differentiated coding of the individual subsamples regarding the coding variables (see below). Following this approach we extracted 29 comparisons from 27 studies that met our inclusion criteria. In total, the 29 comparisons comprise 4,939 treated and 5,448 untreated offenders.

1.1.7 Data synthesis and moderator analyses

Statistical analyses were conducted on the natural log of the *OR* (Fleiss, 1994; Lipsey & Wilson, 2001). To integrate effect sizes, we applied the weighting procedures based on the standard error of individual effect sizes (Hedges & Olkin, 1985). Analyses were conducted with IBM SPSS Statistics using the macros for meta-analysis written by David Wilson (see Lipsey & Wilson, 2001). Because of the expected heterogeneity of effect size distributions, we applied a random effects model. The random variance component (τ^2) was estimated via the method-of-moments procedure. All moderator analyses were carried out under the assumption of a mixed effects model (see also Lipsey & Wilson, 2001; Wilson, 2001). Continuous moderator variables were analyzed using weighted regression, again under the mixed effects model and weighted β coefficients (β_w) are reported. When only one moderator variable is in the regression model β_w equals the simple (weighted) correlation. Data were inspected for outliers and when necessary analyses were controlled for the presence of outliers and extreme values.

Results

Description of studies

1.1.8 Results of the search

Altogether, for the current integration more than 3,000 documents were identified. Figure 1 shows the PRISMA flow chart (Moher et al., 2009) of the literature search and selection process. After duplicates removed, 2851 documents were left for screening. Whenever titles or abstracts of located material did not clearly suggest that the study was ineligible we retrieved the full report to determine eligibility. 38 documents would have remained in the pool for further full-text screening but could not be located. Of the remaining 2813 documents 2373 were excluded because the title or the abstract clearly indicated that they were not eligible. Of the remaining 440 documents the full-texts were assessed for eligibility. At this stage another 413 documents were excluded. A number of these studies did not evaluate a concrete (sexual) offender treatment with respect to outcomes ($n = 143$). Of the remaining 270 studies, most had to be excluded because they did not incorporate adequate control groups.⁴ In the end only 27 studies met the inclusion criteria and comprised the study pool.

1.1.9 Characteristics of included studies

Table 1 contains an overview of the basic characteristics of included comparisons. They were predominantly reported in the last two decades. Nearly a half appeared since 2000 and only four studies were dated before 1990. Due to the lag between treatment and outcomes that is required in follow up studies the time of treatment implementation was often considerably earlier. Although our search identified eligible studies from seven countries, more than a half came from Canada and the USA. The majority of the comparisons were extracted from published journal articles. However, as mentioned, we took effort to include unpublished studies and these constituted almost one fourth of the pool.

Treatment characteristics. Most studies addressed the evaluation of cognitive-behavioral treatments (CBTs). Only eight programs were classified in other categories. In contrast to our previous meta-analysis (Lösel & Schmucker, 2005), no study on hormonal treatment met the more rigorous inclusion criteria of the present meta-analysis. However, some of the programs in the current pool applied additional medication in individual cases. Treatment took place in institutional as well as community settings and all but three programs were specifically designed for sexual offenders.

We coded whether treatment occurred in group and/or individual sessions on a five point scale. In most programs, treatment was solely ($k = 9$) or mainly ($k = 8$) carried out in a group format. Eight programs (27.6 %) contained predominantly individual sessions.

⁴ The reference section contains a list of these studies with the respective reasons for exclusion.

The duration of treatment ranged from a minimum of eight weeks to a maximum of 281 weeks ($M = 73.34$, $SD = 69.21$, $Median = 37.5$). Obviously, the treatment length differed between settings with outpatient treatment having the shortest durations ($M = 52.54$, $SD = 41.58$, $Median = 30.8$) and treatment in prison settings the longest ($M = 98.50$, $SD = 91.24$, $Median = 78.0$). The length of treatment could not be determined in 9 cases, i.e. almost one third of the studies did not provide information on a very basic variable.

Some features of the interventions were not well documented. Especially, coding of treatment integrity was rarely possible and if so this mostly meant that studies reported positive indicators of treatment integrity. Only one study (Hanson et al., 2004) reported problems in implementing the treatment, but in 18 studies (62.1%) there was simply no information on this aspect. It was also rarely reported whether aftercare services had been offered.

Offender characteristics. Regarding the age of the treated offenders, a majority of programs addressed adults only. However, this information could not always be extracted with sufficient certitude. The mean age of the treated offenders across all comparisons was 31.13 years ($SD = 7.97$). Usually the samples were rather homogeneous in age, but again this aspect was not always clearly reported.

With regard to sexual offending, nearly half of the programs and evaluations included mixed groups of rapists and child molesters ($k = 14$). Sometimes other sexual offenders also participated in the program ($k = 6$). Only one comparison referred to rapists and another one to exhibitionists exclusively. Seven comparisons only included child molesters and/or incest offenders. For eight comparisons no further information of offence type (apart from being sexual offenders) was available.

Meta-analyses on general offender treatment have shown that the risk of recidivism is negatively related to effect size (e.g. Lösel, 2012). Therefore, we tried to estimate the mean risk of treated offenders for each comparison. Mostly, there was no report on proper risk assessments in the studies. However, many studies reported some information on variables that are relevant for risk. We used the Rapid Risk Assessment for Sex Offence Recidivism (RRASOR; Hanson, 1997) to evaluate this information. The RRASOR was originally designed for individual risk judgments. We used the items of the RRASOR to estimate the mean risk for the treated group by translating group statistics of the relevant variables (information on prior convictions, age distribution, and victim characteristics in the study sample) into item scores and added them up to the total score. This was possible for 17 comparisons ($M = 1.98$; $SD = 0.63$ across comparisons). We then recoded these scores into three risk categories with low risk ranging to a score of 1.5 and high risk at a score of 2.5 or above. According to recidivism data reported by Hanson (1997) and Doren (2004) this renders a low risk group with estimated 5 year recidivism rates of roughly below 10%, a medium risk group with estimated 5 year recidivism rates between approximately 10% and 20%, and a higher risk group with estimated 5 year recidivism rates of about 20% and above. Three comparisons reported other risk assessments that could be grouped in these categories as well. Another four comparisons provided information that allowed an approximate risk classification. Table 1 shows the risk classification for those 24 comparisons. Five comparisons did not allow for any risk estimate. One might argue that our high risk category does not represent the offenders at very high risk and could be termed “elevated risk” or high-medium risk as this is done in some studies. However, our risk scores do not refer to individual offenders as in practical risk assessments, but are only used for a rough differentiation between groups as a whole. Against this background, we assume that the comparisons in our high risk category contain a substantial proportion of offenders at highest risk.

Methodological characteristics. Sample sizes ranged widely between a very small sample of 16 (Borduin et al., 1990) and a very large sample of 2,557 (Friendship et al., 2003). On average studies included 358 ($SD = 586.73$) offenders but in fact more than half of the comparisons (51.7 %) included fewer than 150 participants ($Median = 136$).

Only about one fifth of the comparisons were randomized controlled trials (RCTs) and studies with matching procedures to ensure equivalence of treated and untreated offenders were rare as well.

More than half of the comparisons drew on incidentally assigned samples (Level 3 on the Maryland Scale). Although sample characteristics and/or statistical control procedures justified the assumption of equivalence between treatment and control groups (see Methods section), the large proportion of Level 3 studies bears a risk of findings biased by weaker designs. Most studies had a rather long follow-up period. The mean time at risk ranged from 12 to 234 months with 24 comparisons (82.8 %) reporting follow ups of more than three years. On average the follow up time was 70.26 months or 5.9 years. Except for one study (Robinson, 1995) all reported sexual recidivism as an outcome. Most commonly, recidivism was defined as a new conviction but other definitions such as rearrest, new charges or reincarceration were used as well. Three studies integrated different indicators to establish whether a new offense had occurred or not.

We also coded what Lösel and Köferl (1989) introduced as “Descriptive Validity” (DV) of an evaluation (see also Farrington, 2006; Gill, 2011). This is not a characteristic of the study method itself but refers to the accuracy of information provided in a research report. Overall, there was often a lack of information and clarity about the treatment evaluated and details regarding the population and methods used. On a scale from 0 (very low) to 3 (excellent) the overall transparency was on average 1.21 ($SD = 0.68$). The descriptive validity was especially low for reporting on the actual implementation of the treatment at hand ($M = 0.48$; $SD = 0.69$) which points back to the high number of missing information regarding treatment integrity. For other areas the documentation was better, but not ideal (DV for “treatment concept”: $M = 1.41$; $SD = 0.91$; DV for “evaluation methods”: $M = 1.48$; $SD = 0.74$). Only outcome reporting had better values regarding DV ($M = 2.38$; $SD = 0.98$); however, this was due to our eligibility criteria as studies that did not allow for a reasonably accurate estimate of effect size were not included.

Synthesis of results

1.1.10 Total effects

Of the 29 comparisons included in the analyses, 28 reported on sexual recidivism outcomes (see Table 2). Figure 1 gives an overview of the ORs and confidence intervals for these comparisons as well as the overall mean. The forest plot shows considerable differences between effect sizes and this heterogeneity was significant; $Q (df = 27) = 52.05, p < .01$. According to Higgins et al.'s (2003) I^2 -measure nearly half of the observed heterogeneity cannot be attributed to sampling errors but represents systematic differences between the studies. Integration of the results according to a random effects model revealed a highly significant mean OR of 1.41 (95% CI: 1.11 to 1.78, $p = .005$). The treated offenders recidivated sexually at a mean rate of 10.1% (n -weighted average). The mean OR indicated that without treatment the recidivism rate would have been at 13.7%, i.e. treatment reduced recidivism by 3.6 percentage points or 26.3%.

Too few studies reported on violent ($k = 7$) or non-sexual recidivism ($k = 7$) to allow for adequate integration on these outcomes. However, 14 comparisons presented data on general recidivism (see Table 2 and Figure 2). As in sexual offending there was considerable and significant heterogeneity across outcomes in general recidivism; $Q (df = 12) = 23.66, p = .03$. The mean effect size was $OR = 1.45$ (95% CI: 1.15 to 1.83, $p = .002$). In terms of recidivism rates the n -weighted average in general reoffending for the treated groups was 32.6%. According to the estimated mean effect the respective rate is 41.2% without treatment. This is a reduction of 8.6 percentage points or 26.4% in general recidivism.

1.1.11 Sensitivity analyses: Exclusion of outliers

The forest plots of Figures 1 and 2 suggest that the significant heterogeneity might be due to outliers. In order to test the robustness of the effects we supplemented the calculation of the total effects with an analysis excluding extreme values. To identify outliers we drew on the procedure developed by Huffcutt and Arthur (1995) for meta-analysis. This takes into account the extremeness of a value (i.e. its deviation from the grand mean) as well as the respective sample size. For small samples larger deviations may be expected by chance, while for larger samples even

small deviations can be unlikely (i.e. “extreme”) and influence results considerably. For every study the Sample-Adjusted Meta-Analytic Deviancy (*SAMD*) statistic was calculated, both with respect to effects in sexual and general recidivism. For sexual recidivism three effects stood out of the other effect sizes (Borduin et al., 2009; Greenberg et al., 2000a; McGrath et al., 1998). Excluding those comparisons from the integration resulted in a marginally lower mean *OR* of 1.38 (95% CI: 1.12 to 1.70). This effect was still significant at $p = .003$. While the effect size distribution became more homogenous with the outliers excluded ($I^2 = 35.4\%$), it was still significantly heterogeneous; $Q (df = 24) = 37.18, p = .05$. For any recidivism one study showed an extreme value (Borduin et al., 2009). Excluding this reduced the total effect to $OR = 1.40$ (95% CI: 1.14 to 1.71). Again, the effect remained significant at $p = .001$, and heterogeneity was reduced, $I^2 = 32.7\%$, $Q (df = 12) = 17.83, p = .12$.

Overall, our sensitivity analysis showed that the mean effect sizes were relatively robust. The study of Borduin et al. (2009) on MST was an outlier in both outcome criteria and therefore should be considered with particular caution, but due to its relatively small sample size it had not much impact on the overall effect in our sensitivity analysis. As the effect size distribution for sexual recidivism remained heterogeneous, a more differentiated analysis of moderator effects was carried out.

1.1.12 Moderator analyses

The moderator analyses were based on a mixed effects model. Due to the rather small number of comparisons those analyses suffer from low statistical power. Nevertheless it seemed worthwhile to explore on variables that may systematically influence the results because this is relevant for a more detailed future development of sexual offender treatment. Table 3 gives an overview of methodological, offender and treatment variables and their impact on differences between study results.

1.1.12.1 Methodological variables

As we included studies that used different definitions for recidivism, we tested whether the recidivism measure used would be related to systematic outcome differences. At $Q (df = 4) = 2.94, p = .57$, there was no significant impact on study effect sizes and the heterogeneity of the effect size distribution was not reduced when applying this characteristic as a moderating variable.

Overall, design quality had no systematic effect on results. Neither the comparison between randomized and quasi-experimental designs nor the more differentiated distinction according to the Maryland Scale yielded any significant differences between mean effects ($p = .80$ and $p = .94$, respectively) and the correlation between study effect size and methodological quality was minuscule ($\beta_w = -.06, z = -0.34, p = .73$). However, the effect of treatment was statistically significant only for the designs at Level 3 of the Maryland Scale. For the few RCTs the effect was a bit smaller and not statistically significant. This reflects the low number of RCTs and hence the lower statistical power. High heterogeneity among randomized trials also contributed to lower statistical power, $Q (df = 4) = 14.39, p < .01$ (see also Figure 1). While the two randomized studies on MST of juvenile offenders (Borduin et al., 1990, 2005) showed untypically strong treatment effects, the remaining three RCTs revealed weak to even negative results (Marques et al., 2005; Ortmann, 2002; Romero & Williams, 1983).

Although general recidivism outcomes were not the target of our moderator analyses, it should be noted that these showed a different picture with regard to methodological quality (see Figure 2). Here, there was a significant difference between randomized and non-randomized designs, $Q (df = 1) = 5.91, p = .02$. RCTs had a strong treatment effect ($k = 4, OR = 3.46, 95\% CI: 1.63$ to $7.34, p = .001$), whereas quasi-experimental designs revealed no significant outcomes ($k = 10, OR = 1.30, 95\% CI: 0.98$ to $1.74, p = .07$). This reverse picture is obviously due to different subsets of primary studies. Those two randomized studies showing the worst outcomes for sexual recidivism (Marques et al. 2005; Romero & Williams, 1983) did not present data on general recidivism. Marques et al. reported findings on violent recidivism which showed even worse results ($OR = 0.64$). Therefore,

we assume that if all randomized studies had reported on general recidivism the effect would have been much smaller than mentioned above.

Recidivism base rate – defined as the mean recidivism rate in TG and CG – was an important moderator. The higher the rate of reoffending in a study sample, the larger the resultant effect sizes ($\beta_w = .39, z = 2.27, p = .02$). This is in fact closely related to the a priori risk of treated offenders with higher risk (see section on offender variables).

There were no systematic differences due to the length of follow up. However, two counteracting processes may be reflected in this variable. On the one hand, longer follow up periods are logically related to higher recidivism rates (in our sample the correlation was $r = .35$). Recidivism outcomes thus have a higher range in which effects can be demonstrated. On the other hand, the longer the follow up, the more other influences may have an impact in the life of a treated offender, thus supposedly reducing the effect of treatment. Following these thoughts we calculated a partial correlation between effect size and length of follow up with control for the recidivism base rate. It showed a clearer albeit still not significant negative trend ($\beta_w = -.27, z = -1.48, p = .14$; corrected for outliers: $\beta_w = -.39, z = -1.94, p = .052$).

Analyses on sample size also revealed complex results. There was only a small and non-significant linear relation to treatment effects with larger samples doing slightly worse ($\beta_w = -.05, z = -0.29, p = .77$). Eliminating the particularly large studies with $N > 1000$ (Duwe & Goldman; 2009; Friendship et al. 2003) raised the correlation which remained non-significant though ($\beta_w = -.19, z = -1.04, p = .30$). However, as Table 3 shows, there is one category that clearly stands out: Studies with small samples ($n \leq 50$) had very strong effects compared to all studies with larger samples ($p = .001$). Among the comparisons with larger samples there was no systematic relationship between sample and effect size ($\beta_w = .14, z = 0.67, p = .50$).

The strongest moderating effect in the methodological domain resulted for descriptive validity (DV, quality of reporting on the study). The 4-point scale rating of DV correlated with effect size at $\beta_w = .46, z = 2.78, p = .01$, indicating that unsatisfactory reports went along with worse outcomes. A closer inspection showed that this was mainly due to imprecise reporting on the treatment concept ($p = .01$) and the evaluation outcomes ($p = .02$). While the latter is probably related to conservative effect size estimation procedures, the former aspect points towards treatment integrity.

There was no difference in mean effects with regard to publication type, $Q (df = 2) = 2.59, p = .27$, or publication status, $Q (df = 1) = 0.01, p = .94$.

1.1.12.2 Treatment variables

The analyses on the treatment characteristics showed a significant effect for the general treatment concept applied. This is mainly a function of two evaluations on MST which were carried out by the program developers and had extremely large effects. Repeating the analyses on differences between the general treatment approach without those two studies revealed a non-significant result, $Q (df = 2) = 0.51, p = .78$. Of the remaining treatment approaches cognitive-behavioral programs showed a modest but significant effect on sexual recidivism. Other psychotherapeutic approaches did not yield a statistically significant treatment effect. This may be due to the low number of studies conducted on such therapies. The time of treatment implementation does not make a difference. There is no indication that treatment effects became larger in more recent time.

As Table 3 shows, there are only few treatment features that clearly differentiate effective treatment. This is in part due to the few comparisons available for moderator analyses and the low power of the respective tests. However, there are some other findings that deserve mentioning. For example, while there was no clear indication of effect size differences across different settings ($p = .16$), we only found significant effects for outpatient treatments and those provided in hospitals. Treatment in prison settings yielded a lower and non-significant mean effect.

The comparisons of specialized (versus non-specialized) sex offender treatment and authors' affiliation with the treatment both showed no significant moderator effect. But when testing the individual categories, only treatment tailored for sexual offenders and only evaluations conducted by authors affiliated with the treatment revealed significant mean effects in sexual recidivism.

There was a rather clear trend for better treatment effects of programs that have a more individualized approach ($\beta_w = .41, z = 2.47, p = .01$). In part this was due to the two trials on MST which represent a highly individualized approach. However, there remained a considerable tendency after exclusion of those studies ($\beta_w = .31, z = 1.67, p = .09$).

Treatment duration did not play a role regarding effect size; there was even a non-significant negative relation ($\beta_w = -.15, z = -0.72, p = .47$). Controlling for different settings, outliers, or offender risk did not substantially alter this picture.

1.1.12.3 Offender variables

Most studies lack a detailed description of offender variables or their analyses are not differentiated enough to allow for a detailed investigation of their impact on effect size. For example, we could not even perform a sensible analysis regarding the type of offence committed. Therefore, only three offender variables have been looked at in detail.

Regarding offender age, there was a significant treatment effect for both adults and adolescents. Although treatments that refer to adolescents fared somewhat better than those for adults, this difference was not significant ($p = .17$). If the analysis drew on the mean age of the treated participants, there was a tendency for younger groups benefiting more from treatment ($\beta_w = -.30, z = -1.80, p = .07$). However, this was mainly due to the two evaluations of MST that targeted adolescents. Excluding these, the age effect disappears ($\beta_w = -.11, z = -0.60, p = .55$). Another result refers to treatment recruitment. It made no difference whether offenders entered treatment voluntarily or on a mandatory basis ($OR = 1.33$ vs. $OR = 1.32$).

One of the strongest moderating effects is related to the risk of reoffending. The higher the risk, the higher the resulting treatment effect was. Treatments for low risk participants showed no effect at all. For the three risk categories there was a strong linear relationship ($\beta_w = .46, z = 2.59, p < .001$) and the results proved rather stable against outlier corrections. However, it must be noted that our risk classification is only a rough estimate and only three studies fitted into the highest category.

Discussion

Overall results

The above meta-analysis revealed a significant mean odds ratio of 1.41 for sexual recidivism. Only 10.1% of treated offenders reoffended whereas without treatment the recidivism rate would be 13.7%. That is a difference of 3.6 percentage points or 26.3%. For the more general outcome of any recidivism the mean effect was in the same range, even somewhat higher. Excluding outlier results only slightly reduced the mean effects and they remained significant, both for sexual and any recidivism. Thus, the total effects seem to be robust. Drawing on a sample of 29 rather well-controlled comparisons the results suggest that treatment can effectively reduce recidivism in sexual offenders.

The present mean effect in sexual recidivism is smaller than the one we found in our previous meta-analysis which included 80 comparisons ($OR = 1.70$; Lösel & Schmucker, 2005). However, the previous review contained many studies with nonequivalent comparison groups. It also incorporated studies on surgical castration and pharmacological treatment. Studies on surgical castration showed very large effect sizes but had various methodological shortcomings (apart from ethical and legal problems of the intervention itself). Excluding those studies the mean OR in our previous review was 1.38, and when the analyses were restricted to psychosocial interventions only it further decreased to $OR = 1.32$. As only psychosocial interventions fulfilled the stricter eligibility criteria in the current meta-analysis, the present mean effect is even a little stronger than in the previous meta-analysis.

Quality of the evidence and risks of bias

1.1.13 Study design

Although the overall results suggest a desirable mean effect of treatment this cannot be simply generalized because of the considerable heterogeneity in the findings of the primary studies. In addition, only six studies (five with sexual offending as outcome) were RCTs. Eight further studies at least used individual matching procedures to render equivalence between treatment and comparison groups. Although the effect size of those studies was in the same range as for the methodologically weaker studies, both the RCTs and the studies with an individual matching failed to yield statistical significance. In both cases this may be due to low statistical power (few studies and often only small sample sizes). The RCTs also showed very heterogeneous results, which further reduces statistical power. Obviously, there is no unambiguous trend in the best studies available. Accordingly, more RCTs are needed in order to get more valid data on the true effects of sexual offender treatment. On the other hand one should consider the arguments of Marshall and Marshall (2007) against a too narrow focus on RCTs in this field; for counter-arguments see Seto et al. (2008). An RCT that is not adequately designed to address the practice of psychotherapy may have limited value (e.g. Seligman & Levant, 1998; Hollin, 2008) and various threats to internal validity may also occur in RCTs (e.g. Lösel, 2007). In addition, RCTs for sexual offenders become increasingly difficult because various countries require mandatory treatment when the offence or sentence exceeds a specific level of seriousness. This often makes it impossible to form a randomized control group. Therefore, we suggest carrying out more RCTs on sexual offender treatment, but when an RTC is not feasible for legal or practical reasons one should also apply

sound quasi-experimental designs. Such a strategy has already been recommended in Campbell's (1969) groundbreaking article on program evaluation (see also Shadish et al., 2002).

The basic evaluation design was not a significant moderator in our meta-analysis. This is in contrast to findings in other fields of criminology (Weisburd et al., 2001), but not an exception in offender treatment research (Lipsey & Cullen, 2007; Lösel, 2012). In the present meta-analysis other features had a clearer influence on effect sizes.

1.1.14 Other risks of bias

Beyond the overall quality of the evaluation design our meta-analysis may contain various other risks of bias. For example, one third of the studies had only small sample sizes with up to 50 offenders. Those had higher effects than evaluations based on larger samples. This is usually regarded as a sign of publication bias. However, the difference in the present meta-analysis was not simply a function of an evaluation being published or not. Publication status did not exert an influence on effect size and the small sample effect was visible in published as well as unpublished studies. It is possible, though, that there is an "internal" publication bias, i.e. it may be more difficult to "hide" the results of a larger study. In contrast, the results of small scale studies may never be reported at all, not even as an unpublished report, especially if those results are negative and the researcher has a strong interest in not making the results visible. In fact, only one of the unpublished studies drew on a small sample (14%) compared to 30% among published studies. Thus, the results of this meta-analysis may be upwardly biased due to publication selection bias.

An alternative explanation of the small sample effect may be that treatment implementation is better monitored and easier controlled in a small scale setting. There are some other findings in our review that fit well with this implementation hypothesis: Evaluations that focused on only one program, implemented in one location revealed somewhat better results than studies that evaluated different programs across different institutions. Usually the latter indicates that program implementation was not well controlled (Greenberg et al., 2002; Ruddijs & Timmermann, 2000) or that it was in fact weak (Hanson et al., 2004). Only two of the multi-location evaluations indicated a well-controlled implementation (Friendship et al., 2003; Guarino-Ghezzi & Kimball, 1998). Those two showed relatively good outcomes among the multi-location evaluations. Also, model projects that can be assumed to have a tight grip on program implementation fared slightly better than routine applications of treatment. This is in accordance with the literature on general offender treatment (Lösel, 2012) and also related to the issue of a potential influence of authorship.

The finding that only evaluations by authors affiliated to the program had a significant effect is in accordance with other criminological research (e.g. Eisner, 2009; Petrosino & Soydan, 2005). On the one hand this could be a matter of treatment integrity: It is likely that those who evaluate their own work pay more attention to proper program implementation. In fact, three quarters of the comparisons showing positive indicators of treatment integrity come from authors affiliated with the program in some way. On the other hand authors affiliated with the treatment may also be more reluctant to report negative results and may selectively analyze and publish favorable results. As we do not have detailed data on such processes, we only can alert the reader to such potential risks. For example, both studies on MST had a sound RCT design, but they were carried out by the program developers themselves and showed extremely large effect sizes (with Odds Ratios of about 20). However, the two studies also had other features that are connected with higher effects in the moderator analyses: They targeted young and rather high risk adolescent offenders, contained small samples and controlled for treatment integrity. Relatively positive results on MST have been reported in general offender treatment as well (Curtis et al., 2004). However, these are also predominantly studies by the program developers. In addition, the effects of MST were especially high in efficacy studies (demonstration projects) compared to effectiveness studies in real practice. When Littell et al. (2005) conducted a review on MST they drew a more skeptical picture because they only identified one fully independent evaluation and this showed no positive effect. Not surprisingly, Littell et al.'s critical conclusions have been challenged by Henggeler et al. (2006). However, independent evaluations of MST in Scandinavia have also shown contradicting effects (Ogden et al., 2007; Sundell et al. 2008).

In general there was no clear interaction between author affiliation and publication status in our data. But again, these results only refer to reports that were made available to us and there might be a “hidden” publication effect that goes beyond “officially published or not.” Overall, there was not enough valid information on treatment implementation and therefore this topic could not be properly tested.

1.1.15 Descriptive validity

Insufficient information in the documentation of details of the evaluation was very common in the current study set. This problem hinders more detailed moderator analyses and is in itself related to treatment effects. Studies that had more shortcomings in their reports showed lower effects than the better documented studies. The correlation between documentation quality (descriptive validity) and effect size can be tracked down to two aspects. First, it is a consequence of outcome reporting. Whenever possible effects were estimated for a comparison, but sometimes data had to be partially reconstructed from what was reported in a study. To ensure that the reconstruction would not overestimate the effects this was done in a conservative manner, so smaller effects in those comparisons could be expected. The second – and probably stronger – influence regarding the quality of documentation comes from the lack of detail on the treatment concept under consideration. The clearer a treatment concept was documented the higher the treatment effect. Again, this underlines the importance of treatment integrity. One can assume that in those cases that did not sufficiently report on the treatment, the concept may have been less elaborated or not properly implemented. Although this interpretation is somewhat speculative, the issue of descriptive validity should be seriously taken into account in future research.

The influence of methodological variables reduces the power to detect important content variables or may be confounded with such variables (Lipsey, 2003). Due to the limited number of available comparisons a meaningful statistical control for confounded variables was not possible in this meta-analysis. In spite of these limits, there are some moderating effects that deserve further attention.

Results of further moderator analyses

1.1.16 Treatment characteristics

Various treatment concepts that are used in practice were only represented by single studies or not at all. For example, no evaluation of pharmacological treatment fulfilled the eligibility criteria for our study pool. With regard to cyproterone acetate (CPA) or selective serotonin reuptake inhibitors (SSRIs) we found no controlled studies that examined their effectiveness on sexual offender recidivism. With regard to medroxyprogesterone acetate (MPA), there are at least some controlled studies. However, these evaluations mostly draw upon non-equivalent control groups and none of them fulfilled the criteria for the current review. To our knowledge there is one RCT on MPA treatment with sexual offenders (McConaghy et al., 1988). But with regard to the recidivism outcomes the randomized design is so severely disturbed that it renders the groups clearly non-equivalent. The RCT only holds for a less strict outcome criterion (“reduction in anomalous behavior”) that was not eligible for the present analysis. While other meta-analyses found favorable effects for hormonal medication (Hall, 1995; Lösel & Schmucker, 2005) these effects were based on relatively weak studies. It is therefore essential that the promising findings from previous meta-analyses be confirmed in evaluations with stronger research designs.

Only evaluations of psychosocial treatments met the inclusion criteria of this meta-analysis. Among the various therapeutic approaches one program stands out: The two evaluations of MST for juvenile sexual offenders showed extraordinarily strong effects and differed significantly from other approaches. The risk of a bias in these studies has been discussed above. Against this background the two MST studies on sexual offenders need replication in independent evaluations.

The majority of evaluations in the present study pool addressed cognitive-behavioral treatments (CBTs). Although CBT is not at all a homogeneous concept (Marshall & Marshall, 2010), there is a relatively broad study base to draw conclusions. The 20 comparisons evaluating sexual recidivism showed a significant, albeit moderate mean effect. This is in line with most of the previous meta-analyses on sexual offender treatment (e.g. Hall, 1995; Hanson et al., 2002; Lösel & Schmucker, 2005) and on general offender treatment (Landenberger & Lipsey, 2005; see also Lösel, 2012 and Wilson et al., 2005). Other approaches did not reach significant effects. In fact, there were only few evaluations of other treatment approaches that fulfilled the inclusion criteria. However, even among the CBT approaches the effects varied considerably and the only RCT on CBT that reports sexual recidivism outcomes (Marques et al., 2005) did not show a positive treatment effect. Although CBT approaches have been advocated over the last decades, the effects are not as clear cut as one might wish for “best practice”. It seems that the principal treatment approach in itself is not the clearest moderator and other variables may be more relevant for outcome differences.

Many of the treatment-related variables in the current meta-analysis did not provide clear cut differences between evaluations. However, there was a tendency that outpatient treatment fared better than treatment in prisons. The difference in favor of community programs is in agreement with the general research on ‘what works’ in correctional treatment (e.g. Andrews & Bonta, 2010; Koehler et al., 2013; Lipsey and Cullen, 2007; Lösel, 2012; Lösel & Koehler, 2014). This may be due to iatrogenic ‘contamination effects’ in the prison subculture, a lack of deterrence, a deferred transfer of learned contents to the world outside, difficulties during resettlement and other influences (Durlauf & Nagin, 2011; Gatti et al., 2009; Lösel et al., 2012; Markson et al., 2015). Our results on prison-based treatment are highly relevant for practice but they are difficult to interpret. Although there was no significant mean effect, prison-based programs did not fare significantly worse than treatment in other settings. Therefore, some issues of treatment context need to be emphasized: First, the primary studies did not directly compare treatment in prison vs. in the community, but TGs and CGs within the prison context. Second, institutionalized treatment in hospitals showed a significant effect on sexual reoffending. Third, one of the few primary studies in our pool that demonstrated a significant result was a prison-based CBT program (Duwe & Goldman, 2009: $OR = 1.46$). Therefore, it is necessary to investigate what program, organizational, relational and offender differences can make sexual offender treatment in prisons more promising.

One relevant issue may be the treatment format. In practice sexual offender treatment takes place in groups for the most part. In a thorough discussion Ware et al. (2009) provide plausible arguments for this approach. Not least, practical and financial reasons have to be considered. However, our findings suggest that the inclusion of individual sessions reveals better results. There may be confounding variables at work. For example, excluding the MST evaluations reduced the effect of individualization and the relation is probably not fully linear, i.e. a complete individualization may not be the golden principle either. However, it seems that supplementing group treatment with individualized sessions may better fit the responsivity principle of appropriate offender treatment (Andrews & Bonta, 2010). Unfortunately, there is no systematic research on the question whether an individualized or a group format is better for sexual offenders. However, there are various reasons for better effects of programs with individualized elements. First, some offenders may “hide” in group sessions. Second, using group sessions means that the same needs are targeted for all participants. This goes against the concept of individual needs and specific responsivity (Andrews et al., 2011), especially in mixed groups with very heterogeneous offender types. Third, supplemental individual sessions allow to tailor treatment more specifically (Drake & Ward, 2003) and to strengthen therapeutic alliances (Marshall et al., 2003; Ward & Maruna, 2007). Since general research on psychotherapy has clearly shown that relational issues and therapist characteristics are as important as the treatment model (e.g. Orlinsky et al., 1994), offender treatment needs to recognize that one size may not fit all (Lösel, 2012). Accordingly, treatment manuals should provide sufficient scope for flexibility and innovation (Marshall, 2009).

It would be desirable to more clearly disentangle the effect of the treatment format also for other variables; e.g. there is no controlled research on a fixed versus rolling format. Unfortunately, our study pool is too small to allow for analytical models enabling us to control for confounding variables in a more appropriate manner. In our previous meta-analysis that had less strict

inclusion criteria and thus a bigger study pool we could control for a number of other variables. As a consequence the impact of group versus individual treatment was less clear when we applied hierarchical regression analyses (Lösel & Schmucker, 2005). Therefore, at this stage we recommend to further investigate whether individualization is connected to better treatment outcomes or not. This kind of research should be related to analyses of the influence of other treatment process variables (see also Harkins & Beech, 2007; Pratt, 2010).

1.1.17 Offender characteristics

Regarding offender characteristics there is a trend for younger sex offenders to gain more from treatment. Again, this has to be interpreted with caution due to possible confounding variables. For example, younger offenders are also at higher risk for reoffending. Nevertheless, our findings indicate that early interventions in the career of sexual offenders are particularly worthwhile. The treatment of adolescent or young adult offenders can also benefit more from protective factors in the family or natural social context (Lösel & Bender, in press; Lösel & Farrington, 2012; Lösel et al. 2012).

The risk of reoffending was the strongest predictor of a positive treatment effect in the current analysis. The result of better effects in offenders at higher risk is in line with findings from general offender treatment (Lipsey & Cullen, 2007; Lösel, 2012). Hanson et al. (2009) applied the Risk-Need-Responsivity model to sexual offender treatment and found that programs were most effective when they fulfilled all three principles. The risk principle taken alone did not reach a significant result, but Hanson et al. rated the risk only dichotomously. Probably our differentiated risk rating led to more homogeneous categories and therefore better statistical power. However, as mentioned above, the category of 'high risk' in our review should be regarded cautiously because it does not mean that all of these offenders were at very high risk. For example, psychopathic offenders who would qualify as highest risk groups are particularly difficult to treat and often excluded from treatment programs (Lösel, 1998). At the other end of the risk level our findings suggest no significant effect. For offenders at low risk of reoffending the recidivism rate is so small that treatment cannot add much to further reduce reoffending.

Another variable deserves attention because it failed to produce a moderating effect: voluntary vs. non-voluntary treatment participation did not differ in their outcomes. Although the mean effect of studies with non-voluntary treatment was not significant this seems to be mainly a consequence of low statistical power (only six comparisons fell in that category). In fact, the mean effect is just the same as for voluntary treatment and in both categories the outcomes are highly heterogeneous. This means that a) offenders brought to treatment via external pressures such as judicial orders may benefit from treatment, and b) that voluntariness in itself is not a sufficient condition for successful treatment. Our finding points to the important role of change motivation as a process (e.g. Prochaska & Levesque, 2002) and techniques such as motivational interviewing (Miller & Rolnick, 2002). Unfortunately, treatment descriptions were not detailed enough to code and analyze this issue in more detail.

Authors' conclusions

Taken together the above analyses of reasonably well-controlled evaluations suggest that treatment of sexual offenders can be effective, but the results are not homogeneous. In particular, treatment in prisons and pure group formats seem to be less promising and require more differentiated research. Our findings are also supported by several more recent studies that were not included in this review (see Appendix 4). However, there is still a lack of high quality studies to unambiguously demonstrate treatment effectiveness. Future research must continue to evaluate sexual offender treatment in studies that use methodologically sound designs and are preferably independently authored and well documented. Good documentation is important because this is the key to a more thorough understanding of causal mechanisms in treatment practice. Due to the heterogeneity between primary studies, the investigation of outcome moderators needs much more attention. For example, although there is much research on the characteristics and subtypes of sexual offenders, this is rarely taken into account in treatment evaluation. In addition, we need more research on the processes of therapy with sexual offenders (Marshall & Burton, 2010) and focused tests of certain treatment features such as individualization, motivation and institutional context (Lösel, 2012). There are also too few evaluations that investigate recidivism not only as a dichotomous category but consider multiple criteria such as survival time, frequency and harm of the respective offences (e.g. Olver et al., 2012). Instead of sweeping controversies about the effectiveness of sex offender treatment more differentiated perspectives are needed (Koehler & Lösel, 2015). As it is common in other areas of psychotherapy and psychosocial intervention, research and practice should ask more frequently what works with whom, in what contexts, under what conditions, with regard to what outcomes, and also why. Although our review does not provide a definite answer to such differentiated questions, it suggests that sexual offender treatment has made progress towards an evidence-oriented crime policy.

Contact Sexual Offending by Men With Online Sexual Offenses

Sexual Abuse: A Journal of
Research and Treatment
23(1) 124-145
© The Author(s) 2011
Reprints and permission: <http://www.sagepub.com/journalsPermissions.nav>
DOI: 10.1177/1079063210369013
<http://sajrt.sagepub.com>



Michael C. Seto¹, R. Karl Hanson²,
and Kelly M. Babchishin²

Abstract

There is much concern about the likelihood that online sexual offenders (particularly online child pornography offenders) have either committed or will commit offline sexual offenses involving contact with a victim. This study addresses this question in two meta-analyses: the first examined the contact sexual offense histories of online offenders, whereas the second examined the recidivism rates from follow-up studies of online offenders. The first meta-analysis found that approximately 1 in 8 online offenders (12%) have an officially known contact sexual offense history at the time of their index offense ($k = 21$, $N = 4,464$). Approximately one in two (55%) online offenders admitted to a contact sexual offense in the six studies that had self-report data ($N = 523$). The second meta-analysis revealed that 4.6% of online offenders committed a new sexual offense of some kind during a 1.5- to 6-year follow-up ($k = 9$, $N = 2,630$); 2.0% committed a contact sexual offense and 3.4% committed a new child pornography offense. The results of these two quantitative reviews suggest that there may be a distinct subgroup of online-only offenders who pose relatively low risk of committing contact sexual offenses in the future.

Keywords

online offending, child pornography, luring, contact sexual offending, recidivism, meta-analysis

¹Royal Ottawa Health Care Group, Ottawa, Ontario, Canada

²Public Safety Canada, Ottawa, Ontario, Canada

Corresponding Author:

Michael C. Seto, Integrated Forensic Program, Brockville Mental Health Centre, Brockville, Ontario, K6V 5W7, Canada

Email: michael.seto@rohcg.on.ca

There has been increasing attention to the problem of online sexual offending,¹ particularly the use of Internet and related digital technologies to obtain, distribute, or produce child pornography, or to contact potential child victims to create opportunities for sexual offending (e.g., attempting to arrange a meeting with a minor met online, for sexual purposes). There has been a particular focus on child pornography offending, which involves child exploitation and can increase the incidence of contact sexual offending by increasing demand for new content and thereby increasing the production of such images. Though they continue to represent only a small proportion of total child exploitation crimes, the number of arrests for online sexual offenses has increased greatly in the past 10 years (Bates & Metcalf, 2007; Motivans & Kyckelhan, 2007; Wolak, Finkelhor, & Mitchell, 2005, 2009).

There is specific public and professional concern about the likelihood that online offenders also commit contact sexual offenses offline (e.g., Lam, Mitchell, & Seto, 2010). There are two forms of this question: (a) What is the likelihood that an online offender has a history of offline sexual offending? (b) What is the likelihood that an online offender will go on to commit an offline sexual offense in the future? In this article, we report meta-analyses addressing each of these questions. The results of these two quantitative reviews are relevant for risk assessment and management because, for the first question, a high degree of overlap suggests risk assessment measures developed with offline sexual offenders are also likely to be valid. This is clearly so for online offenders who already have a known contact sexual offense history, and is likely to be true for online sexual offenders if they are similar to offline sexual offenders in crime-related characteristics (see Babchishin, Hanson, & Hermann, *in press*). For the second question, information about the recidivism rates of online offenders can help guide policy and practice decisions; for example, high recidivism rates might suggest that more intensive (and expensive) responses are warranted, whereas low recidivism rates suggest that other, higher risk populations of sexual offenders are a higher priority for law enforcement and other social responses.

Criminal History

We identified 24 studies that reported on the criminal histories of online offenders. Many of these studies report that the majority of online offenders have no prior contact sexual offense history, and in fact many online offenders have no prior criminal history of any kind. There is, however, substantial variation in the reported rates. Lower prevalence estimates tend to be obtained in samples of arrested suspects (Seto & Eke, 2008; Wolak et al., 2005), with somewhat higher estimates for correctional or criminal justice samples, and the highest estimates for clinically referred samples (Buschman & Bogaerts, 2009; Seto, Cantor, & Blanchard, 2006). This trend is probably the result of contact offense history having an effect on whether someone is incarcerated and a larger effect on being referred for assessment or treatment.

Consistent with criminological research on the ratios of detected compared with undetected criminal activity, a higher proportion of online offenders had a contact

sexual offense history when self-report was available. Of particular note is the study by Bourke and Hernandez (2009), which found that many online offenders who had no official history of contact sexual offenses subsequently admitted to such crimes after participating in treatment and, in some cases, undergoing polygraph examinations. Approximately a quarter (24%) of the sample had an officially known contact sexual offense history at the time they were initially assessed, but a large majority (85%) of the sample had such a history after participating in treatment and reporting previously unknown offenses. This finding has been used in criminal proceedings to support longer sentences and/or more restrictive treatment and supervision conditions for online offenders (Gelber, 2009; Hansen, 2009). At the same time, this study has been criticized because of potential selection effects to enter the federal treatment program and the possibility that offenders had strong incentives to admit to sexual contacts, even if untrue, as a sign of their progress in treatment (*Johnson v. United States of America*, 2008). It is not controversial that some online offenders have committed contact sexual offenses that were not reported to police, as is true for many other kinds of crimes.

Online Offender Recidivism

We found nine studies that reported the recidivism rates of online offenders. Many of these studies are as yet unpublished, reflecting the newness of this line of research. These recidivism studies have generally had short follow-up periods, especially when compared to the longer running follow-up studies of offline offenders, which in some cases provide recidivism estimates after 20 to 30 years at risk (see Hanson & Morton-Bourgon, 2005). Nonetheless, given the caveats that the follow-up times are short and such studies have relied on official criminal records that underestimate reoffending, the recidivism rates appear to be quite low.

Present Study

We conducted two meta-analyses, one examining the criminal histories of online offenders, and the second examining the recidivism rates of online offenders. The purpose of these meta-analyses was to estimate the extent of offline sexual offending among offenders identified by online offenses, both historically and prospectively.

Method

Selection of Studies

Computer searches of electronic databases—Digital Dissertations and Theses, National Criminal Justice Reference System (NCJRS), PsycINFO, PubMed, Scholars Portal, and the Web of Science—were conducted using the following key terms: internet sex* offend*, internet child molest*, child abuse imag*, imag* of child abuse,

online offend*, child porn*, past, previous, prior, offend*, recid*, reoffen*, charge, convict*, arrest, and self-report. Additional studies were found through the reference lists of the collected articles, review articles in this area, contacting researchers who study Internet sexual offenders, and a request for information about such studies posted in July, 2009, on the e-mail list for members of the Association for the Treatment of Sexual Abusers.

Meta-analysis of prior contact sex offenses among online sexual offenders. To be included in the meta-analysis of prior contact sex offenses, a study had to include an identifiable sample of online sexual offenders and report on the history of sexual offending of the group using either official records or self-report. Recent samples (post-2000) of "child pornography" offenders were included because we presumed that a large majority of these offenders would have used the Internet and related digital technologies in committing their offenses. For example, only 4.5% of Faust, Renaud, and Bickart's (2009) sample of child pornography offenders had not used the Internet to commit their index crimes. In all, 24 samples with relevant data were identified (see Table 1), of which 18 used official records (i.e., arrests, charges, and/or convictions), 3 used self-report, and 3 reported both indices of criminal history.

Meta-analysis of online sexual offenders and recidivism. To be included in the meta-analysis of recidivism rates of online sexual offenders, a study had to report on sexual or violent recidivism among an independent group of online sexual offenders (see Table 2). We identified nine samples, all of which reported an overall sexual recidivism rate. As well, seven samples reported separately the rates of contact sexual offenses and child pornography offenses. Five samples reported the rates of violent recidivism, comprising both nonsexually violent and contact sexual offenses. Violent recidivism was included because many apparently nonsexually violent charges against adjudicated sexual offenders are, in fact, sexually motivated when examined in detail (Rice, Harris, Lang, & Cormier, 2006). Furthermore, the public, practitioners, and policy makers are concerned about all violence, not just sexual crimes. Recidivism information was based on official criminal records in all of the samples.

Aggregation of Findings

The basic effect size indicator was p , which indexed either the proportion of online sexual offenders who had committed contact sexual offenses, or the proportion of recidivists in the follow-up sample. Using a standard formula, the variance of p is estimated as $[(p(1-p))/n]$ (Fleiss, Levin, & Paik, 2003, sec. 2.4). Although raw proportions are easily interpreted, they are not optimal for meta-analyses involving low frequency events. The variance of p is small in two quite different circumstances: (a) when the sample size is very large and (b) when there are no recidivists as a result of small samples, short follow-up times, or low base rates of reoffending. As well, the standard approach assumes that the variance decreases as the proportions approach zero, which has the effect of giving the most weight to studies with the smallest recidivism rates.

Table 1. Studies Examining Contact Sexual Offenses Among Online Sexual Offenders

Study	Sample Description	N	Percentage With Contact Offenses (n)	Source
1. Abondo, Bouvet, and Le Gueut (2009)	Online offenders from France, data collected using police, court, and psychology files	39	7.7 (3)	Charges
2. Baartz (2008)	Online offenders from Australia, investigated between 2005 and 2006	50	4.0 (2)	Convictions
3. Bourke and Hernandez (2009) ^e	Sex offender treatment program at a medium-security federal prison in the United States	155 155	84.5 (131) 12.9 (20)	Self-reports Convictions
4. Buschman and Bogaerts (2009) ^{ae}	Convicted internet sexual offenders who volunteered for the study (used polygraph)	38 63	55.3 (21) 0.0 (0)	Self-reports Prior arrests
5. Coward, Gabriel, Schuler, and Prentky (2009)	Offenders charged or arrested for an internet sexual offense	128	32.8 (42)	Self-reports
6. Eke and Seto (2009) ^b	Persons listed on the Ontario Sex Offender Registry who were convicted for a child pornography offense and subsequently released into the community	324	22.5 (73)	Charges
7. Elliott, Beech, Mandeville-Norden, and Hayes (2009)	U.K. Probation Service, assessed for suitability of treatment	494	10.9 (54)	Convictions
8. Endrass et al. (2009)	Swiss men from Operation Landslide	231	0.9 (2)	Convictions
9. Faust et al. (2009)	Offenders in federal prisons in the United States	870	9.4 (82)	Convictions
10. Fortin and Roy (2007)	Online offenders from Quebec arrested between 1998 and 2004 (includes 13.6% offenders aged between 10 and 18 years)	192	10.4 (20)	Charges
11. Galbreath, Berlin, and Sawyer (2002)	Men assessed in an outpatient clinic because of concerns about their Internet use	39	7.7 (3)	Charges

(continued)

Table 1. (continued)

Study	Sample Description	N	Percentage With Contact Offenses (n)	Source
12. Laulik, Allam, and Sheridan (2007)	Internet sexual offenders in a mandatory community-based treatment center	30	6.7 (2)	Convictions
13. McLaughlin (2000)	Internet sexual offenders arrested during an internal law enforcement project conducted by the U.S. Keene Police Department between 1997 and 2000	200	12.0 (24)	Arrests
14. Neutze, Seto, Schaefer, Mundt, and Beier (in press)	German community sample of self-identified pedophiles and hebephiles	108	57.4 (62)	Self-reports
15. Quayle and Taylor (2003)	Data derived from COPINE project in the United Kingdom	23	47.8 (11)	Self-reports
16. Seto et al. (2006)	Child pornography offenders referred for a sexological assessment in Canada	100	43.0 (43)	Charges
17. Seto and Eke (2008)	Convicted Internet offenders in Canada; data collected using police investigation files	301	5.0 (15)	Charges
18. Seto, Reeves, and Jung (2010) ^c	Outpatient clinic that provided community-based assessment and treatment for forensic patients	34	11.8 (4)	Charges
19. Sullivan (2007) ^d	Convicted Internet sexual offenders from New Zealand	215	13.0 (28)	Convictions
20. Webb, Craissati, and Keen (2007)	Internet sexual offenders within the London Probation Area	90	14.4 (13)	Charges
21. Wolak et al. (2005)	All men arrested for a child pornography offense between July 2000 and July 2001 in the United States	420	11.2 (47)	Arrests
22. Wolak et al. (2009)	All men arrested for a child pornography offenses in the calendar year 2006 in the United States	473	20.9 (99)	Arrests

(continued)

Table 1. (continued)

Study	Sample Description	N	Percentage With Contact Offenses (n)	Source
23. Wollert, Waggoner, and Smith (2009)	Offenders in an outpatient treatment program in the United States	72	13.9 (10)	Convictions
24. Wood, Seto, Flynn, Wilson-Cotton, and Dedmon (2009) ^e	Registered male sexual offenders in the United States assessed at the Arkansas Sex Offender Screening and Risk Assessment program (used polygraph)	72 71	0.0 (0) 32.3 (21)	Charges Self-reports

Note: The registered sex offender sample reported by Seto and Eke (2005) is subsumed by the samples reported by Eke and Seto (2009) and by Seto and Eke (2008).

- a. Numbers fluctuate because only 38 participants completed the self-report measure, whereas prior sexual offenses were reported for all participants.
- b. Excluding offenders who were also included in the Seto and Eke (2008) police case sample; thus, there is no overlap between these two samples.
- c. This study included 50 offenders interviewed by investigators of the Toronto Police Service. Given the time frame of data collection, it was likely that many of these offenders were already included in the studies reported by Eke and Seto (2009) or by Seto and Eke (2008), and so they are not reported here.
- d. Includes nine offenders not charged for child pornography but charged for other illegal pornography.
- e. Self-report data used in overall analysis, $N = 4,697$.

Given the problems with analyzing raw proportions from studies with low base rates, variance stabilization transformations are recommended (Cohen, 1988; Eisenhart, 1947; Fleiss et al., 2003). The most common variance stabilization transformation for proportions is the arcsine transformation, which we will denote by \check{A} , defined as $\check{A} = 2 \arcsin \sqrt{P}$, with a variance of $1/n$. In other words, the variance of \check{A} depends only on the sample size, and not the size of the proportion.

For the prior criminal history meta-analysis, the analyses were conducted using both the raw proportions and the transformed proportions. Given the very small percentages in the recidivism meta-analysis, only the results for the transformed proportions were reported. All results were reported as proportions, however, because \check{A} in its original units (radians) is not easily interpreted. To analyze studies in which there were no recidivists for certain outcome categories, the recidivism rate (p) was estimated as $1/4n$ (i.e., Bartlett's adjustment, see Eisenhart, 1947, sec. 4.3; Cohen, 1988, p. 183).

The magnitude and consistency of the proportions were calculated using both fixed-effect and random-effects models (Hedges & Vevea, 1998). Each approach asks slightly different questions and neither approach has won universal acceptance (Whitehead, 2002, sec. 6.3). On a conceptual level, the conclusions of the fixed-effect

Table 2. Recidivism Rates of Online Sexual Offenders

Sample	N	Mean Follow-Up (Years)	Type of Recidivism in Percentage (n)			
			Any Sexual Offense	Contact Sexual	Child Pornography	Violent
1. Barnett, Wakeling, and Howard (in press); U.K. offenders	513	2.0	1.4 (7)	NA	NA	NA
2. Eke and Seto (2009); Ontario Sex Offender Registry sample ^a	324	4.3	8.0 (26)	4.0 (14)	5.3 (17)	6.5 (21)
3. Endrass et al. (2009); Swiss men from Operation Landslide	231	6.0	2.6 (6)	0.0 (0)	2.6 (6)	0.43 (1)
4. Faust et al. (2009); offenders in federal prisons in the United States	870	3.8	5.7 (50)	NA	NA	NA
5. Fortin and Roy (2007); adolescent and adult males in Quebec	192	2.0	0.0 (0)	0.0 (0)	0.0 (0)	NA
6. Osborn, Elliott, Middleton, and Beech (2009); adult men on probation in the United Kingdom	73	1.5-4.0	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
7. Seto and Eke (2008); police case file sample ^b	282	3.5	10.3 (29)	3.9 (11)	6.0 (17)	6.6 (19)
8. Webb et al. (2007); offenders on probation in the United Kingdom	73	1.5	2.7 (2)	0.0 (0)	2.7 (2)	0.0 (0)
9. Wollert et al. (2009); offenders in an outpatient treatment program in the United States	72	4.0	1.4 (1)	0.0 (0)	1.4 (1)	NA

Note: NA = not applicable. All studies used official criminal records to assess outcomes. Only the range of follow-up times was reported by Osborn et al. (2009). Violent offenses include both nonsexually violent and contact sexual offenses.

a. Sample does not overlap at all with sample reported by Seto and Eke (2008).

b. A total of 19 individuals from this sample of 301 offenders were not yet at risk in the community.

analyses are restricted to the particular set of studies included in the meta-analysis. In contrast, the random-effects model aims for conclusions that apply to the population of studies of which the current sample of studies is a part. In practical terms, the random-effects model includes an additional between-study error term (a constant) representing the unexplained variation across studies. Compared with the fixed-effect model, the random-effects model has higher variance estimates (wider confidence intervals), and the differences in sample size across the studies are given less importance. Consequently, the random-effects model gives relatively more weight to small studies than does the fixed-effect model, approximating unweighted averages.

When the statistical assumptions are violated, the fixed-effect model is too liberal and the random-effects model is too conservative (Overton, 1998). The results of the random-effects and fixed-effect models converge as the amount of between-study variability decreases. When the variation between studies is less than would be expected by chance ($Q < \text{degrees of freedom}$, using Cochran's Q statistic; Hedges & Olkin, 1985), the two approaches yield identical results. To test the generalizability of fixed-effects

across studies, the Q statistic was used, $Q = \sum_{i=1}^k w_i (p_i - p)^2$, where p_i is the observed proportion in each of k studies, and p is the weighted average. The Q statistic is distributed as χ^2 with $k - 1$ degrees of freedom (k is the number of studies).

A significant Q statistic indicates there is more variability across studies than would be expected by chance. If the Q statistic was significant, further examinations of the data were conducted to establish whether an outlier could be identified. A sample was considered to be an outlier if (a) it was an extreme value (highest or lowest), (b) the Q statistic was significant, and (c) the single finding accounted for more than 50% of the value of the Q statistic. When an outlier was detected, the results are reported with and without the exceptional sample.

Fixed-effect estimates of recidivism rates were calculated using the formula and procedures presented in Hedges (1994). Random-effects estimates were calculated using Formulae 10, 12, and 14 from Hedges and Vevea (1998). Hand calculations or SPSS syntax were used for all analyses, except for the random-effects meta-regression, which was computed using Comprehensive Meta-Analysis Version 2.0 (Biostat; Borenstein, Hedges, Higgins, & Rothstein, 2005). Both fixed-effect and random-effects models were estimated for both the raw proportions (p) and the transformed proportions (\tilde{A}).

Results

Prior Contact Sexual Offense History

Of the total combined sample of 4,697 online offenders, 17.3% ($n = 812$) were known to have committed a contact sexual offense, mostly against a child. As expected, samples using official data had lower rates of prior sexual offenses than those using self-reported offense histories. Official records were available for 4,464 online sexual offenders. Of these, 12.2% ($n = 544$) had prior contact sex offenses.

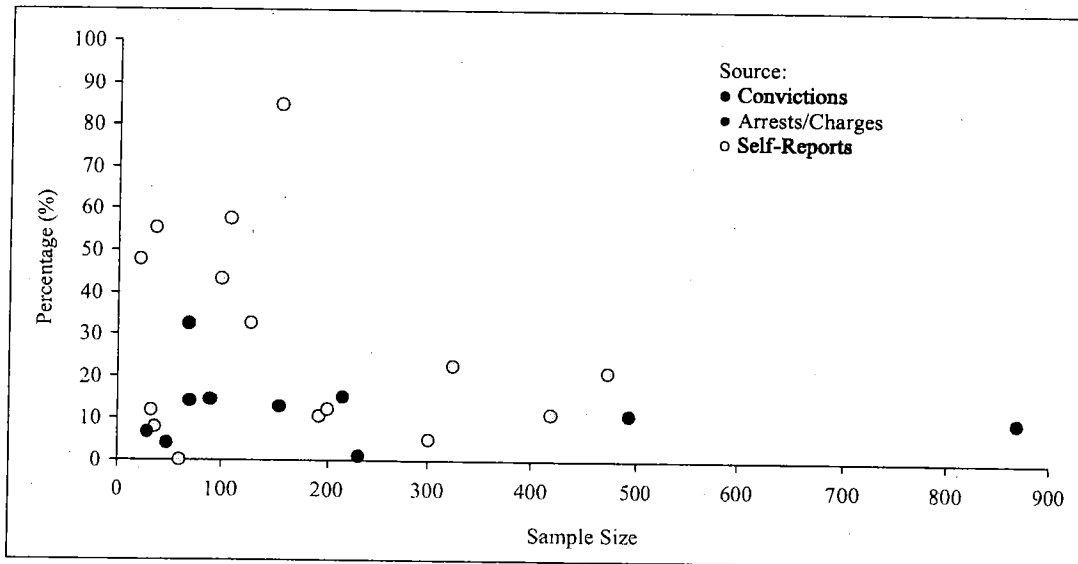


Figure 1. Percentage of prior contact sex offenses per study

In contrast, of the 523 online sexual offenders with self-reported offense history information, 55.1% ($n = 288$) disclosed prior sexual contact with children. Figure 1 presents the rates of prior contact sexual offenses by source of information (i.e., convictions, arrests/charges, or self-report).

The fixed-effect meta-analyses found considerably more variability than would be expected by chance for both the raw proportions ($Q = 1,207.71$, $df = 23$, $p < .001$) and the transformed proportions ($Q = 774.74$, $df = 23$, $p < .001$). The estimated proportions of prior contact sex offenses ranged from a low of 9.2% for the fixed-effect analysis of proportions to 21.4% for the random-effects analysis of the proportions (see Table 3). Bourke and Hernandez (2009) was an outlier in the overall set of samples, although removing this sample had relatively little effect on the estimated proportions (e.g., a change from 21.4% to 17.8% for the random-effects model).

The proportion of prior contact offenses was significantly lower when the estimates were based on official reports (4.8% to 11.2%) than on self-report (51.4% to 60.0%). Arrests provided similar estimates (4.6% to 13.3%) to convictions (5.1% to 9.6%). The difference in the proportions using arrests versus convictions was statistically significant in the fixed-effect analysis ($\chi^2 = 18.7$, $df = 1$, $p < .001$), but not significant under the random-effects model ($\chi^2 = 0.291$, $df = 1$, $p = .590$).

Bourke and Hernandez (2009) was also identified as an outlier in the self-report data. Removing this study greatly improved the model fit: the Q value decreased from 147.7 to 23.7 for the raw proportions, and from 113.7 to 22.8 for the transformed proportions. Regardless of the analyses, and whether or not the outlier was excluded, approximately half of the online offenders admitted to prior contact offenses. Figure 2 presents the aggregate estimates of prior contact sex offenses.

Table 3. Meta-Analysis of the Proportion of Online Sexual Offenders with Previous Contact Sex Offenses

		Random		Fixed		Q	N	k
		Percentage	95% CI	Percentage	95% CI			
Overall	P	21.45	15.50-27.39	9.16	8.43-9.90	1,202.71**	4,697	24
	w/o B&H	17.80	13.64-21.95	7.88	7.14-8.63	518.78**	4,542	23
	Ä	19.56	13.35-26.63	15.52	14.50-16.57	774.74**	4,697	24
Official	P	10.93	7.85-14.02	4.83	4.23-5.44	421.34**	4,464	21
	Ä	9.80	6.97-13.06	11.23	10.32-12.17	249.29**	4,464	21
Arrests/ charges	P	12.16	7.31-17.00	4.64	3.82-5.45	300.36**	2,257	12
	Ä	10.48	6.04-15.98	13.33	11.96-14.76	170.91**	2,257	12
Convictions	P	9.56	5.22-13.91	5.07	4.18-5.96	120.49**	2,207	9
	Ä	8.95	5.92-12.52	9.25	8.08-10.49	59.73**	2,207	9
Self-report	P	51.38	29.66-73.10	59.96	56.25-63.67	147.66**	523	6
	w/o B&H	43.95	31.27-56.64	41.88	36.99-46.77	23.66**	368	5
	Ä	51.72	31.41-71.73	55.95	51.68-60.18	113.73**	523	6
	w/o B&H	44.21	32.69-56.06	42.46	37.46-47.54	22.75**	368	5

Note: P = raw proportions; w/o B&H = without Bourke and Hernandez (2009); Ä = arcsine transformed proportions; CI = confidence interval; k = number of studies.
*p < .05. **p < .001.

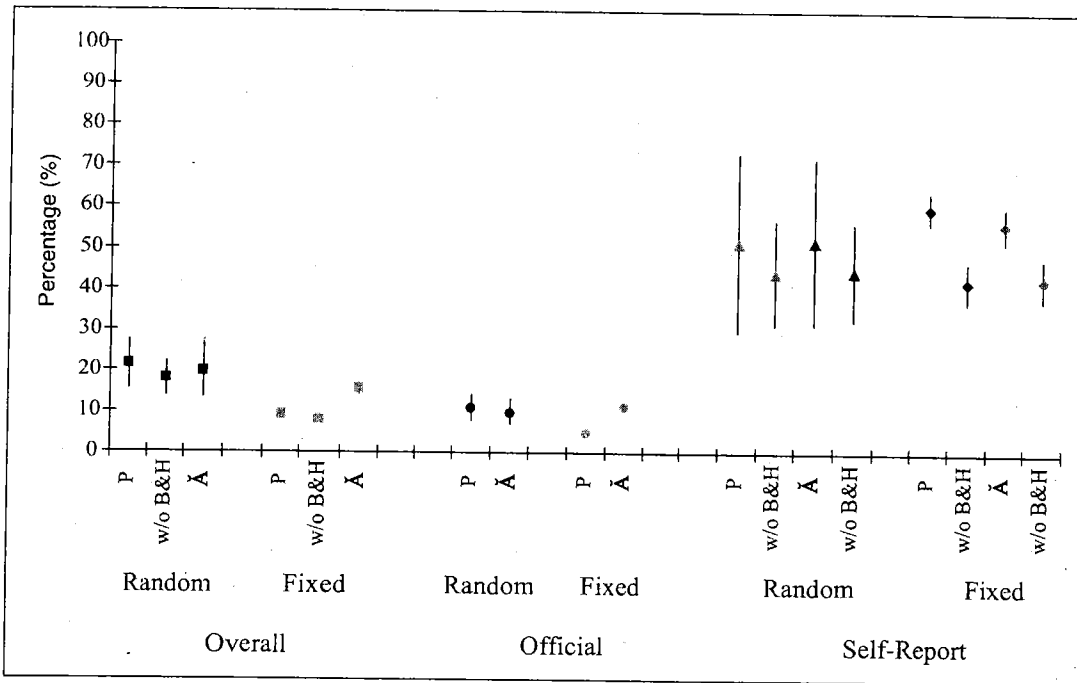


Figure 2. Percentages and confidence intervals of aggregated estimates of prior contact sex offenses: Random- and fixed-effect

Table 4. Meta-Analysis of the Recidivism Rates of Online Sexual Offenders

	Random		Fixed		Q	N	k
	Percentage	95% CI	Percentage	95% CI			
Sexual recidivism	2.80	1.17-5.08	3.93	3.22-4.71	78.25**	2,630	9
Contact sex offenses	0.72	0.04-2.19	1.38	0.81-2.11	36.11**	1,247	7
Child pornography	2.10	0.78-4.05	2.92	2.06-3.92	29.94**	1,247	7
Violent recidivism	1.96	0.24-5.30	3.36	2.32-4.58	36.04**	983	5

Note: Meta-analysis based on arcsine transformed (\bar{A}) proportions. CI = confidence interval; k = number of studies.

* $p < .05$. ** $p < .001$.

Recidivism

Of the total combined sample of 2,630 online offenders, 4.6% ($n = 121$) recidivated with a sexual offense after a 1.5- to 6-year follow-up; most of the follow-up times were less than 4 years. Information on type of sexual recidivism was available for 1,247 online offenders. Of these, 2.0% ($n = 25$) of the online offenders recidivated with a contact sexual offense and 3.4% ($n = 43$) recidivated with a child pornography offenses. Information on violent recidivism was available for 983 online offenders. Of these, 4.2% ($n = 41$) recidivated with a violent offense.

Fixed-effect meta-analysis found significantly more variability than would be expected by chance for all types of recidivism (see Table 4). No outliers were identified; the highest recidivism rates were observed in the recent study of two samples by Seto and Eke (Eke & Seto, 2008; Seto & Eke, 2008), who found total sexual recidivism rates of 8.0% and 10.3%, respectively. The remaining seven studies found sexual recidivism rates of less than 6%, with two studies reporting no sexual recidivists at all. The fixed-effect estimate for sexual recidivism was 3.9% and the random-effects estimate was 2.8%. The observed rates for the other types of recidivism were similarly low (0.7% to 3.4%).

Fixed-effect meta-regression found higher sexual recidivism rates in studies with longer average follow-up periods ($b = 0.0731$, $df = 1$, $Z = 4.44$, $p < .001$). Random-effects meta-regression found the same pattern ($b = 0.060$), but this result was not statistically significant ($Z = 1.38$, $p = .17$). Figure 3 presents the aggregated estimates of recidivism rates for online sexual offenders.

Discussion

In our first meta-analysis, we found that approximately 1 in 8 online offenders have a known contact sexual offense history at the time of their index offense, based on official records of arrests, charges, or convictions. The prevalence was higher when self-report information was used, with approximately half of the online offenders admitting to a contact sexual offense, consistent with the observation that official

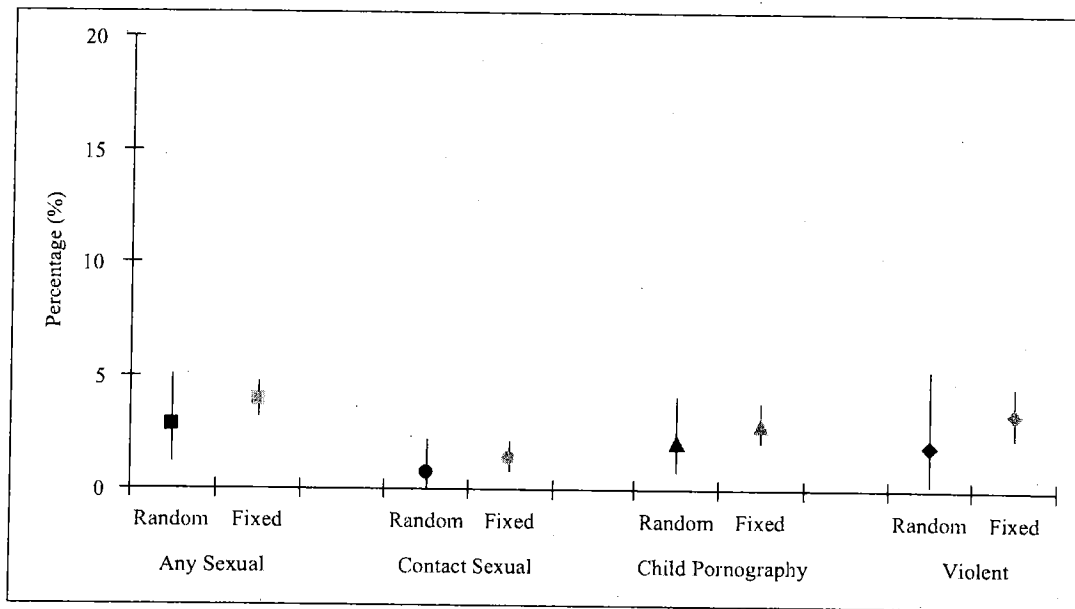


Figure 3. Percentages and confidence intervals of aggregated estimates of recidivism rates for online sexual offenders: Random- and fixed-effect

records are a conservative estimate of actual offending² (even if some of the self-reported offenses are false confessions and did not actually occur).

Although there is considerable overlap between online and offline offending, our results suggest there is a distinct group of online offenders whose only sexual crimes involve illegal (most often child) pornography or, less frequently, illegal solicitations of minors using the Internet. Knowing about criminal history, however, does not directly address the question of future risk to commit contact sexual offenses. After all, almost all of the sexual offenders followed in the studies reviewed by Hanson and his colleagues (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005) had committed contact sexual offenses, and the composite rate of detected sexual recidivism was 13% after an average of 5 to 6 years' follow-up. Longer-term follow-ups suggest approximately a third of sexual offenders with child victims will be detected for new sexual offenses after 20 to 30 years of opportunity (Hanson, Steffy, & Gauthier, 1993). Though other offenders in these follow-up studies will have committed offenses that were not officially detected, these data are not consistent with the idea that committing a contact sexual offense means that the offender will do it again.

Our second meta-analysis found that online offenders rarely go on to commit detected contact sexual offenses. During the follow-up period (up to 6 years), less than 5% of the online offenders were caught for a new sexual or violent offense. Two studies found no sexual recidivists.

The observed rates will increase with longer follow-up periods and not all new offenses are detected. Nevertheless, these rates are substantially lower than the recidivism rates of typical groups of offline sexual offenders. It is quite possible, however, that some online sexual offenders have relatively high recidivism rates. Eke and Seto

(2008) found that those online offenders who already had a history of offline offenders showed sexual recidivism rates higher than the expected base rates for typical sexual offenders (A. J. R. Harris & Hanson, 2004). In contrast, the online offenders who had no history of contact offenses almost never committed contact sexual offenses, despite a comparably high likelihood that they were sexually interested in children (Babchishin et al., in press).

Risk Assessment

Considerable advances have been made in the evaluation of recidivism risk for contact sexual offenders. A substantial number of reliable risk factors have been identified (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005), and these risk factors have been combined into structured or actuarial risk assessment procedures that can make valid predictions about future offending (Hanson & Morton-Bourgon, 2009). The three major types of risk factors are sexual deviance (e.g., pedophilia, sexual sadism), antisocial orientation (e.g., psychopathy, antisocial attitudes, and beliefs), and intimacy deficits (e.g., poor social skills, emotional identification with children, loneliness). In general, risk factors for sexual offenders with child victims are the same as the risk factors for sexual offenders against adults. Notable exceptions are pedophilia and emotional identification with children, which are most relevant for sexual offenders with child victims (see Seto, 2008).

For online sexual offenders, research is needed to establish the extent to which the risk factors found for offline sexual offenders also apply. Some risk factors may not be relevant (e.g., the distinction between stranger and acquaintance victims), whereas other risk factors may be unique to online offending (e.g., whether child pornography content was organized or disorganized). Even if the same risk factors are relevant, it appears the recidivism rates for online offenders are lower than the base rates obtained for offline sexual offenders due to group differences on some risk factors (e.g., online offenders are less likely to have prior criminal histories).

The initial research evidence suggests that the same risk factors matter for online or offline sexual offending. Seto and Eke (2005) followed 201 adult male online offenders listed on a provincial sex offender registry and found that those who had any kind of prior criminal history, sexual or nonsexual, were more likely to offend in the future, including committing contact sexual offenses during the follow-up. Only one of the child pornography offenders with no prior contact sexual offense history committed such an offense during the 2.5-year follow-up. Seto and Eke (2008) reported on a sample of 301 child pornography offenders (79% overlap with Eke and Seto's sample) identified from a review of Canadian police case files and also found that criminal history as well as substance use problems predicted contact sexual offenses after the 3.5-year follow-up. Criminal history, substance use problems, and self-reported sexual interest in children predicted violent offending, which included both nonsexually violent as well as contact sexual offenses (with some of the nonsexually violent offenses likely to be sexually motivated; Rice et al., 2006).

Webb et al. (2007) found that the Stable-2000 (Hanson, Harris, Scott, & Helmus, 2007; A. J. R. Harris & Hanson, 2003), an actuarial measure of potentially changeable risk factors, significantly predicted probation failures and "risky sexual behavior" in a sample of online offenders. Risky sexual behavior was defined as new allegations of child pornography or contact sexual offending, as well as behaviors, such as increased use of the Internet or accessing adult pornography, that were deemed to be related to past online offending. None of the child pornography offenders committed another contact sexual offense during the short (18 months) follow-up period.

Faust et al. (2009) identified a number of predictors of sexual recidivism in a follow-up study of 870 child pornography offenders released between 2002 and 2005 (with 50 sexual rearrests during an average follow-up of 3.8 years). These variables included low education, a history of prior treatment for sexual offending, being single, and possessing sexual material depicting children in the 13- to 15-year age range. Interestingly, those offenders convicted of crimes involving non-Internet child pornography were higher risk for sexual rearrest than were the offenders whose sexual crimes were restricted to the Internet.

Wakeling, Howard, and Barnett (in press) examined the predictive accuracy of the Risk Matrix 2000, a structured risk assessment measure developed by Thornton et al. (2003), in a sample of 1,344 Internet sexual offenders in the United Kingdom. The study found that offenders in the "very high" category showed relatively high rates of sexual recidivism, but that there were few differences in the sexual recidivism rates of the other categories (overall area under the curve = .67). Even though the online offenders scored relatively high on the measure, the overall recidivism rate of the online offenders was lower than in the developmental samples of offline offenders. Readers should note, however, that the study examined a modified version of Risk Matrix 2000 that needed to be further modified because of large amounts of missing information in the data sets analyzed.

Overall, the available prediction studies suggest that risk factors identified for offline offenders will likely also be helpful for risk assessments with online sexual offenders. Some of the established risk scales, such as the Sex Offender Risk Appraisal Guide (Quinsey, Harris, Rice, & Cormier, 2006) can be directly applied to online sexual offenders and it is reasonable to expect that they will be able to reliably rank order online offenders according to their risk for violent recidivism. Other risk scales, such as the Static-99 (Hanson & Thornton, 2000) or Static-2002 (Hanson, Helmus, & Thornton, 2010) would need to be modified before being used with online offenders because the current coding rules preclude their use with this population. Nevertheless, actuarial risk scales of this type are likely to be effective, given that the items tap a common pool of risk factors (e.g., offender age, criminal history, sexual interest in children) and given evidence that these scales perform similarly across different types of sexual offenders (Barnett et al., in press; Bartosh, Garby, Lewis, & Gray, 2003; G. T. Harris et al., 2003). The probabilistic estimates associated with these scales might not generalize to samples of online sexual offenders, given the lower recidivism rates obtained in follow-up research and the presence of offenders who have no known history of contact sexual offending.

Studies with longer follow-up periods and larger samples will be needed to establish probabilistic estimates, and to determine if there are a sufficient number of unique features of this population to justify the creation of new actuarial scales. Given the evidence to date, we believe that evaluators could justifiably take a parsimonious position and assume that the major risk factors (sexual deviance, antisocial orientation, intimacy deficits) found for offline sexual offenders also apply to online offenders.

Limitations

It could be the case that undetected online offenders are less likely to have an official criminal history because having a known contact sexual offense history increases police scrutiny and the likelihood of being arrested for online offending. This would mean the estimates of contact sexual offense history we obtained are biased upward. At the same time, individuals who remain undetected for online sexual offenses may also be more successful at avoiding arrest for contact sexual offenses, which would mean the history estimates we obtained are biased downward. Further research using anonymous surveys of self-reported offending by undetected online offenders are needed to clarify the extent and direction of this selection bias. This is difficult research to conduct because of fears of discovery among undetected online offenders, and because of the self-report biases that anonymous surveys may bring, but it would shed valuable light on this issue (see Ray, Kimonis, & Donoghue, 2009).

The large majority of online sexual offenders are charged with crimes relating to possession, distribution, or production of child pornography. Thus, much of what we can conclude from these meta-analyses about online sexual offenders is more specifically about online child pornography offenders and may not be applicable to the subset of online offenders who use Internet technologies to solicit minors. Research by Wolak and her colleagues at the Crimes Against Children Research Center suggests that these so-called luring or traveler offenders and their offenses have more in common with statutory sexual offenders than with contact sexual offenders who engage in explicitly coercive or aggressive crimes (Wolak, Finkelhor, Mitchell, & Ybarra, 2008). All of the victims of luring offenses in their survey of law enforcement arrests were aged 12 years or older, many of the adolescents were aware that the adult offender was interested in them sexually, many were aware that the adult was much older than them, and many thought of themselves as being involved in a romantic or intimate relationship. Only a minority of cases involved explicit coercion (16%) or violence (5%). More research is needed on the risk to reoffend and intervention needs of both statutory and online luring offenders.

It is highly likely there is a selection effect for computer sophistication in studies of online offenders. Only a minority of online offenders who are detected by police use technological methods to hide their activities (e.g., file encryption, anonymous remailers; Malesky, 2002; Wolak et al., 2005), yet one could readily imagine that the most technologically sophisticated and careful child pornography users can escape police detection for years (see Jenkins, 2001). We do not know if computer knowledge is related to the likelihood of offline offending, either in the past or in the future.

Anonymous online surveys could shed light on the computer knowledge of undetected offenders (compared with samples of detected offenders) and on the factors that play a role in online offending among undetected offenders.

All of the recidivism follow-up studies we examined relied on official records, which our first meta-analysis (and many criminological studies as well) shows is an underestimate of total sexual offending. Consequently, our recidivism estimates are conservative. It is not clear what the correction factor should be, in this or in other sexual offender recidivism research.

Implications

Given that many online offenders are strongly aroused by child pornography (Seto et al., 2006), our results suggest that pedophilic interests do not necessarily result in contact sexual offenses against children. Many of the online offenders in our study are likely to be sexually interested in children, but only half are known to have acted on these sexual interests. Those individuals who act on their pedophilic interests are likely to have personality traits and life circumstances that facilitate antisocial behavior and criminality (see Seto, 2008). Further research is needed to articulate the risk factors for sexual offenders who are neither pedophilic nor particular antisocial (e.g., a significant portion of incest offenders).

The low recidivism rates of online offenders may be used by some readers to minimize the seriousness of the online crimes committed. We believe this would be a mistake. Child pornography is a serious crime because it contributes to the sexual exploitation of children by creating demand for content, it offends community standards and values, and it is viewed by many members of the public as a serious crime (Lam et al., 2010). It would also be a mistake to fail to differentiate online offenders by the risk they pose. Although the research on risk factors is limited, we believe that the risk factors for online offenders are likely to be the same risk factors found for offline offenders (i.e., sexual deviancy, antisocial orientation, and intimacy deficits). Until research suggests otherwise, we recommend that valid measures of these risk factors should be used by the police, courts, correctional systems, and clinicians to prioritize interventions for individuals involved in online sexual offenses.

Authors' Note

The views expressed are those of the authors and not necessarily those of the Ontario Mental Health Foundation, Ontario Ministry of Health and Long Term Care, or Public Safety Canada.

Acknowledgments

We thank Angela Eke and Grant Harris for comments on an earlier version of this article.

Declaration of Conflicting Interests

The author(s) declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research and/or authorship of this article:

This study was assisted by the Ontario Mental Health Foundation, with funding from the Ontario Ministry of Health and Long Term Care.

Notes

1. We will use the terms *online offenders* and *online offending* to refer to sexual crimes that involve the use of Internet and related technologies. This would include possession or distribution of child pornography via the Internet, possession or distribution of other illegal pornography content, and use of the Internet to solicit minors for sexual purposes. Most online offender research has focused on child pornography offenders. We use the terms *offline offenders* and *offline offending* to refer to sexual offenses that occur in the real world and do not involve the Internet in a central way. For example, a man who committed contact sexual offenses against his 12-year-old niece would be considered an offline offender even if he sometimes used email to communicate with her (in addition to contacting her in person).
2. Official records are also incomplete. The follow-up study by Seto and Eke (2005) and the data reported by Eke and Seto (2008) used police occurrence reports in addition to a national database of criminal charges and convictions. These investigators found that some charges reported in police occurrence reports were not recorded on the national database, there was often a lag between charges being laid and then appearing in the national database, and offenses for which individuals later received a pardon might be removed from the database (Angela Eke, personal communication, February 10, 2010). The use of police occurrence reports in obtaining recidivism data may help explain why the Eke and Seto studies produced higher sexual recidivism rates than those obtained in other studies.

References

References marked with an asterisk were included in the meta-analyses.

- *Abondo, M., Bouvet, R., & Le Gueut, M. (2009, May). *Le téléchargement de fichiers pédopornographiques signe-t-il une psychopathologie? A propos d'une étude d'expertises psychiatriques en France* [Does downloading child pornography indicate a psychopathology? Results from a study of psychiatric expertise in France]. Paper presented at the Cinquième congrès international francophone sur l'agression sexuelle [5th International Francophone Conference on Sexual Aggression], Montréal, Québec, Canada.
- *Baartz, D. (2008, June). *Australians, the internet and technology-enabled child sex abuse: A statistical profile*. Canberra, Australia: Australian Federal Police.
- Babchishin, K. M., Hanson, R. K., & Hermann, C. A. (in press). The characteristics of online sex offenders: A meta-analysis. *Sexual Abuse: A Journal of Research and Treatment*.
- *Barnett, G. D., Wakeling, H. C., & Howard, P. (in press). An examination of the predictive validity of the Risk Matrix 2000 in England and Wales. *Sexual Abuse: A Journal of Research and Treatment*.

- Bartosh, D. L., Garby, T., Lewis, D., & Gray, S. (2003). Differences in the predictive validity of actuarial risk assessments in relation to sex offender type. *International Journal of Offender Therapy and Comparative Criminology*, 47, 422-438.
- Bates, A., & Metcalf, C. (2007). A psychometric comparison of internet and non-internet sex offenders from a community treatment sample. *Journal of Sexual Aggression*, 13, 11-20.
- Borenstein, M., Hedges, L., Higgins, J., & Rothstein, H. (2005). Comprehensive meta-analysis by Biostat (Version 2.0) [Computer software]. Englewood, NJ: Biostat.
- *Bourke, M. L., & Hernandez, A. E. (2009). The "Butner Study" redux: A report of the incidence of hands-on child victimization by child pornography offender. *Journal of Family Violence*, 24, 183-191.
- *Buschman, J., & Bogaerts, S. (2009). Polygraph testing internet offenders. In D. Wilcox (Ed.), *The use of polygraph in assessing, treating, and supervising sex offenders: A practitioner's guide* (pp. 111-126). Chichester, England: Wiley-Blackwell.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- *Coward, A. I., Gabriel, A. M., Schuler, A., & Prentky, R. A. (2009, March). *Child internet victimization: Project development and preliminary results*. Poster presented at the American Psychology-Law Society Conference, San Antonio, TX.
- Eisenhart, C. (1947). Inverse sine transformation of proportions. In C. Eisenhart, M. W. Hastay, & W. A. Wallis, (Eds.), *Selected techniques of statistical analysis for scientific and industrial research and production and management engineering* (pp. 395-416). New York, NY: McGraw-Hill.
- *Eke, A. W., & Seto, M. C. (2008, October). *Examining the criminal history and recidivism of registered child pornography offenders*. Paper presented at the 27th Annual Conference of the Association for the Treatment of Sexual Abusers, Atlanta, GA.
- *Eke, A. W., & Seto, M. C. (2009). *Ontario Sex Offender Registry sample independent of police case sample reported by Seto and Eke (2008)*. Unpublished raw data.
- *Elliott, I. A., Beech, A. R., Mandeville-Norden, R., & Hayes, E. (2009). Psychological profiles of internet sex offenders: Comparisons with contact sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 21, 76-92.
- *Endrass, J., Urbaniok, F., Hammermeister, L. C., Benz, C., Elbert, T., Laubacher, A., & Rossegger, A. (2009). The consumption of Internet child pornography and violent and sex offending. *BMC Psychiatry*, 9, 43-50.
- *Faust, E., Renaud, C., & Bickart, W. (2009, October). *Predictors of re-offense among a sample of federally convicted child pornography offenders*. Paper presented at the 28th Annual Conference of the Association of the Treatment of Sexual Abusers, Dallas, TX.
- Fleiss, J. L., Levin, B., & Paik, M. C. (2003). *Statistical methods for rates and proportions* (3rd ed.). Hoboken, NJ: Wiley.
- *Fortin, F., & Roy, J. (2007). Cyberpédophilie: profils d'amateur de pédopornographie. [Cyberpedophilia: Profiles of users of child pornography]. In M. St-Yves & M. Tanguay (Eds.), *Psychologie des entrevues d'enquête: De la recherche à la pratique* [The psychology of investigative interviews: From research to practice] (pp. 465-502). Cowansville, Québec, Canada: Éditions Yvon Blais.

- *Galbreath, N. W., Berlin, F. S., & Sawyer, D. (2002). Paraphilias and the Internet. In A. Cooper (Ed.), *Sex and the Internet: A guidebook for clinicians* (pp. 187-205). Philadelphia, PA: Brunner-Routledge.
- Gelber, A. (2009, July). *Response to "A Reluctant Rebellion"* (open letter). Retrieved from <http://www.usdoj.gov/criminal/ceos/ReluctantRebellionResponse.pdf>
- Hansen, M. (2009, June). A reluctant rebellion. *ABA Journal*. Retrieved from http://www.abajournal.com/magazine/a_reluctant_rebellion
- Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology, 66*, 348-362.
- Hanson, R. K., Harris, A. J. R., Scott, T., & Helmus, L. (2007). *Assessing the risk of sexual offenders on community supervision: The Dynamic Supervision Project* (Corrections User Report No 2007-05). Ottawa, Ontario: Public Safety Canada.
- Hanson, R. K., Helmus, L., & Thornton, D. (2010). Predicting recidivism amongst sexual offenders: A multi-site study of Static-2002. *Law and Human Behavior 34*, 198-211.
- Hanson, R. K., & Morton-Bourgon, K. E. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology, 73*, 1154-1163.
- Hanson, R. K., & Morton-Bourgon, K. E. (2009). The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis of 118 prediction studies. *Psychological Assessment, 21*, 1-21.
- Hanson, R. K., Steffy, R. A., & Gauthier, R. (1993). Long-term recidivism of child molesters. *Journal of Consulting and Clinical Psychology, 61*, 646-652.
- Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*, 119-136.
- Harris, A. J. R., & Hanson, R. K. (2003). The Dynamic Supervision Project: Improving the community supervision of sex offenders. *Corrections Today, 65*, 60-62.
- Harris, A. J. R., & Hanson, R.K. (2004). *Sex offender recidivism: A simple question*. Corrections Users Report No. 2004-03: Public Safety and Emergency Preparedness Canada.
- Harris, G. T., Rice, M. E., Quinsey, V. L., Lalumière, M. L., Boer, D., & Lang, C. (2003). A multisite comparison of actuarial risk instruments for sex offenders. *Psychological Assessment, 15*, 413-425.
- Hedges, L. V. (1994). Fixed effect models. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 285-299). New York, NY: Russell Sage Foundation.
- Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. New York, NY: Academic Press.
- Hedges, L. V., & Vevea, J. L. (1998). Fixed- and random-effects models in meta-analysis. *Psychological Methods, 3*, 486-504.
- Jenkins, P. (2001). *Beyond tolerance: Child pornography on the Internet*. New York, NY: New York University Press.
- Johnson v. United States of America, No 4:07-cr-00127 (S.D., Iowa Central, December 3, 2008).

- Lam, A., Mitchell, J., & Seto, M. C. (2010). Lay perceptions of child pornography offenders. *Canadian Journal of Criminology and Criminal Justice* 52, 173-201.
- *Laulik, S., Allam, J., & Sheridan, L. (2007). An investigation into maladaptive personality functioning of internet sex offenders. *Psychology, Crime, & Law*, 13, 523-535.
- Malesky, L. A. (2002). *Sexually deviant Internet usage by child sex offenders* (Unpublished doctoral dissertation). University of Memphis, Memphis, TN.
- *McLaughlin, J. F. (2000). *Cyber child sex offender typology*. Keene, NH: Keene Police Department. Retrieved from <http://www.ci.keene.nh.us/police/Typology.html>
- Motivans, M., & Kyckelhan, T. (2007). *Federal prosecution of child sex exploitation offenders, 2006* (Rep. No. NCJ219412). Washington, DC: Bureau of Justice Statistics.
- *Neutze, J., Seto, M. C., Schaefer, G. A., Mundt, I. A., & Beier, K. M. (in press). Predictors of child pornography offenses and child sexual abuse in a community sample of pedophiles and hebephiles. *Sexual Abuse: A Journal of Research and Treatment*.
- *Osborn, J., Elliott, I. A., Middleton, D., & Beech, A. R. (2009). *The suitability of the Risk Matrix 2000 for use with internet offenders*. Unpublished manuscript.
- Overton, R. C. (1998). A comparison of fixed-effects and mixed (random-effects) models for meta-analysis tests of moderator variable effects. *Psychological Methods*, 3, 354-379.
- *Quayle, E., & Taylor, M. (2003). Model of problematic internet use in people with sexual interest in children. *CyberPsychology & Behavior*, 6, 93-106.
- Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (2006). *Violent offenders: Appraising and managing risk* (2nd ed.). Washington, DC: American Psychological Association.
- Ray, J. V., Kimonis, E. R., & Donoghue, C. (2010). Legal, ethical and methodological considerations in the Internet-based study of child pornography offenders. *Behavioral Sciences and the Law* 24, 84-105. doi:10.1002/bsl.906.
- Rice, M. E., Harris, G. T., Lang, C., & Cormier, C. A. (2006). Violent sex offenses: How are they best measured from official records? *Law and Human Behavior*, 30, 525-541.
- Seto, M. C. (2008). *Pedophilia and sexual offending against children: Theory, assessment, and intervention*. Washington, DC: American Psychological Association.
- *Seto, M. C., Cantor, J. M., & Blanchard, R. (2006). Child pornography offenses are a valid diagnostic indicator of pedophilia. *Journal of Abnormal Psychology*, 115, 610-615.
- *Seto, M. C., & Eke, A. W. (2005). The criminal histories and later offending of child pornography offenders. *Sexual Abuse: A Journal of Research and Treatment*, 17, 201-210.
- *Seto, M. C., & Eke, A. W. (2008, October). *Predicting new offenses committed by child pornography offenders*. Paper presented at the 27th Annual Conference of the Association for the Treatment of Sexual Abusers, Atlanta, GA.
- *Seto, M. C., Reeves, L., & Jung, S. (2010). Motives for child pornography offending: The explanations given by the offenders. *Journal of Sexual Aggression* 16, 169-180.
- *Sullivan, C. (2007). *Internet trades of child pornography: Profiling research—update*. Wellington, New Zealand: Department of Internal Affairs. Retrieved from [http://www.dia.govt.nz/pubforms.nsf/URL/Profilingupdate2.pdf/\\$file/Profilingupdate2.pdf](http://www.dia.govt.nz/pubforms.nsf/URL/Profilingupdate2.pdf/$file/Profilingupdate2.pdf)
- Thornton, D., Mann, R., Webster, S., Blud, L., Travers, R., Friendship, C., & Erikson, M. (2003). Distinguishing and combining risks for sexual and violent recidivism. *Annals of the New York Academy of Sciences*, 989, 225-235.

- Wakeling, H. C., Howard, P. D., & Barnett, G. D. (in press). An examination of the predictive validity of the Risk Matrix 2000 with internet offenders. *Sexual Abuse: A Journal of Research and Treatment*.
- *Webb, L., Craissati, J., & Keen, S. (2007). Characteristics of internet child pornography offenders: A comparison with child molesters. *Sexual Abuse: A Journal of Research and Treatment*, 19, 449-465.
- Whitehead, A. (2002). *Meta-analysis of controlled clinical trials*. Chichester, England: Wiley.
- *Wolak, J., Finkelhor, D., & Mitchell, K. J. (2005). *Child pornography possessors arrested in Internet-related crimes: Findings from the National Online Victimization Study*. Retrieved from http://www.missingkids.com/en_US/publications/NC144.pdf
- *Wolak, J., Finkelhor, D., & Mitchell, K. J. (2009). *Trends in arrests of "online predators."* Crime Against Children Research Center. Retrieved from <http://www.unh.edu/ccrc/pdf/cv194.pdf>
- Wolak, J., Finkelhor, D., Mitchell, K. J., & Ybarra, M. (2008). Online "predators" and their victims: Myths, realities, and implications for prevention and treatment. *American Psychologist*, 63, 111-128.
- *Wollert, R., Waggoner, J., & Smith, J. (2009, October). *Child pornographer offenders do not have florid offense histories and are unlikely to recidivate*. Paper presented at the 28th Annual Conference of the Association of the Treatment of Sexual Abusers, Dallas, TX.
- *Wood, J. M., Seto, M. C., Flynn, S., Wilson-Cotton, S., & Dedmon, P. (2009, October). *Is it "just" pictures? The use of polygraph with internet offenders who deny abusive sexual contact*. Poster presented at the 28th Annual Conference of the Association of the Treatment of Sexual Abusers, Dallas, TX.

Researching the Effects of Confidentiality Law on Patients' Self-Disclosures

Daniel O. Taube
Oakland, California

Amiram Elwork
Institute for Graduate Clinical Psychology
Widener University

We hypothesized that conflicting research findings on the effects that confidentiality laws have on patients' self-disclosures reflect the fact that privacy is important only to some patients in some circumstances. Instead of asking whether privacy is always important, we posed the following question: What factors determine whether privacy is important? With 42 outpatients we found that self-disclosures about sensitive issues (e.g., child abuse, drug abuse) during intake were determined partly by how legally informed patients were and partly by how relevant and consequential the law was to their cases.

Laws that limit confidentiality in psychotherapy are based on a policy that it is more important to prevent certain types of impending harm (e.g., child abuse) than it is to protect patients' rights to privacy (DeKraai & Sales, 1984). Even though few critics argue with the aims of these laws, many question whether their effect is simply to suppress candor about "unsafe" topics (e.g., Beigler, 1984). Unfortunately, research findings on the validity of this concern have been conflicting. Some studies have supported the conclusion that assurances of privacy have a minimal effect on encouraging disclosures (e.g., Kobocow, McGuire, & Blau, 1983; Muehleman, Pickens, & Robinson, 1985; Shuman & Weiner, 1982), whereas others have supported the view that privacy is essential to encouraging openness in psychotherapy (e.g., McGuire, Toal, & Blau, 1985; Merluzzi & Brischetto, 1983; VandeCreek, Miars, & Herzog, 1987).

These conflicting findings may be explained by the possibility that one set of studies had design flaws. Indeed, as with most studies, all of the ones just cited could be criticized along a number of dimensions. If, however, we accept them at face value, then another explanation for their seemingly conflicting results suggests itself: Privacy may matter only to some types of patients and under some types of circumstances. This premise suggests

that instead of asking whether a guarantee of privacy is always important to therapy, researchers should be asking, "What general factors determine whether privacy is important?" The purpose of this exploratory study was to demonstrate the efficacy of this approach.

We hypothesized that at least two general factors determine whether privacy law affects candor in psychotherapy: (a) the extent to which the law is understood by a patient and (b) the extent to which the law is relevant and consequential to a patient. We further hypothesized that these two factors interact with each other.

With regard to the first factor, we predicted that the more informed patients were about confidentiality law, the more likely they were to be self-revealing about "safe" topics and less self-revealing about "unsafe" issues. To demonstrate the effect of the second factor, we predicted that the limits and protections of confidentiality law would have a greater effect on the most pathological of patients. This prediction was based on the rationale that such patients would be more likely to conclude, either realistically or out of unwarranted fear, that some of their deviant thoughts and behaviors are covered under the law.

Method

Subjects

Participants were 42 individual psychotherapy adult outpatients (31 women and 11 men), at two suburban Philadelphia community mental health centers. Their ages ranged from 18 to 74 years, with a mean of 32.26 years ($SD = 12.59$). Education level ranged from 10th grade to 1st year of graduate school, with a mean of 12.68 years of education ($SD = 1.92$). Because participation required lengthy written responses, illiterate, emergency, and actively hallucinating patients were excluded.

Procedure

As is customary at both centers, patients were screened by intake workers on the telephone and were mailed descriptions of services, financial information forms, and confirmation of appointments. For this

DANIEL O. TAUBE received his JD from Villanova University in 1985 and his PhD in psychology from Hahnemann University in 1987 as a member of the Hahnemann/Villanova Law and Psychology Graduate Program. He is currently the Evaluation Coordinator for Mental Health Children's Specialized Services of Alameda County, California.

AMIRAM ELWORK received his PhD from the University of Nebraska-Lincoln in 1977. He was the Director of the Hahnemann/Villanova Law and Psychology Graduate Program from 1981 to 1989 and is currently the Director of the Law and Psychology (JD/PsyD) Graduate Program at Widener University.

CORRESPONDENCE CONCERNING THIS ARTICLE should be addressed to Amiram Elwork, Law-Psychology Graduate Program, Institute for Graduate Clinical Psychology, Widener University, Chester, Pennsylvania 19013.

study, they also received a demographic background information form and a questionnaire containing 168 true/false questions, which in reality was an unlabeled short form of the Minnesota Multiphasic Personality Inventory (MMPI).¹

When patients arrived for the scheduled intake, the previously mailed materials were collected, and patients were given a second set of materials, including a written explanation of privacy rights in psychotherapy, a comprehension questionnaire on this information, and a 50-item questionnaire concerning the extent to which the patient would be self-disclosing about "sensitive" matters. These materials were also collected, and patients were seen by their intake workers.

All of the materials were presented as part of the standard clinical intake procedure. Even the nonroutine materials prepared for this study were used as rough clinical screening devices for the benefit of the patients. Copies of these materials, however, were given to the investigators for data analysis. A numeric coding system was used to protect the anonymity of patients vis-à-vis the investigators.

Subjects were allowed to complete the MMPI-168 at home to make the intake process more manageable. Although this was an unusual way of administering this instrument, it was justified on the following grounds: (a) that the MMPI has been shown to be reliable and valid with various types of nonstandard administrations (Kendrick & Hatzenbuehler, 1982; Richards, Fine, Wilson, & Rogers, 1983; Russell, Peace, & Mellsop, 1986); (b) that this instrument would be used only for initial screenings, which would pose minimal risk to patients' welfare; (c) that in a recent survey of 465 therapists, almost one third thought that this was an acceptable practice (Pope, Tabachnick, & Keith-Spiegel, 1987, Item 13 of Table 3); and (d) that it would not affect Type I error significantly.

Independent Variables

Severity of psychopathology. Using high *T* scores on the MMPI as indicators of psychopathology, we ranked subjects in accordance with the number of scales on which they scored above the median score for all subjects. Of the 546 scores considered, 18 of the ones on the K, Hysteria, or Mania subscales appeared exceedingly low. In accordance with established practice, these scores were also counted as indicative of high psychopathology. The resulting rankings were used to create "high-" and "low-psychopathology" groups with 21 subjects in each.

Distribution of legal information. In the distribution of the second set of materials, subjects were randomly assigned to one of two groups. Twenty-three subjects received limited written information about the right to privacy in psychotherapy (uninformed group), and 19 received extensive information about this topic (informed group). Note that even the uninformed group received more information about confidentiality law than usual so that no patients were placed at risk. Random administrative error caused unequal group sizes.

Dependent Measure

The 50-item questionnaire concerning patients' willingness to admit to "sensitive" thoughts and behaviors contained 5 questions on substance abuse (e.g., alcohol), 6 questions on harm to self or others (e.g., suicidal ideation), 10 questions on socially controversial sexual practices (e.g., homosexuality), 9 questions on abusive child care (e.g., neglect), 7 questions on romantic dissatisfaction (e.g., arguments), and 9 questions on criminal behavior (e.g., robbery). As a balance to the response biases that other questions encouraged, there were also 4 questions on the use of socially acceptable substances such as pain killers and coffee.

In each item, subjects were presented with a particular thought or behavior and were asked to indicate how frequently it occurred in the

past year, ranging from *never* (1) to *all the time* (7). For example, one of the questions read as follows: "In the past year, how often have you smoked marijuana?" Each of the six content areas just described were scored separately and treated as subscales. An arithmetic mean score was calculated for each subject on each subscale.

Ethical Issues

Most studies on confidentiality law are based on opinion surveys or on simulations of real therapy. This is one of the few studies in which real patients and real clinical tasks and materials were used. However, in attempting to achieve external validity, we were forced to implement certain procedures that raised thorny ethical issues.

For example, we decided that patients would not be made aware of the fact that they were research participants. In conformance with federal regulations (DHHS Protection of Human Subjects, 1983) and professional standards (American Psychological Association [APA], 1981, Principles 9d and 9e), this procedure was justified on the following grounds: (a) that such knowledge by patients would significantly influence their behavior and thereby destroy the validity of the results; (b) that the risk of participation was minimal; (c) the alternative research designs were weak; and (d) that the value of the study was great enough to warrant it. Furthermore, we reasoned that telling patients about the study after their participation could possibly undermine their trust in their agency's staff, which in turn could hurt their ability to benefit from treatment. As a counterbalance to this experimental procedure, all aspects of the study were woven into the clinical procedure so that they would have some value to the patients. For example, patients who were given more information on confidentiality law than is customary in clinical practice were actually placed at less risk than is usual.

Another potentially troublesome procedure made necessary by the research design was that patients were asked to complete some materials (e.g., MMPI-168) before being informed about confidentiality law. Nevertheless, patients were protected by the fact that none of the questions asked of them before they received a summary of confidentiality law placed them at risk.

Results

Control Variable Comparisons

The uninformed and informed groups averaged more than 85% correct answers on their respective legal comprehension questionnaires. Thus we concluded that at a minimum the groups understood the legal information presented to them.

Educational levels, gender, and age were checked as possible confounding variables. The only significant finding was that the informed group was younger than the uninformed group, $t(40) = 2.04, p < .05$. Because Pearson product-moment correlations also revealed that age was related to reports of substance abuse, $r(41) = -.36, p < .05$, it became necessary to use a 2×2 analysis of covariance (ANCOVA) for the substance abuse subscale. Analyses of variance (ANOVA) were used to analyze the remaining five subscales, and *t* tests were used to assess differences between means. A modified Bonferroni test (Keppel, 1982) set the alpha level for all comparisons at $p = .05$.

¹ Used with permission from copyright holder, the University of Minnesota Press.

Impact of Independent Variables

Patients who were more informed about the limits to confidentiality admitted to having fewer socially unacceptable sexual thoughts and behaviors ($M = 1.72$, $SD = 0.62$) than did the uninformed patients ($M = 2.21$, $SD = 0.53$); $F(1, 34) = 6.81$, $p < .05$. Similarly, the more informed parents also did not confess to as many child punishment and neglect behaviors ($M = 1.58$, $SD = 0.51$) as did the uninformed parents ($M = 2.42$, $SD = 0.26$); $F(1, 9) = 8.27$, $p < .05$.

An interaction effect was found for disclosures of thoughts about harm to self or others, $F(1, 38) = 5.77$, $p < .05$. Using one-tailed t tests, we showed that subjects who were both less informed about privacy rights and exhibited high psychopathology revealed that they had such thoughts more frequently ($M = 2.10$, $SD = 0.8$) than did the more informed/high-psychopathology subjects ($M = 1.35$, $SD = 0.50$), $t(19) = 2.64$, $p < .05$; the more informed/low-psychopathology subjects ($M = 1.47$, $SD = 0.37$), $t(20) = 2.46$, $p < .05$; or the less informed/low-psychopathology subjects ($M = 1.33$, $SD = 0.56$), $t(21) = 2.69$, $p < .05$.

An interaction effect was also found for disclosures about substance abuse, $F(1, 37) = 4.51$, $p < .05$. Note, however, that revelations about drug and alcohol abuse are legally protected from disclosure. Thus, as expected, one-tailed t tests revealed that the informed/high-psychopathology group admitted to a greater frequency of substance abuse behaviors ($M = 3.04$, $SD = 0.90$) than did the informed/low-psychopathology group ($M = 2.41$, $SD = 0.63$), $t(19) = 2.04$, $p < .05$; the uninformed/high-psychopathology group ($M = 2.20$, $SD = 0.81$), $t(21) = 2.83$, $p < .05$; or the uninformed/low-psychopathology group ($M = 2.50$, $SD = 0.43$), $t(20) = 1.79$, $p < .05$.

Discussion

The results support the hypothesis that current limitations on confidentiality in psychotherapy matter only to some patients and in some circumstances. Specifically, the findings support the conclusion that the extent to which patients are informed about the law and the extent to which the law is consequential for them are two of the factors that determine whether limitations to privacy will affect patients' self-disclosures.

The most important implication of this study is that the legal and empirical debate on the limits to confidentiality needs to get beyond the issue of whether current law has a generally negative effect on psychotherapy. Complex human behaviors seldom can be reduced to "Yes" or "No" questions; the answers to such questions are usually "Yes" and "No." Instead, policymakers and researchers need to begin determining precisely when and how limits to confidentiality affect therapy or prevent harm. This study suggests two factors that should be researched in more depth, and it underscores the need for other factors to be uncovered as well. Only through such a shift in the focus of the debate can a more enlightened public policy be developed.

This study also has some limited implications for the efficacy of current laws. When considered jointly, the findings suggest that laws that limit the privacy of particular types of "confes-

sions" may discourage certain patients from being candid in the first place. As a result, such laws may fail to achieve their intended aim of protecting society, and they may hinder treatment. The findings also support the validity of professional ethical standards and laws that require patients to be informed of their privacy rights before initiating treatment.

However, in acknowledging these implications for the validity of current laws, several cautions about the study's limitations must be emphasized. For example, it is premature to use the data in this study in support of an argument to abolish current laws. This study did not provide a cost/benefit analysis of current policy compared against other policies. Thus we do not know how much harm is prevented by current laws, and we do not know whether another policy would be more effective.

Furthermore, this study did not exhaustively demonstrate all of the specific conditions under which privacy affects psychotherapy. Similarly, it was not designed to measure the precise real-world strength of this effect. Indeed, although differences between certain mean scores were statistically significant, they were small. Also, the subject pool used was neither large or heterogeneous enough to adequately represent a cross-section of mental health patients.

Actually, when one considers the subjects who were used, it is logical to predict that stronger effects might have been shown with certain other samples; that is, the types of subjects who participated in this study—namely suburban voluntary outpatients in noncrisis conditions—were among the least likely to have something to hide. Nevertheless, this still needs to be proved empirically.

Finally, it should be noted that the dependent measures were of disclosures on questionnaires during intake. We can only infer that similar effects would become apparent during live intake interviews or during actual treatment. On the other hand, questionnaires and tests given at intake help intake workers and therapists to understand patients, validly diagnose their problems, and make effective treatment decisions. Thus even if the findings can be applied only to the written portion of the intake process, they remain important.

References

- American Psychological Association (1981). Ethical principles of psychologists. *American Psychologist*, 36, 633-638.
- Beigler, J. S. (1984). *Tarasoff v. confidentiality. Behavioral Sciences and the Law*, 2, 273-287.
- DeKraai, M. B., & Sales, B. D. (1984). Confidential communications of psychotherapists. *Psychotherapy*, 21, 293-318.
- DHHS Protection of Human Subjects, 45 C. F. R. 46.116(c & d) (1983).
- Kendrick, S., & Hatzenbuehler, L. C. (1982). The effect of oral administration by a live examiner on the MMPI: A split-half design. *Journal of Clinical Psychology*, 38, 788-792.
- Keppel, G. (1982). *Design and analysis: A researcher's handbook* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Kobocow, B., McGuire, J. M., & Blau, B. I. (1983). The influence on confidentiality conditions on self-disclosure of early adolescents. *Professional Psychology: Research and Practice*, 14, 435-443.
- McGuire, J. M., Toal, P., & Blau, B. (1985). The adult client's conception of confidentiality in the therapeutic relationship. *Professional Psychology: Research and Practice*, 16, 375-384.

- Merluzzi, T. V., & Brischetto, C. S. (1983). Breach of confidentiality and perceived trustworthiness of counselors. *Journal of Counseling Psychology, 30*, 245-251.
- Muehleman, T., Pickens, B., & Robinson, F. (1985). Informing about limits to confidentiality, risks and client rights: Does it inhibit self-disclosure? *Professional Psychology: Research and Practice, 16*, 385-397.
- Pope, K. S., Tabachnick, B. G., & Keith-Spiegel, P. (1987). Ethics of practice: The beliefs and behaviors of psychologists as therapists. *American Psychologist, 42*, 993-1006.
- Richards, J. S., Fine, P. R., Wilson, T. L., & Rogers, J. T. (1983). A voice operated method for administering the MMPI. *Journal of Personality Assessment, 47*, 167-170.
- Russell, G. K., Peace, K. A., & Mellaop, G. W. (1986). The reliability of a micro-computer administration of the MMPI. *Journal of Clinical Psychology, 42*, 120-122.
- Shuman, D. W., & Weiner, M. F. (1982). The privilege study: An empirical examination of the psychotherapist-patient privilege. *North Carolina Law Review, 60*, 893-904.
- VandeCreek, L., Miars, R. D., & Herzog, C. E. (1987). Client anticipations and preferences for confidentiality of records. *Journal of Counseling Psychology, 34*, 62-67.

Received September 29, 1988

Revision received July 31, 1989

Accepted September 1, 1989 ■

Call for Nominations for *Psychological Bulletin*

The Publications and Communications Board has opened nominations for a new editor of *Psychological Bulletin*. John C. Masters is the immediate past editor. Candidates must be members of APA and should be prepared to begin receiving manuscripts by September 1990. Please note that the P&C Board encourages participation by members of underrepresented groups in the publications process and would particularly welcome such nominees. To nominate candidates, prepare a statement of one page or less in support of each candidate. Submit nominations to:

Walter Mischel, PhD
Psychological Bulletin Editor Search Committee
American Psychological Association
1200 Seventeenth Street, N.W.
Suite VA-710
Washington, D.C. 20036

First review of nominations will begin March 1, 1990, although the nomination deadline is March 31, 1990.



General Assembly

Distr.
GENERAL

A/HRC/12/23
13 July 2009

ENGLISH
Original: FRENCH

HUMAN RIGHTS COUNCIL
Twelfth session
Agenda item 3

**PROMOTION AND PROTECTION OF ALL HUMAN RIGHTS, CIVIL,
POLITICAL, ECONOMIC, SOCIAL AND CULTURAL RIGHTS,
INCLUDING THE RIGHT TO DEVELOPMENT**

**Report of the Special Rapporteur on the sale of children, child
prostitution and child pornography, Najat M'jid Maalla***

* Late submission.

1. Identification of child victims still difficult

74. Identifying and establishing the whereabouts of a child who has participated in pornographic scenes are difficult tasks for the authorities. Even once the victim is identified, it can be very difficult to help them deal with the trauma caused by participation in the acts in question, because the victim realizes that those images have been saved, disseminated or distributed in one form or another. In order to identify and track down child victims of online sexual exploitation many countries have established units specializing in combating child pornography, which cooperate with The International Criminal Police Organization (INTERPOL), Europol, the FBI, etc.
75. However, identifying victims is a key step but remains difficult and very dependent on the information available from ISPs and, therefore, on their cooperation. Given that most ISPs are not obliged to keep records of the sites their clients have visited, they may be unable to provide any information because the site has been taken off the system.
76. Rapid acquisition of information about sexual predators (name and IP address) has been facilitated in some countries (South Africa, the United Kingdom and the United States) by the adoption of a law requiring ISPs to provide information to the police without the need for a court order.
77. Identification of child victims of sexual abuse through image analysis is essential because many victims do not lodge a complaint with the police. Image analysis, which has led to the rescue of hundreds of children around the world, is a highly specialized and rigorous process that requires a great deal of time, enormous expertise and leading-edge computer technology. It is an expensive investment that the developing countries cannot afford.
78. In order to coordinate efforts aimed at identifying children through image analysis and help manage large quantities of evidence, law enforcement agencies around the world are preparing databases of known images of sexually exploited children. INTERPOL has created such a database.
79. The INTERPOL/Child Abuse Image Database (ICAID) contains more than 550,000 images submitted by member countries. It uses image recognition software to link images from a single series of abuses or taken at the same location and has helped investigators identify and rescue 870 victims around the world. The sharing of images enables police authorities to deliver more rapid assistance to victims at the national and international levels. Such databases also contain information on victims already identified and rescued, which saves other police services the task of pointless investigations.
80. In the United States the authorities send all images to the National Center for Missing & Exploited Children (NCMEC, established in 2003). The NCMEC Child Victim Identification Program is a national information centre for child pornography cases in the country and is the main focal point for international bodies. Its analysts try to identify victims and individuals involved in the sale, exchange and distribution of images. To date, NCMEC has processed more

than 15 million photos and videos and helped identify more than 1,600 children. For example, a series of images depicting one girl led to the opening of more than 13,000 investigations in the United States alone.

81. In the United Kingdom the Child Exploitation and Online Protection (CEOP) Centre has likewise created an image bank which has helped rescue 18 children. National information and coordination centres, such as Australia's and Canada's National Child Exploitation Coordination Centre (NCECC), serve as clearing houses for information relating to sexual exploitation of children on the Internet and respond to international requests to undertake investigations within the country. Italy has established a similar mechanism, the Monitoring Centre to Combat Paedophilia and Child Pornography.

82. Image banks alone are not enough. Specialized analysis is also required; expertise and know-how in the area of identification of victims of sexual abuse are essential and crucial factors in effectively tackling this problem. In most countries police officers are regularly trained in the skills needed for identifying and interviewing child victims. This training is provided by groups experienced in the areas of cybercrime and assistance to child victims. Mechanisms that can contribute multidisciplinary skills, including expertise in victim identification techniques, support the work of the police: NCMEC in the United States, NCECC in Canada, the CEOP Centre in the United Kingdom and the National Child Exploitation Centre (NCECC) in Australia.

83. While the total number of identified victims is not known, statistics on sexual predators arrested and/or convicted are more readily available. For example, in the United States, 3,884 individuals were convicted in 2007-2008; as of 31 March 2009, 12,085 sexual predators had been arrested, 6,237 of them deported from the United States. In Japan there were 676 arrests in 2008; in 2005 police in Australia made 191 arrests; in Italy 182 individuals were convicted in 2005.

2. Inadequate protection of child victims

84. Child pornography victims, once identified, receive more or less comprehensive care, depending on the country. Integrated programmes providing support and follow-up services to child victims of sexual abuse and exploitation on the Internet (and to their families), as provided for in the Guidelines on Justice in Matters involving Child Victims and Witnesses of Crimes, are still relatively rare. It has become apparent that the professionals often work in isolation and do not always communicate effectively with one another or with the children and their families, resulting in uncoordinated support that does not offer protection appropriate to the child's age, level of maturity or individual needs in order to ensure that involvement in the criminal justice process inflicts no additional hardship or trauma.

85. In order to provide appropriate assistance and protection based on the needs of the child, some States have launched a number of initiatives: in the United States, 900 Children's Advocacy Centers (CACs), 600 of them accredited by the National Children's Alliance (NCA), have child- and family-friendly centres where child victims receive comprehensive and multidisciplinary care until they are completely stabilized or recovered; in Ontario (Canada),

FEDERAL CHILD PORNOGRAPHY OFFENSES



Patti B. Saris
Chair

William B. Carr, Jr.
Vice Chair

Ketanji B. Jackson
Vice Chair

Ricardo H. Hinojosa
Commissioner

Beryl A. Howell
Commissioner

Dabney L. Friedrich
Commissioner

Jonathan J. Wroblewski
Commissioner, Ex-officio

Isaac Fulwood, Jr.
Commissioner, Ex-officio

Chapter 3

TECHNOLOGY AND INVESTIGATION BY LAW ENFORCEMENT IN CHILD PORNOGRAPHY CASES

This chapter explores the manner in which offenders possess and distribute child pornography and the technology that they utilize in the commission of their offenses. It also addresses law enforcement efforts to combat child pornography.

Federal child pornography prosecutions have increased dramatically over the past 18 years. In 1994 and 1995 combined, only 90 federal child pornography offenders were sentenced for possession offenses and receipt, trafficking, or distribution (“R/T/D”) offenses.¹ By fiscal year 2011, the number of federal child pornography possession and R/T/D offenders had increased to 1,649.² Some of the growth can be attributed to increased resources dedicated to identifying and prosecuting child pornography offenders, but much of the growth is attributable to technological changes that have decreased the cost of production of child pornography and duplication of images and increased the accessibility of child pornography.³

Technology also appears to have affected the types of child pornography images that are in circulation and the extent and severity of revictimization that victims suffer through widespread ongoing distribution.⁴ At one time it was theoretically possible for a child pornography image to be completely eradicated if all the hard copies were destroyed. In the Internet Age, that has become impossible for images in circulation, as they may spread to thousands of computers shortly after their initial distribution, and “[o]nce a picture has been copied and distributed over the Internet, its further distribution is wholly out of control”⁵

A. CHILD PORNOGRAPHY OFFENDERS’ USE OF TECHNOLOGY TO COMMIT THE OFFENSE

Offenders can now produce, distribute, and access child pornography more easily than in the past. The vast majority of child pornography offenders today use the Internet or Internet-

¹ U.S. SENT’G COMM’N, SEX OFFENSES AGAINST CHILDREN: FINDINGS AND RECOMMENDATIONS REGARDING FEDERAL PENALTIES (June 1996) (“1996 Report to Congress”) at 29 (citing USSG §§2G2.2 (Trafficking in Material Involving the Sexual Exploitation of a Minor; Receiving, Transporting, Shipping, Soliciting, or Advertising Material Involving the Sexual Exploitation of a Minor; Possessing Material Involving the Sexual Exploitation of a Minor with Intent to Traffic; Possessing Material Involving the Sexual Exploitation of a Minor) & 2G2.4 (Possession of Materials Depicting a Minor Engaged in Sexually Explicit Conduct)).

² U.S. SENT’G COMM’N, SOURCEBOOK OF FEDERAL SENTENCING STATISTICS 39 (2011) (Table 17).

³ See PHILIP JENKINS, BEYOND TOLERANCE: CHILD PORNOGRAPHY ON THE INTERNET 15 (2001) (arguing that criminal statistics alone cannot “tell us much about the scale or the geography of electronic trafficking” because they “measure official behavior and nothing more”); U.S. DEP’T OF JUSTICE, NAT’L STRATEGY FOR CHILD EXPLOITATION PREVENTION AND INTERDICTION 11–12 (2010) (“NATIONAL STRATEGY”).

⁴ See Chapter 5 at 112–14 (discussing ongoing victimization).

⁵ MAX TAYLOR & ETHEL QUAYLE, CHILD PORNOGRAPHY: AN INTERNET CRIME 9 (2003).

related technologies to access and distribute child pornography.⁶ Until the late 1970s and early 1980s, child pornography was difficult to find, risky to produce, expensive to duplicate, and required a secure and private storage area. Advances in photography, computing, and communications technologies have reduced the barriers to child pornography offending.⁷

With respect to production of new child pornography, the “[e]ase of photographic developing, the ready availability of video cameras, and now digital imaging all have had an impact on the nature and availability of child pornography.”⁸ Indeed, digital technology now allows the average offender to manipulate photos in a variety of ways.⁹

Child pornography offenders can also view thousands of photos and videos from the privacy of their own homes.¹⁰ Many in the law enforcement and research communities believe that the Internet’s anonymity nurtures an environment for child pornography offending to

⁶ The U.S. Department of Justice reports that between 2005 and 2009, U.S. Attorneys prosecuted 8,352 child pornography cases, most of which involved the offenders’ use of “digital technologies and the Internet to produce, view, store, advertise, or distribute child pornography.” NATIONAL STRATEGY, *supra* note 3, at 11.

⁷ *Id.* (“[I]t is evident that technological advances have contributed significantly to the overall increase in the child pornography threat.”); Jonathan Clough, *Now You See It, Now You Don’t: Digital Images and the Meaning of “Possession,”* 19 CRIMINAL LAW FORUM 205, 206–07 (2008) (digital technology is “relatively cheap, easy to access and use, and portable.”). See also TAYLOR & QUAYLE, *supra* note 5, at 9 (“Whilst the open commercial sale of child pornography is now no longer tolerated in any Western country, paradoxically the availability of child pornography is easier and in more plentiful supply than ever before. This is because of the Internet.”); U.S. GENERAL ACCOUNTING OFFICE, FILE-SHARING PROGRAMS: PEER-TO-PEER NETWORKS PROVIDE READY ACCESS TO CHILD PORNOGRAPHY 2 (2003) (“2003 GAO Report”) (“Child pornography is easily accessed and downloaded from peer-to-peer networks.”); JENKINS, *supra* note 3, at 3 (“Just how easy it is to find these materials needs to be emphasized. . . . A month or so of free Web surfing could easily accumulate a child porn library of several thousand images.”); IAN O’DONNELL & CLAIRE MILNER, CHILD PORNOGRAPHY: CRIME, COMPUTERS AND SOCIETY 36 (2007) (“The Internet brings with it accessibility, affordability and anonymity.”); ROBERTA LYNN SINCLAIR & DANIEL SUGAR, INTERNET BASED SEXUAL EXPLOITATION OF CHILDREN AND YOUTH ENVIRONMENTAL SCAN 18 (2005) (same).

⁸ TAYLOR & QUAYLE, *supra* note 5, at 43.

⁹ Gray Mateo, *The New Face of Child Pornography: Digital Imaging Technology and the Law*, 2008 U. ILL. J.L. TECH. & POL’Y 175, 178 (2008); cf. NATIONAL STRATEGY, *supra* note 3, at 11–12 (“Prior to the mid-1990s, Internet access and the availability of digital home recording devices . . . were very limited, thereby confining the production and distribution of child pornography material to relatively few individuals.”). The explosion of cheap child pornography can be at least partly attributed to the existence of basic production tools in nearly every Internet-connected household:

Until recently, the child pornography producer, like any amateur photographer, required a darkroom, chemicals, film, paper, camera equipment, skill, time and privacy. . . . Contrast that with the situation today. For a modest investment, a home PC package contains a computer, scanner, photocopier and printer, often a Webcam and always an internal modem. Software packages for editing photographs and videos come as standard. Add the Internet and access to a child, and the average desktop computer becomes a pornography studio.

O’DONNELL & MILNER, *supra* note 7, at 36.

¹⁰ TAYLOR & QUAYLE, *supra* note 5, at 9 (“The Internet enables the speedy, efficient and above all anonymous distribution of child pornography on a global scale.”).

thrive.¹¹ The “perceived anonymity, the ease of developing social contacts and the capacity to create virtual social groups, [and] its essentially international character and the speed with which digital files can be transmitted creates an environment that challenges conventional notions of social organization and control.”¹² Illegal images no longer have to be developed, printed, and shipped; instead, they are digitally recorded and made available for unlimited distribution at virtually no cost.¹³

Before discussing the specific technologies the offenders use, the next section will provide a brief overview of many of the underlying technologies related to the commission of child pornography offenses.

1. *Technology Primer*

The growth of child pornography offending has been facilitated by combined advantages of digital technology and networked computing.¹⁴ Desktop and laptop personal computers, along with many other computerized devices such as smartphones, have several essential features relevant to the discussion of child pornography offending.

a. Internet Connectivity

Digital child pornography is easily shared through Internet-enabled devices.¹⁵ Computer networks have existed (and have been exploited by child pornography offenders) for nearly three

¹¹ See NATIONAL STRATEGY, *supra* note 3, at 3 (“The anonymity afforded by the Internet makes the offenders more difficult to locate, and makes them bolder in their actions.”); see also O’DONNELL & MILNER, *supra* note 7, at 45 (“The Internet . . . allows adults with a sexual interest in children instant access to others who share their proclivity, even if they are thousands of miles apart[,] . . . provides a level of inscrutability that is unattainable in the real world[, and] . . . encourages a culture of impunity.”).

¹² Max Taylor & Ethel Quayle, *The Internet and Abuse Images of Children: Search, Precriminal Situations and Opportunity*, 19 CRIME PREVENTION STUDIES 169, 170 (2006); see also *id.* at 169 (“The easy availability of abuse images at low or no cost has both exposed and made possible a degree of sexual interest in children expressed through pornography production and possession that seems to be surprising in its extent.”).

¹³ JENKINS, *supra* note 3, at 4 (“Prices in the child porn world have not just fallen, they have all but been eliminated.”). Unlike traditional photography, digital photography and videography permits costless creation of unlimited identical copies. TAYLOR & QUAYLE, *supra* note 5, at 9 (“The information passed over the Internet that constitutes a picture is a perfect copy of an original, which can be reproduced endlessly without loss of definition or any other qualities.”).

¹⁴ See, e.g., YAMAN AKDENIZ, INTERNET CHILD PORNOGRAPHY & THE LAW: NATIONAL AND INTERNATIONAL RESPONSES 8 (2008) (citing “[e]ase of access, the partial anonymity provided by the Internet, developments in digital photography, issues surrounding the difficulty of policing international networks, and the limited risk of detection”) (footnotes omitted); Clough, *supra* note 7, at 206–07 (concluding digital technology “allows for storage of large amounts of material which would be conspicuous if stored in hard copy[,] . . . may be produced cheaply and with no need for external processing[,] . . . may be copied with no diminution in quality and distributed easily, in large volumes, with minimal cost and relative anonymity.”).

¹⁵ See MONIQUE FERRARO & EOGHAN CASEY, INVESTIGATING CHILD EXPLOITATION AND PORNOGRAPHY: THE INTERNET, LAW & FORENSIC SCIENCE 9–10 (2004) (describing the adoption of Internet technologies by child pornography offenders to share and collect images).

decades.¹⁶ An early iteration of networked computing called a bulletin board system (BBS) enabled users to connect to a host computer using a computer modem and ordinary telephone line.¹⁷ Once connected, the user could post messages, interact with other BBS users, or download stories and images for viewing on the user's own computer. Some BBSs were public and free; others were private and charged a fee. They also allowed access to Internet newsgroups, and, eventually, to the World Wide Web ("web"). BBS and Internet newsgroups are still used by some technologically savvy child pornography offenders.¹⁸

The web (which most people think of when they refer to the "Internet") has in less than 20 years become common in American homes.¹⁹ Today, the early online service providers like America Online that originally served as "web portals" have largely transformed into, or been supplanted by, a host of Internet Service Providers ("ISPs"). ISPs provide direct customer access to the Internet via dial-up telephone, digital subscriber line ("DSL"), broadband, or similar means.²⁰ ISPs include cable and telephone service providers such as Verizon, Comcast, DirectTV, TimeWarner, and AT&T. An individual home or business user connects to the ISP, which then provides the user with access to the Internet.²¹ ISPs have the ability to monitor users' access to some kinds of web content, such as specific websites, where allowable by law.²²

Once connected to the Internet, individuals often use electronic communication service providers to email, instant messaging, and store online content. Such providers include, among many others, Blogger, Yahoo!, Google, and Snapfish. As part of the Providing Resources,

¹⁶ See 2003 GAO Report, *supra* note 7, at 6 ("[P]ornographers have traditionally exploited—and sometimes pioneered—emerging communication technologies—from the dial-in bulletin board systems of the 1970s to the World Wide Web—to access, trade, and distribute pornography, including child pornography."); see ATTORNEY GENERAL'S COMMISSION ON PORNOGRAPHY: FINAL REPORT 629–630 (1986) (describing child pornography BBS, newsgroups, and stating that "personal computers have instant communication capabilities and have afforded subscribers the opportunity to establish extensive networks."); JENKINS, *supra* note 3, at 41 ("Perhaps ten years before the Internet became known to the general public, computer databases and bulletin boards were becoming the favored tools of child pornographers, a strikingly precocious use of computer technologies."); see AKDENIZ, *supra* note 14, at 5 ("Paedophilia networks have been using computer networks [to disseminate digital child pornography] from as early as 1986."); O'DONNELL & MILNER, *supra* note 7, at 29 ("[T]here is evidence that paedophiles have been using computers to communicate since 1982 in the USA and 1985 in the UK.") (internal citations omitted).

¹⁷ See NAT'L INST. JUSTICE, INVESTIGATIONS INVOLVING THE INTERNET AND COMPUTER NETWORKS, SPECIAL REPORT, NCJ 210798 61 (2007) ("Investigations Involving the Internet") (available at <https://www.ncjrs.gov/pdffiles1/nij/210798.pdf>).

¹⁸ See, e.g., Prepared Presentation of James Fottrell, Child Exploitation and Obscenity Section, Criminal Division Department of Justice, to the Commission (Feb. 15, 2012) (on behalf of the U.S. Department of Justice) ("Fottrell Presentation") (depicting different types of distribution technologies in a three-part triangle of socialization).

¹⁹ U.S. Census, *Computer and Internet Use*, <http://www.census.gov/hhes/computer/> (last visited Nov. 29, 2012) (number of Internet-connected households has climbed from 18% in 1997 to over 70% by 2010).

²⁰ See FERRARO AND CASEY, *supra* note 15, at 86–88.

²¹ *Id.*

²² For example, one UK ISP claimed it "blocked more than 20,000 attempts per day to access child pornography on the Internet" in July 2004. Ethel Quayle & Matthieu Latapy, *Current Situation Regarding Our Knowledge of Paedophile Activity in P2P Networks*, MAPAP — SAFER INTERNET PLUS 1 (2008), http://antipaedo.lip6.fr/Current_situation.pdf (last visited Nov. 29, 2012).

Officers, and Technology to Eradicate Cyber Threats to Our Children Act of 2008,²³ any ISPs offering online storage of content are mandated to report child pornography that they find on their system to the CyberTipline of the National Center for Missing & Exploited Children (“NCMEC”).²⁴

b. Digital Storage

Digital storage capacity has grown so that much larger volumes of data can be stored on smaller and more easily transportable devices. Many offenders possess child pornography collections numbering in the hundreds of thousands or even millions of images and videos.²⁵ When child pornography trading moved online, the traditional physical limitations on the collection and distribution of images and videos were alleviated.²⁶ Every computer or computerized device includes some type of integrated, permanent storage such as an internal hard drive that digitally stores the operating system, programs, and files.²⁷ The computer may also come equipped or be compatible with one or more forms of removable storage, such as flash drives, zip drives, CD/DVD drives, secure digital cards, and external hard drives.²⁸

Storage capacity is measured in units called “bytes” and multiples of bytes: kilobyte (1,000 bytes, known as a kB), megabyte (1,000,000 bytes, or MB), gigabyte (1,000,000,000 bytes, or GB), terabyte (1,000,000,000,000 bytes, or TB), and beyond. Advances in storage technology have driven the price of storage capacity down so that individuals routinely have access to digital storage libraries in the terabytes.²⁹ Huge volumes of information can now be

²³ Pub. L. No. 110–401, § 501(a); 122 Stat. 4229 (2008) (codified at 18 U.S.C. § 2258A).

²⁴ U.S. GENERAL ACCOUNTING OFFICE, COMBATING CHILD PORNOGRAPHY: STEPS ARE NEEDED TO ENSURE THAT TIPS TO LAW ENFORCEMENT ARE USEFUL & FORENSIC EXAMINATIONS EFFECTIVE 3 (2011) (“2011 GAO Report”) (citing 18 U.S.C. § 2258A). NCMEC is a private, 501(c)(3) nonprofit organization created in 1984. The mission of the organization “is to help prevent child abduction and sexual exploitation; help find missing children; and assist victims of child abduction and sexual exploitation, their families, and the professionals who serve them.” NCMEC, *National Mandate & Mission*,

http://www.missingkids.com/missingkids/servlet/PageServlet?LanguageCountry=en_US&PageId=1866 (last visited Nov. 29, 2012). NCMEC provides information and resources to law enforcement, parents, and children including child victims as well as other professionals. NCMEC’s exploited children division has several programs that work with law enforcement to track child pornography images and identify and rescue child pornography victims where abuse is ongoing. For more information on NCMEC, see <http://www.missingkids.com>. As mentioned herein, NCMEC operates the CyberTipline and is authorized to receive reports of child pornography.

²⁵ See e.g., Sentencing Memorandum, United States v. Burr, No. 09-cr-308, (D. Or. July 23, 2010), ECF No. 26 at 3–4 (more than one million images); Sentencing Memorandum, United States v. Worman, 07-cr-40 (E.D. Pa. July 30, 2009), ECF No. 208 at 1 (1.2 million images).

²⁶ See NATIONAL STRATEGY, *supra* note 3, at 12 (“Increased home computer storage capacity has enabled many child pornography offenders to store huge collections of images (some containing 1 million) and numerous video files (often 1 hour in length)” and citing example of a Philadelphia defendant in 2007 found with more than 15,000 videos).

²⁷ FERRARO & CASEY, *supra* note 15, at 81–83.

²⁸ See NATIONAL STRATEGY, *supra* note 3, at 76 (listing the types of media commonly seized during investigations).

²⁹ See *id.* at 130.

stored easily on small devices — thus one computer hard drive can contain what might otherwise have constituted vast archives of print photographs, magazines, or film negatives.³⁰

Computers and computerized devices are able to display digital child pornography and, once downloaded, users may easily store and manipulate the images. Images can be displayed using free, pre-installed software such as Windows Picture Viewer, Windows Media Player, and Windows Movie Maker. The same programs can also perform basic image manipulation (like enhancing, rotating, or cropping images and trimming videos), while more advanced editing can be accomplished with widely available programs such as Picasa, ACDSsee, and Adobe Photoshop.

“Cloud computing” is remote digital storage accessed through Internet connectivity. Files are stored “in the cloud” on remote servers maintained by third-party service providers and accessed by users through the Internet. The “cloud” refers to the ability of individuals or customers to access software, files, and storage, without downloading such files or software to their personal computers or data storage systems.³¹ Many cloud services will keep a cache of recently accessed documents. Individuals store pictures, videos, and files in the cloud when they use media hosting web sites such as Flickr, Tumblr, or social networking sites to maintain digital photo libraries.³² Cloud computing has been called “a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”³³ While cloud computing has been adopted for legitimate consumer and business purposes,³⁴ it is also relied upon by some child pornography offenders to store digital collections of child pornography remotely.³⁵ Remote storage “in the cloud” presents unique forensic challenges for law enforcement.

³⁰ See FERRARO AND CASEY, *supra* note 15, at 4 (“Computer storage capacity has increased to the point at which a small personal computer hard drive can hold as much information as the United States Library of Congress.”); Clough, *supra* note 7, at 206–07; TAYLOR & QUAYLE, *supra* note 5, at 160 (“Unlike hard copies of photographs, images stored electronically . . . take up very little physical space . . . [and] can even be stored electronically at a location both anonymous and distant from the location of the collector’s PC”).

³¹ Vivek Kundra, *Federal Cloud Computing Strategy*, THE WHITE HOUSE, at 4–5 (Feb. 8, 2011), <https://cio.gov/wp-content/uploads/downloads/2012/09/Federal-Cloud-Computing-Strategy.pdf> (last visited Nov. 29, 2012).

³² For more information on these services, see <http://www.flickr.com/>, <https://www.tumblr.com/>, and <http://photobucket.com/>.

³³ Wayne Jansen & Timothy Gance, *Guidelines on Security & Privacy in Public Cloud Computing (Special Publication 800-144)*, NAT’L INST. OF STANDARDS AND TECHNOLOGY, at vi (Dec. 2011) (available at http://www.nist.gov/customcf/get_pdf.cfm?pub_id=909494).

³⁴ See, e.g., Vivek Kundra, *supra* note 31; Steve Lohr, *The Business Market Plays Cloud Computing Catch-Up*, N.Y. TIMES (Apr. 14, 2011) (available at <http://www.nytimes.com/2011/04/15/business/15cloud.html?pagewanted=all>).

³⁵ Audrey Rogers, *From Peer-to-Peer Networks to Cloud Computing: How Technology is Redefining Child Pornography Laws* 22 (Feb 16, 2012) (available at <http://ssrn.com/abstract=2006664>).

c. Hash Values

The content of any digital file (including child pornography) can be summarized as a unique identifier through a process called “hashing.”³⁶ The term “hash value” refers to the use of mathematical hash functions that return a value in the form of a relatively short, single number of about 38 hexadecimal (or base 16 numeral system) digits. These resulting hash values are easily managed by computers and investigators alike for verifying that two copies of a file are, in fact, the same, even if the filename or certain other attributes (such as the date it was last accessed) are changed.³⁷ This process is akin to the way a bookseller can compare a bar code on two different copies of a book to ensure that they are both the same version even if they have different covers.

NCMEC and law enforcement keep a record of the hash values of known child pornography images. These hash values of known child pornography images may be used to search and identify files on an offender’s computer, or other digital storage devices, as child pornography without having to view the images themselves.³⁸ Hash values can easily be changed to avoid this forensic hashing function by slightly manipulating the digital images, but many child pornography offenders do not change the hash value of child pornography images,³⁹ in part because the hash value is important to programs that facilitate searches for, and distribution of, child pornography.

2. *Internet Technologies Used to Access Child Pornography*

Some child pornography offenders have been at the forefront of technological advancement in the Internet Age. Although child pornography today “is available through virtually every Internet technology,”⁴⁰ the rapidly evolving nature of the Internet renders impossible any definitive attempt to describe the technology used in current child pornography offenses. It is important to note that technologies associated with Internet child pornography continue to develop quickly. Any attempt to describe the current state of technology in child pornography offending may be dated in only a short period of time.⁴¹

³⁶ See FERRARO AND CASEY, *supra* note 15, at 197.

³⁷ *Id.*

³⁸ See Jaap Haitisma, Ton Kalker & Job Oostveen, *Robust Audio Hashing for Content Identification*, CONTENT-BASED MULTIMEDIA INDEXING 1 (2001); FERRARO & CASEY, *supra* note 15, at 197 (describing an algorithm used to conduct a hashing function). All digital files can have hash values.

³⁹ Robert J. Walls et al., *Effective Digital Forensics Is Investigator-Centric*, PROC. USENIX WORKSHOP ON HOT TOPICS IN SECURITY (HotSec), at 4 (Aug. 2011).

⁴⁰ 2003 GAO Report, *supra* note 7, at 6–8 (discussing commercial or trading websites, e-mail, Usegroups/newsgroups, FTP, IRC/Chat, Gigatribe, and live streaming); see NATIONAL STRATEGY, *supra* note 3, at 11–12.

⁴¹ For example, more child pornography offenders are using their smartphones to access and trade images such that “the tools of the trade are now pocket-sized and the search for child pornography can be carried out anywhere, any time.” O’DONNELL & MILNER, *supra* note 7, at 63. Almost half of all Americans own a smartphone that features Internet connectivity. Aaron Smith, *46% of American Adults are Smartphone Owners*, PEW INTERNET PROJECT, at 2

a. Peer-to-Peer File Sharing

Peer-to-peer file sharing, commonly called “P2P,” refers to a software program or application that enables computers to share files easily over the Internet. Computers connected through use of the same P2P software are deemed part of the same P2P network. Dozens of P2P networks exist and the software is widely available on the Internet via a simple search or at mainstream downloading websites.⁴² P2P networks “allow. . . people across the world to connect directly to each other’s machines without having to use a third-party.”⁴³ In other words, rather than posting an image on a website for others to download, P2P file sharing lets two or more users swap files directly with one another. P2P networks came to prominence in the late 1990s with the software Napster, which at its peak allowed 80 million users to swap music files with one another. Napster which maintained centralized servers with lists of connected users and files to facilitate transfers, was enjoined in 2001 from engaging in conduct that would contributorily or vicariously infringe copyrights held by the plaintiff record companies.⁴⁴ Other P2P networks faced similar legal challenges and are now by legal decree defunct or have transformed themselves into legitimate business enterprises.⁴⁵

Unlike Napster, today’s P2P networks operate without the use of centralized servers to connect users, maintain lists of shared files, or monitor for copyrighted or illegal content. Therefore, no single entity is responsible for the content being shared at any given time.⁴⁶ P2P networks share all types of digital content, including software, text, movies, and pictures.⁴⁷ The

Mar. 1, 2012) (available at <http://pewinternet.org/~media/Files/Reports/2012/Smartphone%20ownership%202012.pdf>). That is an 11% increase from May 2011 when 35% of Americans reported that they owned a smartphone. That number is even higher for those ages 18–29, of whom 66% own a smartphone. *Id.* Smartphones enable a child pornography user to capture new images, download existing images, and trade images as described below, all from his phone. Additional research suggests that at least among some populations, smartphones are being more frequently used for distribution of newly produced child pornography images. Janis Wolak, David Finkelhor, & Kimberly J. Mitchell, *Trends in Arrests for Child Pornography Production: The Third Nat’l Juv. Online Victimization Study (NJOV-3)*, <http://www.unh.edu/ccrc/internet-crimes/papers.html>, at 3 (2012) (last visited Nov. 30, 2012).

⁴² O’DONNELL & MILNER, *supra* note 7, at 39–40.

⁴³ *Id.*

⁴⁴ *See* A&M Records, Inc. v. Napster, Inc., 284 F.3d 1091, 1099 (9th Cir. 2001) (affirming district court’s preliminary injunction and shutdown order).

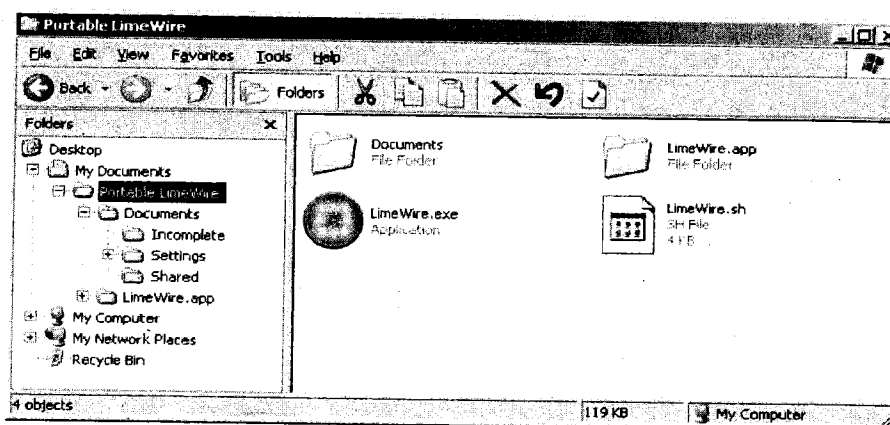
⁴⁵ LimeWire, one of the most popular P2P programs used by child pornography offenders in recent years, was ordered shut down in October 2010 pursuant to a stipulated consent order. *See* Arista Records LLC v. LimeWire LLC, No. 06-Civ-05936 (KMW) (S.D.N.Y. Oct. 27, 2010). And several other popular P2P clients like iMesh, BearShare, and KaZaA, have been transformed into legal subscription music sharing services. *See, e.g.*, <http://www.bearshare.com/> (last visited Oct. 12, 2012); <http://www.imesh.com/> (last visited Oct. 12, 2012) (offering “access to over 15 million songs and videos — All legal and free!”); <http://www.kazaa.com/> (last visited Oct. 12, 2012) (permitting “download of 15 million songs and videos all legal and free!”). Nevertheless, versions of the LimeWire software remain in use and many individuals continue to share files on LimeWire-enabled networks.

⁴⁶ *See* Sgt. Josh Moulin, National District Attorneys Association, *What Every Prosecutor Should Know About Peer-to-Peer Investigations*, UPDATE: CHILD SEXUAL EXPLOITATION PROGRAM 1 (2010).

absence of a central authority and easy accessibility to images have attracted child pornography offenders to P2P networks.

P2P file sharing typically works as follows: initially, the user downloads a software program onto his own computer or Internet-enabled device that permits the individual to share and download files from the P2P network. Upon installation, the software typically creates two folders on the user's computer by default: an "incomplete" folder, which contains pending downloads, and a "shared" folder, which contains fully downloaded files. This is seen below in Figures 3-1 and 3-2, which are screenshots of LimeWire. As indicated by its name, any files downloaded to, or other files placed in, the shared folder are immediately made available for sharing with all other users on the P2P network.⁴⁸

Figure 3-1⁴⁹
Federal Defender Technology Presentation: Screenshot of LimeWire



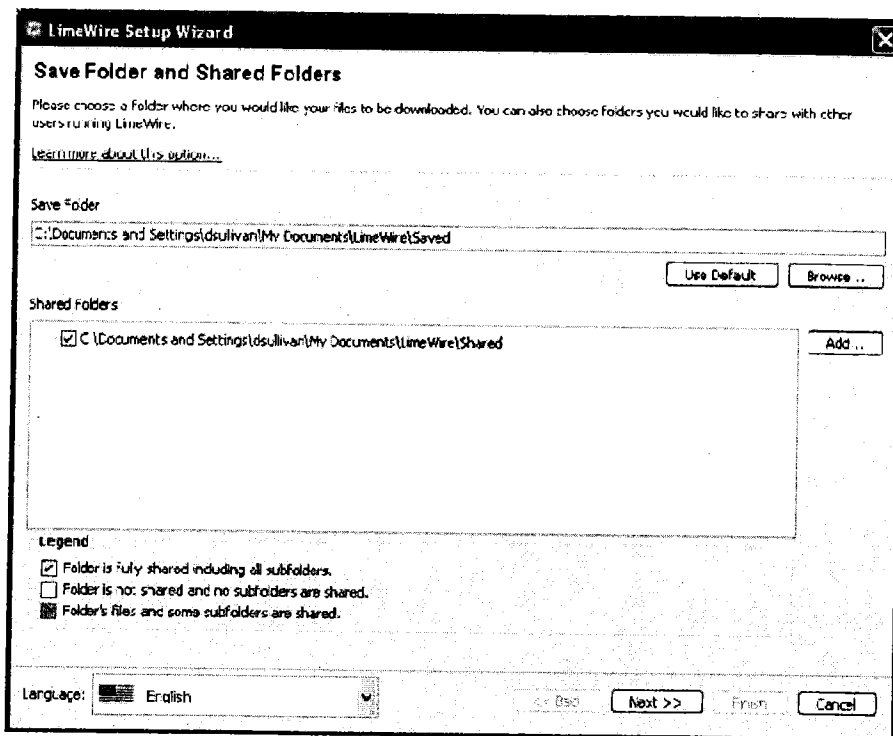
⁴⁷ See Terrence Berg, *The Changing Face of Cybercrime: New Internet Threats Create Challenges to Law Enforcement*, MICHIGAN BAR JOURNAL 18-19 (June 2007) ("The P2P networks . . . are tailor-made for sharing digital media of any kind; by downloading the P2P client software, each user's designated collection of digital files becomes accessible by every other user, in a privately created network.").

⁴⁸ Moulin, *supra* note 46, at 2.

⁴⁹ Prepared Presentation of Gerald R. Grant, Digital Forensics Investigator, Office of the Federal Public Defender, Western District of New York, to the Commission (Feb. 15, 2012) ("Grant Presentation").

Figure 3-2⁵⁰

Federal Defender Technology Presentation: Screenshot of LimeWire Shared Folders



In addition to files manually placed in the shared folder, a user is usually asked upon installation to indicate whether he would like to share any files already present on the computer. If the answer is yes (*i.e.*, the user “opts in”), the software automatically scans the user’s computer or any designated shared part thereof (often using a hashing function to identify and label files) and then compiles a list of files to share. Open file sharing is typically a default setting; however both downloading locations and sharing options may be changed by users to limit which, if any, files are available for sharing (*i.e.*, users may “opt out” of file-sharing).⁵¹ After downloading and setting up P2P software, the user can begin searching for files shared on the connected network using search keywords associated with child pornography, in the same way one regularly uses a search engine such as Google.⁵² In short, a user who downloads a P2P network application typically has an ability to control the extent to which that user’s files are shared.

⁵⁰ *Id.*

⁵¹ See Darren Gelber, *Cybercrimes: File-Sharing Programs Violating Copyright and Child Pornography Distribution Laws*, 255 N.J. LAWYER 66, 68 (Dec. 2008).

⁵² See Giannina Marin, *Possession Of Child Pornography: Should You Be Convicted When The Computer Cache Does The Saving For You?*, 60 FLA. L. REV. 1205, 1210–11 (2008) (“Common child pornography-related Internet

P2P networks are common. In 2011, it was estimated that 57 percent of global Internet traffic was P2P traffic.⁵³ The very existence and purpose of P2P networks is to share digital content, and there is an active academic and community-level discourse criticizing P2P users who download but do not share.⁵⁴ Some P2P networks encourage sharing by offering faster download for sharers or even mandate sharing in some circumstances.⁵⁵

Well known P2P networks include FrostWire, LimeWire, KaZaA, eDonkey, and isoHunt. Of P2P networks, LimeWire in particular was utilized in the recent past by a large percentage of federal child pornography offenders to access and distribute child pornography⁵⁶ but other research suggests that isoHunt and other networks are now more commonly used.⁵⁷ Although data on the number of users in each network is unavailable, many experts agree that P2P file sharing is widely used to download child pornography.⁵⁸ Two major enforcement investigations have revealed substantial illegal P2P trading activity in recent years.⁵⁹ Using special software, these two initiatives identified over 20 million unique IP addresses offering child pornography

search terms include 'illegal, preteen, underage, lolita, kiddy, child, and incest.' These terms specifically refer to child pornography and differ from terms associated with adult pornography.") (internal footnotes and quotations omitted and formatting modified).

⁵³ See Jeremy Prichard, Paul A. Watters, & Caroline Spiranovic, *Internet Subcultures & Pathways to the Use of Child Pornography*, 27 COMP. L. & SEC. REV. 585, 589 (2011).

⁵⁴ See Eytan Adar & Bernardo A. Huberman, *Free Riding on Gnutella*, 5 FIRST MONDAY (2000), <http://www.firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/issue/view/124> (last visited Nov. 30, 2012) (noting that individuals who download but do not share "free ride on the efforts of others" which "leads to degradation of the system performance and adds vulnerability to the system").

⁵⁵ See Bram Cohen, *Incentives Build Robustness in BitTorrent*, May 22, 2003 Workshop on Economics of Peer-to-Peer Systems (2003), <http://www2.sims.berkeley.edu/research/conferences/p2pecon/papers/s4-cohen.pdf> (last visited Nov. 30, 2012).

⁵⁶ See Chapter 6, at 154–55 (providing data from the Commission's 2010 coding project regarding use of P2P). Federal lawsuits brought by the recording industry have enjoined LimeWire from distributing software. See *Arista Records, LLC v. Lime Wire, LLC*, No. 06 Civ. 05936 (S.D.N.Y. Oct. 27, 2010). LimeWire settled these lawsuits in 2011 and 2012. See Ben Sisario, *Digital Notes: Indies Settle With LimeWire, and Kim Dotcom Speaks Up*, Media Decoder Blog, N.Y. TIMES (Mar. 1, 2012) (available at <http://mediadecoder.blogs.nytimes.com/2012/03/01/digital-notes-indies-settle-with-limewire-and-kim-dotcom-speaks-up/>); Ben Sisario, *Major Record Labels Settle Suit With LimeWire*, Media Decoder Blog, N.Y. TIMES (May 12, 2011) (available at <http://mediadecoder.blogs.nytimes.com/2011/05/12/major-record-labels-settle-suit-with-limewire/>). Nevertheless, "pirated" LimeWire software continues to exist and may be downloaded for free from many websites.

⁵⁷ Prichard et al., *supra* note 53, at 589.

⁵⁸ Ryan Hurley et al., *Measurement & Analysis of Child Pornography Trafficking on Gnutella & eMule*, TECH. REP. UM-CS-2012-016 13 (May 2012) (available at <https://web.cs.umass.edu/publication/docs/2012/UM-CS-2012-016.pdf>) ("CP trafficking over p2p networks is widespread"); Berg, *supra* note 47, at 19; Quayle & Latapy, *supra* note 22, at 2 ("Many studies show that a large amount of paedophile and harmful contents are distributed using P2P file exchange systems, and that volume of such exchanges is increasing.").

⁵⁹ Operation Fairplay was created in 2006 and supported by both the Wyoming Division of Criminal Investigations and the Palm Beach County (FL) State's Attorney's Office; Operation Roundup was developed in 2009 by the University of Massachusetts under a grant from the National Institute of Justice. See NATIONAL STRATEGY, *supra* note 3, at 12.

over P2P networks from 2006 to August 2010.⁶⁰ The typical offender may make dozens or hundreds of images available.⁶¹

Other research has largely confirmed the law enforcement findings. A 2011 study found that three terms associated with child pornography (“lolita,” “PTHC,”⁶² and “teen”) were among the top searched terms on the isoHunt P2P network over a six month period in 2010.⁶³ A study from 2009 found that approximately one percent of queries on the Gnutella network were child-pornography-related, and that the most commonly searched-for term on the network, accounting for 0.2 percent of all searches, was “PTHC”.⁶⁴ A 2006 study found that every day there were approximately 116,000 requests on the Gnutella P2P network for the term “child pornography.”⁶⁵

Traditional open P2P file sharing, as described above, permits “impersonal” sharing of files. Once an individual downloads the software and chooses to permit the network to share his files, he usually exercises no control over to whom the files are shared or how many times they are shared. He is, in effect, leaving a virtual door open on his computer and permitting individuals to copy any files they wish any time the software is running.⁶⁶ Impersonal distribution involves “offenders operating alone without direct contact with other[s]”⁶⁷ and not requiring specific directed action to share child pornography beyond installing the software, choosing to permit sharing of the user’s files, and running the P2P network.⁶⁸

⁶⁰ NATIONAL STRATEGY, *supra* note 3, at 12 (noting Operation Fairplay has 170,000 files on its “watch list” while Operation Roundup has 120,000).

⁶¹ *See id.* at 13.

⁶² PTHC stands for “pre-teen hardcore,” a term associated with child pornography.

⁶³ Prichard et al., *supra* note 53, at 593.

⁶⁴ *See* Chad M.S. Steel, *Child Pornography in Peer-to-Peer Networks*, 33 CHILD ABUSE & NEGLECT 560, 560–61 (2009) (noting that 1.45% of search results on the network, or 2,770 uniquely named files, constituted child pornography; 7% of all sharing hosts, or 464 computers, shared child pornography; and 3% of all searching hosts, or 564 computers, sought child pornography). While these may seem like a small numbers, bear in mind that an individual could type *any* term into Gnutella based P2P networks searching for any song, software, celebrity image, movie, or television program.

⁶⁵ O’DONNELL & MILNER, *supra* note 7, at 40.

⁶⁶ The United States Court of Appeals for the Tenth Circuit has analogized such an “open” P2P network to a self-serve gas station, stating that a defendant who used an open P2P program:

may not have actively pushed pornography on [P2P] users, but he freely allowed them access to his computerized stash of images and videos and openly invited them to take, or download, those items. It is something akin to the owner of a self-serve gas station Just because the operation is self-serve, or in [the defendant’s] parlance, passive, we do not doubt for a moment that the gas station owner is in the business of “distributing,” “delivering,” “transferring” or “dispensing” gasoline; the *raison d’être* of owning a gas station is to do just that.

United States v. Shaffer, 472 F.3d 1219, 1223–24 (10th Cir. 2007).

⁶⁷ Testimony of James Fottrell, Child Exploitation and Obscenity Section, Criminal Division, Department of Justice, to the Commission, at 25 (Feb. 15, 2012) (on behalf of the U.S. Dep’t of Justice) (“Fottrell Testimony”).

⁶⁸ Testimony of Gerald R. Grant, Digital Forensics Investigator, Office of the Federal Public Defender Western District of New York, to the Commission, at 39–40 (Feb. 15, 2012) (“Grant Testimony”); Testimony of

P2P networks have continued to evolve and newer P2P networks incorporate more sophisticated features, some of which are described below such as “chat” and “social networks.” These networks, such as Gigatribe or OneSwarm, can operate as “closed” P2Ps when compared to “open” P2P networks such as the early iterations of LimeWire.⁶⁹ Gigatribe and others allow individuals to create their own private networks to which the individual can invite or remove “friends” as well as decide which specific files to share and with whom.⁷⁰ As these networks are closed communities of individuals they are sometimes called “friend to friend” or “F2F” as opposed to P2P.⁷¹ Invited users may browse, search for, and download files in their network and chat with other users, all while relying on encryption and relative anonymity to protect themselves from identification.⁷² Gigatribe is rapidly growing in popularity and advertises itself as “private, secure, unlimited file sharing software.”⁷³ Gigatribe and its progeny require more personal involvement of the offender who selects which files to distribute and to whom. “Personal” distribution involves some type of directed action — either direct communication (e.g., “closed” P2P technologies Gigatribe, emailing or instant messaging) or sharing images in a specific Internet forum specifically devoted to child pornography (e.g., a child pornography “chat-room”).

b. Other Internet Technologies

Another Internet technology used by child pornography offenders are chat rooms, particularly those utilizing “internet relay chat” or IRC. Chat rooms are real-time chatting environments organized into channels — virtual “rooms” — based on specific interests.⁷⁴ Some channels may offer services other than text-chatting, such as live video.⁷⁵ Chat environments today are largely non-commercial. IRC is one popular example of a non-commercial chat room service that allows users to join one of hundreds of thousands of different group-chat channels.

Brian Levine, Ph.D. Professor of Computer Science, University of Massachusetts, Amherst, to the Commission, at 51 (Feb. 15, 2012).

⁶⁹ United States v. Sawyer, 786 F. Supp. 2d 1352, 1355–56 (N.D. Ohio 2011) (noting that Gigatribe is “a ‘closed’ peer-to-peer file sharing program . . . that is slightly different from . . . ‘open’ programs” such as LimeWire); United States v. Ladeau, No. 09-40021-FDS, 2010 WL 1427523, at *1 (D. Mass. Apr. 7, 2010) (describing the private nature of Gigatribe).

⁷⁰ See United States v. Sawyer, 786 F. Supp. 2d 1352, 1354 (N.D. Ohio 2011); United States v. Ladeau, No. 09-40021-FDS, 2010 WL 1427523, at *1 (D. Mass. Apr. 7, 2010) (describing Gigatribe in context of denial of motion to suppress evidence seized based on search after investigator downloaded files from defendant’s Gigatribe account).

⁷¹ See, e.g., *About OneSwarm*, <http://www.oneswarm.org/about.html> (last visited Nov. 30, 2012) (describing the benefits of a F2F system).

⁷² See *Ladeau*, 2010 WL 1427523, at *1.

⁷³ See Gigatribe homepage, <http://www.gigatribe.com/en/home> (last visited Nov. 30, 2012).

⁷⁴ O’DONNELL & MILNER, *supra* note 7, at 38; TAYLOR & QUAYLE, *supra* note 5, at 122–23 (describing chat rooms).

⁷⁵ JENKINS, *supra* note 3, at 78 (describing the live stream activities of a pedophile group).

IRC channels are sometimes self-policed by moderators who control membership and monitor channel activity.⁷⁶ Channels may be open to anyone or private.

Newsgroups are another sharing modality.⁷⁷ Newsgroups allow non-real-time discussion groups that are “basically discussion forums” allowing people to post messages and read and respond to messages others have posted.⁷⁸ In addition to text messages, pictures and other files can be posted directly on newsgroups or shared via e-mail to other trusted newsgroup posters.⁷⁹ The largest and most prominent newsgroup system is Usenet, which carries thousands of groups.⁸⁰ A critical feature of Usenet is that it is not owned or run by any central authority; instead, “[a]lmost anyone can read the contents of a Usenet newsgroup, create new newsgroups or contribute to an existing one” and a new group joins Usenet “simply by finding any existing site that is willing to pass along a copy of the collection of messages it receives.”⁸¹ Web-based bulletin boards, often called Internet forums, serve a function similar to Usenet newsgroups but exist on web servers rather than on a Usenet.⁸²

Note that newsgroups or bulletin boards dealing with child pornography may serve functions other than the simple sharing of illicit images and videos. For example, many may not themselves host child pornography but instead periodically post information about accessing private trading groups or provide links to anonymous caches of child pornography shared temporarily on free hosting websites.⁸³

The social-networking websites Facebook, BlackPlanet, and FetLife, among others, are websites that combine many of the features of the aforementioned technologies by allowing users an opportunity to meet, chat in real-time or on bulletin boards, and sometimes share files.⁸⁴

⁷⁶ TAYLOR & QUAYLE, *supra* note 5, at 122–23.

⁷⁷ Newsgroups at one time were probably the largest source of child pornography on the Internet and may still be, although new evidence suggests that online offenders have increasingly turned to chat and P2P. AKDENIZ, *supra* note 14, at 6 (“In terms of its availability and modes of distribution on the Internet, the problem of child pornography appears to be one that exists mainly within newsgroups”); Taylor & Quayle, *The Internet and Abuse Images of Children*, *supra* note 12, at 188 (“The Usenet newsgroup network is one of the major sources of abuse images of children on the Internet.”).

⁷⁸ O’DONNELL & MILNER, *supra* note 7, at 37–38 (“Participants . . . contribute to discussions by posting messages to the group and returning later to see what, if any, response to their observations have been elicited.”); see FERRARO & CASEY, *supra* note 15, at 31–33.

⁷⁹ O’DONNELL & MILNER, *supra* note 7, at 37–38; Taylor & Quayle, *The Internet and Abuse Images of Children*, *supra* note 12, at 188 (“Individuals post material to these newsgroups in the form of digital files, which are essentially like email attachments, and subscribers to that newsgroup can download these files.”).

⁸⁰ TAYLOR & QUAYLE, *supra* note 5, at 122.

⁸¹ *Id.* (noting that “[t]his in turn makes the Usenet a different social space from that which is possible in the offline world.”).

⁸² JENKINS, *supra* note 3, at 64.

⁸³ See *id.* at 67–69 (describing how “bulletin boards permit porn sites to exist and be used on a purely transient and anonymous basis.”); see also *United States v. McGarity*, 669 F.3d 1218, 1230 (11th Cir. 2012) (discussing the method by which a closed child pornography trading group posted images for its members).

⁸⁴ See <http://www.facebook.com/>; <http://www.blackplanet.com/>; <http://www.fetlife.com/>.

Private social networks like ning.com and bigtent.com share most of the same features of their larger public counterparts but allow users to participate in private and by invitation-only to interact with one another and share files securely.⁸⁵ Child pornography offenders may utilize the infrastructure of such existing social networks to develop a community in which to distribute images.

Child pornography is also available via commercial Internet websites.⁸⁶ Although commercial child pornography websites exist, it is difficult to judge the number and proportion of commercial sites because of their transitory nature as well as the limited law enforcement resources dedicated to policing them.⁸⁷ Most of the commercial sites appear to be associated with either the United States or Russia.⁸⁸ In addition, there are websites which purport to offer “child model” images. These sites usually do not directly host illegal child pornography and instead typically feature sexualized images of children that straddle the standards for legality.⁸⁹ Nevertheless, as discussed in Chapter 4, some child pornography offenders, particularly pedophilic offenders, collect these sexualized child modeling images.⁹⁰

⁸⁵ See Ning, <http://www.ning.com>; BigTent, <http://www.bigtent.com>.

⁸⁶ O'DONNELL & MILNER, *supra* note 7, at 36. Jenkins discusses the transitory manner that child pornography can be anonymously posted and then information about where one goes to get the images or the codes to unlock the images can be distributed within the online community. See JENKINS, *supra* note 3, at 67–69. An Internet user not associated with the online community would have little ability to find or stumble upon the child pornography because he would not know the URL; see also *United States v. McGarity*, 669 F.3d 1218, 1230 (11th Cir. 2012) (discussing the complicated security measures taken by a sophisticated child pornography group to ensure that no one outside the group would be able to access and view the child pornography postings).

⁸⁷ AKDENIZ, *supra* note 14, at 6 (noting that “the true nature [of child pornography] over the World Wide Web can only be speculated upon”). For example, the U.S. Immigration and Customs Enforcement estimates the number of *commercial* sites active at any given time at about 250, although many are short-lived and are available for less than 100 days. See NATIONAL STRATEGY, *supra* note 3, at 25–26. The UK-based Internet Watch Foundation reported that it received around 40,000 complaints to its Hotline in 2009, which led them to almost 9,000 child pornography URLs across 1,316 different domains. See INTERNET WATCH FOUNDATION, 2009 ANNUAL AND CHARITY REPORT 15, 17 (2009), <http://www.iwf.org.uk/assets/media/annual-reports/IWF%202009%20Annual%20and%20Charity%20Report.pdf> (last visited Nov. 30, 2012) (“This sort of detailed analysis is helpful in judging the scale of the problem, that is, 38,173 total reports processed; 8,844 confirmed child sexual abuse URLs; 461 identifiable brands being run as businesses to profit from the sexual abuse of children.”).

⁸⁸ Quayle & Latapy, *supra* note 22, at 2 (citing Internet Watch Foundation statistics from 2007 showing 82.5% of websites linked to U.S. or Russia, up from 67.9% in 2005); see also International Watch Foundation, OPERATIONAL TRENDS 2011, <http://www.iwf.org.uk/resources/trends> (last visited Nov. 30, 2012).

⁸⁹ A large-scale prosecution for sexualized child modeling websites occurred in Alabama. Three co-conspirators and a corporation were convicted. One offender possessed child pornography on his computer in addition to his involvement with the child modeling site, another offender pleaded to money laundering, and the third was both a photographer of sexualized child images and hosted a child modeling website. See Sentencing Memorandum, *United States v. Pierson*, 05-cr-00429, ECF No. 22, at 1–2 (N.D. Ala. Feb. 7, 2011); see also Declan McCullagh, *Federal Case May Redefine Child Porn*, CNET, (Nov. 30, 2006), available at http://news.cnet.com/Federal-case-may-redefine-child-porn/2100-1030_3-6139524.html (last visited Nov. 30, 2012) (discussing the unusual nature of the prosecution).

⁹⁰ See Chapter 4 at 83–84.

Child pornography offenders also may trade images directly with one another through email, instant messenger services, webcasting, and videostreaming.⁹¹ Webcasting and videostreaming are ways to watch content such as television programming without downloading the files directly.⁹² Content may be webcast “live” or streamed as video after it occurs. Popular ways to stream legal video content include Hulu and Amazon Instant Video, both of which permit individuals to watch television shows and movies on Internet-enabled devices.⁹³ Webcasting has been associated with some adult pornography websites for years but research indicates that child pornography is now being streamed live as well, which allows users to witness and sometimes direct specific sex acts while leaving less evidence because files are not saved on the viewer’s computer.⁹⁴ Webcasting enables child abusers to “provide a live broadcast of their abuses and have been known to take special orders as to what types of events offenders will pay to view.”⁹⁵

3. *Technology Child Pornography Offenders Use to Evade Detection and Prosecution*

Because of the illicit nature of the trade, child pornography offenders have learned to harness various technologies to evade law enforcement detection and to lessen the likelihood of successful prosecution if caught.⁹⁶ Most of the means of identity protection and safeguarding data as discussed below have legitimate uses; however, when used by child pornography offenders to avoid law enforcement investigation or prosecution, they present certain challenges.

a. *Obscuring Identity or Location*

An offender may attempt to prevent authorities from discovering his true identity by employing simple techniques like not downloading child pornography using a computer or account associated with his residence or workplace. In particular, he may make his identity untraceable by downloading from free or public wireless local area (Wi-Fi) networks at places like libraries, airports, and coffee shops, or by logging on to unsecured Wi-Fi networks in nearby private residences.⁹⁷ Because some commercial websites and Usenet providers require users to

⁹¹ See FERRARO & CASEY, *supra* note 15, at 23–24, 33–37.

⁹² Carol A. Lin, *Webcasting Adoption: Technology Fluidity, User Innovativeness, and Media Substitution*, 48 J. OF BROADCASTING & ELECTRONIC MEDIA 446, 446–47 (2004). Webcasting typically refers to a visual content that is being shown “live,” however, webcasts may also be recorded and streamed as video.

⁹³ See Hulu, *More About Hulu*, <http://www.hulu.com/about> (last visited Nov. 30, 2012); Amazon, *Setting up and Watching Amazon Instant Video on Your TV*, www.amazon.com/gp/video/ontv/faq/ (last visited Nov. 30, 2012).

⁹⁴ NATIONAL STRATEGY, *supra* note 3, at 23–24 (“Offenders also increasingly access streaming web cam video to view victims in real time without actually producing or storing images or videos that could later be discovered by law enforcement.”).

⁹⁵ SINCLAIR & SUGAR, *supra* note 7, at 20.

⁹⁶ O’DONNELL & MILNER, *supra* note 7, at 165 (“Even narrowly targeted surveillance is problematic on account of the easy availability of advanced encryption software and private communication channels. . . . A forensically aware offender will be difficult to catch and even a naïve one will take time to prosecute successfully.”).

⁹⁷ NATIONAL STRATEGY, *supra* note 3, at 23. A study of child pornography offenders arrested in 2006 found that 77% mainly used computers at home, 3% mainly used work computers, and 19% used computers in other places,

pay for access (and thus risk law enforcement detection), many use alternative or anonymous payment methods such as digital currencies to disguise their identities.⁹⁸ Many digital currencies such as Bitcoin were created with privacy in mind and are virtually untraceable.⁹⁹ Other users may buy access to child pornography using stolen credit cards.¹⁰⁰

Other offenders may access the Internet from home but attempt to mask their online identities. Every device connected to the Internet is assigned an "Internet Protocol" (IP) address that can theoretically be used by law enforcement to identify the computer and, by extension, the individual using the computer. Savvy offenders may use various techniques to disguise their IP addresses and avoid being identified.¹⁰¹ For example, a proxy server is a website that acts as an intermediary between a user's computer and another computer, allowing an offender to search for or access child pornography material and, in so doing, display the other computer's proxy server's IP address rather than the offender's.¹⁰² An investigator then has to go through an additional legal process to recover the true IP address from the proxy server, a task that is often impossible if the proxy server fails to keep accurate logging information, or, as is often the case, fails to keep identifying information at all.¹⁰³ Through a process of proxy relaying, web administrators can make their websites appear as though they are located in a foreign country, leading local investigators to focus on websites that appear to be hosted in their own jurisdictions.¹⁰⁴

including laptops. Janis Wolak, David Finkelhor & Kimberley Mitchell, *Child Pornography Possessor: Trends in Offender and Case Characteristics*, 23 *SEXUAL ABUSE* 22, 32 (2011).

⁹⁸ NATIONAL STRATEGY, *supra* note 3, at 24 ("To further shield their identities, offenders occasionally will deviate from the common use of traditional credit cards and rely on digital currencies and prepaid credit cards to conceal transactions."); JENKINS, *supra* note 3, at 56–57.

⁹⁹ For more information on Bitcoin see <http://www.weusecoins.com/questions.php>.

¹⁰⁰ Wade Luders, *Child Pornography Web Sites: Techniques Used to Evade Law Enforcement*, FBI LAW ENFORCEMENT BULLETIN 17, 18 (July 2007).

¹⁰¹ Brian Neil Levine & Clay Shields, *Hordes: A Multicast Based Protocol for Anonymity*, 10 *J. OF COMPUTER SECURITY* 3, 4 (2002).

¹⁰² See NATIONAL STRATEGY, *supra* note 3, at 23, n.39 ("A proxy server is a computer system or an application program that acts as a go-between for requests from clients seeking resources from other servers."); Eric R. Diez, Comment, *"One Click, You're Guilty": A Troubling Precedent for Internet Child Pornography and the Fourth Amendment*, 55 *CATH. U. L. REV.* 759, 786 (2006) ("[C]hild pornographers routinely use protective measures such as anonymous proxy servers to eliminate 'digital fingerprints' in cyberspace."); Luders, *supra* note 100, at 18 (explaining that proxy servers are free and easy to use, require no identifying information, are often located in other countries, and keep no logs or other identifying information at all.).

¹⁰³ See NATIONAL STRATEGY, *supra* note 3, at 23, n.40 ("[T]here is no federal statute or regulation requiring providers to keep user IP information for any length of time, or at all.").

¹⁰⁴ Luders, *supra* note 100, at 20 (noting that because so-called redirect servers "have the outward appearance of being located in another country . . . law enforcement agencies often elect to use their investigative resources to find sites obviously hosted within their own jurisdiction to avoid the additional legal hurdles of pursuing an international legal process").

Along similar lines, an anonymizer is a software application that enables individuals to access the Internet while hiding the individual's identifying information.¹⁰⁵ Offenders sharing images via email may render their messages untraceable using re-mailers (which anonymously forwards email to a recipient), disposable email addresses (which may be used temporarily and anonymously and then discarded), or secure, encrypted free email addresses from services like hushmail.com.¹⁰⁶ An offender may also disguise his IP address through use of an "onion router." An onion router is a counter-surveillance tool that relies on a chain of proxies that "direct that Internet activity along complex circuitous routes in a network designed to completely obscure its origins."¹⁰⁷

b. Safeguarding Child Pornography Collections

Beyond obscuring identity, many child pornographers make their child pornography collections more difficult to discover and analyze through various means. Some offenders rename their child pornography files so a casual observer will not recognize the illegal nature of the file. For example, an image or video file may be given an innocuous-sounding name, like "soccer.jpg." In addition, the file's extension — *i.e.*, the part of the filename generally comprised of a period followed by three letters (such as .jpg, .gif, or .tif for image files and .mov, .mpg, or .avi for video files) — may also be changed by the user in order to disguise the nature of the file. If the user changes "soccer.jpg" to "soccer.doc," the image is still accessible by an image-viewing program but appears from the file name to be a document. Other offenders use powerful password-protected encryption.¹⁰⁸ Encryption of data (in the form of images, videos, documents, etc.) can be used to secure the data so that it cannot be accessed without decryption software or a password. Some offenders have also been known to use steganography, which "make[s] it possible to hide an illegal image within an otherwise innocuous file."¹⁰⁹ Offenders may also use software to "partition" their computer or digital devices so that child pornography exists in a separate operating system and cannot be located during a cursory examination.¹¹⁰

¹⁰⁵ NATIONAL STRATEGY, *supra* note 3, at 23. Anonymizers have been criticized as "weak protection" as "users are placing all their trust in the Anonymizer's administrators." N. Boris Margolin, Matthew Wright & Brian Neil Levine, *Guardian: A Framework for Privacy Control in Untrusted Environments*, U. Mass Tech Report 04-37, at 2 (2004), available at <http://prisms.cs.umass.edu/brian/pubs/margolin.wright.guardian.pdf> (last visited Nov. 30, 2012).

¹⁰⁶ O'DONNELL & MILNER, *supra* note 7, at 161 ("A smart cybercriminal will never send a traceable message. It is easy to exchange messages using remailers that anonymise communications and then forward them to their destination."); SINCLAIR & SUGAR, *supra* note 7, at 20-21; *see also* Investigations Involving the Internet, *supra* note 17, at 51-52 (describing a complex scenario relaying on both P2P networks and proxy servers).

¹⁰⁷ NATIONAL STRATEGY, *supra* note 3, at 24, n.42.

¹⁰⁸ *See* HANDBOOK OF DIGITAL FORENSICS AND INVESTIGATION 39-40 (Eoghan Casey, ed., 2010) ("HANDBOOK") (describing common encryption techniques like PGP and BestCrypt); NATIONAL STRATEGY, *supra* note 3, at 23 ("Offenders also diminish the ability of law enforcement officials to investigate child pornography by storing images in encrypted files.").

¹⁰⁹ O'DONNELL & MILNER, *supra* note 3, at 161; *see also* HANDBOOK, *supra* note 108, at 40 (noting that examiners in child exploitation cases are advised to "be on the lookout for other forms of data concealment such as steganography," indicated by the presence of steganography software or unusually large files); SINCLAIR & SUGAR, *supra* note 7, at 23.

¹¹⁰ For example, TrueCrypt is free encryption software that can partition storage devices, *see* <http://www.truecrypt.org/> (last visited Oct. 12, 2012).

Offenders may also use software to “wipe” hard drives to prevent law enforcement from recovering previously deleted files.¹¹¹

Knowledge about these methods is actively disseminated among the offending community.¹¹² According to one researcher, “[t]he constant emphasis on safety and self-defense is evident from the abundance of technical information, which constitutes a majority of postings on the [newsgroup] boards.”¹¹³ Child pornography offenders share things like encryption and proxy techniques, how to disguise the online identities of viewers as well as the offline identities of producers,¹¹⁴ how to avoid tracking by law enforcement, and the importance of regularly cleaning their computers of evidence of illegal child pornography possession.¹¹⁵ Offenders also engage “in specific counter-surveillance activities” like researching and sharing news of law-enforcement investigations and techniques as well as the screen names of suspected undercover agents.¹¹⁶

4. *Emerging Technology*

There appears to be a shift by some child pornography offenders toward even more secretive and sophisticated technologies. As briefly recounted above, some child pornography offenders utilize powerful multi-proxy anonymizing routers such as Tor and Freenet.¹¹⁷ These anonymizers cloak an individual’s online identity such that it is significantly more difficult to

¹¹¹ See HANDBOOK, *supra* note 108, at 43; NATIONAL STRATEGY, *supra* note 3, at 23.

¹¹² Fottrell Testimony, *supra* note 67, at 24–25; *but see* Grant Testimony, *supra* note 68, at 44–47 (cautioning that encryption and other privacy features are also used for legal purposes such as to protect against identity theft); *see also* Thomas J. Holt, Kristie R. Blevins & Natasha Burkert, *Considering the Pedophile Subculture Online*, 22 SEXUAL ABUSE 3, 15–22 (2010) (discussing how online pedophilic communities share security knowledge).

¹¹³ JENKINS, *supra* note 3, at 110.

¹¹⁴ *United States v. McGarity*, 669 F.3d 1218, 1230 (11th Cir. 2012) (describing the security measures shared in a sophisticated child pornography trading group which included distribution to new members of a document entitled “Security and Encryption FAQ”); NATIONAL STRATEGY, *supra* note 3, at 25 (describing how “producers of child pornography are increasingly taking precautions to hide their identities and the identities of their victims in images and videos,” such as by removing location-tags or editing images and videos to “scrub” recognizable faces or identifiers).

¹¹⁵ JENKINS, *supra* note 3, at 110–11.

¹¹⁶ NATIONAL STRATEGY, *supra* note 3, at 24; *see also* JENKINS, *supra* note 3, at 151 (“Board participants are well aware of the various traps and investigations and regularly post news clippings and summaries of criminal cases as they arise, so other enthusiasts can learn about law enforcement techniques and be sure not to make the same mistakes themselves.”).

¹¹⁷ Tor explains that it is “free software and an open network that helps you defend against a form of network surveillance that threatens personal freedom and privacy, confidential business activities and relationships, and state security known as traffic analysis.” Tor, *What is Tor?*, <https://www.torproject.org/> (last visited Dec. 3, 2012). Freenet explains that it “is free software which lets you anonymously share files, browse and publish ‘freesites’ (web sites accessible only through Freenet) and chat on forums, without fear of censorship. Freenet is decentralised to make it less vulnerable to attack, and if used in ‘darknet’ mode, where users only connect to their friends, is very difficult to detect.” Freenet, *What is Freenet?*, <https://freenetproject.org/whatis.html> (last visited Oct. 12, 2012).

trace it back to the individual.¹¹⁸ Freenet acknowledges that some individuals exploit its anonymizing software to trade child pornography. While Freenet does not support child pornography or other illegal activity, it prioritizes freedom of speech and anonymity. Freenet discourages those who do not hold similar priorities from using Freenet by stating, “[i]f this is not acceptable to you, you should not run a Freenet node.”¹¹⁹

Individuals using these anonymizers are able to access an otherwise invisible Internet through the use of hidden services.¹²⁰ In effect, the anonymizers function as magic glasses to access the invisible Internet; once the individual dons the glasses, the hidden services become visible. This invisible Internet is referred to alternately as “Deep Web,” “Dark Net,” “Darknet,” and “Dark Web.”¹²¹ Here, for continuity, it will be referred to as Deep Web. Deep Web has been described as a “parallel” Internet that exists below the “surface” Internet.¹²² Deep Web is simply not accessible without use of cloaking anonymizers.¹²³

Within Deep Web, in addition to advertising other illegal material like weapons and drugs, individuals sometimes freely advertise child pornography.¹²⁴ Recent articles suggest that due to the high levels of protection afforded in Deep Web, law enforcement has minimal ability to identify child pornography offenders in Deep Web.¹²⁵

¹¹⁸ Some research has shown that even those offenders using powerful anonymizers may not always use such precautions and as such may be vulnerable to identification at times. See Ryan Hurley et al., *Measurement & Analysis of Child Pornography Trafficking on Gnutella & eMule*, TECH. REP. UM-CS-2012-016 (May 2012), (available at <https://web.cs.umass.edu/publication/docs/2012/UM-CS-2012-016.pdf>) (finding that “offenders use Tor inconsistently” with at least 60% of Tor users failing to use it at all times).

¹¹⁹ See Freenet, *Freenet Frequently Asked Questions*, <https://freenetproject.org/faq.html#childporn> (last visited Dec. 3, 2012).

¹²⁰ Zhen Ling et al., *Protocol-Level Hidden Server Discovery*, <http://www.cs.uml.edu/~xinwenfu/paper/HiddenServer.pdf> (last visited Dec. 3, 2012) (discussing Tor’s hidden services features) (last visited Oct. 12, 2012); see also Tor: Hidden Service Protocol, <https://www.torproject.org/docs/hidden-services.html.en> (last visited Dec. 3, 2012).

¹²¹ While the term Dark Net/Darknet was used by Microsoft programmers in 2002 to describe any non-commercial online sharing of internet content, see Peter Biddle et al., *The Darknet and the Future of Content Distribution*, <http://msl1.mit.edu/ESD10/docs/darknet5.pdf> (last visited Dec. 3, 2012), it has come to mean a sharing of digital content through onion routers or other sophisticated anonymizing technology. See BBC News, *File-Sharing ‘Darknet’ Unveiled* (Aug. 16, 2006), <http://news.bbc.co.uk/2/hi/technology/4798059.stm> (last visited Dec. 3, 2012).

¹²² See Eileen Ormsby, *The New Underbelly*, THE AGE (June 1, 2012) (available at <http://www.theage.com.au/technology/news/the-new-underbelly-20120531-1zktt.html>); see also http://en.wikipedia.org/wiki/Deep_web (last visited Dec. 3, 2012).

¹²³ See Adrian Goldberg, *The Dark Web: Guns and Drugs for Sale on the Internet’s Secret Black Market*, BBC NEWS, <http://www.bbc.co.uk/news/business-16801382> (Feb. 3, 2012) (last visited Dec. 3, 2012); Eileen Ormsby, *supra* note 122.

¹²⁴ See Goldberg, *supra* note 123; Ormsby, *supra* note 122.

¹²⁵ See Adrian Chen, *‘Dark Net’ Kiddie Porn Website Stymies FBI Investigation*, GAWKER, (June 11, 2012), <http://gawker.com/5916994/dark-net-kiddie-porn-website-stymies-fbi-investigation> (last visited Dec. 3, 2012); Christopher Williams, *The Hidden Wiki: an Internet Underworld of Child Abuse*, TELEGRAPH (Oct. 27, 2011),

5. *Offender Culpability and Technology*

Offenders vary tremendously with respect to their technological sophistication and use of technology. Some federal offenders appear to be less technologically sophisticated than other offenders. A study conducted of local law-enforcement agencies about child pornography offenders arrested in 2006 found that just one in five child pornography possessors used a technical method to hide images.¹²⁶ Some have explained the phenomena of limited use of protective technology by arrested offenders by positing that “more technologically sophisticated [child pornography] possessors managed to avoid detection” and that law enforcement might be “nabbing the newest, least sophisticated, or most impulsive CP possessors.”¹²⁷

Some offenders claim to be technologically unsophisticated in that they only accidentally viewed child pornography or that, while they maintained possession of child pornography, they were not deliberately collecting it.¹²⁸ Although some individuals may accidentally access child pornography, the Commission’s review of over 2,600 presentence reports from child pornography cases¹²⁹ indicates that the typical federal child pornography offender accessed child pornography on numerous occasions, across weeks, months or years, and deliberately collected hundreds or thousands of images. Intent to access child pornography is typically shown through a digital forensics examination of the offender’s computer and other digital storage devices.¹³⁰

Child pornography offenders claim that, even though they intentionally downloaded child pornography to their computers, they did not intentionally distribute child pornography on an “open” P2P network.¹³¹ They typically explain that due to limited technological ability they did not understand that by installing a P2P program, they would end up sharing some files. Some courts have specifically rejected offenders’ arguments that open P2P distribution should be distinguished from other types of distribution, noting that the offender “may not have actively pushed pornography on [P2P] users, but he freely allowed them access to his computerized stash of images and videos and openly invited them to take, or download, those items.”¹³² Other

<http://www.telegraph.co.uk/technology/internet/8851242/The-Hidden-Wiki-an-internet-underworld-of-child-abuse.html> (last visited Dec. 3, 2012).

¹²⁶ Wolak et al., *Child Pornography Possessor: Trends*, *supra* note 97, at 32.

¹²⁷ Janis Wolak, David Finkelhor & Kimberley Mitchell, *Child-Pornography Possessors: Arrested in Internet-Related Crimes: Findings from the National Juvenile Online Victimization Study*, NAT’L CENTER FOR MISSING & EXPLOITED CHILDREN 10, 28 (2005).

¹²⁸ See, e.g. Belinda Winder & Brendan Gough, “*I Never Touched Anybody — That’s my Defence*”: A Qualitative Analysis of Internet Sex Offender Accounts, 16 J. SEXUAL AGGRESSION 125, 135 (2010) (a small study reporting that many child pornography offenders claimed their first exposure to child pornography was accidental).

¹²⁹ See Chapter 6 at 121–22 (discussing review of child pornography cases from fiscal years 1999, 2000, 2010, and 2012).

¹³⁰ See *infra* Sec. 3.b. *Proving Intent with Digital Forensics*.

¹³¹ See Gelber, *supra* note 51, at 66, 68 (noting that because P2P programs put downloaded content automatically in a Shared folder, “by default it becomes available to other users of the P2P network, turning someone who thought he was *possessing* child pornography into someone who *distributes* child pornography—a much more serious offense.”).

¹³² United States v. Shaffer, 472 F.3d 1219, 1223 (10th Cir. 2007).

courts have focused on a fact-specific analysis of an individual's use of an open P2P network to determine whether the offender knowingly intended to share child pornography. In such cases, the court may reject an "automatic application of [the distribution enhancement under the guidelines] based solely on a defendant's use of a file-sharing program" but still find that "absent concrete *evidence* of ignorance . . . a fact-finder may reasonably infer that the defendant knowingly employed a file sharing program for its intended purpose."¹³³

A subset of sophisticated child pornography offenders uses a variety of software applications to form or participate in child pornography communities dedicated to trading child pornography. The technological sophistication of some of these offenders enables members of their communities to evade detection and to exploit new victims.¹³⁴

B. LAW ENFORCEMENT EFFORTS TO COMBAT CHILD PORNOGRAPHY

The rapid increase in the number of offenders and the sheer size of child pornography collections have challenged the ability of authorities to stem its rising tide.¹³⁵ Some in the law enforcement community view the "impact of these traders on law enforcement's ability to respond" as "catastrophic," as the scale of Internet trading "has caused the investigative and forensic infrastructure to be overwhelmed."¹³⁶ Various organizations are increasingly developing and utilizing technological tools such as "complex databases and software that scan for child-pornography images, increased ability to engage in undercover activity, and the ability to track electronic trails and evidence left by offenders as they communicate and surf online."¹³⁷ This section discusses some of these organizations, initiatives, and techniques.

¹³³ See *United States v. Durham*, 618 F.3d 921, 931 (8th Cir. 2010); see also *United States v. Dodd*, 598 F.3d 449, 452 (8th Cir. 2010).

¹³⁴ See Chapter 4 at 92–99 (discussing child pornography communities).

¹³⁵ For example, one Internet Crimes Against Children task force commander stated that the growth of child pornography "forces us into more of a reactive strategy, thereby we're responding to tips from the public, from the service providers, instead of being proactive and going out and combating this problem." Testimony of Captain Kirk Marlowe, Virginia State Police Bureau of Criminal Investigation, to the Commission, at 252–53 (Feb. 15, 2012) ("Marlowe Testimony").

¹³⁶ Statement of Flint Waters, Special Agent, Wyoming Attorney General Division of Criminal Investigation, *Child Sex Crimes on the Internet: Hearing Before the H. Comm. on the Judiciary*, 110th Cong. 2 (2007) ("Waters Statement") at 2; see JENKINS, *supra* note 3, at 154 ("Even if they arrest hundreds or thousands of child porn users each year, the staggering mathematics of Internet usage imply that the traffic will continue."). One example, Operation Roundup, reports that over 100 search warrants have been completed from leads generated since its 2008 inception. See NATIONAL STRATEGY, *supra* note 3, at 13–14. But over that same time period, Operation Roundup has identified well over one million unique IP addresses trading in child pornography. See *id.*; see also Diez, *supra* note 102, at 786 ("[I]n an ever-evolving technological world, government bureaucracy and legislatures tend to be reactive to, and thus, two steps behind, net-savvy child pornographers.").

¹³⁷ Wolak et al., *Child Pornography Possessor: Trends*, *supra* note 97, at 29 ("[W]hile evolving technology may raise additional challenges in law enforcement's investigation of these cases, technological developments also have given new tools and advantages to law enforcement.").

1. *Organizational Overview*

Many government agencies and several private organizations participate in the investigation and forensic analysis of child pornography. The following discussion highlights some of the most prominent examples.

The largest United States law enforcement organization dedicated to stopping the creation and spread of child pornography is the group of task forces under the umbrella moniker Internet Crimes Against Children (“ICAC”). Founded in 1998, the ICAC Task Force Program is a national network of 61 separate task forces associated or affiliated with 2,500 federal, state, local, and tribal agencies located in all 50 states.¹³⁸ Through the use of federal grants, ICAC task forces assist in investigations, prosecutions, and training sessions related to child pornography and other forms of child exploitation. ICAC task forces also perform the bulk of computer forensic examinations related to child pornography.¹³⁹ In 2010, ICAC investigated 32,000 cases of child pornography and made 5,300 arrests.¹⁴⁰

At the federal level, there are several agencies that investigate child pornography offenses and analyze evidence. The first is the Federal Bureau of Investigation (“FBI”), which administers several anti-child-pornography initiatives, conducts investigations, and analyzes forensic evidence. In 2010, the FBI investigated 6070 child pornography cases and made 1094 arrests.¹⁴¹ In addition, the Immigration and Customs Enforcement (“ICE”), within the Department of Homeland Security (“DHS”), operates several programs to help combat child pornography.¹⁴² Still other investigative and forensic work is performed elsewhere in the federal government, such as by U.S. Postal Service investigators and the Secret Service.¹⁴³ Federal child pornography cases are often prosecuted with assistance from the Child Exploitation and Obscenity Section of the Criminal Division (“CEOS”) of the Department of Justice (“DOJ”). CEOS attorneys lead investigations and advise and train line prosecutors in U.S. Attorneys Offices across the country, as well as assist them in the prosecution of child pornography offenders.¹⁴⁴

The National Center for Missing and Exploited Children (“NCMEC”) is a public-private partnership created in 1984 pursuant to the Missing Children’s Assistance Act of 1983¹⁴⁵ to help prevent child abduction and sexual exploitation and locate missing children, among other

¹³⁸ NATIONAL STRATEGY, *supra* note 3, at 58.

¹³⁹ *Id.* at 76.

¹⁴⁰ 2011 GAO Report, *supra* note 24, at 53.

¹⁴¹ *Id.* at 51.

¹⁴² *Id.* at 54–55.

¹⁴³ *Id.* at 55–57.

¹⁴⁴ See CEOS website at <http://www.justice.gov/criminal/ceos/> (last visited Dec. 3, 2012).

¹⁴⁵ Pub. L. No. 98–473, 98 Stat. 1837 (1984), see also 42 U.S.C. § 5773 enumerating 19 specific tasks which NCMEC has been congressionally authorized to perform.

missions.¹⁴⁶ NCMEC was statutorily created, receives funding from federal sources, and has specific statutory responsibilities. Nevertheless, it is a private, nonprofit organization.¹⁴⁷ With regard to child pornography specifically, Congress has mandated that NCMEC operate both the CyberTipline and the Child Victim Identification Program (“CVIP”). The CyberTipline “serves as the national clearinghouse for online reporting of tips regarding child sexual exploitation including child pornography.” Since its 1998 inception the CyberTipline has received over 1,300,000 reports,¹⁴⁸ including a 69-percent increase between 2005 and 2009.¹⁴⁹ Electronic communication service providers such as email systems and other websites that store online content are mandated to report child pornography that they find on their system to the CyberTipline.¹⁵⁰

The CVIP program attempts to find identifiable children in child pornography images. CVIP relies on a variety of techniques including hash values to determine if the images they receive are known images of child pornography or if they are new images that have never before been encountered. CVIP had reviewed over 28.5 million child pornography images and videos by 2009, including a 432-percent increase in videos and images submitted for identification between 2005 and 2009.¹⁵¹

Child pornography is an international crime and there are international law enforcement efforts to combat it. INTERPOL is an international police organization with 190 member countries across the world, including the United States.¹⁵² INTERPOL maintains a division dedicated to fighting Internet crimes against children.¹⁵³ INTERPOL works to identify victims, develop international strategies, and provide training to member countries.¹⁵⁴

2. Law Enforcement Investigations

Investigations of child pornography offenders may take several forms. Some offenders are initially investigated for contact child sex offending and child pornography is found on their

¹⁴⁶ Nat’l Center for Missing & Exploited Children, *Mission and History*, http://www.missingkids.com/missingkids/servlet/PageServlet?LanguageCountry=en_US&PageId=4362 (last visited Dec. 3, 2012).

¹⁴⁷ *Id.*

¹⁴⁸ Nat’l Center for Missing & Exploited Children, *2011 Annual Report*, at 7 (2011).

¹⁴⁹ NATIONAL STRATEGY, *supra* note 3, at 11, 94.

¹⁵⁰ 2011 GAO Report, *supra* note 24, at 3; NATIONAL STRATEGY, *supra* note 3, at 11.

¹⁵¹ NATIONAL STRATEGY, *supra* note 3, at 11. NCMEC reports that this number continues to increase; the CVIP program reviewed over 17.4 million images in 2011 alone. NCMEC, *2011 Annual Report*, *supra* note 148, at 7 (2011).

¹⁵² See INTERPOL, *About INTERPOL*, <http://www.interpol.int/About-INTERPOL/Overview> (last visited Dec. 3, 2012).

¹⁵³ See INTERPOL, *Crimes Against Children*, <http://www.interpol.int/Crime-areas/Crimes-against-children/Crimes-against-children> (last visited Dec. 3, 2012).

¹⁵⁴ *Id.*

computers during the investigation of the contact offense. Similarly, some offenders are initially arrested for “travel” or “enticement” offenses in which an offender travels to meet a real child (or an undercover law enforcement agent posing as a child) for sexual purposes and the offender also possesses child pornography. Other offenders are identified when an individual with access to the offender’s computer finds the illegal material and reports the offender to the police. The reporting individual is commonly a family member, information technology support staff at the offender’s workplace, or a computer technician hired by the offender to repair the computer.

Among federal offenders, many are identified through online investigations involving the recovery of IP addresses on P2P networks or Internet forums, or the recovery of incriminating payment authorizations at Usenet providers or commercial child pornography sites. A P2P investigation may involve trolling a certain network using specialized software to determine the IP addresses of those sharing child pornography images. By initiating a search, investigators can obtain a list of shared files involving child pornography that are then matched by hash values with known child pornography images or videos.

In such operations, investigators generally have two ways of identifying distributors: (1) identifying the IP address of the computer involved in the child pornography offense, and (2) a Globally Unique Identifier (“GUID”), which is the unique serial number assigned to each P2P program downloaded by a user.¹⁵⁵ The local investigator may then cross-check the IP address and GUID with past crimes or ongoing investigations and confirm that the computer is sharing illegal child pornography.¹⁵⁶ The IP address may reveal the general jurisdiction in which the computer is located and can be used to obtain the name and address of the user of the IP address through a subpoena for an ISP’s records.¹⁵⁷ Unless the distributor has disabled the feature, the investigator is usually able to browse the distributor’s computer directly to see a list of all files he is currently sharing.¹⁵⁸ If the IP address indicates the distributor is in a different jurisdiction, the investigator will share that information with the appropriate investigating jurisdiction. If the distributor is in the local jurisdiction, the investigator may subpoena the ISP to attempt to identify the distributor. If the distributor can be identified, the investigator will try to identify the occupants of the distributor’s residence to determine if any children are present and whether any of the occupants have prior criminal history including child pornography offenses or other sexually dangerous behavior to prioritize the investigation. The investigator may then seek a search warrant to seize evidence for forensic examination, as well as interview the suspected offender during the execution of the warrant.¹⁵⁹

Obtaining the IP address is typically only the first step in identifying a suspect. Several, sometimes challenging, steps must occur after obtaining the IP address. The law enforcement

¹⁵⁵ Moulin, *supra* note 46, at 2; 2003 GAO Report, *supra* note 7, at 25.

¹⁵⁶ Note that while GUIDs are globally unique, they are assigned to specific software programs rather than individuals and cannot be used to identify a particular user.

¹⁵⁷ See NATIONAL STRATEGY, *supra* note 36, at 23.

¹⁵⁸ Moulin, *supra* note 46, at 1–2. Increasingly, however, P2P applications have removed remote browsing as an option.

¹⁵⁹ Waters Statement, *supra* note 136, at 4.

agency must determine which ISP customer was using the IP address at a given time by subpoenaing information from the ISP. The ISP may simply not have a record of which customer was using that IP address at that time.¹⁶⁰ While in practice many ISPs do keep records as to which customer was using an IP address (at least for a short period of time), no federal statute requires the ISPs to retain sufficient information to associate an IP address with a particular customer.¹⁶¹ Further, even those ISPs that express an intent to cooperate with law enforcement and retain excellent records may not respond promptly to all law enforcement requests due to insufficient resources dedicated to subpoena compliance. Finally, offenders who connect to the Internet after cloaking their identities with anonymizing proxy servers may be identified only by the additional step of subpoenaing the proxy server provider, many of which keep no records.¹⁶² The same barriers stand in the way of locating those running child pornography websites. Law enforcement officials often lament the tedious and frustrating process because “by the time investigators have taken the legal steps to track administrators, the suspect sites have moved from one place to another on the Internet.”¹⁶³

Other offenders are identified via investigative sting techniques like website “honeypots” or through chatting with law enforcement agents posing as minors.¹⁶⁴ One example of an Internet sting operation involving a website “honeypot” was Operation Pin in 2003, in which the U.K. National Crime Squad (with help from INTERPOL, the FBI, and other international authorities) set up a series of fake websites offering child pornography and affording users the option of either proceeding to illegal content or leaving the website.¹⁶⁵ Once the user clicked through a sufficient number of pages he would receive a message from the authorities informing him that he had committed an offense and that his information had been submitted to the appropriate authorities.

¹⁶⁰ ISPs may assign users either a single fixed IP address, sometimes called “static,” or one of many different rotating IP addresses sometimes called “dynamic.” Only some individuals and businesses require a static IP address. For example, individuals or businesses that run email or Web servers, services that require external approval (such as approval for credit card purchases), or those who are using more sophisticated programs may require a static IP address. By contrast most home Internet users are assigned by their ISP a dynamic IP address that varies depending on when they access the Internet.

¹⁶¹ See 2011 GAO Report, *supra* note 24, at 42–43; NATIONAL STRATEGY, *supra* note 3, at 23, n.40 (citing a 2009 survey showing that a majority of criminal investigators believed that the failure of ISPs to maintain user records detrimentally affects investigations).

¹⁶² JENKINS, *supra* note 3, at 160–61 (“[C]ollecting IP addresses is rarely of much use since virtually all board participants use proxies, so only the individuals identified would be the inexperienced who were ‘surfing naked’. . . . To be valuable, any information collected about IPs would require an additional step finding the real identities lying behind the proxies.”).

¹⁶³ Luders, *supra* note 100, at 17.

¹⁶⁴ O’DONNELL & MILNER, *supra* note 7, at 155 (noting that as many as one in four arrests for Internet sex crimes against children involve investigators posing as minors); JENKINS, *supra* note 3, at 14 (“Both trading and chat lines are deadly because one is dealing with faceless individuals who often turn out to be police officers masquerading either as fellow enthusiasts or as underage girls; avoiding such chat facilities is a primary rule offered to novices in this underworld.”).

¹⁶⁵ Taylor & Quayle, *The Internet and Abuse Images of Children*, *supra* note 12, at 189–90.

Finally, some sophisticated operations stem from infiltration of a closed Internet trading community by a law enforcement officer. As these private trading groups operate clandestinely, successful undercover infiltrations often require the arrest of a participating offender.¹⁶⁶ If the offender quickly cooperates by allowing his logon information to be used in the investigation, the subsequent infiltration can bring down an entire network of offenders.¹⁶⁷ Even in such cases it is often difficult to identify all members of a worldwide group due to the difficulty in coordination and cooperation across international jurisdictions.¹⁶⁸

3. *Digital Forensics*

Once investigators seize computers or other property via an arrest or search warrant, they typically turn over the recovered evidence to digital forensic examiners. The goal of the forensic examiner is to identify the child pornography images and videos on the computer and preserve the evidence in a forensically sound manner.¹⁶⁹ Digital forensic examiners in child pornography investigations seek to identify the illegal child pornography images and uncover evidence of the user's identity and intent, as described below. Forensic examinations in child pornography cases are predominately conducted by state and local law enforcement agencies through one or several of the agencies that are members or affiliates of one of the ICAC task forces.¹⁷⁰ The number of such examinations has increased in recent years, from nearly 10,500 examinations in fiscal year 2007, to 14,339 in 2008, and 19,269 in 2009.¹⁷¹ The amount of time each investigation takes may vary greatly depending on the type of device, size of the collection, and sophistication of the suspect.¹⁷² A forensic examination typically requires making a duplicate image of a computer hard drive and then running an automated search for all the files with the same hash values as known child pornography images to identify the number of child pornography files in active space. While conducting such an automated search can be trivial in terms of time and resources, an exhaustive search of every part of a computer can be "enormously laborious," especially a search of parts of the computer that are inaccessible to the user and which may contain fragments

¹⁶⁶ NATIONAL STRATEGY, *supra* note 3, at 27 ("[T]hese criminal enterprises typically go to great lengths to evade law enforcement and, ultimately, are identified only when an individual member's computer is seized for unrelated conduct and law enforcement, posing as the member, observes the group activity on the computer and can infiltrate the group.").

¹⁶⁷ For example, several of the most prominent investigations, such as Operation Wonderland, were broken up only after low-level participants were arrested and subsequently cooperated with law enforcement officials in pursuing the wider ring. See JENKINS, *supra* note 3, at 152-53 (detailing publicly known information about the discovery, investigation, and prosecution of the Wonderland club); cf. United States v. Ladeau, No. 09-40021-FDS, 2010 WL 1427523, at *1 (D. Mass. Apr. 7, 2010) (noting that investigators used different arrested individuals' online identities to infiltrate Gigatribe network and engage with other potential suspects, including defendant).

¹⁶⁸ NATIONAL STRATEGY, *supra* note 3, at 27 ("While investigations into these groups can yield the arrest of multiple child molesters, identification of the members and cooperation with foreign law enforcement, which may be required, can frustrate efforts to identify specific suspects.").

¹⁶⁹ NATIONAL STRATEGY, *supra* note 3, at 76.

¹⁷⁰ 2011 GAO Report, *supra* note 24, at 33-34.

¹⁷¹ NATIONAL STRATEGY, *supra* note 3, at 131.

¹⁷² 2011 GAO Report, *supra* note 24, at 34; NATIONAL STRATEGY, *supra* note 3, at 30.

of deleted files.¹⁷³ In large part, however, forensics delays appear to be due to backlogs in forensics analysis rather than the complexity of performing forensics reviews.¹⁷⁴ For example, the FBI has reported that the volume of data processed at its labs increased by 3,000 percent between 2003 and 2009.¹⁷⁵

a. Recovery of Child Pornography

One of the forensic examiner's main goals after forensically preserving the seized evidence is to search the computer or other media (such as external hard drives, DVDs, CDs, flash drives, or cell phones) for child pornography images.¹⁷⁶ This process may involve the search of file folders, browsing or communications programs, e-mails, and chat logs through automated search for files with relevant extensions (*e.g.*, .jpg, or .gif for images; .mov or .mpeg for videos), or hash values indicating known child pornography images.¹⁷⁷ The files may be easily located by being stored in dedicated computer folders with names like "My Pictures" or "Shared," or that describe the type of child pornography stored in the folder.¹⁷⁸ At other times, the entire computer, or certain folders or files, have been hidden, renamed, encrypted, password protected, or deleted.

During a forensics examination it may be possible to determine when and how often an individual accessed child pornography files. This can be accomplished through a review of metadata that records when a file is created or changed and the last time the file was accessed.¹⁷⁹ Another basic forensics review technique examines the temporary files saved automatically by the computer and many programs. For example, web browsers keep a temporary Internet cache by default.¹⁸⁰ When browsing websites, the cache automatically downloads images and other files in order to speed up the browsing experience and, instead of re-downloading oft-visited pages, the browser can simply load the file from the cache. The forensic examiner may be able to recover individual child pornography images from the cache or load saved versions of the

¹⁷³ O'DONNELL & MILNER, *supra* note 7, at 165 ("The biggest obstacle facing any police force attempting to tackle child pornography is the huge commitment required in terms of time."); NATIONAL STRATEGY, *supra* note 3, at 30.

¹⁷⁴ 2011 GAO Report, *supra* note 24, at 35. This backlog was discussed by an ICAC commander at the Commission's recent hearing on child pornography. The commander stated "We do on-scene triage with regards to forensics to get information, but quite often those cases still need a full-blown forensics before they go to trial. So that backlogs the system for three to six months on any given case." Marlowe Testimony, *supra* note 135, at 252.

¹⁷⁵ 2011 GAO Report, *supra* note 24, at 35-36.

¹⁷⁶ NATIONAL STRATEGY, *supra* note 3, at 76 ("Investigators commonly seize multiple media in one investigation, including: internal and external hard drives, flash drives, DVDs and CDs, cell phones and other digital media devices containing terabytes of data in an effort to identify contraband files.").

¹⁷⁷ *Id.* at 76.

¹⁷⁸ See Fig. 3-2, Chapter 3 at 50.

¹⁷⁹ Nat'l Inst. of Justice, *Special Report: Forensic Examination of Digital Evidence: A Guide for Law Enforcement* 16 (Apr. 2004) (available at <https://www.ncjrs.gov/pdffiles1/nij/199408.pdf>).

¹⁸⁰ See HANDBOOK, *supra* note 108, at 280-82 (describing mechanics of web cache).

websites themselves.¹⁸¹ Many successful prosecutions for possession of child pornography have been based on the existence of such files found only in the temporary cache.¹⁸²

Many offenders regularly delete their downloaded files and clear their temporary files.¹⁸³ In these cases, forensic examinations must rely on more sophisticated techniques to recover data that, although deleted by the user, still remains on the computer's storage device.¹⁸⁴ Using powerful data recovery or file carving software, examiners can often recover files that suspects believe they have deleted.¹⁸⁵ Even if a sophisticated offender has used software to "wipe" their unallocated space, an investigator may still be able to recover a list of all the deleted files.¹⁸⁶ Forensic examination may also decrypt hidden or encrypted files with the help of powerful software tools.¹⁸⁷

b. Proving Intent with Digital Forensics

In addition to identifying the illegal child pornography possessed by the defendant, forensic examinations also play a role in offering evidence of the offender's intent. Because federal law prohibits the receipt, possession, or distribution of child pornography only if it is done knowingly,¹⁸⁸ the examination helps demonstrate the suspect's knowledge or intent in viewing, downloading, or distributing the illegal material. While not discussed here, a thorough digital forensics examination is equally important to an individual's defense. Such an

¹⁸¹ JENKINS, *supra* note 3, at 111 ("Participants will instruct novices in the essential importance of cleaning the computer's cache regularly to erase images, which might otherwise constitute legal evidence of possession of child pornography.").

¹⁸² See Marin, *supra* note 52, at 1213-14 (describing how temporary Internet files constituting illegal child pornography can be retained in a user's cache); see, e.g., United States v. Romm, 455 F.3d 990, 998 (9th Cir. 2006) ("Here, we hold Romm exercised dominion and control over the images in his cache by enlarging them on his screen, and saving them there for five minutes before deleting them. . . . [and] this evidence of control was sufficient for the jury to find that Romm possessed and received the images in his cache.").

¹⁸³ Products used to clean and optimize computer drives, such as CCleaner, have legitimate uses but they are also sometimes used by child pornography offenders to avoid prosecution. See HANDBOOK, *supra* note 108, at 43; NATIONAL STRATEGY, *supra* note 3, at 23.

¹⁸⁴ In simplified terms, when a computer user saves a file, the operating system scans for enough free space to write the data and then sends the data there. Those newly written clusters become allocated space. When a user deletes a file, the operating system *does not* go back and change the previously written clusters; instead, it simply revises the map so that those clusters show up as unallocated space. See HANDBOOK, *supra* note 108, at 36-37 (noting that unallocated space "is important from an investigative standpoint because it often contains significant amounts of data from deleted files"); FERRARO AND CASEY, *supra* note 15, at 200-201.

¹⁸⁵ See HANDBOOK, *supra* note 108, at 36-37 (listing file carving tools like Foremost, Scalpel, DataLifter, and PhotoRec).

¹⁸⁶ See *id.* at 43; NATIONAL STRATEGY, *supra* note 3, at 23.

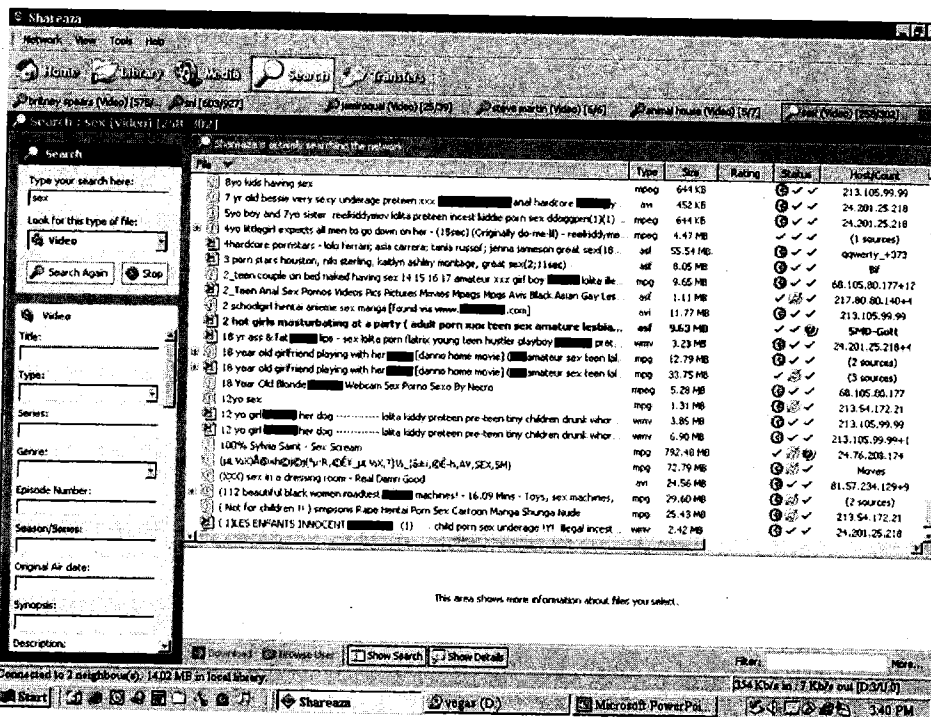
¹⁸⁷ See HANDBOOK, *supra* note 108, at 39.

¹⁸⁸ See 18 U.S.C. §§ 2252 & 2252A.

examination may negate claims regarding a defendant's intent to access or share images or it may otherwise limit sentencing exposure.¹⁸⁹

Although some collections may be so vast or so organized that the question of knowledge is not an issue,¹⁹⁰ other times an offender may not have intentionally saved any images on the computer, as the offender instead only browsed web pages containing child pornography images.¹⁹¹ Examinations may provide several ways to build a powerful evidentiary case against an offender who attempts to deny knowledge or intent. By collecting the right types of information, such as screenshots of an offender's sharing preferences as seen below in Figure 3-3, search terms, folder structure, and the like, forensics examinations can demonstrate that child pornography offenders intended to view or distribute child pornography.

Figure 3-3¹⁹²
Federal Defender Technology Presentation: Screenshot of P2P Search Window



¹⁸⁹ See Grant Testimony, *supra* note 68, at 46–47 (discussing the importance of a full forensic examination to the defense team).

¹⁹⁰ See Chapter 4 at 80–85 (discussing offender collecting behavior).

¹⁹¹ Marin, *supra* note 52, at 1211 (distinguishing between the Internet's "multiple avenues to access[ing] child pornography," including viewing files from an Internet server versus downloading an image to one's computer); see also Fottrell Testimony, *supra* note 67, at 22–23 ("[i]mages in particular folders sorted and organized . . . are not accidentally viewed; they are purposely sorted and organized in a particular manner").

¹⁹² Grant Presentation, *supra* note 49.

Even when a file cannot be decrypted or has been deleted and cannot be recovered, the presence of powerful encryption, steganographic, or drive-erasing software may be used to buttress a showing of criminal intent.¹⁹³

E. CONCLUSION

This chapter provided information regarding how child pornography offenders access and distribute child pornography.

- Until the late 1970s and early 1980s, child pornography was difficult to find, risky to produce, expensive to duplicate, and required a secure and private storage area. Technological advances since that time have made child pornography much more widely available and reduced the barriers to offending.
- Although it is possible that some individuals may accidentally access child pornography, the Commission's review of more than 2,600 non-production child pornography cases indicates that the typical federal child pornography offender intentionally accessed child pornography on numerous occasions, across weeks, months or years, and downloaded hundreds or thousands of images.
- Most child pornography offenders now rely on Internet or Internet-enabled technology to access and distribute child pornography.
- Many child pornography offenders rely on P2P networks, which enable people to connect directly to other individuals' computers without having to use a third-party. Some P2P networks are "open" in that they permit individuals to share with others in an anonymous or "impersonal" fashion. Other P2P networks operate in a "closed" fashion and combine elements of social networking. Closed P2P network users may select with whom they wish to share files in a "personal" fashion.
- Open P2P networks typically have default settings that permit sharing of a user's files; however, in most cases, both downloading locations and sharing options may be changed by users to limit whether files are available for sharing.
- Offenders use technology in a wide variety of ways to commit child pornography crimes. While some offenders utilize relatively non-sophisticated technology to view and save child pornography, others engage in sophisticated and elaborate tactics to communicate with other child pornography offenders and to evade detection.
- The extent of offenders' use of sophisticated techniques is unclear, given that most of what law enforcement and researchers know about child pornography

¹⁹³ NATIONAL STRATEGY, *supra* note 3, at 131; *see* HANDBOOK, *supra* note 108, at 33-34.

offenders is gleaned from those who are least likely to have used such techniques and are thus more likely to have been identified and arrested.

- Many federal law enforcement agencies and community resources are dedicated to fighting child pornography crimes, but these efforts face challenges from the sheer volume of online child pornography distribution, the technological sophistication of some offenders, delays in obtaining identifying information from ISPs regarding their customers suspected of distributing child pornography, and the logistics of completing timely forensics analysis.

Chapter 11

RECIDIVISM BY CHILD PORNOGRAPHY OFFENDERS

A. INTRODUCTION

One of the primary issues facing sentencing judges and policy-makers regarding federal child pornography offenders is the extent to which offenders sentenced under the non-production guidelines recidivate — and, in particular, engage in new sex offenses (“sexual recidivism”) — after reentering the community.¹ The conventional assumption is that the rate of recidivism (in particular, sexual recidivism) by federal child pornography offenders is high.² As discussed below in this chapter, the Commission’s study of known recidivism by child pornography offenders suggests that the rate of known recidivism (in particular, sexual recidivism) may not be as high as commonly believed.

Most existing studies of recidivism either involved an insufficient number of subjects³ or focused on offenders sentenced outside the United States.⁴ One exception is an as yet unpublished study of federal child pornography offenders by researchers from the Federal Bureau of Prisons (“BOP”), which is discussed below. In order to supplement the existing research on recidivism and focus on a large number of federal child pornography offenders, the Commission conducted a recidivism study of federal non-production offenders sentenced during fiscal years 1999 and 2000.⁵

The Commission selected federal non-production offenders sentenced in fiscal years 1999 and 2000 to account for and balance two primary research requirements: (1) the need to provide for a minimum two-year follow-up period during which the vast majority of a specific

¹ See, e.g., *United States v. Cunningham*, 669 F.3d 723, 728 (6th Cir. 2012) (“With respect to Defendant’s risk of recidivism, the [sentencing] court expressed concern regarding studies demonstrating an increased level of recidivism among child sex offenders who viewed child pornography”); *United States v. Pugh*, 515 F.3d 1179, 1199–1200 (11th Cir. 2008) (noting that the legislative history of 18 U.S.C. § 3583(k), which increased the statutory maximum term of supervised release to a lifetime term for sex offenders, including all child pornography offenders, was in response to Congress’ concern about the “high rate of recidivism” by such offenders).

² See, e.g., *Conference Report on S.151, PROTECT Act of 2003*, 149 CONG. REC. H2950–01, H2966 (daily ed. Apr. 9, 2003) (“Recidivism is a huge problem in sexual exploitation cases.”).

³ See, e.g., Richard Wollert et al., *Federal Internet Child Pornography Offenders — Limited Offense Histories and Low Recidivism Rates*, in VII THE SEX OFFENDER 2–1 (Barbara K. Schwartz ed., 2011) (study of 72 federal child pornography offenders in the United States).

⁴ See, e.g., Angela W. Eke et al., *Examining the Criminal History and Future Offending of Child Pornography Offenders: An Extended Prospective Follow-up Study*, 35 LAW & HUM. BEHAV. 466 (2011) (recidivism study of Canadian child pornography offenders). That study is addressed *infra* at 306-07.

⁵ Recidivism (in particular, sexual recidivism) by child pornography offenders should be distinguished from “precidivism” by such offenders, which was discussed in Chapter 7 in connection with criminal sexually dangerous behavior (“CSDB”) committed *before* an offender’s original arrest on federal child pornography charges. See Chapter 7 at 169.

cohort of offenders were in the community;⁶ and (2) the need to study a relatively modern offender cohort whose crimes were committed when computers and Internet use were common (in order to provide recidivism data relevant to current offenders). Offenders from fiscal years 1999 and 2000 satisfied both criteria to a sufficient degree. The sentencing period (fiscal years 1999 and 2000) was early enough to ensure that the vast majority of those offenders, including most of those with the longest prison sentences imposed, were released from prison for at least two years at the time of the Commission's study yet recent enough that the typical offender then, like current offenders, used a computer during the commission of his child pornography offense.⁷

After presenting the results of the Commission's study, this chapter also compares the Commission's research to several other recidivism studies — including studies involving: (1) child pornography offenders, (2) state "contact" sex offenders, and (3) federal offenders generally and, in particular, a comparable demographic segment of the entire federal offender population (*i.e.*, white male United States citizens).

B. METHODOLOGY OF THE COMMISSION'S RECIDIVISM STUDY

In order to examine the rate of known recidivism of non-production offenders sentenced during fiscal years 1999 and 2000, the Commission first identified all offenders sentenced under the applicable non-production guidelines, USSG §§2G2.2 and 2G2.4, who could be matched to the Record of Arrest and Prosecution database ("RAP sheets") of the National Crime Information Center ("NCIC") of the Federal Bureau of Investigation's ("FBI") Criminal Justice Information Services Division⁸ and then tracked them after release from prison (or, for a small percentage of offenders, on probation) for at least two years. Data on offender and offense characteristics of this group, including any history of criminal sexually dangerous behavior ("CSDB"), were collected from the relevant sentencing documents in their instant federal child pornography cases.⁹

Although RAP sheets are generally considered to be the single best source for recidivism studies, they necessarily underreport offenders' actual rate of recidivism.¹⁰ Some amount of

⁶ As explained below, in order to be valid, a recidivism study requires an average follow-up period of at least three years and, for studies of sex offenders, ideally an even longer period. *See infra* note 24. Because average sentence lengths for non-production offenders sentenced during fiscal years 1999 and 2000 were much shorter than average sentences later imposed pursuant to the PROTECT Act sentencing scheme, the vast majority of offenders sentenced in fiscal years 1999 and 2000 were released from prison in sufficient time to allow for an average follow-up period well above two years. *See* Chapter 6 at 132 (Figure 6-4) (showing that average prison sentences for non-production offenders sentenced in fiscal years 1999 and 2000 was two years for offenders convicted of possession and three to four years for offenders convicted of receipt or distribution).

⁷ As noted *infra* in Table 11-2, 81.7% of the offenders sentenced in fiscal years 1999 and 2000 used a computer.

⁸ The FBI's compilation of an individual's criminal identification, arrest, conviction, incarceration, and revocation information is known as the Interstate Identification Index. This information is also known as a Record of Arrest and Prosecution ("RAP"). The RAP database contains information voluntarily reported by law enforcement agencies across the country as well as information provided by other federal agencies. It contains information on felonies, misdemeanors, and certain municipal and traffic offenses.

⁹ *See* Chapter 7 at 202-03 (discussing CSDB histories of this cohort).

¹⁰ As the Commission noted in a prior recidivism study: "The recidivism literature recognizes that the FBI offender 'RAP' sheets are the most accurate and readily available data source for repeat criminal behavior. However, 'RAP'

criminal activity by offenders during or after supervision is undiscovered or unreported during the period of observation. As a result, RAP sheets can only be used to determine the rate of *known recidivism*. Particularly for sex offender recidivism studies, RAP sheets will underreport the actual recidivism rate of offenders. It is widely accepted among researchers that sex offenses against children often go unreported or undetected¹¹ and, for that reason, do not appear on RAP sheets. This so-called “dark figure” in sex offender research always should be considered in assessing the results of a sex offender recidivism study based solely on reported arrests or convictions.¹² For the foregoing reasons, the findings of the Commission’s recidivism study should be viewed as a conservative measurement of actual recidivism.¹³

The Commission’s final study group included 610 offenders who satisfied four conditions:

1. They were sentenced under the non-production guidelines in fiscal years 1999 or 2000;
2. Their original sentencing documents (*e.g.*, presentence reports) provided information about relevant offense and offender characteristics (*e.g.*, demographic information and criminal sexually dangerous behavior);
3. They were matched successfully to RAP sheets; and
4. They were available to be tracked in the community for a minimum of two years¹⁴ immediately after release following service of prison sentences¹⁵

sheets can contain errors or partial information. For example, ‘RAP’ sheets only contain information on offenses for which offender fingerprints were obtained. Additionally, depending on the reporting policies and practices of local jurisdictions, arrest dispositions may not always be transferred to the FBI for inclusion on ‘RAP’ sheets. ‘RAP’ sheets will under report actual criminal behavior, and will under report convictions resulting from arrests.” U.S. SENT’G COMM’N, MEASURING RECIDIVISM: THE CRIMINAL HISTORY COMPUTATION OF THE FEDERAL SENTENCING GUIDELINES 4–6 (2004) (available at http://www.ussc.gov/Research/Research_Publications/Recidivism/200405_Recidivism_Criminal_History.pdf).

¹¹ See Ryan C.W. Hall & Richard C. W. Hall, *A Profile of Pedophilia: Definition, Characteristics of Offenders, Recidivism, Treatment Outcomes, and Forensic Issues*, 82 MAYO CLINIC PROC. 457, 460–61 (2007) (noting that studies show that only an “estimated 1 in 20 cases of child sexual abuse is reported or identified” and that “an arrest was made in only 29% of reported juvenile sexual assaults”).

¹² See Albert D. Biderman & Albert J. Reiss, Jr., *On Exploring the “Dark Figure” of Crime*, 374 ANNALS AM. ACAD. POL. & SOC. SCI. 1 (1967); see also *United States v. McClrath*, 512 F.3d 421, 425 (7th Cir. 2008) (Posner, J.) (“Estimates of recidivism are bound to be too low when one is dealing with underreported crimes such as sex offenses.”).

¹³ An alternative approach to studying recidivism involves self-report data (*i.e.*, offenders’ admissions, typically made during therapy, about their criminal relapses). See Eke et al., *Examining the Criminal History and Future Offending of Child Pornography Offenders*, *supra* note 4, at 466–67 (comparing studies based on official reports such as arrest or conviction records with studies based on “self-report” data).

¹⁴ The period of time after which an offender is released from incarceration or is otherwise at liberty in the community—commonly called “street time”—is the time during which the offender is at risk of committing recidivist acts. Recidivism studies must necessarily measure recidivism during this period. Inclusion of periods of time when the offender was not at liberty would otherwise inflate the time the offender was at risk and avoided failure. See William D. Bales et al., *Recidivism of Public and Private State Prison Inmates in Florida*, 4 CRIMINOLOGY & PUB. POL’Y 57 (2005). Offenders were removed from the sample if they had little or no street time

(or, in the case of a small minority, during service of their probation terms) for their federal child pornography offenses (*i.e.*, not detained in connection with another offense, deported, or otherwise lost to the study), or until their first recidivism event, whichever came first.

There were a total of 724 non-production offenders sentenced in fiscal years 1999 and 2000. Of these 724, 673 had sufficient court documentation regarding offense and offender characteristics to conduct this analysis. Of those 673, 610 offenders could be successfully matched to RAP sheets and also were in the community for a minimum of two years after release from prison or the commencement of their probation. Those 610 offenders were included in the Commission's analysis. Of the 610 offenders, the vast majority 552 (90.5%) were sentenced to some term of imprisonment (with an average prison term of 33 months) followed by a term of supervised release (with an average supervised release term of 35 months), while 58 offenders (9.5%) were sentenced to probation (*i.e.*, those offenders were not sentenced to a term of imprisonment).

For this study, *known recidivism* is defined as any of the following events occurring within the study period following an offender's release from incarceration or commencement of a probationary sentence:¹⁶

- an arrest that led to a conviction for a felony or qualifying misdemeanor offense;
- an arrest with no case disposition information available;¹⁷ or
- a reported "technical" violation of the conditions of an offender's probation or supervised release that led to an arrest or revocation.¹⁸

after service of the sentence and therefore did not have a sufficient follow-up period. For example, non-citizen offenders were typically deported immediately after release from the federal prison system, and thus had no street time. Some offenders were removed from the community subsequent to their original release (usually due to re-incarceration), and such time "off the streets" was subtracted from their follow-up periods. If these offenders returned to the community during the study period, their street time recommenced at that juncture.

¹⁵ Release following service of a prison sentence means release from the custody of the Federal Bureau of Prisons ("BOP") into the community for the first time following incarceration for the federal child pornography offense of interest.

¹⁶ The arrest/revocation date, most serious crime, and disposition (if available) were coded from each recidivism event following release for purposes of reporting time to recidivism and crime type. Some offenders had more than one event following release.

¹⁷ RAP sheets did not always report the ultimate disposition of a case following an arrest. Consistent with other recidivism studies, arrests without dispositions were counted as well as arrests resulting in convictions. See Cassia Spohn & David Holleran, *The Effect of Imprisonment on Recidivism Rates of Felony Offenders: A Focus on Drug Offenders*, 40 CRIMINOLOGY 333 (2002) ("[A]rrest is a better indicator of offender recidivism than is conviction.") The Commission's study, like other studies, assumes that false arrests are exceptional and that the typical arrest of an offender on supervision reflects recidivism (including "technical" violations of the conditions of supervision).

¹⁸ Revocations of probation or supervised release result from violations of the conditions of supervision related to either: (1) the commission of a new crime, or (2) "technical" violations (or both). For this analysis, violations which were reported without dispositions were included along with violations that led to some type of reported sanction (*e.g.*, imprisonment). It should be noted, however, that only rarely did an offender's RAP sheet merely report an arrest on a warrant based on an *alleged* violation of supervision. Typically, a RAP sheet reported a court's

New criminal arrests or convictions include felony offenses and, with certain exceptions,¹⁹ misdemeanors that were committed while an offender was on supervision or after supervision was terminated.²⁰ Arrests with dispositions of an acquittal or dismissal of all charges were treated as non-recidivism events. If a RAP sheet showed both an arrest and conviction for the same event, it was treated solely as a conviction.

As reflected in the findings of the Commission's study that appear below in Part C, the Commission classified offenders' recidivism events as *general recidivism* and *sexual recidivism*. General recidivism refers to any criminal justice failure which resulted in either an arrest (with or without a conviction) for a new criminal offense or an arrest (without or without a revocation) for a "technical" violation of the offender's conditions of supervision. Sexual recidivism refers to arrests (with or without a conviction) for sexual offenses only, both contact and non-contact offenses, including new child pornography offenses but excluding arrests for failure to register as a sex offender.²¹ Sexual recidivism is a subset of general recidivism.

"Technical" violations of supervision encompass a wide range of behavior, including absconding from supervision, refusing to participate in mental health or substance abuse treatment, and failing drug tests. In addition, sex offenders typically are subject to additional restrictions, such as prohibitions on associating with minors or frequenting places where minors regularly appear, and accessing the Internet without permission.²² Some child pornography offenders commit violations that, while non-criminal, raise serious questions about public safety.²³ Unlike non-criminal "technical" violations such as failure to report to a probation officer as directed, failure to register as a sex offense is a criminal offense; however, it was treated as a "technical" violation of the conditions of supervision because it involved no additional criminal act unrelated to the defendant's status as a sex offender and his failure to comply with the conditions of supervision.

finding of a violation of the conditions of supervised release followed by some type of sanction (usually an additional term of imprisonment).

¹⁹ Consistent with the list of excluded minor offenses contained in USSG §4A1.2(c)(2), the Commission's study excluded certain petty misdemeanors (*e.g.*, public intoxication) as recidivism events.

²⁰ RAP sheets provide the date of arrest but do not ordinarily provide information about the date of the offense. Thus, it is possible that a small number of the arrests or convictions mentioned on RAP sheets were for offenses committed *before* an offender was released on supervision. Such offenses would not qualify as "recidivism" because they occurred before an offender reentered the community following his federal prosecution for a non-production child pornography offense.

²¹ The different types of contact and non-contact sex offenses are discussed in detail in Chapter 7 in relation to the Commission's study of sexually dangerous behavior. *See* Chapter 7 at 175-78.

²² *See* U.S. SENT'G COMM'N, FEDERAL OFFENDERS SENTENCED TO SUPERVISED RELEASE 20-27 (2010).

²³ *See, e.g.*, *United States v. Mollignaro*, 649 F.3d 1,1-2 (1st Cir. 2011) (child pornography defendant's supervised release was revoked based on his frequenting places where unrelated children were present and also by failing to participate in sex offender therapy); *United States v. Musso*, 643 F.3d 566, 568-70 (7th Cir. 2011) (child pornography defendant's supervised release was revoked based on his failure to participate in sex offender therapy; for being alone with an unrelated young child; for possessing sexually suggestive, albeit non-pornographic, photos of minors, *i.e.*, a girl wearing only a bra and underwear; and for taking photos of "scantily-clad teenage girls" with his cell phone).

Information about offenders' violations of the conditions of their probation or supervised release is not routinely reported to the NCIC in the same manner as other information about criminal justice failures. Typically, an offender's alleged violation of the conditions of supervised release will be reported to the NCIC only if the offender was arrested pursuant a judicial warrant based on a petition filed by the supervising probation officer and then fingerprinted by the United States Marshal Service. In some cases, an offender on supervision who violates the conditions of his supervision is not arrested and, instead, is summoned to court (where his conditions are modified as a sanction), or his conditions are modified as a sanction without the offender ever appearing in court (by agreeing to the modification out of court). In such cases, it is highly unlikely that the offender's violation of the conditions of release would ever be reported to NCIC and appear on the offender's RAP sheet. Thus, the data in the Commission's recidivism study concerning violations of the conditions of supervision undercount the actual number of offenders who violated the conditions of their supervision. Only violations that resulted in an arrest of an offender are treated as recidivism events.

Using data from RAP sheets, the Commission analyzed offenders' records from their dates of release into the community — which, for the earliest offender, began on October 26, 1998, and, for the latest offender, began on March 30, 2008 — until the date that the RAP sheets were prepared for this study, March 30, 2010. The Commission's study required a minimum 24-month follow-up period (unless a recidivism event occurred before 24 months), and the average follow-up period in the Commission's study was 102 months (eight years and six months), well in excess of the period generally considered sufficient for a recidivism study of sex offenders.²⁴ Because these offenders were sentenced under the law in effect before the PROTECT Act, the typical statutory maximum term of supervised release was three years.²⁵ Therefore, many offenders tracked in this study were not under judicial supervision during a substantial portion of the study period.

The study methodology employed for the present study is consistent with previous Commission studies of offender recidivism and also is similar to the protocol previously followed by the Bureau of Justice Statistics in its recidivism study (discussed below in Part D).²⁶

²⁴ Generally, a follow-up period of at least three to five years is considered necessary for a strong recidivism study of sex offenders. See R. Karl Hanson et al., *The Principles of Effective Correctional Treatment Also Apply To Sexual Offenders: A Meta-Analysis*, 39 CRIM. JUST. & BEHAV. 865, 887 (2009); but cf. Niklas Langstrom, *Long-Term Follow-Up of Criminal Recidivism in Young Sex Offenders: Temporal Patterns and Risk Factors*, 8 PSYCHOL., CRIME & LAW 41 (2002) (noting that recent studies indicate that risk for criminal reoffending by adult sex offenders may persist for decades after the index offense). Because the members of the Commission's study group were released at various times from October 26, 1998, until March 30, 2008, the Commission was unable to track the members of the study group in a coterminous manner over a discrete time period. Of the 610 members of the study group, seven (1.2%) had follow-up periods that were 24 months or greater but less than 36 months; 21 (3.4%) had follow-up periods that were 36 months or greater but less than 60 months; and 582 (95.4%) had follow-up periods that were 60 months or greater. The average follow-up period for all 610 offenders was eight and one-half years.

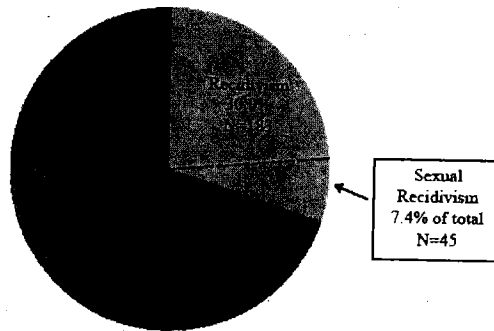
²⁵ See Chapter 10 at 271.

²⁶ See U.S. SENT'G COMM'N, MEASURING RECIDIVISM: THE CRIMINAL HISTORY COMPUTATION OF THE FEDERAL SENTENCING GUIDELINES 4-6 (2004) (available at http://www.ussc.gov/Research/Research_Publications/Recidivism/200405_Recidivism_Criminal_History.pdf); see also BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, RECIDIVISM OF PRISONERS RELEASED IN 1994 (2002).

C. RESULTS OF THE COMMISSION'S RECIDIVISM STUDY

Figure 11-1 and Table 11-1 below show the results of the Commission's recidivism study. Figure 11-1 depicts the rate of general recidivism and notes the subset of sexual recidivism. Table 11-1 breaks down recidivism events by sexual recidivism and other types of criminal justice failures. It first shows sexual offenses, divided by contact sex offenses, new child pornography offenses, and other non-contact sex offenses (excluding failure to register as a sex offender); it then shows non-sexual offenses (including failure to register as a sex offender) and technical violations. Table 11-1 below also shows whether recidivism events resulted in a conviction or simply an arrest for a new criminal offense and separately reports revocations for technical violations. As noted above, the minimum follow-up period reflected in the data presented below was 24 months, and the average follow-up period for all members of the study group was eight and one-half years.

Figure 11-1
Non-Production Offender Characteristics: Recidivism
Fiscal Years 1999-2000 (N=610)



Note: Percentage may not sum to exactly 100% due to rounding. The average follow-up period after offender release into the community was 102 months (eight years and six months), with a minimum of 24 months.
SOURCE: U.S. Sentencing Commission, 1999-2000 Datafile, USSCFY99-00 and FBI RAP Sheet Special Coding Project.

Table 11-1
Non-Production Offenders:
Most Serious Criminal Justice Failure
Fiscal Years 1999-2000

Type of Behavior	N	Percent (total of 183 cases)
Sexual Recidivism		
Contact sex conviction	11	6.0
Non-production CP conviction	9	4.9
Any other sex conviction	4	2.2
Contact sex arrest	11	6.0
Non-production CP arrest	5	2.7
Any other sex arrest	5	2.7
Subtotal	45	24.6
Non-Sexual Recidivism		
Any other conviction	26	14.2
Any other arrest	26	14.2
Sex offender registration violation	22	12.0
Any other violation	64	35.0
Subtotal	138	75.4
Total (General Recidivism)	183	100.0

Note: A single offender appears in one category, with sexual contact and convictions taking precedence. Percentages may not sum to exactly 100% due to rounding. This study involves an average follow-up of 8 1/2 years.
 SOURCE: U.S. Sentencing Commission, 1999-2000 Datafile, USSCFY99-00 and FBI RAP Sheet Coding Project.

As reflected in Figure 11-1 above, the general recidivism rate was 30.0 percent (183 of 610 offenders).²⁷ As shown in Table 11-1 above, failures were almost evenly split between arrests or convictions for new crimes and arrests or revocations for others violations of the conditions of their supervision:

- 15.9 percent (97 of 610 offenders) were arrested for (and in some cases convicted of) a new criminal offense; and
- 14.1 percent (86 of 610 offenders) violated the conditions of their supervision or failed to register or report as sex offenders without an arrest for any other new criminal offense.

The sexual recidivism rate for all offenders was 7.4 percent (45 of the 610 cases). Of those 45 offenders:

- 22 offenders (or 3.6% of all 610 cases) were arrested for or convicted of sexual "contact" offenses (e.g., rape or sexual assault of a child or adult);
- 14 offenders (2.3% of the 610 cases) were arrested for or convicted of a subsequent child pornography offense; and

²⁷ General recidivism was higher for offenders whose instant non-production offense involved receipt, transportation, and distribution ("R/T/D") offenses (i.e., those sentenced under USSG §2G2.2) (33.7%) than for those sentenced under the former possession guideline, USSG §2G2.4 (25.5%).

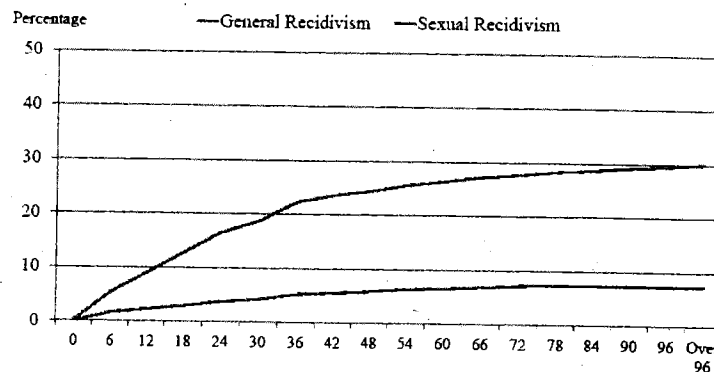
- the remaining nine offenders (1.5% of the 610 offenders) were arrested for or convicted of a non-contact sex offense involving obscenity or commercial sex.²⁸

Of the 97 offenders who were arrested for any type of new offense during the eight-and-one-half-year follow-up period, the vast majority (77, or 79.4%) were arrested once during the period. Twenty offenders (20.6%) were arrested more than once during the follow-up period. Similarly, of those 86 offenders whose recidivism was limited to violating the conditions of their supervised release or probation, 67 (77.9%) did so once, while the remaining 19 offenders (22.1%) violated their conditions more than once. Furthermore, of the 97 offenders who committed new criminal offenses, 41 (42.3%) were both arrested for a new criminal offense and also had at least one other violation of the conditions of their supervision.

The period of time between reentry into the community and the recidivism event is measured as the “street time” that the offender was at risk until the first arrest, conviction, or revocation (whichever came first).²⁹ Figure 11-2 below shows the general and sexual recidivism rates over time in six month increments. As shown, recidivism increased at a relatively steady rate for approximately the first three years following release and then grew at a much slower rate thereafter. The statutory maximum period of supervised release for the vast majority of this cohort of offenders was three years.³⁰ Thus, as reflected in Figure 11-2, approximately two-thirds of offenders recidivated during their terms of supervision, and one-third recidivated after their supervision ended. A small number of offenders recidivated for the first time after being in the community for more than five years.

Figure 11-3 below shows that the general recidivism rate for offenders in Criminal History Category I was substantially lower than the general recidivism rate for offenders in higher Criminal History Categories. Because relatively few offenders

Figure 11-2
Non-Production Offender Characteristics: Recidivism
Fiscal Years 1999-2000



SOURCE: U.S. Sentencing Commission, 1999-2000 Datafile, USSCFY99-00 and FBI RAP Sheet Special Coding Project.

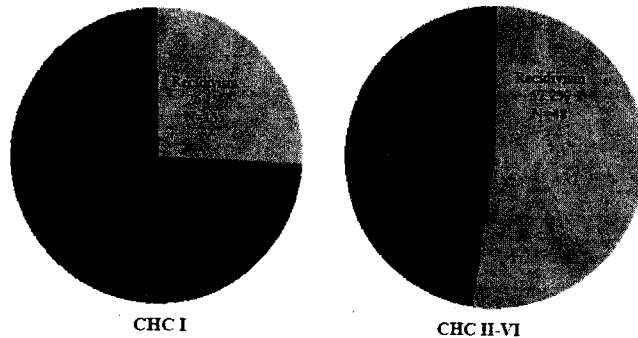
²⁸ The obscenity and prostitution offenses were not described in detail on the RAP sheets. For purposes of the Commission’s study, they are listed under the rubric of sex offenses although the actual offense conduct in these cases remains unknown.

²⁹ For those offenders with more than one recidivism event, the total follow-up period was computed to exclude periods of re-incarceration. That is, the total follow-up period was computed as time since release after deducting any time the offender was not at risk of recidivism subsequent to the original release (e.g., incarceration on revocation of supervised release), so as not to inflate the actual street time.

³⁰ See Chapter 10 at 271.

recidivated with a new sexual offense, the numbers were too small for meaningful comparisons of such offenders in each of the Criminal History Categories. Thus, Figure 11-3 is only concerned with general recidivism rates by Criminal History Category.

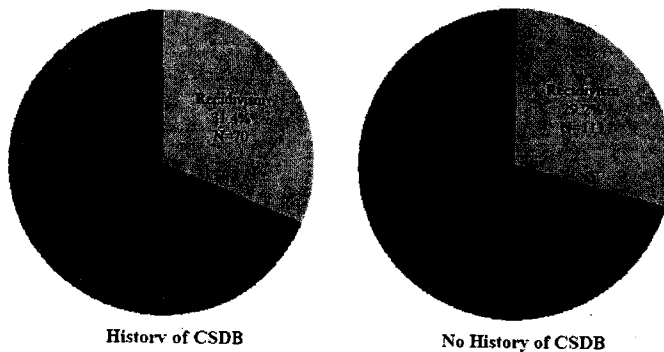
Figure 11-3
Non-Production Offender Characteristics:
General Recidivism by Criminal History Category
Fiscal Years 1999-2000 (N=610)



Note: Percentage may not sum to exactly 100% due to rounding.
SOURCE: U.S. Sentencing Commission, 1999-2000 Datafile, USSCFY99-00 and FBI RAP Sheet Special Coding Project.

Figure 11-4 below shows the general recidivism rate for offenders with a prior history of CSDB (*i.e.*, CSDB predating their arrest on their instant federal child pornography charges), compared to the general recidivism rate for offenders without a CSDB history. The rates for the two groups were similar (31.4% for CSDB offenders and 29.2% for non-CSDB offenders).

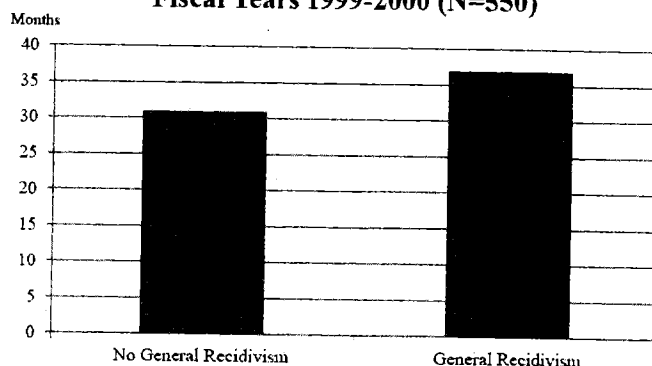
Figure 11-4
Non-Production Offender Characteristics:
General Recidivism by History of CSDB
Fiscal Years 1999-2000 (N=610)



Note: Percentage may not sum to exactly 100% due to rounding.
SOURCE: U.S. Sentencing Commission, 1999-2000 Datafile, USSCFY99-00 and FBI RAP Sheet Special Coding Project.

Caution should be exercised in drawing conclusions from this data analysis because, in addition to the other limitations concerning the Commission's recidivism study discussed above: (1) this particular analysis only refers to general recidivism (including technical violations of conditions of supervision), as opposed to sexual recidivism;³¹ and (2) the Commission was unable to control for the type of supervision involved (in particular, how closely offenders were supervised and the degree of restraints on their liberty).³²

Figure 11-5
Average Prison Term for Recidivist and Non-Recidivist
Child Pornography Offenders
Fiscal Years 1999-2000 (N=550)



Note: The figure excludes 58 offenders who received terms of probation and two offenders with missing sentencing information.
 SOURCE: U.S. Sentencing Commission, 1999-2000 Datafile, USSCFY99-00 and FBI RAP Sheet Coding Project.

Finally, the Commission's study compared the average amount of imprisonment originally imposed on the offenders who recidivated with the average amount of imprisonment originally imposed on those offenders who did not recidivate.³³ The Commission's analysis found that the average sentence of imprisonment for the 381 non-recidivist offenders was 31 months. By comparison, the average sentence for the 169 recidivist offenders was 37 months. Therefore, offenders who recidivated had a 22.6 percent longer average term of imprisonment originally imposed than offenders who did not recidivate. The results of the Commission's analysis should be viewed with caution because there may be other factors explaining why the average lengths of the terms of imprisonment were different for the recidivists and non-recidivists (*e.g.*, on average, the recidivists had more serious criminal histories, which increased their guideline ranges).³⁴

³¹ The number of cases for analysis was too small to allow for meaningful comparisons of *sexual recidivism* rates between the two groups of offenders. As discussed in Chapter 7, social science research indicates that an offender's history of CSDB is a risk factor for sexual recidivism. See Chapter 7, at 170 & n.7.

³² CSDB offenders' rate of general recidivism may have been similar to the rate for offenders without a history of CSDB because high risk sex offenders on conditional release (*i.e.*, typically those with histories of CSDB) are generally more closely supervised than lower risk sex offenders — in particular, with a stricter application of the "containment model," which may have deterred violations of supervision. See Chapter 10 at 279-81 (discussing that treatment and supervision of child pornography offenders vary depending on the risk that such offenders pose according to risk assessments); see also JUDICIAL CONFERENCE OF THE UNITED STATES, 8 GUIDE TO JUDICIARY POLICY: PROBATION AND PRETRIAL SERVICES, Ch. Two (Policy Statements), § 230 (2011) ("Not all persons . . . convicted of sex offenses are alike. Rather, they present a spectrum of criminogenic risk and therapeutic need. Officers' . . . supervision techniques should vary accordingly.").

³³ The Commission excluded from the above analysis the 58 offenders who received terms of probation rather than terms of imprisonment, and two offenders whose cases had insufficient documentation.

³⁴ As discussed above, recidivists had longer average criminal histories than the non-recidivists. See *supra* Figure 11-3.

D. RELEVANCE OF THE COMMISSION'S RECIDIVISM STUDY TO CURRENT CHILD PORNOGRAPHY OFFENDERS

This section addresses the relevance of the Commission's recidivism study of offenders sentenced in fiscal years 1999 and 2000 to current federal child pornography offenders. Since the late 1990s, new technologies related to personal computers and the Internet have greatly expanded the types and volume of child pornography possessed by typical offenders.³⁵ Furthermore, since 2000, the child pornography guidelines and corresponding penal statutes have undergone significant changes.³⁶ Given these technological and legal changes, it is appropriate to compare the study group from fiscal years 1999 and 2000 with modern non-production offenders to assess whether the Commission's findings regarding the earlier cohort have continuing relevance to modern offenders. Using data from both the Commission's regular annual datafiles from fiscal years 1999, 2000, and 2010, and the Commission's special coding project of non-production cases from those same three fiscal years, this section compares the earlier cohort with the more recent cohort.³⁷ As discussed below, the two cohorts appear similar enough in relevant respects for the findings of the Commission's recidivism study of the offenders sentenced in fiscal years 1999 and 2000 to have continuing relevance to current non-production offenders.

As demonstrated in Table 11-2 below, offenders in both groups were very similar with respect to race, gender, age, education, and criminal history. Most offenders in both groups had little or no prior criminal record, and approximately one-third of offenders in each time period had a known history of CSDB.

It is more difficult to compare the two groups of offenders based on the application of the sentencing guidelines in their cases (in particular, the frequency of specific offense characteristics) because significant

**Table 11-2
Comparison of Non-Production Offenders
Fiscal Years 1999-2000 & Fiscal Year 2010**

	FY1999-2000	FY2010
Offender Characteristics		
% White	93.3%	88.6%
% Male	99.7%	99.4%
Average Age (years)	41	42
Median Education Level	Some College	Some College
% Reported Not Sexually Abused as Child	85.7%	82.3%
% Employed at Time of Arrest	84.9%	75.2%
Criminal History and CSDB		
% CHC I	84.6%	81.7%
% SDB	36.7%	35.1%
Specific Offense Characteristics		
% Use of Computer	81.7%	96.3%
% Depiction of Image of Child Under 12	87.2%	96.2%

SOURCE: U.S. Sentencing Commission, 2010 Datafile, USSCFY10 and FBI RAP Sheet Coding Project.

³⁵ See Chapter 3 at 41-43.

³⁶ See Chapter 1 at 4.

³⁷ As discussed in Chapters 6 and 7, the Commission conducted an extensive coding project of 1,654 non-production cases sentenced in fiscal year 2010 and 660 non-production cases sentenced in fiscal years 1999 and 2000. See Chapter 6 at 144; Chapter 7 at 202.

changes in the non-production guidelines have occurred during the past decade.³⁸ There are only a limited number of direct comparisons that can be made between the specific offender characteristics in the non-production guidelines in effect in fiscal years 1999 and 2000 and the non-production guidelines in effect in fiscal year 2010. Only two specific offender characteristics that applied in the fiscal year 1999–2000 cases have direct counterparts in the current version of USSG §2G2.2, *i.e.*, use of a computer and images depicting victims under the age of 12. In both periods, the vast majority of offenders received a 2-level increase for use of a computer in commission of the pornography crime and a 2-level increase for having pornographic material involving a minor under the age of 12 years, though both specific offender characteristics were more commonly applied in 2010.

While the child pornography guidelines have undergone a number of significant changes, offender and offense profiles have remained similar in most respects.³⁹ Typical offenders from both fiscal years 1999 and 2000 and fiscal year 2010 were white male United States citizens with a virtually identical average age who were employed at the time of the offense; they had no criminal records, no reported history of sexual abuse as a child, and some college education. The vast majority of offenders in both groups used a computer to commit their offenses and possessed images of prepubescent minors. Finally, approximately one-third of offenders, past and present, had a history of criminal sexually dangerous behavior. Given the many similarities in offense and offender characteristics, there is sufficient reason to believe that, in the context of supervision and recidivism, the findings of the Commission's study of the 1999–2000 cohort are relevant to offenders who will be sentenced in the modern era and ultimately supervised in the future.

Non-production offenders sentenced in the current period will spend significantly longer periods in prison, on average, compared to the offenders sentenced in fiscal years 1999 and 2000.⁴⁰ Whether those longer sentences will affect the recidivism rates — positively or negatively — remains to be seen.⁴¹ In addition, while the earlier cohort of offenders generally had a three-year statutory maximum term of supervised release, current non-production offenders are subject to a statutory minimum five-year period of supervised release, and the average term of supervision is approximately four times that amount.⁴² Whether substantially longer terms of

³⁸ See Chapter 6 at 124–25.

³⁹ The Commission's coding project of the fiscal years 1999 and 2000 cases does not include data concerning the specific manners of distribution and receipt of child pornography. Clearly, computer technology has changed significantly in the past decade — in particular, the growth of peer-to-peer file-sharing. Nevertheless, as noted, the vast majority of offenders in fiscal years 1999 and 2000 used computers (and the Internet) in connection with their crimes.

⁴⁰ See Chapter 6 at 132 (Figure 6–4); Chapter 8 at 210–12.

⁴¹ See, *e.g.*, LIN SONG, WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY, *RECIDIVISM: THE EFFECT OF INCARCERATION AND LENGTH OF TIME SERVED 1* (1993) (“Study findings indicate that the effect of incarceration (versus other sentencing options) and sentence length on recidivism is complex and is likely to be offender-specific. For some offenders, incarceration and longer confinement seem to increase the risk of recidivism. For other offenders, the likelihood of reoffense will either be unaffected or reduced by longer terms of incarceration.”), <http://www.wsipp.wa.gov/rptfiles/IncarcRecid.pdf> (last visited Dec. 20, 2012).

⁴² See Chapter 10 at 271–72.

supervised release will affect the recidivism rates — positively or negatively⁴³ — also remains to be seen. Results of this study could be compared to a future recidivism study of the fiscal year 2010 cohort using the same methodology employed by the present study.

E. COMPARISON OF THE COMMISSION'S RECIDIVISM STUDY TO OTHER RELEVANT RECIDIVISM STUDIES

In order to offer some perspective concerning the results of the Commission's present recidivism study, it is helpful to compare the findings of several other recidivism studies — including others involving child pornography offenders, as well as recidivism studies involving offenders convicted of "contact" sex offenders and federal offenders generally.

1. *Other Studies of Child Pornography Offenders*

The Commission's findings are similar to two recent recidivism studies based on official records (as opposed to self-report data) of a comparable number of adult male child pornography offenders. The first study — which has not yet been published but the results of which were publicly presented in 2009 — was conducted by researchers at the Federal Bureau of Prisons (BOP) and thus is directly relevant for comparison with the Commission's study.⁴⁴ The BOP study concerned 870 production and non-production child pornography offenders released from the BOP between 2002 and 2005 and reviewed for evidence of recidivism with an average follow-up period of 3.8 years. Regarding general recidivism rates, 221 of the 870 (25.4%) child pornography offenders were arrested or convicted for a new criminal offense or were arrested or revoked for a "technical" violation. Fifty offenders (5.7%) engaged in sexual recidivism, which the study defined as new non-production child pornography offenses, other non-contact sex offenses, or contact sex offenses.

The second study, which has been published in a peer-reviewed journal,⁴⁵ involved 541 adult male Canadian child pornography offenders. That study, which had an average follow-up time of 4.1 years (compared to the Commission's 8.5 years), found that 175 of the 541 offenders (32.3%) had one or more criminal justice failures (arrests or convictions for new criminal offenses or violations of the conditions of their conditional release leading to arrests or revocations). Sixty offenders (11.1%) engaged in *sexual recidivism*: 28 of the 60 offenders engaged in contact or non-contact sexual offenses (other than child pornography offenses), while the other 32 committed new non-production child pornography offenses.⁴⁶ A recidivism study of foreign offenders should be viewed with caution in extrapolating its findings to American offenders because the foreign offenders were not subject to American penal laws and may have involved a cohort of offenders with different characteristics. Nevertheless, the close similarities

⁴³ Longer terms of supervision may deter some offenders from committing new offenses but also present other offenders with an increased opportunity to violate the conditions of supervision.

⁴⁴ Erik Faust, Cheryl Renaud & William Bickart, *Predictors of Re-offense Among a Sample of Federally Convicted Child Pornography Offenders*, Paper Presented at the 28th Annual Conference of the Association for the Treatment of Sexual Abusers (Oct. 2009).

⁴⁵ See Eke et al., *Examining the Criminal History and Future Offending of Child Pornography Offenders*, *supra* note 4, at 467.

⁴⁶ See *id.* at 471.

between the known recidivism rates of the two groups of North American offenders (the vast majority of whom were white males) is noteworthy.

2. *BJS Recidivism Study of State Sex Offenders Released in Fiscal Year 1994*

In 2003, the Bureau of Justice Statistics (BJS) published the results of its large-scale study of known recidivism by 9,691 sex offenders released from state prisons in 1994 and tracked for three years following their reentry into the community. The BJS study offers an additional point of comparison to the Commission's recidivism study of non-production offenders (which had an average eight-and-a-half year follow-up period).⁴⁷ The BJS study consisted of sex offenders who had committed traditional sex "contact" offenses (*i.e.*, rape, statutory rape, or sexual assault, against either children or adults),⁴⁸ but it did not include offenders convicted only of child pornography offenses. The BJS study, which used RAP sheets, defined recidivism in a similar manner to the Commission's definition, *i.e.*, arrest for or conviction of any new criminal offense (any felony and many serious misdemeanors), as well as "technical" violations of conditions of parole leading to re-incarceration.⁴⁹

The findings of the BJS study were as follows: 43 percent of the 9,691 sex offenders (4,163) were arrested for or convicted of any type of new criminal offense and, of that group, 517 (5.3% of the entire cohort studied) were arrested or convicted of a new "contact" sex offense.⁵⁰ As a separate finding, the BJS study found that 38.6 percent of the 9,691 sex offenders were returned to prison, including 2,656 offenders whose sole basis for returning to prison was a "technical" violation of the conditions of their supervision.⁵¹ The BJS study did not state how many of the 2,656 "technical violation" offenders also had been *arrested* (but not convicted and sentenced to a new term of incarceration) for a new criminal offense. It seems likely that the two groups — those arrested for or convicted of a new criminal offense and those returned to prison for a "technical" violation — overlapped only to some extent. Thus, the *general recidivism* rate (as defined above by the Commission) for the 9,691 sex offenders in the BJS study likely exceeded the rate of arrest or conviction for new offenses (43%).⁵²

It is noteworthy that the general recidivism rate found in the Commission's study of non-production offenders using a comparable three-year average follow-up period (as opposed to an eight-and-one-half year average follow-up period) was 22.3 percent, and the rate of new

⁴⁷ See U.S. DEPT. OF JUSTICE, BUREAU OF JUSTICE STATISTICS (BJS), *RECIDIVISM OF SEX OFFENDERS RELEASED FROM PRISON IN 1994* (2003).

⁴⁸ See *id.* at 1, 3.

⁴⁹ *Id.* at 5-6.

⁵⁰ *Id.* at 13. The BJS study only reported new "contact" sex offenses (*i.e.*, rape and sexual assault offenses, against either adults or children). See *id.* at 34. It is unclear from the BJS study whether new non-contact sex offenses (*e.g.*, child pornography offenses, indecent exposure) fell within the "other offense" category reported in the study. See *id.* at 34 (Table 41).

⁵¹ *Id.* at 14.

⁵² Another 2003 BJS recidivism study of 272,111 offenders sentenced to state prisons for *all* types of offenses (with only a very small percentage being sex offenders, *i.e.*, 3.6%) found even higher rates of recidivism during a 3-year follow-up period. See BJS, *RECIDIVISM OF PRISONERS RELEASED IN 1994* (2003) (67.5% rate of new arrests or convictions and 26.4% rate of "technical" violations resulting in a return to prison).

“contact” sex offenses was 2.6 percent. These lower rates for both general recidivism and new contact sex offenses likely reflect the fact that all of the BJS study group had known histories of contact sex offenses, while only one-third of the child pornography offenders in the Commission’s study had known histories of CSDB (not all of which involved contact sex offenses).⁵³ As discussed in Chapter Seven, social science research indicates that an offender’s history of CSDB (in particular, sexual contact offenses) is a risk factor for sexual recidivism.⁵⁴

3. *Recidivism by Federal Offenders Generally*

In 2004, the Commission published the results of a large-scale recidivism study of a stratified, random sample of 6,062 United States citizens who were sentenced under the federal sentencing guidelines for all types of federal offenses in fiscal year 1992, using a two-year follow-up period.⁵⁵ Table 11–3 below compares the Commission’s current study of recidivism by child pornography offenders to the Commissioner’s earlier recidivism study of all federal offenders. To allow for a meaningful comparison, Table 11–3 refers only to fiscal year 1992 data concerning white male United States citizen offenders, the group most comparable to the typical federal child pornography offender,⁵⁶ and only white male United States citizen non-production offenders from fiscal years 1999–2000 (566 of the 610 total members of the study group). To allow for a meaningful comparison, the recidivism rates of the non-production offenders sentenced in fiscal years 1999 and 2000 are shown two ways: first, using a two-year follow-up period, and, second, using the full eight-and-one-half year follow-up period.

As shown in Table 11–3 below, the overall two-year recidivism rate for the two groups is similar (17.4% rate for the fiscal year 1992 cohort versus a 16.6% rate for the child pornography cohort). However, when controlling for prior criminal record, including separating Criminal History Category I by 0 and 1 criminal history points, the two-year general recidivism rate for child pornography offenders is somewhat higher than the 1992 cohort (8.2% rate for the fiscal year 1992 cohort with no criminal history points versus a 12.5% rate for the child pornography cohort with no criminal history points; 13.1% rate for the fiscal year 1992 cohort with one criminal history point versus a 17.6% rate for the child pornography cohort with one criminal history point). The reason the overall recidivism rates (considering offenders in all Criminal History Categories) are similar is that the child pornography group has a higher percentage of Criminal History Category I offenders (84.9% as compared to 64.5% for the fiscal year 1992 group of all types of offenders), whose recidivism rate is the lowest of all criminal history categories.

⁵³ See Chapter 7 at 202.

⁵⁴ See *id.* at 170 & n.7.

⁵⁵ See U.S. SENT’G COMM’N, MEASURING RECIDIVISM, *supra* note 26.

⁵⁶ Both groups were restricted to white males because the child pornography group is overwhelmingly white and male. Consistent with the 2004 study, the fiscal year 1992 data are weighted to represent the entire comparable population United States white male citizen offenders sentenced under the federal guidelines in fiscal year 1992.

Table 11-3
Comparison of Child Pornography Recidivism for
White Male Offenders
Fiscal Year 1992 & Fiscal Years 1999-2000

	FY92 Recidivism Sample		FY92 General Recidivism Rate Within Two Years		FY99-00 Child Pornography Offenders		General Recidivism Rate Within Two Years		General Recidivism Rate Full Follow-Up Period	
	N		N	%	N	%	N	%	N	%
Total	11,888		2,064	17.4	566	100.0	94	16.6	172	30.4
Criminal History										
Category I	7,670		708	9.2	478	100.0	63	13.2	126	26.4
Zero Points	6,144		504	8.2	415	100.0	32	12.5	107	25.8
One Point	1,478		194	13.1	51	100.0	9	17.6	17	33.3
Categories II-VI	4,218		1,356	32.1	88	100.0	31	35.2	46	52.3

Note: Twelve FY99-00 cases and 48 weighted FY92 cases have missing criminal history points.
 SOURCE: U.S. Sentencing Commission, FY92 Recidivism Sample (2003 weighted data) and 1999-2000 Datafile, USSCFY92 and USSCFY99-00 and FBI RAP Sheet Coding Project.

A similar comparison can be made to data concerning the revocation rate for all federal offenders sentenced to supervised release. In its 2010 report, *Federal Offenders Sentenced to Supervised Release*, the Commission noted that the revocation rate for all federal offenders serving terms of supervised release has been 33.0 percent in recent years, but that the rate for offenders who were in Criminal History I at the time of their original sentencing was 18.7 percent.⁵⁷ Those revocation rates are not fully comparable to the two-year failure rates reported in Table 11-3 for two reasons: (1) not all criminal justice failures found in the Commission's recidivism studies would necessarily have resulted in revocations of the offenders' supervised release (e.g., misdemeanor offenses and "technical" violations do not always result in revocations);⁵⁸ and (2) revocations of supervised release may result from offenders' violations occurring after two years following an offender's reentry into the community (although the average revocation occurs after only 17 months of supervision).⁵⁹ Nevertheless, despite these differences, the revocation data for all federal offenders appear generally consistent with the Commission's findings concerning the rate of general recidivism by child pornography offenders.

⁵⁷ See *id.* at 62, 67. That report is available at http://www.ussc.gov/Research/Research_Publications/Supervised_Release/20100722_Supervised_Release.pdf.

⁵⁸ See, e.g., USSG §7B1.3(a) (discussing the different types of supervised release violations and their consequences).

⁵⁹ FEDERAL OFFENDERS SENTENCED TO SUPERVISED RELEASE, note 57, at 63.

F. CONCLUSION

The Commission's recidivism study of 610 offenders sentenced under the non-production child pornography guidelines in fiscal years 1999 and 2000 and other relevant recidivism studies allow for the following conclusions:

- The known *general recidivism* rate for federal non-production offenders studied by the Commission was 30.0 percent during an average follow-up period of eight and one-half years after the offenders' reentry into the community.
- Those offenders' known *sexual recidivism* rate, a subset of the general recidivism rate, during that same follow-up period was 7.4 percent. The known "contact" sexual recidivism rate, a subset of the overall sexual recidivism rate, was 3.6 percent.
- Because there are sufficient similarities in offense and offender characteristics between the offenders sentenced in fiscal years 1999 and 2000 and current federal non-production offenders, the findings of the Commission's recidivism study appear to have continuing relevance to current offenders.
- The known general and sexual recidivism rates found in the Commission's study of federal non-production offenders are comparable to the known general and sexual recidivism rates reported in two recent child pornography recidivism studies by BOP and Canadian researchers.
- The known general recidivism rate and known sexual "contact" offense recidivism rate found in the Commission's study are lower than such rates for contact sex offenders tracked by BJS in a large-scale study of such sex offenders released from state prisons in 1994.
- The known general recidivism rate found in the Commission's study is similar to the known general recidivism rate for a comparable segment of the total federal offender population (*i.e.*, United States citizen white male federal offenders) studied by the Commission in 2004, as well as the supervised release revocation rate for federal offenders generally (as discussed in the Commission's 2010 report on supervised release).

supervised release” for all offenders convicted of a sex offense, including any child pornography offense. That guideline effectively recommends a lifetime term of supervision for all child pornography offenders because the current statutory maximum term of supervision for any offender convicted of a child pornography offense is “any term of years not less than 5, or life.”⁷⁴ The recommendation in §5D1.2(b) was made before the enactment of the PROTECT Act of 2003, which raised the statutory maximum term of supervision from three years for most child pornography offenders to a lifetime term for all child pornography offenders.⁷⁵ The Commission is considering amending the guideline in a manner that provides guidance to judges to impose a term of supervised release within the statutory range of five years to a lifetime term that is more tailored to individual offender’s risk and corresponding need for supervision.

D. POSSIBLE CHANGES TO THE NON-PRODUCTION CHILD PORNOGRAPHY STATUTES

In addition to legislation providing the Commission with authority to revise the child pornography guidelines in a comprehensive manner, the Commission recommends two statutory amendments that Congress should consider: first, an amendment that aligns the statutory penalties for the offenses of receipt and simple possession and, second, an amendment to the statutory provisions governing notice to, and restitution for, victims of non-production offenses. In addition, Congress may wish to revise the current statutory penalty structure to differentiate among the various types of distribution conduct by non-production offenders today. These potential statutory changes are discussed below.

1. Statutory Penalties

The current statutory range of imprisonment for possession is zero to ten years of imprisonment if an offender possessed child pornography depicting a minor 12 years of age or older who was not then prepubescent and zero to 20 years of imprisonment if an offender possessed child pornography depicting a prepubescent minor or a minor under 12 years of age. The current statutory range of imprisonment for receipt is five to 20 years of imprisonment for R/T/D offenses (whatever the age or sexual development of the minors depicted). Defendants with predicate convictions for sex offenses face increased statutory imprisonment ranges of ten to 20 years for a possession offense (whatever the age or sexual development of the minors depicted) and 15 to 40 years for R/T/D offenses.⁷⁶

Since Congress’s 1990 legislation adding simple possession to the list of prohibited acts, the Commission has taken the position that, because receipt is “a logical predicate” to possession, “there appears to be little difference in the offense seriousness between typical receipt cases and typical possession cases.”⁷⁷ For similar reasons, the Criminal Law Committee

⁷⁴ 18 U.S.C. § 3583(k).

⁷⁵ See Chapter 10 at 272.

⁷⁶ See Chapter 2 at 26. Until late 2012, the statutory maximum penalty for all possession offenses was 10 years (for offenders without a predicate conviction for a sex offense). See Chapter 1 at 5.

⁷⁷ U.S. SENT’G COMM’N, REPORT TO THE CONGRESS: SEX OFFENSES AGAINST CHILDREN: FINDINGS AND RECOMMENDATIONS REGARDING FEDERAL PENALTIES 11, 41 (June 1996); Letter of Judge William W. Wilkins, Jr., Chair, U.S. Sentencing Commission, to Hon. Edward R. Roybal, Chairman, House Subcommittee on Treasury,

of the Judicial Conference recently has recommended that Congress remove the statutory mandatory minimum penalty for receipt because “there is no meaningful difference between receipt [and] possession.”⁷⁸ In the Commission’s 2010 survey of judges, a clear majority stated that current statutory penalty levels for receipt cases are excessive.⁷⁹ The Commission’s special coding project of fiscal year 2010 non-production child pornography cases found that there were inconsistent charging practices that resulted in significant unwarranted sentencing disparities among offenders charged with receipt and similarly situated offenders charged with possession.⁸⁰

In deciding whether to align the statutory penalties for receipt and possession, Congress would need to review its previous decision that the punishment for receipt should mirror the higher penalty range for distribution rather than the lower penalty range for possession.⁸¹ That decision appears to have been predicated on two beliefs — first, that aligning the penalties for receipt with the penalties for distribution rather than with the penalties for possession was important for law enforcement purposes; and, second, that receipt offenses often contributed to the commercial child pornography market.⁸² As explained below, neither reason has the same force today because of changed circumstances.

Postal Service, and General Government, Committee on Appropriations, U.S. House of Representatives (Aug. 7, 1991), included in the *Congressional Record* at 137 CONG. REC. H6736-02 (daily ed. Sept. 24, 1991).

⁷⁸ See Testimony of Chief U.S. District Judge M. Casey Rodgers, U.S. District Court for the Northern District of Florida, to the Commission, at 367, 370 (Feb. 15, 2012) (on behalf of the Criminal Law Committee) (“I would urge the Commission to seek repeal of the [statutory m]andatory [m]inimum sentence for receipt offenders.”).

⁷⁹ In the survey, 71% of the 639 judges who responded to questions regarding child pornography offenses stated that the statutory mandatory minimum penalty for receipt was too high. See U.S. SENT’G COMM’N, RESULTS OF SURVEY OF UNITED STATES DISTRICT JUDGES: JANUARY 2010 THROUGH MARCH 2010, Questions 1 & 8 (June 2010). The Commission suggested in its recent report on mandatory minimum penalties that “mandatory minimum penalties for certain non-contact child pornography offenses may be excessively severe and as a result are being applied inconsistently.” U.S. SENT’G, COMM’N, REPORT TO THE CONGRESS: MANDATORY MINIMUM PENALTIES IN THE CRIMINAL JUSTICE SYSTEM 369 (Oct. 2011).

⁸⁰ See Chapter 8 at 213–15. The fiscal year cases examined by the Commission were ones in which the statutory maximum sentence was ten years for possession and 20 years for receipt (for offenders without a predicate conviction for a sex offense). In late 2012, the statutory maximum sentence for possession was increased to 20 years for defendants who possessed child pornography depicting a prepubescent minor or a minor under 12 years of age (a type of child pornography possessed by the vast majority of offenders today). See Chapter 1 at 5; see also Chapter 8 at 209 (noting that 96.3% of non-production offenders possessed such images in fiscal year 2010). Some of the sentencing disparities in 2010 resulted from the prior ten-year statutory maximum for possession offenders. See Chapter 8 at 217, 219. However, additional disparities resulted from the fact that the possession statute did not (and still does not) carry a mandatory minimum penalty and also from the fact that offenders convicted of receipt have a higher base offense level under USSG §2G2.2(a) than offenders convicted of possession. See *id.* at 215. The latter disparities presumably will continue to occur notwithstanding the current possession statute.

⁸¹ See Chapter 2 at 27–28. As discussed in Chapter 2, Congress did not criminalize possession in 1977, when it first criminalized receipt and distribution, and only added possession to the list of prohibited acts in 1990 (with lower penalties than those for receipt and possession). When possession was criminalized in 1990, although it had lower statutory penalties than receipt, the Commission decided to align the guideline penalties for receipt and possession because it considered the two offenses to be very similar in nature and different from distribution. In 1991, Congress rejected the Commission’s decision to align the guideline penalties for receipt and possession. See *id.* at 28–30.

⁸² See *id.* at 29–30.

Congress's first reason related to the manner in which law enforcement officials in the early 1990s detected and prosecuted offenders who trafficked in child pornography. At the time that Congress first criminalized possession in 1990, many offenders who distributed child pornography used the United States postal system to do so. United States postal inspectors often used "reverse sting" operations to detect such offenders and prosecute them for receipt.⁸³ Prosecutors often filed receipt charges against such offenders rather than distribution charges because, at that time, it generally was easier to prove the offense of receipt than the offense of distribution based on the success of "reverse sting" operations.⁸⁴ Today, however, law enforcement officials primarily detect offenders on the Internet and, in particular, can detect and prosecute *distribution* — which typically occurs through the use of P2P file-sharing programs⁸⁵ — as or more easily than receipt.⁸⁶ Therefore, in view of these changes in offense conduct and law enforcement techniques, the prior rationale for aligning the penalties for receipt with the higher penalties for distribution — rather than aligning the penalties for receipt with the lower penalties for possession — no longer exists.

The second apparent reason that Congress cited for punishing receipt more harshly than possession in the early 1990s was that a large percentage of offenders who received child pornography did so by paying for it and, thus, financially contributed to the commercial child pornography industry.⁸⁷ That reason also has been undercut by technological changes in offense conduct during the past two decades. Although paying consumers of child pornography still exist today, in recent years the *non-commercial* market for child pornography has "exploded," and the commercial market has assumed a much smaller portion of the overall market.⁸⁸ As non-

⁸³ See, e.g., *United States v. Gifford*, 17 F.3d 462 (1st Cir. 1994) (noting that the defendant, who both distributed and received child pornography, was detected by a U.S. Postal inspector in 1990 in a "reverse-sting" operation and ultimately was charged and convicted of receipt).

⁸⁴ See Chapter 2 at 29 (quoting from 1990 floor statements of Senator Helms and Representative Wolf).

⁸⁵ See Chapter 6 at 154–55.

⁸⁶ See Testimony of Assistant U.S. Attorney Steve DeBrotta (Northern District of Indiana), to the Commission, at 282 (Feb. 15, 2012) ("[I]n my opinion, forensically proving receipt has been oversold. It's actually easier to prove where they're doing it, distribution, than it is receipt. Receipt is tricky. Distribution, the forensics evidence tends to be easier.").

⁸⁷ See Chapter 2 at 29 (quoting from Senator Helms).

⁸⁸ See Testimony of Ernie Allen, President and CEO, National Center for Missing and Exploited Children, Institute of Medicine, Committee on Commercial Sexual Exploitation and Sex Trafficking of Minors in the United States, The National Academies (Jan. 12, 2012) ("I believe that the problem of commercial child pornography has shrunk dramatically. However, the non-commercial distribution of child pornography has exploded. . . . There are millions of child pornography images being traded online by individuals who view them for sexual gratification. Offenders can access them for free on all platforms of the Internet, including the World Wide Web, peer-to-peer file-sharing programs, and Internet Relay Chat."), http://www.missingkids.com/missingkids/servlet/NewsEventServlet?LanguageCountry=en_US&PageId=4632 (last visited Dec. 11, 2012); World Congress against Commercial Sexual Exploitation of Children, *Theme Paper: Child Pornography [Report to the Second World Congress Against Commercial Sexual Exploitation of Children]* 5 (2001) ("[O]nce an image has been digitised and is in the public domain these days it will inevitably find its way on to the Internet where it could be picked up and used both in a commercial and a non-commercial setting. The distinction between commercial and non-commercial child pornography thus ceases to have any real significance in this context."), http://www.csecworldcongress.org/PDF/en/Yokohama/Background_reading/Theme_papers/Theme%20paper%20Child%20Pornography.pdf (last visited Dec. 11, 2012); see also Chapter 6 at 154 (noting that a majority of offenders today receive child pornography using non-commercial P2P file-sharing programs, while a minority received child pornography from commercial websites).

commercial distribution has eclipsed commercial distribution, the typical offender today receives images without providing financial support to the commercial child pornography industry. Therefore, the rationale for categorically punishing receipt in the same manner as distribution — and more harshly than possession — appears less compelling today than it did in the early 1990s.

Finally, after reviewing over 2,000 cases of offenders sentenced for receipt and possession offenses in fiscal years 1999, 2000, 2010, and 2012 in preparation for this report, the Commission reaffirms its prior conclusion that “there appears to be little difference in the offense seriousness between typical receipt cases and typical possession cases.”⁸⁹

For these reasons, and to reduce the unwarranted sentencing disparities resulting from inconsistent application of the mandatory minimum penalty for receipt offenses,⁹⁰ the Commission unanimously recommends that Congress align the statutory penalties for receipt and possession. There is a spectrum of views on the Commission, however, as to whether these offenses should be subject to a statutory mandatory minimum penalty and, if so, what any mandatory minimum penalty should be.⁹¹ Nevertheless, the Commission unanimously believes that, if Congress chooses to align the penalties for possession with the penalties for receipt and maintain a statutory mandatory minimum penalty, that statutory minimum should be less than five years.

Finally, the Commission’s analysis of current offenders’ distribution behaviors revealed several different types of common distribution conduct, ranging from “personal” modes of distribution associated with “community” involvement (*e.g.*, emailing images to other offenders or trading images in “closed” P2P file-sharing programs) to “open” P2P file-sharing programs involving impersonal and indiscriminate distribution to strangers.⁹² The most common mode of distribution today is “open” P2P file-sharing.⁹³ The different types of distribution reflect a significant evolution in the technologies used to distribute child pornography, particularly in the past decade.⁹⁴ Because the existing statutory provisions prohibiting distribution and the related act of transportation of child pornography⁹⁵ were enacted in earlier technological eras,⁹⁶ Congress may wish to revise the penalty structure governing those offenses to differentiate

⁸⁹ U.S. SENT’G COMM’N, SEX OFFENSES AGAINST CHILDREN, *supra* note 77, at 41.

⁹⁰ See Chapter 8 at 215 (discussing sentencing disparities resulting from inconsistent application of statutory mandatory minimum penalty for receipt offenses).

⁹¹ Cf. U.S. SENT’G COMM’N, MANDATORY MINIMUM PENALTIES IN THE FEDERAL CRIMINAL JUSTICE SYSTEM, *supra* note 79, at xxxi (noting that “there is a spectrum of views among members of the Commission regarding mandatory minimum penalties” generally).

⁹² See Chapter 6 at 149–51.

⁹³ See *id.* at 150, 54.

⁹⁴ See *id.* at 155 (noting that no non-production offenders sentenced in fiscal year 2002 appeared to have used a P2P file-sharing program).

⁹⁵ 18 U.S.C. §§ 2252(a)(1),(2) & 2252A(a)(1), (2). As noted in Chapter 7, the vast majority of offenders convicted of transportation of child pornography in fact knowingly distributed it to other offenders. See Chapter 7 at 189 n.72.

⁹⁶ Section 2252(a) originally was enacted in 1977, and § 2252A originally was enacted in 1996. See *United States v. Polizzi*, 549 F. Supp. 2d 308, 341 (E.D.N.Y. 2008), *vacated on other grounds*, 564 F.3d 142 (2d Cir. 2009). See also Chapter 1 at (discussing the evolution of technology in offense conduct during the past four decades).

among the wide array of newer and older technologies used by offenders to distribute child pornography.

2. Notice to and Restitution for Victims of Non-Production Offenses

Implementation of the current federal statutes governing notice to and restitution for victims of non-production child pornography offenses has been problematic. The notice provision has in some cases exacerbated victims' emotional harm, yet has been deemed necessary to protect the victims' rights (including their right to seek restitution). The restitution statute has generated confusion and disparate results in courts around the country.⁹⁷ Therefore, Congress should consider amending the notice and restitution statutes in order to minimize emotional trauma to victims and also provide specific guidance to sentencing courts to ensure appropriate restitution for victims.

E. FINDINGS AND RECOMMENDATIONS CONCERNING §2G2.1 (PRODUCTION) CASES

The Commission's special coding project of §2G2.1 cases revealed that production offenders engage in a wide variety of offense behavior. The typical offender, during the course of his production offense, had sexual contact with a prepubescent minor. A minority of offenders, however, did not engage in any physical contact with their victims, and a subset of those offenders were never physically present with their victims because they caused the production of child pornography remotely (*e.g.*, via a webcam or through email).⁹⁸

The rate of sentences imposed within the applicable guideline ranges in §2G2.1 cases is substantially higher than the rate in §2G2.2 cases, but the within range rate in §2G2.1 cases has noticeably decreased during recent years. In fiscal year 2011, the within range rate in such cases was 50.4 percent, down from a rate of 84.0 percent in fiscal year 2004, while the below range rate (excluding departures for substantial assistance to the authorities) rose to 38.1 percent. As with average sentences in §2G2.2 cases, average sentences in §2G2.1 cases steadily increased in the years following the enactment of the PROTECT Act of 2003 but have declined slightly in recent years as the percentage of below range sentences have increased. The average sentence for production offenders in fiscal year 2011 was 274 months.⁹⁹

The Commission will continue to monitor sentencing practices in production cases carefully. In addition, certain conforming amendments to §2G2.1 may be appropriate in conjunction with future amendments to §2G2.2.

F. CONCLUSION

This report by the Commission is intended to provide Congress and the various stakeholders in the federal criminal justice system with relevant and thorough information about child pornography offenses and offenders. As illustrated by this report, child pornography

⁹⁷ See Chapter 5 at 114–18.

⁹⁸ See Chapter 9 at 262–66.

⁹⁹ See *id.* at 252–57.



Estimating the Size and Structure of the Underground Commercial Sex Economy in 11 Major US Cities

BY RANDY

AND
SCOTT

Chapter 9

Child Pornography Offenses in the Digital Age

Introduction

Over the last 20 years, the popularization of the Internet has profoundly increased the availability and accessibility of child pornography, in addition to fostering the establishment of a child pornography subculture. Technological advancements have facilitated the production of child pornography and increased image and video storage capacity. Concurrently, online communities have increasingly normalized producing and possessing child pornography for members in these communities.

This study is based on interviews with 21 incarcerated male offenders who used the Internet to collect child pornography and 35 local and federal investigators and prosecutors who have experience investigating and prosecuting child pornography cases. We document how offenders use technology to access, store, and share child pornography, as well as the social networks that develop through online communities. In addition to providing insight on the behavior of online child pornography offenders, this chapter describes how offenders perceive and justify their behavior, as well as their impressions of how the market has changed over time. Stakeholders were asked to describe the structure of the market for child pornography, trends in the nature of the crime, and characteristics of offenders and victims.

Main Findings from this Chapter Include:

Background and Demographic Information: Consistent with extant research, child pornography offenders are primarily white, highly-educated males.

Technology: The Internet and other technological advances have facilitated the dissemination of child pornography, making it widely accessible and enabling offenders to obtain material for free, thereby shrinking the commercial market within the United States.

Networking: Online child pornography communities normalize behavior, provide networks for offenders to share materials and strategies to evade detection, and encourage production of child pornography in exchange for newer videos and images.

Trends: Over time, offenders have observed increased availability, changes in location of production, and progressively graphic content of child pornography.

Perceptions: Most offenders perceived child pornography possession to be a victimless crime and expressed surprise about penalties associated with child pornography offenses.

Outliers: Though the majority of child pornography offenders used the Internet to acquire and share child pornography, some respondents do not fall within that mold.

Definitions

Difficulties arise in establishing a global definition of child pornography, as legal definitions, including the age of consent, vary across countries. Within the United States penal code, Title 18 § 2256 defines child pornography as any visual depiction of a minor engaging in sexually explicit conduct, with a minor defined as anyone under the age of 18. Sexually explicit conduct is not limited to sexual intercourse and masturbation, but also lascivious and sexually suggestive behavior, which can include images focused on

the genital regions of clothed children (Wortley and Smallbone 2012). Images that do not involve actual children, such as computer-generated images or adults who appear to be minors, are not considered child pornography by US courts (Wortley and Smallbone 2006).

Possession and receipt of child pornography, in addition to distribution and production, are federal crimes. Possession does not require an individual to save or store an image, but simply to view or access the material. All 50 US states have child pornography laws, though these statutes may differ slightly from the federal code, particularly in equating viewing child pornography with possession.

Law enforcement and researchers frequently distinguish between contact and non-contact sexual offenses. As defined by the United States Sentencing Commission's 2012 report on child pornography, contact sex offenses are "any illegal sexually abusive, exploitative, or predatory conduct involving actual or attempted physical contact between the offender and a victim." Non-contact sex offenses do not involve actual or attempted physical contact.

Though this report uses the term child pornography, this term may be misleading, as it can be interpreted to diminish the severity of the crime. To avoid this misrepresentation, certain researchers, media sources, and law enforcement agencies prefer the terms child abuse material, child exploitation material, or child abuse images.

Literature

Though researchers agree on the Internet's vast impact on escalating the availability of child pornography, it is nevertheless difficult to estimate the size of the problem. Due to the inherent challenges in calculating the number of offenders downloading online child pornography, there is no agreed upon figure to underscore the extent of the problem. Estimates to the number of child pornography offenders range from 50,000 to 100,000 pedophiles in organized rings (Jenkins 2001) to 750,000 Internet offenders at any one time (Maalla 2009). Though most US child pornography offenders engage in distribution for non-commercial purposes (United States Sentencing Commission 2012), there is a global commercial market. However, there is little existing research regarding its structure and scope. Speculation to the size of the commercial child pornography economy ranges from \$3 to \$20 billion (Bialik 2006), and the Internet Watch Foundation found that 27 percent of the webpages hosting child pornography in 2012 were on commercial websites (Internet Watch Foundation 2012).

Much of the existing literature focuses on the characteristics of Internet sex offenders, who tend to be white, male, and educated (Wolak, Finkelhor, and Mitchell 2011; Wortley and Smallbone 2012). The bulk of studies are based upon samples of individuals arrested for child pornography offenses, therefore findings may be somewhat biased and reflect the types of offenders detected or targeted by law enforcement, rather than a representative sample of all child pornography offenders (Wortley and Smallbone 2012).

In order to identify variations in offender behavior, researchers have attempted to categorize offenders by their motives and behavior (Alexy, Burgess, and Baker 2005; Lanning 2010; Merdian et al. 2013b; Sullivan and Beech 2004). Krone (2004, 4) developed a typology of child pornography offenders with categories that take into consideration an offender's intent, engagement in networking, and security measures (table 9.1). As the typology indicates, involvement can range from a browser, who inadvertently views material, but intentionally saves it, to groomers, physical abusers, and producers, all of whom directly abuse children.

Table 9.1 Child Pornography Offending Typology

Type of involvement	Features	Level of networking by offender	Security	Nature of abuse
Browser	Response to spam, accidental hit on suspect site—material knowingly saved	Nil	Nil	Indirect
Private Fantasy	Conscious creation of online text or digital images for private use	Nil	Nil	Indirect
Trawler	Actively seeking child pornography using openly available browsers	Low	Nil	Indirect
Non-secure collector	Actively seeking material often through peer-to-peer networks	High	Nil	Indirect
Secure collector	Actively seeking material but only through secure networks. Collector syndrome and exchange as an entry barrier	High	Secure	Indirect
Groomer	Cultivating an online relationship with one or more children. The offender may or may not seek material in any of the above ways. Pornography may be used to facilitate abuse	Varies—online contact with individual children	Security depends on child	Direct
Physical abuser	Abusing a child who may have been introduced to the offender online. The offender may or may not seek material in any of the above ways. Pornography may be used to facilitate abuse	Varies—physical contact with individual children	Security depends on child	Direct
Producer	Records own abuse or that of other (or induces children to submit images of themselves)	Varies—may depend on whether becomes a distributor	Security depends on child	Direct
Distributor	May distribute at any one of the above levels	Varies	Tends to be secure	Indirect

Source: Krone 2004.

Since the Internet is a relatively new phenomenon, a number of studies have endeavored to discern behavioral and psychological differences between online (non-contact) sex offenders and offline (contact) sex offenders. Babchishin, Hanson, and Hermann's (2011) meta-analysis of 27 studies found that online offenders were younger than offline offenders, less likely to be a racial minority, and less likely to have a criminal history. Both online and offline offenders experienced more physical and sexual abuse than the general population. Offline offenders had lower rates of victim empathy and more cognitive distortions, but also lower rates of sexual deviancy. The authors suggest that higher levels of self-control and less impulsivity may explain why online offenders do not commit contact crimes.

Other studies have attempted to determine the likelihood of non-contact offenders "crossing over" to commit contact crimes. Viewing child abuse images could normalize this behavior and therefore lead to contact offending, or could potentially prevent contact offending by acting as a substitute (Quayle and Taylor 2002). Wortley and Smallbone (2012) point to the increase in child pornography accessibility and decrease in sexual abuse rates to illustrate that Internet child pornography does not lead to contact crimes.

Seto, Hanson, and Babchishin (2011) conducted a meta-analysis of nine studies, which found a recidivism rate of only 4.6 percent for online sex offenders, with 2 percent committing a contact sexual offense over a 1.5 to 6 year follow-up period. They also analyzed 21 studies and found that 12 percent of online offenders have an officially documented contact sexual offense. However, six studies with self-report data indicated a high number of undocumented crimes, as 55 percent of offenders disclosed additional offenses. Even when excluding Bourke and Hernandez's (2009) Butner study, whose high rates of self-reported data have been questioned (Aviv 2013), the rate remains at around 50 percent.

While numerous studies rely on administrative data or interviews with law enforcement officers and clinical staff, Quayle and Taylor (2002) conducted interviews with 13 men convicted of downloading child pornography. Their study sheds light on the function of child pornography and identifies six main ways that offenders describe using child pornography: for sexual arousal, as collectibles, to facilitate social relationships, to avoid real life, as therapy, and as inevitably linked with the Internet.

Recent studies (Meridian et al. 2013a; Seto, Reeves, and Jung 2010; Surjadi et al. 2010; Winder and Gough 2010) attempted to determine the applicability of these discourses, and other motives, to explain offender behavior. Surjadi and colleagues (2010) found the most important function of child pornography was for offenders to avoid real life and that the function of facilitating social relationships was nonexistent in their sample of 43 Internet offenders. However, other research suggests that social networks and virtual communities play an important role in fostering Internet child pornography offenses (Durkin and Bryant 1999; Holt, Blevins, and Burkert 2010; Jenkins 2001; O'Hallaron and Quayle 2010; Quayle and Taylor 2002).

Law enforcement and researchers are aware of a multitude of ways to access and distribute child pornography through the Internet (United States Sentencing Commission 2012; Wortley and Smallbone 2006), which include websites, newsgroups, bulletin boards, chat rooms, peer-to-peer networks, and the deep web. Studies have analyzed posts in web forums to understand how these subcultures operate (Jenkins 2001) and identify the rationalizations that offenders use to justify their actions (Durkin and Bryant 1999; O'Halloran and Quayle 2010).

Findings

Offender Background and Demographic Information

Thirty-three incarcerated male offenders, identified through stakeholder interviews and media searches, participated in semi-structured interviews. The interviews focused on the use of technology and social networking to acquire child pornography and did not ask about the content of pornographic material nor any arousal and pleasure derived from the material. Respondents lived across the eight cities examined in this study, though location did not change offender behavior, as the bulk of child pornography activity was conducted online. The majority (31) of individuals were housed in federal facilities, with the remainder (2) in state prisons.

Three offenders contended that family or friends were responsible for downloading child pornography on their computer, two were reticent to discuss their case, and seven offenders described situations, such as possession of cell phone images taken by a minor and never shared, which are distinct from the focus of this report: Internet child pornography offenses. Therefore, these twelve interviews are not included in the next four sections of this chapter, as we focus on findings from 21 interviews with offenders who engaged in online activity to download and share child pornography as well as findings from interviews with 35 local and federal investigators and prosecutors. In the final section of the chapter, we briefly discuss the accounts of the seven offenders who admitted to possessing child pornography, but did not engage in any Internet activity.

Offenders in the sample were convicted for both contact and non-contact sexual offenses. When asked their main offense for which they were serving time, six (29 percent) named production of child pornography, ten (48 percent) reported possession or distribution of child pornography, and four (19 percent) cited contact sexual offenses such as sexual assault on a child, sexual exploitation of a child, lewd and lascivious conduct, and enticing a minor. One respondent declined to provide his main charge.

Gender

Our offender sample was entirely male, which parallels findings from the National Juvenile Online Victimization Study, which found that in 2006, 99 percent of arrested child pornography possessors were male, and in 2000, 100 percent were male (Wolak et al. 2011). However, studies of self-reported online child pornography behavior have found that women are accessing child pornography at equal rates to men (Seigfried, Lovely, and Rogers 2008; Seigfried-Spellar and Rogers 2013). A paper presented at a 2011 INTERPOL conference recommended further studies into the gender disparity of child pornography offenders (Aiken, Moran, and Berry 2011).

Educational Attainment

The education level of the sample was very high, especially when compared to the general prisoner population. Of the 21 offenders in the sample, 90 percent had some postsecondary education and had either earned their bachelor's degree (19 percent) or associate's degree (24 percent) or attended some college (48 percent). This number contrasts with the percentage of the adult prison population with postsecondary education, found to be only 22 percent (Greenberg, Dunleavy, and Kutner 2007). Similarly, though not as pronounced as our sample, the National Juvenile Online Victimization Study found 51 percent of 2006 offenders to have some postsecondary education (Wolak et al. 2011).

Seven (33 percent) of the offender respondents studied computer-related subjects, such as information and communications technology, and three (14 percent) studied business. Two additional offenders, who did not study computer-related subjects, had an information technology (IT) background or worked with computers. The importance of technological expertise will be explored later in this chapter, particularly in relation to strategies to evade detection from law enforcement.

Age

The age of respondents ranged from 26 to 70, with an average age of 46 years old and over a third (38 percent) in their forties. At the time of interview, offenders had served between one to six years of their sentence, with an average of almost three years. The respondents in our sample were older than the average Bureau of Prison (BOP) inmate (39 years old), and also older than the average age reported in other child pornography studies. For example, the average age found through a 2011 meta-analysis of 27 online sex offenders studies was 39 years old (Babchishin et al. 2011).

Race

Ten offenders (82 percent) self-identified as white or Caucasian, with two (9 percent) identifying as Latino or Hispanic and one individual not providing his race. This contrasts with general demographics of BOP male prisoners, which break down to 32 percent white, 39 percent black, and 23 percent Hispanic (Carson and Sabol 2012), but supports past findings about the predominance of white online child pornography offenders (Babchishin et al. 2011; Bourke and Hernandez 2009; Jenkins 2001).

Offenders' race may also influence the preferred race of victims depicted in pornographic materials, as offenders seek images of victims that reflect their own race (Bachishin et al. 2011). In support of this, child pornography victims are primarily white (Jenkins 2001; Taylor and Quayle 2003).

History of Experiencing Abuse

While the interviews did not ask about respondents' history of abuse, three offenders (14 percent) shared that they experienced abuse as children, two of whom were molested. A 2011 meta-analysis found that 21 percent of online sexual offenders experienced childhood sexual abuse and 24 percent experienced childhood physical abuse (Babchishin et al. 2011).

Sexuality & Relationship Status

Through the interviews, five respondents (24 percent) volunteered information that they identified as homosexual, six respondents (29 percent) were in long-term relationships or married at the time of their arrest, and six respondents (29 percent) had children. The only other study to report on sexuality found that within a sample of 43 Dutch, Internet-only offenders, 74.5 percent claimed to be heterosexual, 7 percent homosexual, 7 percent bisexual, and 11.5 percent claimed to have pedophilic interests (Surjadi et al. 2010).

Technology

It is widely accepted that currently, the Internet provides the primary medium for acquisition and distribution of child pornography. Though a stakeholder from the US Postal Service reported a shift back to mail distribution methods as a result of increased Internet monitoring, only one offender in our sample ever distributed or purchased child pornography through the mail.

Over the last twenty years, the rapid increase in Internet use has profoundly affected the availability, affordability, and anonymity of obtaining child pornography. These three A's, identified by Al Cooper (2002) as the "Triple A Engine," fuel addiction for online sexual activity and were found to be powerful factors in offenders' explanations of what contributed to their online behavior to download and share child pornography.

Offenders used the Internet to access child pornography during different time periods and for different lengths of time. All of the offenders collected at some points in the 2000s, with 10 (48 percent) collecting in the early 2000s and 14 (62 percent) collecting during the late 2000s. Three respondents (14 percent) began collecting in the late 1990s. Offenders reported collecting child pornography for varied amounts of time, ranging from one month to fifteen years, with a third (33 percent) collecting for over five years.

Websites and Programs

Offenders named eight methods to acquire online child pornography. From most to least common, these include peer-to-peer file sharing (P2P), Internet relay chat (IRC), websites, newsgroups, chat rooms, the deep web, bulletin boards, and social network platforms (see table 9.2). Less than a third (n = 6, 29 percent) of respondents only used one method, the majority used multiple techniques to download child pornography. An individual's chosen medium generally depended on his online experience, technological savvy, and communication preferences. A discussion of the networking aspect of child pornography is provided later within this chapter. The majority (86 percent) of offenders who collected over a five year period used different methods, often changing due to different technological advancements or perceived security.

Table 9.2 Collection Methods

Method	Frequency % (n)	Description
Peer-to-peer (P2P) file sharing	43% (9)	P2P networks connect computers, which act as both clients and servers, to enable file sharing between hard drives.
Internet relay chat (IRC)	38% (8)	IRCs enable chatting through instant messaging and group forums, called channels, as well as contain file sharing features.
Websites	33% (7)	Child pornography websites may be temporary and require passwords. Individuals may find these sites through chatting, bulletin boards, or newsgroups.
Newsgroups	33% (7)	Usenet, the largest newsgroup network, consists of thousands of discussion newsgroups where users can post images or movies and disseminate information about other sources of child pornography.
Chat rooms, instant and/or video messaging	24% (5)	Programs such as ICQ, ICUII, Yahoo, and AOL chat support group and private chatting, often with the capability of video chat. Chat rooms can be open or private and may have a moderator.
Deep Web	14% (3)	The deep web offers a greater degree of anonymity, as it is not accessible by major search engines or web browsers. One of the main ways to access the deep web is Tor.
Bulletin Boards	10% (2)	Bulletin boards provide a discussion forum, where users can disseminate information about other sites to download child pornography.
Social network platform	10% (2)	Social networks can enable users to find like-minded members, as well as chat and share files.

Peer-to-Peer (P2P) File Sharing

With P2P networks, users can designate which files they wish to share for other users on the network to download. While some programs allow users to preview files, often the filename and size is the only information available prior to download. Current P2P networks operate without a centralized server, enabling computers to download material directly from each other. Respondents named P2P networks including GigaTribe, Gnutella, and eMule. Software to access files are called P2P clients, and respondents used two common clients, Frostwire and Limewire. While P2P networks are generally for file sharing, newer P2P networks such as GigaTribe have a social aspect, as users can create private networks and chat online.

Internet Relay Chat (IRC)

Through IRC, users can participate in group chats and communicate directly with individuals. Group discussion forums, known as channels, can be private, secret, or password protected to allow greater security. Channel operators—users who manage the channel—have the ability to ban others and create bots, programs which can be used for added control. IRC was primarily designed for communication, not file sharing, but users can set up a file server (fserve) to transfer files between users. File servers are run by an fserve owner and often are ratio-based, prohibiting users from downloading more bytes than they upload. Respondents mentioned mIRC as the primary client and listed IRC networks including EFnet, Undernet, and DALnet.

Websites

A United Nations report estimated that the number of websites hosting child pornography grew from 261,653 in 2001 to 480,000 in 2004 (Maalla 2009). However, child pornography sites are extremely difficult to detect since they are frequently temporary and can simply consist of a password protected zip archive (Jenkins 2001).

Two respondents used common search engines to find child pornography sites; one respondent used Tumblr blogs, and one respondent mentioned a one-click hosting website, Rapidshare. One-click hosting websites, which allows users to quickly upload folders of files, were found by the Internet Watch Foundation to be responsible for 60 percent of the 9,550 child pornography webpages they identified in 2012 (Internet Watch Foundation 2012).

Newsgroups

Usenet is comprised of over 100,000 newsgroups, or discussion forums, where users can post messages and other files, including images. Usenet newsreaders allow users to search newsgroups for specific files. Jenkins (2001) lists 16 newsgroups known for providing child pornography, the most notorious being alt.binaries.pictureserotica.pre-teen or abpep-t. Jenkins quotes a newsgroup post which states that abpep-t gets between 5,000 to 7,000 posts a week. To access these posts, users must find servers which can access these newsgroups, as many Internet service providers have dropped newsgroups (Jenkins 2001; Segan 2008). The Internet Watch Foundation has a list of 303 newsgroups they recommend servers do not carry, because they are known to contain child pornography (Internet Watch Foundation 2012).

Chat Rooms, Instant, and/or Video Messaging

Offender respondents mentioned the chat program ICQ and ICUII, as well as AOL, Yahoo, and Compuserve chat rooms. Law enforcement stakeholders mentioned an increased popularity of live streaming video chat rooms, such as Stickam and MeetMe (formerly myYearbook), which can host self-produced child pornography.

Stakeholders reported that Skype and video chat sites enabling self-directed abuse through a third party, viewed as live child pornography, have become a recent trend. These sites usually involve payment, as described by one federal law enforcement official:

There is big problem that is upcoming with video chatting where I am in the United States, the guy is in the Philippines and I am giving direction to this minor in the Philippines about what I want him or her to do and they are 10 or 12 years old. Well there is a guy there that is running the whole thing and we are not really sure who that guy is but for a certain amount of money I get to watch this from the comfort of my own home. I am direct[ing]. (Federal Law Enforcement Official)

Deep Web

The surface web, comprising the websites indexed by major search engines, is only a small fraction of the World Wide Web. The deep web is hidden, with sites invisible to search engines. Areas of the deep web used for illegal activity are known as the dark web or darknet. One of the most popular ways to access the dark web is Tor, originally short for The Onion Router, which uses multiple layers of encryption to provide high degrees of anonymity. Tor can be used to access hidden sites hosted by networks in the deep web or to increase security while navigating the surface web.

Bulletin Boards

Bulletin board systems (BBSes) predate the Internet, as they can be accessed directly via a modem. Jenkins (2001) credits their continuing popularity for child pornography offenders to the strict oversight of board administrators, or sysops, who vigilantly remove spam and messages condemning child pornography. Some boards are highly restrictive and difficult to find, with vetted members and passwords.

Social Network Platforms

Social networking and dating sites allow users to communicate and share information. Some social networks, such as Ning, encourage the creation of private communities. As the United States Sentencing Commission reports, "Child pornography offenders may utilize the infrastructure of such existing social networks to develop a community in which to distribute images" (2012, 55).

Accessibility

One of the Internet's main effects on child pornography is its increased accessibility, as individuals do not need to visit sex shops or wait for material to arrive in the mail. They can download large amounts of images and videos at any time without leaving home. As one offender described, he would not have sought out child pornography if it was not available on the Internet:

I guess technology has made it easier to find child pornography. It has made it easier for people to grab it. I wouldn't have looked for it elsewhere if it wasn't so easy to get from the Internet. (H10)

A local law enforcement official described how the public and other law enforcement officials are unaware of child pornography's prevalence:

The public is unbelievably unaware of how much child pornography is out there. They have no idea. I think I would take that one step further and say that not just the public, anyone outside of specifically working it is completely unaware of how prevalent it is because the other officers that I talk to, our command staff that are within our line of command, don't realize how prevalent it is. (Kansas City Law Enforcement Official)

Accessibility also affected offenders' perceptions of the safety and legality in procuring child pornography. One offender reflected upon how the Internet enabled his online behavior by giving him the sense of invisibility:

I think that if it weren't for the technology, I probably wouldn't have done it. The technology gave me nerve to get stuff that I wouldn't have ever gone up to anyone to get. I think there's so much stuff happening out there, the chance of any person getting hit goes down. I think that technology just does create extra noise, it's harder to find things. (C7)

Almost half the sample (n=10, 48 percent) indicated that they were not looking for child pornography, but rather passively “stumbled across” it. As one respondent recounted, “I didn’t have any interest in child pornography before I went on the Internet” (C6). Seven of the respondents, 33 percent of the sample, discovered child pornography when looking for adult pornography:

It was an accident actually, I was looking for other types of porn. I didn’t look for it, I came across it. Holy shit, this is horrible, but it’s great, but it’s horrible. Like any other addiction, look at it for the rush. (A12)

For these respondents who did not actively seek out child pornography, curiosity was mentioned as offenders’ primary impetus for initially viewing the material. This was often supplemented by the perceived “thrill” of viewing child pornography. One respondent described his curiosity when he came across newsgroups with explicit titles related to child pornography, which led to further fixation:

You see the names of the groups, and think that can’t be real ... I looked in there and was surprised because they were actually real ... It was a gradual process. You look at them, you go look for some more. Pretty soon it becomes an obsession like anything. (A11)

Cost

The availability of free child pornography has resulted in an unwillingness to pay for images and distrust of anyone who charges for material. In the sample, only one individual (5 percent) had ever purchased child pornography, though seven individuals (33 percent) paid for services to support downloading child pornography. These expenses included fees for creating or upgrading P2P or newsgroup accounts, as well as anonymizer services to ensure privacy. One respondent explained this distinction:

I have paid for the method by which I collected child pornography. I’ve never paid for a picture or video. I paid for access to the people I communicated with. (C7)

Some websites required users to pay to for a password in order to access a site. Offenders cited these fees as ranging from \$10 a month to \$30 a week, though they could circumvent these fees by networking with administrators, who would supply free usernames and passwords. Webb, Craissati, and Keen (2007) found that nearly half of London-area Internet child pornography sex offenders in their sample reported paying to view images, though they do not specify if this payment was for pornographic material or to access file sharing programs.

Law enforcement reported that some individuals use alternative means to pay for child pornography, including child pornographers creating Amazon wish lists that others will buy gifts from in exchange for images. Other individuals may also send gifts to children through the mail to entice them into sending images or videos of themselves.

With the abundance of free material, offenders were suspicious of websites or individuals that charged for material. When asked if he had ever paid for child pornography, one respondent answered, “The most basic way I can say it is ‘Why pay?’ ... I guess I just assumed that anyone asking for money was a sting” (A6). Other offenders had similar responses, indicating they expected that any site or individual who charged for child pornography was either law enforcement or a scam. As Jenkins (2001, 91) reports, “There are instances in which money changes hands and videos are sold, but many web sites that demand payment for access are bogus, and anyone gullible enough to pay will, if he is lucky, just lose the price of admission; if he is less fortunate, he will have earned a visit from the FBI.”

Purchasing pornographic material may also affect how an individual perceives their involvement in an illegal activity. When asked if he ever paid for child pornography, one offender replied, “I couldn’t see myself doing that. It seemed wrong on a different level” (D1). Without the exchange of money, another offender did not see his actions as supporting child abuse:

It’s like when you’re buying drugs you’re supporting crime or supporting terrorism. They aren’t getting any money from me to do any bad things or other things. (B1)

One offender acknowledged that purchasing images could ensure quality and remove the time-intensive process of searching for images. When asked if he had ever been approached to pay for child pornography, he responded:

There are certain things that pop up offering to charge, but this was ridiculous and everyone laughed at it because everything else was free. The people that pay are looking for whole sets at one time—easy, instant gratification. The website offers to download a whole series for a certain price ... instead of hunting down images yourself. (B1)

Two of the respondents (10 percent) had sold child pornography. One auctioned off his research services on eBay, charging \$200 per disc. Another offender charged between \$300 to \$400 per disc, each of which held approximately 500 images, which he would mail to customers' post office boxes. This respondent described his customers as individuals who were nervous to go online: "Most of the hustle was guys [who] were afraid to go on sites and use their credit cards. They are scared to download it of course" (I1). Additionally, this offender charged \$75 to watch a family member live on a webcam, where viewers could make requests, such as dressing the victim in specific outfits. Stakeholders reported that using video chat to make requests and direct live child pornography has become a recent trend.

Finding Child Pornography

All offenders cited how easy it was to find child pornography, though they had varying levels of technological expertise. As previously mentioned, almost half the offenders reported not initially looking for child pornography. Rather, they came across images through file sharing networks that they were already using to download pirated software, music, and other types of pornography. One offender, with an IT background, claimed that programmers were likely to engage in file sharing in order to stay up to date with new programs:

The same places you find pirated software are the same places you find that stuff. And it corrupts you ... Being a programmer, you trade software. You trade because you must stay current. (A11)

Bourke and Hernandez (2009) found that some Internet child pornography offenders alleged that they had inadvertently received child pornography materials through unsolicited emails or Internet pop-up windows. While almost half our sample claimed to "stumble across" child pornography, the majority admitted to already using the Internet for illegal downloading.

In a 2003 Congressional hearing, a State Representative on the Committee on Government Reform reported that peer-to-peer network searches for Britney Spears, the Olsen twins, and Pokémon frequently resulted in pornography, including child pornography (Waxman 2003). Prichard, Watters, and Spiranovic (2011) discuss the prevalence of child pornography search terms on a popular P2P network, isoHunt, which featured the 300 top searches on its main webpage. Though certain materials may be easy to find, it may take far longer to uncover better-hidden sources. For example, Jenkins (2001) quotes users who reported months, or even a year, of searching before finding a particular child pornography bulletin board.

One offender used basic Google searches to find child pornography. A common keyword was "teen model." Other search terms in chat rooms, newsgroups, bulletin boards, and P2P networks, included "child TV stars," "child movie stars," "preteen," "Lola," "Lolita," "all for bois," "PT cruiser" (PT = preteen), or ages such as "15yo" and "16yo." A study of the P2P network isoHunt (Prichard et al. 2011) identified three commonly used search terms: pthc (preteen hard core), teen, and Lolita. One offender, who used file sharing software to amass a collection of all types of pornography, did not use any special search terms to find child pornography:

I got the software first and then used search terms. No certain terms—just about anything you could use. It was really diverse in that there were a lot of corrupted files and mislabeled [files]—anything and everything. You could put in something unrelated to child pornography and get child pornography. You could put in something like "team" and get child pornography. (F5)

With an availability of child pornography and a culture encouraging information sharing, offenders found it easy to learn where to get more material. As one offender recounted: "It's all sharing of info; you pick up bits and pieces and figure out what to do" (A6). Contacts would share websites and other sources of child pornography: "I traded with folks, almost from the beginning. I can't remember any websites I went to on my own. I met guys on Yahoo, met them on different chat rooms" (C7). A Spanish-speaking offender received guidance about file sharing programs and chat rooms in Russian:

Some people from Russia sent me programs in Spanish and instructions in Russian and told me to use a translation program to translate the instructions. They sent it for free. You go to one chat room and they send you to another and then another and it goes on from there. I went to the Latin chat rooms for adult pornography. They told me where to find more stuff. (C6)

As users were accepted into the child pornography culture, they became privy to other websites, which would constantly change locations in order to evade discovery from law enforcement:

The bulletin board—Felixxx—will disappear and come up. 4Chan was a way to find it. Every day it would move to a different site. You learn when you get on the board how it will work—you can scroll forwards and backwards and figure out when it would disappear. I understood it would disappear because it was illegal and a way to evade law enforcement detection. (G2)

Jenkins (2001, 181) reports that vigilantes, private hacking groups dedicated to eliminating child pornography, may embed viruses in child pornography files. This threat often resonates more strongly than the danger of law enforcement detection: "Though viewing child porn sites might, theoretically, attract massive punishment from the federal government, the odds of detection are felt to be slim, say, one chance in many thousands. In contrast, the odds of encountering a virus or Trojan planted by a vigilante are very strong indeed, perhaps 10 or 25 percent, and this high likelihood of damage is clearly enough to make one stop and think."

One 60-year-old offender, who collected for a year, found that many images were not actually child pornography, but corrupt files:

I don't think most of the images downloaded were child pornography. Sometimes when you get a file that's not corrupt and it looks like a functional video, you could put it in a queue and it would download similar things. When you find something that is not corrupted, you'd have to manually put it in the queue. About 10 percent of child pornography was corrupt, but it could infect the whole machine. (F5)

Offenders varied in how often they would go online to download child pornography. One respondent would always search for three to four hours on Fridays. Another would go online between 15 to 20 hours a week, generally on the weekends or late at night. With peer-to-peer trading, a user does not need to actively send files. For this reason, one offender would leave his computer running at all times for trading.

Collections

The size of offenders' collections varied greatly, with many offenders only learning the exact size after law enforcement involvement. Collections ranged from less than a dozen to hundreds of thousands of images. The largest collection reported in the sample contained between 300 to 400 gigabytes. Similarly, Webb, Craissati, and Keen (2007) found that offenders in their sample of 90 Internet offenders had between 2 to 921,000 images, with a median of 318 images.

Offenders built their collections for different amounts of time before getting caught. Seven (33 percent) offenders collected for a year or less, seven (33 percent) collected for 1.5 to 5 years, four (19 percent) collected for 5.5 to 10 years, and three (14 percent) collected for over ten years.

Three offenders (14 percent) went through periods of building and deleting their collections. These offenders would vow to stop collecting and erase their images and videos. After time, however, they would start collecting again. For some longtime offenders, this cycle repeated numerous times: "Through the years, I'd copy the images onto CDs and then I'd feel guilty and destroy them" (B2).

The sample was almost evenly split with offenders who would store images and videos to their hard drives (n = 11, 52 percent) or burn them onto CDs or DVDs (n = 10, 48 percent). Of the eleven offenders who saved to their hard drive, four of them (19 percent) used an external hard drive.

Online file sharing methods, as well as increases in download speed and home data storage, enable offenders to obtain massive amounts of files. The National Juvenile Online Victimization Study found the portion offenders with over 1,000 images grew from 14 percent in 2000 to 17 percent in 2006 (Wolak et al. 2011). In our sample, however, 67 percent of offenders possessed collections with over 1,000 images. Law enforcement stakeholders observed the increase in the size of collections, as some collections now near a terabyte (1,000 gigabytes):

I am waiting for the lab forensics to come in on one [case] and I guess when that's gonna come in, I am probably up toward the terabyte. They are getting bigger, and bigger, and bigger. I remember when I first started, if I got a DVD with like five thousand images, I was like we need to put that bastard away. And now ... (Federal Law Enforcement Official)

Due to technological advances and the nature of peer-to-peer networking, users can download large batch files. One offender, with a collection of 16 gigabytes, shared that he did not view all the images he possessed: "Honestly, I don't have this catalogued in my brain. I honestly didn't look at 85 percent of what I had. A lot came in clumps, [I would] look at one or two" (A12).

While the interview did not ask about the content of child pornography images and videos, one offender disclosed that he organized his collection into three folders: clothed, unclothed, and HC (hardcore). Serious, longtime offenders were extremely knowledgeable about series, which are sets of images. These offenders knew when series became available and would look to specific clues to identify the location of images. Results from the 2000 National Juvenile Online Victimization Study found that 27 percent of child pornography offenders were "organized child pornography collectors," which researchers defined as intentional cataloguing organization or files. They determined that these offenders were more likely to have larger collections and use advanced methods to secure their collection (Wolak, Finkelhor, and Mitchell 2005).

In their interviews with 13 men convicted of downloading child pornography, Quayle and Taylor (2002) found that offenders compared collecting child pornography to collecting stamps or baseball cards, which served to normalize the activity by equating it to an innocent pastime. Jenkins (2001) reports the common terminology on child pornography bulletin boards is to refer to collecting as a "hobby."

As Taylor and Quayle (2003) describe, indexing collections and completing series could be pleasurable in itself, even when the offender was not attracted to the material. This was evidenced by one offender, for whom the act of collection became an obsession, even though he rarely looked at all the images within his collection:

I was addicted to the collecting aspect of it. [It was] all so stimulating. It's funny, all during collecting, I'd rarely ever go back and revisit what I collected. [It was] about acquiring more and more. (D23)

Private images or videos were highly valued, therefore individuals would be more selective with whom they traded this material. As will be discussed in the next section, the quality of an offender's collection could determine their networking ability, specifically in terms of access to closed trading groups. However, two of the six offenders who produced child pornography did so for private use, not to share.

Technological Savviness

A large variation existed in terms of offenders' technological savviness. Technological savviness affected numerous facets of offender behavior, including methods to acquire and distribute material, access to closed groups, and data storage. Through offenders' descriptions of their familiarity with the Internet, we classified nine offenders (43 percent) as technologically savvy. These offenders had advanced understandings of computers, either having studied computer-related subjects or worked as

programmers. Over a quarter of offenders (n = 6, 29 percent), however, had little experience with computers, describing themselves as “point and click” or “rookie” users.

Wolak, Finkelhor, and Mitchell (2005) found in a sample of 429 offenders, law enforcement investigators described 10 percent of arrestees as extremely knowledgeable about the Internet, 4 percent very knowledgeable, 40 percent somewhat knowledgeable, and 3 percent not at all knowledgeable.

Steps to Avoid Law Enforcement

There was a large degree of variation in how actively offenders used technology to evade law enforcement detection. For some, security was an important factor in determining what method to use to download child pornography. Many offenders recognized the risk involved in peer-to-peer networking. One offender commented that “serious users” would not use GigaTribe, a P2P network, because they would have to trust a third party network:

People involved in the trading community are very cautious of this sort of thing. No matter how good the product looked or the company said, they wouldn't trust them. (E9)

Another offender believed that trading through IRC was less common, therefore he was less likely to be caught:

I was always a little bit nervous about it. It wasn't so much that I thought these places could be patrolled and others couldn't. It was the low hanging fruit, so if anyone wants to get involved in this, it's the first thing they'll see and there are so many people there. IRC was fringe. (E9)

Some offenders felt that uploading images was the most dangerous, since it could attract attention and enable detection by law enforcement:

I didn't upload my own images because I was too afraid of law enforcement. I thought uploading was asking to be arrested—inviting attention to myself and inviting other men to engage me. (B2)

There is always a risk of law enforcement ... If [you are] not posting images, [there is] less risk than [for] people downloading. When [you] post images, all your IPs go along with the post. I never posted. (D1)

One offender assumed that downloading large batch files of legal material would mask child pornography, though he later recognized this large amount of downloading may have actually attracted law enforcement's attention:

Respondent: So at the time I would follow that and download a batch, in bulk, and then in more mainstream [files], there would be illegal things buried within it.

Interviewer: So there were certain ways to get to what was buried?

Respondent: Think of a bag of groceries. You have Oreo cookies around the good, healthy stuff, and then that's how you'd hide it. You snuck it in there.

Interviewer: So that's how you would share?

Respondent: Yeah, well, that's how I would download. And so I would hide that in there, and try to download all those packages to keep it in the background and part of the low noise. I thought downloading those packages was keeping me safe. But that actually ended up being more of a red flag to the police. (A6)

Serious traders, those who had developed an extensive collection and close networks, had more advanced strategies for evading law enforcement. These methods, such as using the Tor network, often required more technological expertise. One offender, who made money compiling child pornography for customers, was aware of online law enforcement efforts to stop child pornography and used an anonymizer service to cover his tracks. He shared, “If you don't know how to get out there anonymously, ICAC [Internet Crimes Against Children] is serious” (C6).

One offender believed he knew what steps were necessary to secure his collection, which he hid as an encrypted volume to deter detection from law enforcement. From his perspective, a lapse in his process led to his arrest:

I don't know if I was just being lazy or what. I knew what had to be done, a certain amount of maintenance when using encryption. If 99 percent is encrypted and 1 percent isn't, might as well have nothing ... I understood how forensics work, and knew how housekeeping had to happen, and I just wasn't doing it. (E9)

Another offender, who spent ten years collecting child pornography through online search engines, never took any steps to avoid detection by law enforcement though he was aware of advanced techniques. He expected to be apprehended since he was not technologically sophisticated:

Interviewer: Did you know you would get caught?

Respondent: If you're computer savvy, probably not. If you're like me, yes. [There are] guys that have a computer website and they route it all over the world and when they finally do find them they are not there anymore. (B1)

To secure their child pornography collections, a third ($n = 7$, 33 percent) of the sample used encryption or password protection. This percentage is larger than findings from the National Juvenile Online Victimization Study, which found that 19 percent of 605 arrested child pornography possessors in 2006 used sophisticated methods to hide images (Wolak et al. 2011).

Networking

For over half the offenders ($n = 13$, 62 percent), acquiring and sharing child pornography had a social component. For these individuals, social networking facilitated access to material and created a sense of community with other child pornography offenders. Jenkins (2001) describes this community as a subculture with its own values, social hierarchy, and specialized language. In addition to passing down technological expertise and directing offenders to new sources of child pornography, these communities also normalize this behavior (Taylor and Quayle 2003). Bourke and Hernandez (2009) point to the role child pornography cyber-communities play in providing support and social validation. Few studies have identified the portion of child pornography offenders engaged in online communities. Seto and colleagues (2010) found that across a sample of 68 offenders, 58 percent participated in online child pornography communities. The United States Sentencing Commission (2012) reported that approximately 25 percent of offenders have some level of involvement in online child pornography communities.

Through interviews with 13 offenders, Quayle and Taylor (2002) found that for many individuals, social relationships were more important than the child pornography images. Surjadi and colleagues (2010), however, found that function to be absent within their sample of 43 Dutch Internet offenders.

Offenders in our sample pointed to social relationships as an important component of their Internet activity. Though a sense of community was not the initial impetus to find child pornography, it was a key part of keeping individuals engaged in offending behavior. One offender valued relationships more highly than the pornography:

The pictures were a secondary thing. You traded pictures to meet people. I'd go until I got a group of people to talk to, then I wouldn't need to collect so much. (C7)

Trading

Sharing child pornography is reciprocal; both parties must provide material to conduct the trade. File sharing on mIRC generally ensures users give and take equal numbers of files by counting the number of bytes transferred, though users could inflate the number they shared by renaming duplicate files:

It counts how many bytes [go] back and forth, so you have to trade equally ... Duplicates are hard because people rename the files so they seem like a new file and then trade with them. Some people rename photos that aren't that type of file and then just trade it so it counts as bytes (A11).

For individuals just starting to build their collection, they may resort to “begging” for images:

Initially if you don't have anything, you beg. Probably get one or two pictures from someone ... I'd ask for a picture, eventually a Good Samaritan will send you a picture. Then you start with a small collection, start trying to barter. (A12)

Coordinating concurrent trades is another strategy, which could potentially lead to a rapid accumulation of images over a short period of time:

Interviewer: People would talk to you if you didn't have any pics?

Respondent: Yes. Or if you waited for a couple guys to respond, then one guy would send [an image] to you and you could send that to another guy. If you spend an hour in a room, you could get 50–60 pictures. You'd end up with some duplicates, but get a lot of individual pictures. (C7)

Location of Child Pornography Seekers

While Jenkins (2001, 201) estimated that a third of child pornography seekers are from the United States, he stressed that child pornography is a truly global community: “The site is posted by an American on a European server, announced on a Japanese server, with passwords posted at a site notionally based in Nauru or Tonga, while those downloading the pictures might be from fifty countries.”

In our sample, while most offenders traded child pornography with individuals from the United States, other countries listed include: Austria, Canada, Germany, India, Japan, and Mexico. One offender felt that online offenders are likely to be English speakers, since most programming languages are in English:

I believe having a computer is a luxury and people who have that kind of money are enthusiasts and learn it better. Most of them are English speakers because all programming languages are written in English. (A11)

Gaining Credibility

To build relationships, newcomers would have to overcome distrust that they were law enforcement. A user's steady presence in a chat room would develop trust, as well as their familiarity with commonly traded series. When chatting with new users, one offender would ask about child pornography preferences to determine their compatibility as a potential contact and trading partner:

I would ask them what sort of videos and pictures they liked. Based on what series names they used, of videos and images. I knew when things came out, I knew when they were available. If they were in line with what I was looking for, that's what I would use. A referral from someone else would also be very helpful. (E9)

Closed Groups

By developing relationships with other users, offenders could gain entry to private, exclusive groups. The quality of a user's collection, especially access to private material, would determine one's cachet in the trading community and therefore influence the groups they could join:

The minute you have pictures, you're in the trading group. Even if you had something in a series that someone didn't have. It was like trading freaking baseball cards or something. (I1)

Closed groups, accessible only by invitation, increase security by limiting the amount of members. In order to be accepted, members may have to prove their knowledge of specific series, including not only the number of images in the set, but also the time period and location where it was produced:

The only serious trading group I belonged to on IRC was hidden, it was private ... You have to know the name of the group, and know the password, then it lets you on. Then there is a moderator ... and they could kick anyone off. They would test you. They would ask you questions. They would say things like, “Well how many images are in this

particular series? When did this come out?" They would teach you, tell you the background. They had been doing it for years obviously. If someone got a new one that was private, they would give it to everyone in the group. (A11)

Through Jenkins' (2001) research on online child pornography communities, he found that the elite, most technologically savvy offenders were in closed trading groups. These groups were believed to have original material that is not easily available through more mainstream mediums.

Social Hierarchy

Past literature demonstrates a social hierarchy within online child pornography communities (Jenkins 2001; Taylor and Quayle 2003). Individuals enter as newbies (inexperienced users) and can progress up the hierarchy to more senior members, which hold higher status. Jenkins (2001, 94) quotes a post on a child pornography bulletin board which instructs new users about the different roles in the hierarchy, which include, from lowest to highest: newbie, lurker, regular, chat member, poster, newsgroup poster, trader, and wise one. Taylor and Quayle (2003) describe the IRC channel operator's control in establishing policies and philosophies and how differing opinions can lead to intra-community conflict and fracturing of groups.

IRC channel operators or chat room administrators run the group and have varying levels of control, such as the ability to ban users from the group. These individuals are constant presences in the chat room and ensure the chat room's longevity:

Who was running chat rooms? The people that created the rooms. If taken down, they'd put them back. They were always there whenever you showed up. (C7)

Some IRC channels contain bots, programs that can act in a moderator capacity. These bots, as one offender described, are "a program moderator, essentially" and there to oversee "who is in the chat room, what data is being sent, et cetera" (A6).

Social Pressure

In addition to providing a sense of community for members, chat rooms and IRC channels produce their own form of social pressure. In order to impress others, some users would boast about their sexual exploits with children. One offender described how the chat room culture encouraged him to make up stories about molesting family members:

People will lie. They will lie to say they do stuff with kids ... I said the same damn thing. Say that you have a nephew, daughter, or son to develop a rapport. So they don't think you're a cop, because you're talking about this. I've never done anything physically, it was to make me seem more experienced than I was ... It's like in the prison, you have to be a badass. Be ghetto, talk like a gangster. It's that thing, sense of community. People lie to include themselves in that community. (A12)

Stakeholders believed these networks served to encourage those that possess child pornography to commit sexual abuse of a child. Recording this abuse and sharing the images allows offenders to maintain their status within online communities and guarantee access to child pornography. As a Seattle law enforcement officer stated, "There are even some networks that require you make contributions of more and more graphic pictures in order to maintain your status of being able to download from their site."

A federal attorney with experience prosecuting child pornography cases described how social networks fuel the demand for more graphic images and encourage child sexual abuse:

I think there is a constant demand to show new material ... It's because they are offering, or report to offer new content, more severe content. There is a demand. Even when I first started, individuals who every once in a while would give a statement to the police that, "You know, I felt like I need to try get this picture of my daughter, or these neighbors down the street, or whatever, because they were demanding it of me, because I had already shown them everything else ..." I had two or three cases like that where they admitted doing that. (Federal Prosecutor)

One offender shared how pressure to confirm his identity as a father led to producing child pornography:

My production started, actually, by meeting guys and saying that I'm a father. They'd say, "Everyone says that; prove it." Then over a year and a half, I'd prove it more inappropriately. (C7)

Another offender initially believed that everyone must be lying about their behavior, since he was making up stories about his activities:

Part of this whole thing is that you get into a thing where you think people are making everything up. There aren't that many people doing that stuff. You get into this thing. The stuff we were talking about I wasn't doing. You get into a complacent place, you think it's all bullshit. Then all of a sudden you meet someone and it's not. (C7)

Since trades are reciprocal, offenders would need to possess material of relatively equal "value" to what they wanted to acquire. One offender began producing child pornography in order to access private material, which is highly valued:

Underground even deeper—people traded private collections [that are] not on the Internet. In order to see stuff that had never been seen before, [they] needed to offer something that had never been seen before." (A10)

Another offender, who used chat rooms to acquire child pornography, felt pressure to produce child pornography, but he refused out of fear: "I was asked to produce new images, but I was scared. I never did it" (C6).

Network Size and Growth

None of the offenders reported membership in large networks similar to the notorious "Wonderland Club," a child pornography ring which contained approximately 200 carefully screened members across over thirty countries. To join, members had to proffer 10,000 images (Jenkins 2001). Rather, offenders in this study tended to have smaller networks, possibly due to the perceived safety in limiting trading groups.

Eight offenders (38 percent) had small trading groups with whom they regularly traded. These groups could be based on a specific type of child pornography, but would also be determined by social networks. While the majority of trading groups were limited to no more than 10 people, one offender, who had been trading for over ten years, had a larger trading network of 30 to 50 individuals. He believed that due to the increased number of child pornography collectors, groups have splintered into smaller cells:

I would say the community that were really serious traders, back in 2009, would have been in the tens of thousands across the world. Even that community is so fractured. Not only what you're interested in, but unlike using an AOL chat room or Yahoo, you have to know someone who knows someone, or know what you are looking for. Because of that, the individual cells of the community are 30 to 50 people. My specific trading circle was 30 to 50 people at one time. Always new people coming in. (E9)

Groups could grow quickly. As one offender shared, "The first site I went on to, I was the eighth member and then there were 200 or 300 members on it. It was quick; I remember talking to the guys about it" (I1). Relationships could be sustained throughout chat rooms and IRC channels, which could change over time, as explained by one longtime offender: "Sometimes the chat room names would change, but I had people I was friendly with for years that I would stay in touch with through IRC" (E9).

Hacking Within Networks

Trading groups could also foster competition, especially regarding technological prowess. One offender had a "friendly" competition with a trading partner to try to crash each other's computer. Hacking into another offender's computer to find child pornography could afford bragging rights and also enable acquisition of private material:

One guy hacked into my computer one night ... He took images off my PC and he showed me he did it and started trading the images and videos with other guys. He was just an ass. At that point I thought I had enough. I don't know what his motivations were—hackers like to brag. Each person in the group was supposed to be trusted individuals. There were five to six people in the group. Then the images got traded beyond that. (D1)

Another offender shared one of his private images with a trading partner and then later discovered that trading partner hacked into his computer and uncovered additional images in hidden directories.

In-Person Interactions

Five offenders (24 percent) met with trading partners in person. This could be for security, in order to guarantee that members of closed trading groups are not law enforcement officers:

I met one of the guys in person. Just to get to know the person behind the screen name. We all verify that we are all real people behind there. You did not have to provide original images—just want to make sure you are who you are and not the police. (D1)

Taylor and Quayle (2003) quote an IRC channel operator, who had a rule that participants could never meet in real life, since he believed that could potentially lead to child molestation. Jenkins (2001) also found that participants on child pornography bulletin boards would never meet in person and the mere suggestion is met with scorn. One offender in our sample had a similar reaction, since he considered meeting to be unnecessary and create additional risk:

Interviewer: Did you ever want to meet in person?

Respondent: Yeah, well, I never really put much thought into it. If someone asked to do it—every now and then they would—that was a red flag for me. No reason for it. If you got what I need, send it electronically. If it's a security issue, we both shouldn't want to be on here right now. (I1)

One offender would use dating websites to find men with similar interests. When meeting in person, discussion about child pornography would arise:

I would enter screen names of people I knew—I met these people online. I don't remember how I met them—through gay, hook-up websites ... I would meet up with the guys in person and then they would talk about the child pornography—this was something that came up. There were three to four people. I don't think they knew each other. We would get together one-on-one. I got to know them for a few months on the website before I met them in person. The child pornography came up eventually after meeting them. (D2)

Steps to Reduce Risk

In social networks, the most common strategy for minimizing risk was to limit trading networks to trustworthy individuals. More desirable trading partners would have similar preferences, familiarity with child pornography series, access to private or rare material, and referrals from other traders.

One offender, however, said that efforts to keep his network small were futile, because an individual in his network was arrested:

I limited the guys I talked to. The problem is I limited myself, and then one of those guys got caught. So limiting myself didn't help. (C7)

Numerous offenders believed it was illegal for law enforcement to send child pornography to catch offenders, since this would be entrapment or because law enforcement would have to engage in illegal activity. Due to this rule, an offender would wait to receive images before sharing them, though this could occasionally result in a stalemate, with neither partner wanting to share first:

I always had them send me files first. I thought that would be entrapment [if police sent images], but apparently they can break the law to catch people breaking the law. But then

sometimes [there would be] a stand-off, and neither [of us] would want to send first. (A12)

As Jenkins (2001) documents, many posts on child pornography bulletin boards share strategies to evade law enforcement detection. As he suggests, the fear of law enforcement and discussion of sophisticated techniques to acquire and share child pornography can strengthen the subculture by reinforcing their sense of community.

Trends

Availability

Let's say the government allowed every street corner to have a barrel of drugs to grab and try. That's how it is. It's all available. (A11)

The rise of the Internet, coupled with other technological advances, has increased the availability of child pornography, making it both more available and more accessible. The ease of production also fuels increased availability. Digital photos do not need to be developed; they can be easily uploaded and shared from a personal phone or computer. Cell phones with cameras are ubiquitous, enabling photography at any moment:

Respondent: Just about everybody has a video camera or a camera now and there's a lot of websites out there that have candid shots. Little girl playing in the park and she turns upside down on the bars and she's not wearing any panties. No one knows her picture has been taken.

Interviewer: What kind of camera?

Respondent: Cell phone. Just about everyone has a digital camera on them at all times now. (B1)

All of the stakeholders reported a level of being overwhelmed by the number of child pornography offenders in their jurisdictions and in the general national and worldwide population. One federal official reflected this sentiment in discussing both child pornography and light child pornography (i.e., child erotica), noting that the latter is rarely investigated and prosecuted:

I am dipping a teaspoon in the lake, and trying to empty it. There's no way out of this. And when you start considering light child porn, the lake is now an ocean—and you are trying to empty the teaspoon of people that are in that category. (Federal Law Enforcement Official)

As one offender noted, with child pornography easier to produce, the market is likely to grow:

It's more readily available—and easy to produce—and will continue to grow like a snowball rolling down the hill. (A10)

Ease of production is not limited to child pornographers, but also minors who photograph or videotape themselves. Law enforcement stakeholders attested to the increase of self-produced child pornography, often through sexting. The Internet Watch Foundation found 12,224 self-generated images and videos of individuals aged 13 to 20, with 88 percent taken from the original location onto other websites (Internet Watch Foundation 2012).

Two of the offenders (10 percent) participated in chat rooms as teenagers, taking photos of themselves and chatting with men:

I noticed that a lot of people, when they think of child pornography, think that it's all other people creating the images and videos. The cell phones and web cameras. The vast majority of kids are doing it themselves. I used to do it too when I was young, 14 and 15. I'd do it myself, take pictures of myself and chat with men and share with them. (D23)

Production Location

When asked where child pornography was produced, the most popular response was Russia (n = 12, 57 percent). Some offenders would look for identifying characteristics specific to a particular region in the world to determine location, such as the type of electrical outlet or car model in the background of images. Monikers on some images had a Russian website, evident by the .ru domain. As one offender commented, "Lots of images said they were coming from Russia. But you can say anything on the Internet" (B1). As Jenkins (2001, 196) describes, "Some astute fraudsters exploit the Russian reputation for corruption by advertising child porn sites with Russian domain names, that is, the suffix *ru*." In addition to Russia, other countries and regions mentioned as producing child pornography included: Ukraine, the United States, Southeast Asia, Bulgaria, Taiwan, and South America.

The Internet Watch Foundation (2012) found that the five most common domains of child pornography websites were .com, .ru (Russia), .jp (Japan), .net, .org, and .in (India). These domains accounted for 87 percent of all the 9,550 websites identified in 2012. By continent, 54 percent of servers were in North America, 37 percent in Europe, and 8 percent in Asia.

One offender timed his online activity with Russia's time zone, since he knew Russians would come online around midnight:

4:00 p.m. is midnight in Russia and they were heavy then. This is when most Russians come online. Lots of posts from Russia. I knew it was Russia because of the time stamp and they'd leave stuff and the actual wording. I could tell the images were taken in Russia. (G2)

Longtime offenders could point to changes in the location of child pornography production. One offender, who collected child pornography for over 15 years, felt that countries' political instability led to production of child pornography, and the increased prevalence of digital cameras later led to production in the United States:

Well, in the late 2000s, there was a shift to US. Back in the late '90s, [production was] Eastern European, Russian, when that economy was falling apart and changing over to democracy. More organized crime. Over time, in the West, people had more access to basic technology. In the '90s [it was] produced by mafiosos, and they were using professional equipment. In the 2000s, everyone has a camera on their phone, video camera. Everyone has access to technology now. So much pornography is produced with web cams, teenagers doing it themselves, using it to barter. Maybe sending it to their girlfriend. (E9)

Jenkins (2001, 195) supports this claim, citing that an abundance of material from Russia, Poland, and the Czech Republic "reflects the extreme weakness of law enforcement in those societies, as well as a common desire to break away from Communist austerity." He also credits some of their popularity to the victims' race, evidencing exchanges on child pornography newsgroups expressing dislike for non-white subjects.

Taylor and Quayle (2003) also point to an increase in images from Eastern Europe and Southeast Asia commercial sites during 2002. One offender, who collected from the mid-1990s to late 2000s, saw an increase of images from Russia and material produced by sex tourists in Southeast Asia:

Primarily toward the later years, a great deal of images came from Southeast Asia or Russia. The appearance of the girls and I read about men that went to Thailand, Cambodia, and Philippines and how prevalent the sex trafficking of the girls was. I could also tell from photos of girls from the former Soviet Union. In the beginning of the '90s—most photos were nudity and as years progressed with digital cameras, the photos got more explicit, graphic and there was a lot more of it. I got the sense that a lot of the images were taken by men that traveled over there and were bragging about their exploits and shared their stories. (B2)

One prosecutor expressed concern over the link between child sex tourism and child pornography and the belief that not enough was being done to fully investigate these cases:

I just get a sense, and this is a gut feeling, that there is more we could be doing on the sex tourism front. Getting folks going over to Thailand and Cambodia and really exploiting kids over there, exploiting kids on cruise ships, on sex cruises, and stuff like that. Especially ones going to the Far East, or India, and really, name any poverty stricken country. (Kansas City Law Enforcement Official)

Content Changes

A 2010 report to Congress documented law enforcement's and prosecutors' observations that child pornography has become more violent and displays increasingly younger victims, such as infants and toddlers (US Department of Justice 2010). Law enforcement stakeholders reported similar trends, though both a local and federal investigator were clear to distinguish that while there is new material, the majority is recirculated older material. While offenders in our sample noted that many images had been traded for decades—one offender said the images his IRC group traded were from the 1960s to 1980s—there was agreement across offenders and stakeholders that the newer images are more explicit. Some stakeholders described the proliferation of freely downloadable child pornography as responsible for driving the demand for newer, more graphic images or videos. In one offender's estimation, this change is due to the ease of production, which does not require a third party to develop images:

Because of the digital images, you don't have to go through developers to get pictures—it is more explicit than it was 30–40 years ago. It was tame—not pornography at the time. Just nude images. There were magazines you could buy back then. (A10)

Another stakeholder noted that concomitant with an increase in graphic content, child pornography producers are producing child erotica in order to create a commercial enterprise that can evade law enforcement:

I have also seen a softening to where they are trying to make it a little bit more appealing commercially to where they are trying to get more of an acceptance ... I've seen it, one where they are trying to soften it up, where it is not as graphically bondage and torture and stuff like that. You know we're starting to see more bestiality and more torture, but I've also seen the other side of that where they are trying to make it more commercial by softening it up a little bit. I feel like they are making it more commercial to where they can slide for a little while without being picked up by law enforcement and then you have to dig a little deeper. But that's been the standard for a long time; you got to spend \$9.99 a month to get into a membership like this, now you want to get into the really good stuff you got to spend another \$9.99 and so on ... until you get in there. (Federal Law Enforcement Official)

Technological advancements also improve the image quality of child pornography, as it allows for more high quality video footage:

Respondent: The changes I mostly noticed were technical.

Interviewer: In the way technology was used to capture images and videos?

Respondent: You would see film images transferred to video. More low level video, and then high quality video, just like that. Just like higher quality equipment finds its way into the main stream, it finds itself into that too. (A6)

Perceptions

Risk and Illegality

While some longtime, technologically savvy offenders had complex strategies to avoid law enforcement, the majority of offenders were unaware that law enforcement could or would police the Internet. The

availability, affordability, and anonymity (Cooper's Triple A Engine) minimized offenders' perceived risk in possessing child pornography.

With child pornography easily available, offenders considered it equivalent to other material available for download online, such as adult pornography and music:

It seemed like downloading [child pornography] was sanctioned—it wasn't treated any differently than other subject matters and seemed to be sanctioned by the government because they didn't try to stop it from being included in the software. In my mind, it was human sexuality and curiosity. (F5)

I didn't even think about it—I thought it was free and it was on the Internet ... I didn't think it was any more illegal to download and have than MP3s. I knew it was morally bad—but watching people get killed was just as bad. I didn't put together that it was so illegal because I am not making it—I am downloading what is free on the Internet. ... I didn't think this was a worse crime. (A9)

The large amount of available child pornography led to a feeling of invisibility. Many offenders felt that their participation was "small potatoes" when compared to the quantity of material and amount of users online:

I thought with as accessible as it is, I wondered why they'd come after me because I am the little fish ... Child pornography is all over the Internet, so I figured, how bad it could be. (G2)

Anonymity was aided by the fact that users did not have to risk identification by patronizing sex shops or providing their name and address to receive materials by mail (Taylor and Quayle 2003). With the advent of the Internet, offenders can engage with online networks and download material from the privacy of their home:

It's very different from other crimes. Not planning anything. Don't go out of the house. In a secluded room, feel isolated from the consequences, from the reality of what you're doing. (D23)

Though a few offenders were aware of law enforcement entities that focus on investigating and prosecuting online child pornography, one offender was unaware that the Internet was monitored:

I knew I was committing a crime. I just didn't think they'd be hunting through the Internet for it. I thought it would require some knowledge I was doing it, I didn't realize there was an Internet police. (D22)

Offenders in the sample who did not produce or pay for child pornography ($n = 17$, 81 percent) commonly defended their behavior because, in their estimation, they were not supporting an illegal activity, only viewing images. Research has identified this justification as a common cognitive distortion that enables offenders to justify their actions (Meridian, Wilson and Boer 2009; Taylor and Quayle 2003). In their minds, those who bought or produced child pornography are the serious transgressors:

I think in the back of my mind, a case of gray area. Yes, it's illegal, but I'm not producing this. I'm not physically harming anyone is the thought you justify with. I'm just downloading pictures and storing them and putting them away. (A12)

Motives for Wanting Child Pornography

Researchers have identified both sexual and non-sexual motives for desiring child pornography (Elliot and Beech 2009; Lanning 2010). Offenders with sexual motives can have a variety of deviant sexual interests, including a particular sexual preference for children. Non-sexual motives include curiosity, as well as offenders who distribute or produce child pornography to earn money (Lanning 2010).

While the interview did not ask about offenders' reasons for collecting child pornography, some offenders touched upon this topic. As previously discussed, almost half of the sample ($n = 10$, 48 percent) reported their onset offense as unintentional. They "stumbled across" child pornography, usually while

downloading other material, such as adult pornography. This group cited curiosity as their initial motive for viewing child pornography, but often did not elaborate upon why they continued this behavior.

Aside from satisfying curiosity, three offenders (14 percent) described viewing child pornography as a rush, aided by the illegality of the act:

More the collecting, the rush of doing something wrong without feeling like you're hurting someone. ... I was a good boy, doing something naughty felt nice. (A12)

With child pornography—it's that it's illegal. Same with drugs. Don't tell me not to do something, and I'll do it. Don't you ever speed? You get a little rush and mine was just a little deeper. (F4)

Two offenders (10 percent) reported methamphetamine use as a stimulus for seeking child pornography, with another acknowledging that "a lot of guys into meth are also into sexually extreme things" (C7). One methamphetamine dealer believed that a third of child pornography offenders are using drugs:

About 25–35 percent of people involved in child pornography are involved in drugs—producing, selling, consuming. Into meth—crystal meth, ice. It has to do with increasing your sexual libido. It also has to do with, nothing to do at 3:00 a.m. except looking at pornography and then it mushrooms from there. (F4)

An investigator in Kansas City described the link between methamphetamine use and consumption of child pornography, but a lack of resources to fully investigate these cases:

There has always been this correlation between meth users and child pornography so it would be interesting to go with them to their meth warrants and ask for consent to go on their computers and see what comes up, but that would be a perfect world with lots of time and people. (Kansas City Law Enforcement Official)

Five offenders (24 percent) used the word "addiction," "sickness," or "obsession" to describe their relationship with child pornography.

Things like child pornography is an addiction—like alcohol, drugs—but I didn't realize I was poisoning my mind. (B2)

In one case, an offender described his "addiction" to the Internet, as he felt lost when his computer was confiscated by law enforcement:

My whole life was online. I was a computer generation. I didn't know how to do anything without a computer. I wasn't thinking I need to go download again. I just needed to have a computer because it was like missing my arm. (E9)

Two offenders shared that they were creating collections of all types of pornography. One of these offenders sought out child pornography because of the challenge it posed in collecting:

I collected all different types of porn—gay, vintage, and other subcategories, not of child porn, but other types ... The child pornography was more about the chase because it was harder to come by. I knew it was the rarest ... almost the rarest, there is the snuff [film that depicts a murder]. I didn't necessarily know about the risk and illegality. (G2)

A local law enforcement investigator from Kansas City, with years of experience investigating child pornography offenders, described different subcategories of offenders:

There's a couple different types of offenders. There's the ones who can say they were abused as a child ... they were abused so they're abusing. That's the first idea ... and there are some like that. There are some that ... it is a sexual preference. ... We have bad guys who will sit and tell you once you get to a certain point in an interview, they will sit and tell you ... I'm only attracted to five-year-old, five- to eight-year-old girls. That's a sexual preference ... and then I have one more bad guy. And I call him the "Everything Bad Guy." In the realm of pornography he likes, he'll try everything and anything so he may have had an addiction to just pornography, but all of a sudden, that's not working for him, so then he might try gay pornography, and then that's not working so then he'll try bestiality

and eventually, it works its way towards child pornography. (Kansas City Law Enforcement Official)

Leading to Contact Crimes

Past research has attempted to determine the correlation between viewing child pornography and committing contact sexual offenses, including the likelihood that non-contact sexual offenders would cross over to contact sexual offenses. A meta-analysis of nine studies found that only 2 percent of online sex offenders committed a sexual offense over a 1.5 to 6 year follow up period (Seto, Hanson, and Babchishin 2011). Nine of the ten offenders in our sample with non-contact charges of possession or distribution of child pornography maintained they would never hurt a child, though none acknowledged any indirect abuse caused by viewing child pornography.

An offender convicted for the production of child pornography, however, observed that viewing child pornography normalizes behavior that would make contact offenses more likely:

I'm of a belief it needs to stop. I do believe it becomes a gateway kind of process. I don't believe that every person that does child pornography will abuse kids. But I do believe that the more desensitized you get to objectifying kids, the more you might do that. (C7)

Another offender, also incarcerated for production of child pornography, commented that viewing child pornography triggered his production:

I knew I had it in me, but man that just busted it lose. I hadn't messed with her, then I looked at the pictures, and started messing with her. I hate to blame it for it, but the fact that I got access to the child pornography, absolutely. (I1)

Similarly, one offender learned about sex tourism through newsgroups, as he saw photos that men post to "brag about their exploits and share their stories." He researched his trips for years and was able to communicate with other individuals engaging in sex tourism, in order to "fulfill his fantasy":

I read on the Internet about men going to Philippines, Cambodia, India, etc. and had sex with underage girls and got away with it and I thought well, it would be great if I could do it just once to fulfill my fantasy and get away with it. (B2)

One offender, convicted for possession of child pornography, used child pornography as a tool to prevent sexual offenses:

I was using it to keep from offending and keep away from people. I never went into anything that would lead me back into that. And it was working too. ... Anytime I got the urge to go out and look for a little girl, I'd go on the Internet and stay. (B1)

Stakeholders surmised that child pornography may be linked to other types of crimes, but either due to resource restraints or legal restraints, they have been unable to fully follow some of these leads. One state prosecutor from Seattle described that privacy laws may sometimes inhibit the ability for investigators and prosecutors (and the public) to understand how common the overlap is between possession of child pornography and commission of sexual abuse of a child:

I think it is not uncommon to see an abuser have child pornography. We don't always get access to their computer just because they're committing an offense of child abuse and just because there may be a computer in the house. If we don't have a nexus to the computer we don't necessarily get to go into their computer. There are very strict privacy laws in the state of Washington. So if a child who is being abused said he [was shown] pornography on the computer or he was taking my picture and was using a digital camera, then we have the nexus that gives us access, but just because we have a dad who is molesting his child doesn't mean that we are going to have access to his computer. (Washington State Prosecutor)

Treatment

Stakeholders from the Internet Crimes Against Children (ICAC) Task Force reported that offenders would often admit they had a problem and needed help. One of these offenders in our sample described relief at being apprehended, since he did not possess the willpower to stop collecting himself:

When I was thinking about it, I knew it was wrong. But I felt like I was on drugs. I felt like the tiger had me by the tail. I felt like I should stop it, but I couldn't. I said thank you to the government, they said for what—I said for stopping me. (D20)

Three offenders (14 percent) cited the need for child pornography treatment outside of prison. Two of the offenders (10 percent) knew they would be reported to law enforcement if they sought clinical help:

I think there needs to be a way for people to get services prior to being arrested. One of my problems, I knew too much. I knew if I went to get help, I'd get arrested. ... There was always the temptation that I could just stop. (C7)

Two offenders wanted to be transferred to facilities with sex offender programming. For prisons with these programs, offenders reported that treatment is only available a few years prior to release. One offender, convicted for sexual exploitation of a child, recommended that prisons create therapy groups:

I think it would be helpful if they had a forum—maybe a group of men that met and shared their stories with one another. They have something like this in sex offender management program[s]—but you don't get there until one to two years from release. I think it'd be great if they had something in between—just like AA (Alcoholics Anonymous), NA (Narcotics Anonymous). (B2)

Investigation and Adjudication Process

There's so many of us, we're going to outnumber everyone. It's like shooting fish in a barrel with a nuke. (A12)

Offenders' descriptions of their experiences with the courts largely focused on their surprise about the long sentence lengths, especially in comparison to contact offenses. As one offender stated:

The one thing I can say is that you'll get more time for images than committing the act itself. ... My attorney is pleading against that. According to the way the bylines read, they consider the images more detrimental than the act. (D22)

Only three (14 percent) of the offenders went to trial, with the rest presumably taking a plea deal. When asked why they pleaded, many offenders stated they knew they would not win and feared the upper end of the mandatory sentence. As one offender described, "I felt underneath the system and that I didn't have a choice in the matter" (F5). Another offender, who collected child pornography for one year before being arrested, was surprised at how the "system" depicted him as a monster:

The whole system was a nightmare and I never had any trouble with law in my life. I'm not a violent person, I would never conceive of touching a child—not part of who I am, I cannot go there. It blew me away how the system made a monster out of me and tried me as a monster and never questioned that I was never incarcerated before. (F5)

One offender, who would lie in chat rooms to "appear experienced" and "develop rapport," expressed frustration about how law enforcement took his IRC exchanges at face value, though his statements contradicted each other and were therefore, in his estimation, clearly fabricated:

Law enforcement said I did this, they took chat out of context. This one says someone ten [years old], this one thirteen [years old]. This one said I molested my nephew, but I don't have a nephew. (A12)

Another offender did not understand how law enforcement obtained images, since he believed that he was not sharing his collection on a P2P network:

Law enforcement said they were able to download some of the images from me and I didn't know how this happened because it didn't seem to be part of the program I was using for them to do that. I clicked the option from file sharing not to share the images. I wasn't sending any images back out so I was confused how law enforcement got them. (F5)

Jenkins' 2001 (13-14) book quotes a "guru" of the child porn community who says that offenders will only get caught if they take their computer in to get fixed, send or receive child pornography through their email, or use IRC for "lolita business." Jenkins later describes other common ways to get caught: using mediums such as AOL or attempting sexual contact crimes, such as trying to seduce children through the Internet.

Eight offenders (38 percent) stated they were caught by law enforcement identifying them through their file sharing activity through IRC or P2P networks. In five cases (24 percent), they were caught by a victim or family member turning them in. Three offenders (14 percent) were turned in to law enforcement when someone in their trading network was caught. One offender (5 percent) was caught when he took his computer to a repair shop and one offender (5 percent) believed he was caught through facial recognition software identifying him in child pornography he produced. Three offenders (14 percent) were not sure or did not share how they were caught.

None of the offenders mentioned sites or programs posing a threat to individuals who use them to trade child pornography. One offender believed that these sites should be held accountable, since they are complicit in child pornography activity. In his case, a file sharing program took no action when the offender was flagged for sharing child pornography. This program later aided the offender by alerting him that he was under investigation for child pornography, which allowed him time to erase his collection of images and videos:

One interesting thing about the program I used: I was reported to owners of the program about a year before I got arrested. I got a designation put on me by the program, for trading child pornography. But nothing happened. I chatted with a guy, he said that he'd report me. I don't know why he did it. I waited and waited and used the program, and nothing happened. I thought he must not have reported me. Then when I was investigated, [law enforcement] contacted the program. Then the next day I couldn't sign in to the program. The program had a box to find out why I couldn't log on to the site. I typed in my name and password and got an email that I couldn't log in for child pornography. (C7)

Strategies to Stop Proliferation

Though offenders did not think it was possible to completely remove child pornography from the Internet, some shared an assortment of tactics that could be used to limit the proliferation of child pornography.

In order to find child pornography websites, one offender suggested the Federal Communications Commission could block websites known to host child pornography by identifying and blocking their IP addresses:

The only way the government could clamp it down is if you have the FCC identify that these sites are maintaining child pornography. They would get a warning. If they didn't abide and take it off the servers, you can make lists of IPs that are blocked, could make a law that all the servers are blocked in the US so you can't access them ... There are first amendment problems with it, but you don't allow people to sell drugs on the street, why would you let people do the same thing on the Internet? (A11)

Another recommendation was to track cameras used to produce child pornography images or videos through their EXIF serial number:

One idea that I had was to search for the EXIF information. A partnership with Google image search, I don't know if they could do it through their interface now, but working with them. Search the Internet for any images that have EXIF serial number that matches

with these ones that are from contraband images or videos. If someone has produced content and then posted it on Instagram, you can match the camera. Even something as specific as a serial number, or camera model and aperture settings, every little bit helps. (E9)

The last strategy was to target the owners of websites, since they provide the platform and enable child pornography trading:

Respondent: My philosophy is that the owners of these sites know what is going on.

Interviewer: Do you think the owners should be arrested?

Respondent: I do, they're facilitating it and making a lot of money off it. (C7)

Outliers

While we conducted 33 interviews with offenders incarcerated for child pornography related offenses, only information from 21 of those interviews is included in the preceding sections. Of the twelve interviews not included, information from seven shed light on how offenders who did not trade child pornography online incur child pornography charges.

Four of the offenders possessed less than five child pornography images that were never shared on the Internet. In one case, images were used as evidence to charge an offender with lewd and lascivious acts with a child, which he admitted to, though he defended as being acceptable within his culture. Another offender claimed that while he gave a minor his cell phone, he did not encourage or even know that she had taken photos of herself with the cell phone camera. The other two offenders admitted to taking a few photos on their cell phones, but said they were never shared online.

The fifth offender set up a hidden camera to capture images of naked women. As he acquired photos of some minors, in addition to adults, he was charged with production of child pornography. The sixth offender admitted to purchasing four videos, for \$30 each, but contends he was the victim of a federal sting operation since he purchased non-pornographic videos. In his account, a child pornographer had a front selling non-pornographic material of women dancing, which is what he purchased.

The last offender's charges included purchasing a minor with the intent to produce child pornography. This individual claims he believed the girl to be an adult, since she possessed documentation stating her age as 18. This incident took place abroad and the offender discussed using websites to learn about prostitution in other countries, including rates at different brothels, but he denied any involvement with child pornography.

Summary

Through the analysis of 21 offender interviews and 35 stakeholder interviews, this chapter provides insight into the Internet's role in how offenders acquire and distribute child pornography. As supported by extant research, child pornography is increasingly easy to find, with a high number of offenders reporting accidentally stumbling across material online. The ease of accessibility affected offenders' understanding of the crime, some respondents shared that they felt any material so easily available must be sanctioned; other offenders described feeling protected, or invisible, due to the high number of individuals accessing child pornography.

While aspects of child pornography are commercial, there has been a shift toward free trading of videos and images since the advent of the Internet and the creation of peer-to-peer file sharing. Thus, relative to other activities within the underground commercial sex economy—adult and child sex trafficking and prostitution—child pornography represents a large, but commonly noncommercial economy in the United States. This does not mean, however, that profits aren't generated and that the crimes committed are any less severe. As multiple stakeholders across all sites pointed out, the ease of accessing free child pornography may be the driving force behind a trend toward increasingly graphic images and videos of younger children. However, they also noted that the majority of those profiting from child pornography are located overseas, particularly in Eastern European countries.

A national or international nexus was common across cases in each jurisdiction as offenders often network and trade videos and images with other offenders across state and country borders. Stakeholders reported that as they have taken down child pornography websites, more are being hosted on servers overseas, most commonly in Russia. As a result, domestic investigations may be able to identify individuals that possess child pornography in the United States, but may be unsuccessful in shutting down sites that produce or trade the child pornography internationally. As such, it was reported that much of the commercial activity generated through child pornography consumed in the United States goes to international entities operating these sites outside of US jurisdiction.

Though child pornography is easy to find, both law enforcement and offenders reported the bulk of material to be widely shared and recirculated. To access new material, offenders would build relationships with individuals who had access to private images and videos. Often, this would require an offender to produce their own private material. Offenders built collections of child pornography, using trading networks to expand their collection and create a sense of community. In addition to reinforcing and normalizing offender behavior, these communities enabled offenders to quickly share information about new sources of child pornography and strategies to evade detection by law enforcement.

While offenders possessed varying levels of technological sophistication, almost half were extremely tech savvy, working in computer-related jobs. Of the six offenders who produced child pornography, the majority was tech savvy and participated in private trading networks. These offenders, who use advanced techniques to avoid detection, pose a challenge to law enforcement, as their methods are constantly changing as new technology emerges.

INFERRING SEXUALLY DEVIANT BEHAVIOR FROM CORRESPONDING FANTASIES

The Role of Personality and Pornography Consumption

KEVIN M. WILLIAMS

University of British Columbia

BARRY S. COOPER

*The Pacific Alliance of Forensic Scientists and Practitioners, Ltd.
Forensic Psychiatric Services Commission*

TERESA M. HOWELL

University of British Columbia

JOHN C. YUILLE

University of British Columbia

The Pacific Alliance of Forensic Scientists and Practitioners, Ltd.

DELROY L. PAULHUS

University of British Columbia

There is widespread concern that deviant sexual fantasies promote corresponding behaviors. The authors investigated whether that concern is valid in nonoffender samples. Self-reports of nine deviant sexual fantasies and behaviors were compared in two samples of male undergraduates. In Study 1, 95% of respondents reported experiencing at least one sexually deviant fantasy, and 74% reported engaging in at least one sexually deviant behavior. The correlations were all positive and averaged .44. However, only 38% of the high-fantasy group reported acting out fantasies. The effect of pornography use on deviant behaviors was partially mediated by increases in deviant fantasies. Study 2 investigated possible moderators, including eight personality variables. The fantasy-behavior association held only for those high in self-reported psychopathy. In addition, the association between pornography use and deviant sexual behavior held only for participants high in psychopathy. Overall, theoretically relevant individual difference variables moderated the relation between sexually deviant fantasies and behaviors and between pornography use and deviant behaviors.

Keywords: sexual deviance; sexual fantasies; paraphilias; pornography; psychopathy

In the criminal trial of *Colorado v. Masters* (2001), a defendant with no history of violence was accused of the murder and sexual mutilation of a female victim. The prosecution's case rested substantially on the police's discovery of sexually graphic drawings by the accused. The drawings included detailed depictions of murder and sexual mutilation

AUTHORS' NOTE: *Parts of these data were presented at the American Psychology-Law Society's conference in Austin, Texas (March 2002). We wish to thank Cindy Meston and Carolin Klein for comments on earlier versions of this article. Correspondence concerning this article should be addressed to Delroy L. Paulhus, University of British Columbia, Department of Psychology, 3519 Kenny Building, Vancouver, BC V6T 1Z4, Canada.*

CRIMINAL JUSTICE AND BEHAVIOR, Vol. 36 No. 2, February 2009 198-222

DOI: 10.1177/0093854808327277

© 2009 International Association for Correctional and Forensic Psychology

similar to the modus operandi of the crime. An expert witness for the prosecution pointed to research linking violent sexual fantasies to deviant sexual behavior among convicted offenders. Testifying for the defense, one of the present authors (J.C.Y.) cautioned that deviant sexual fantasies are also common in individuals who never offend. It was also noted at trial that no research has directly examined the fantasy-behavior relation in nonoffender samples. The defendant was nevertheless convicted, primarily on the basis of his deviant sexual fantasies.

In a landmark Canadian trial, the judge attempted to draw a clear line between sexually deviant fantasies and behavior (*R. v. Robin Sharpe*, 2001). The possession of pornographic photos of actual children was ruled to be criminal, whereas the writing of pedophilic stories and drawings of pedophilic acts was not. One overriding theme in the judge's ruling was that the contemplation and depiction of criminal behavior is not in itself a crime. The apparent contradiction in these two trial outcomes highlights the need for social scientists to provide a better understanding of the link between sexually deviant fantasies and sexually deviant behavior, particularly in individuals not convicted of sexual offenses. In this study, we hoped to contribute by evaluating the strength and moderators of a wide range of fantasy-behavior links in nonoffenders. We built on previous work showing that deviant fantasies are as common in nonoffenders as in offenders. In addition, we aimed to identify subgroups in which the fantasy-behavior link does and does not hold.

DEFINING SEXUAL DEVIANCE

Taxonomies of sexual deviance typically include the common paraphilias: transvestism, voyeurism, sadism, masochism, object fetishism, frotteurism, pedophilia, and bondage (e.g., American Psychiatric Association, 2000; Money, 1986). In the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2000), paraphilias are defined as intense fantasies or behaviors that involve unusual objects, activities, or situations and cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (p. 566).

The term *sexual deviance* is often extended to include sexual assault, including rape. Formal definitions are far from consistent (for an overview, see Ward, Laws, & Hudson, 2003). Nonetheless, most definitions include consideration of such factors as infrequency in the population, social unacceptability, and the extent to which the fantasy acts are illegal, nonconsensual, or harmful (Gee, Devilly, & Ward, 2004; Leitenberg & Henning, 1995).

One common criterion for sexual deviance focuses on the unusual nature of the arousal source (Feierman & Feierman, 2000; Irons & Schneider, 1996; Leitenberg & Henning, 1995). For example, sexual assault would satisfy this criterion to the extent that the perpetrator's sexual arousal derives from the coercive aspect of the offense (Abel & Rouleau, 1990). The definition would exclude cases such as impulse-control disorder (Leue, Borchard, & Hoyer, 2004): In such individuals, sexual arousal is no less when the sex act is noncoercive. Also excluded are instances of nonparaphilic hypersexuality (Kafka, 2000); examples are compulsive masturbation and sexual addiction, behaviors that are often maladaptive. Understanding that any definition of sexual deviance can be criticized, we opted for the criterion of an unusual arousal source.

This definition encompasses behaviors that are nonaggressive (e.g., object fetishism) as well as others that are clearly aggressive (e.g., sexual assault). Using this broad definition,

in our research, we compared a wide variety of atypical sources of sexual arousal. Although we concede that our definition could easily include other candidates, this research was restricted to nine behaviors: object fetishism, transvestism, voyeurism, sadism, bondage, frotteurism, exhibitionism, pedophilia, and sexual assault.

For each type of sexual deviance, there is a distinct (and sometimes isolated) literature on its predictors and moderators. As a result, common themes may be overlooked. Among the predictors of recurring interest across these literatures are deviant fantasies, pornography use, and personality dispositions. Links between each of these predictors and actual sexual offenses have been explored empirically, particularly in offender samples (e.g., Brown & Forth, 1997; Curnoe & Langevin, 2002; Firestone, Bradford, Greenberg, Larose, & Curry, 1998). Less common is research on nonoffender samples, presumably because the actual offenses are rare, or at least difficult to confirm. In either case, the interplay among the predictors is often overlooked. Before we consider their interaction, key research on each factor is summarized below.

RESEARCH ON FANTASIES AND BEHAVIOR

We consider the term *sexual fantasy* to include all imagined forms of sexual activities, deviant or otherwise (Leitenberg & Henning, 1995). This definition subsumes both deliberate and unintentional cases (Jones & Barlow, 1990). Note that Little and Byers (2000) restricted the term to deliberate cases. Given that all fantasies ultimately have some triggering stimulus (internal or external), we see that distinction as less important than individual differences in reactions to the fantasy trigger. Nonetheless, we acknowledge that some fantasies are negative, unwanted, and intrusive (i.e., egodystonic), whereas others are positive and welcomed (egosyntonic; Renaud & Byers, 1999). Personality variables have been implicated in both.

By our definition, virtually everyone experiences sexual fantasies to some degree. In a community sample of 94 men, for example, all participants reported experiencing a sexual fantasy at least once per week and two thirds reported at least one per day (Crepault & Couture, 1980). Although sexual fantasies are also common in women, the self-report rates are typically lower than those for men (Leitenberg & Henning, 1995).

Deviant Sexual Fantasies

Prevalence rates of deviant sexual fantasies are more difficult to evaluate, in part because of the competing definitions of deviance.¹ For that reason, we restricted our research to nine deviant behaviors (object fetishism, transvestism, voyeurism, sadism, bondage, frotteurism, exhibitionism, pedophilia, and sexual assault) and corresponding fantasies about them.

Research on deviant sexual fantasies in offender samples indicates substantial prevalence rates, for example, 82% (Langevin, Lang, & Curnoe, 1998), 86% (Prentky et al., 1989), and 92% (Gee et al., 2004). Understandably, these rates are higher among sexual offenders than nonsexual offenders (Curnoe & Langevin, 2002), and they are especially high among sexual-homicidal and serial sexual offenders as opposed to nonhomicidal or onetime offenders (Prentky et al., 1989). The content of sex offenders' fantasies tends to be specific to their offenses (Gee et al., 2004; Looman, 1995; Ryan, 2004). In many cases, offenders have claimed that their fantasies precipitated their criminal behavior (MacCulloch, Snowden, Wood, & Mills, 1983). Together, the trend of these findings has led

many observers to conclude that deviant sexual fantasies play an important causal role in sexual offending (Ryan, 2004).

A smaller body of research has examined the prevalence rates of deviant sexual fantasies in nonoffender samples. A number of studies have estimated pedophilic fantasy rates at about 10% (Briere & Runtz, 1989; Renaud & Byers, 1999). Best established is the rate of rape fantasies: a mean of 31% across six studies (Leitenberg & Henning, 1995). For the few categories studied, the rates of deviant sexual fantasies in nonoffender samples rival those of their offender counterparts. In fact, a direct comparison has led some to conclude that rates in nonoffender populations are equally high (e.g., Baumgartner, Scalora, & Huss, 2002; Looman, 1995). This startling conclusion highlights the need to study associations between fantasies and behaviors. What explains the failure of fantasies to translate into behavior for most nonoffenders?

The possible causal impact of deviant fantasies on deviant sexual behavior has been under scrutiny since Abel and Blanchard's (1974) review of clinical-offender studies. Outside of the offender literature, research on the fantasy-behavior association is limited to a handful of studies (Byrne & Osland, 2000; Knight & Sims-Knight, 2003; Ryan, 2004). For some deviance categories (e.g., sexual assault), this gap is not surprising, given that any confirmation of the behavior would immediately relegate individuals to the offender category. Other deviance categories (e.g., object fetishism) might continue for a lifetime without eventuating in a crime.

The few relevant studies suggest that there is indeed an association between deviant sexual fantasies and behavior. The link seems well established in studies in which the dependent variable involves composite reports of aggressive and coercive sex (e.g., Knight & Sims-Knight, 2003). Indirect evidence has established links of coercive sexual fantasies with rape myth acceptance (Zurbiggen & Yost, 2004) and willingness to commit rape in hypothetical future situations (Greendlinger & Byrne, 1987; Smeaton & Byrne, 1987).

Studies on specific paraphilias are fewer in number. In a study of 31 men, McCollaum and Lester (1994) found a substantial positive correlation between sadistic fantasies and coercive sexual behavior (both self-reported). This limited evidence suggests that the association between deviant sexual fantasies and behaviors may hold in nonoffender samples as well as offender samples. In the present research, we sought to confirm that proposition with improved methodology and a larger sample size than previous work. We also sought to evaluate the fantasy-behavior link across a wider range of forms of sexual deviance.

PORNOGRAPHY CONSUMPTION

A common means of creating and amplifying sexual fantasies is exposure to pornography (e.g., Byrne & Osland, 2000). Presumably, such effects are stronger when the exposure is self-initiated (e.g., purchasing magazines and videos, actively searching the Internet) rather than involuntary (e.g., spam initiated, music videos). In both cases, the primary societal concern—the possibility that pornography promotes sexual misbehavior—has motivated substantial research (e.g., Check & Guloien, 1989; Donnerstein, 1984; Malamuth, Addison, & Koss, 2000; Murrin & Laws, 1990; Seto, Maric, & Barbaree, 2001; Zillman & Bryant, 1984). If pornography can amplify fantasies (and therefore arousal), it may encourage viewers to carry out the fantasized behavior. If the fantasy involved sexual deviance, then the corresponding deviant behavior would be encouraged.

Indeed, experimental studies have confirmed the notion that exposing male participants to pornography increases rape fantasies, willingness to rape, acceptance of rape myths, and aggression against female targets (see reviews by Allen, D'Alessio, & Brezgel, 1995; Malamuth et al., 2000). In other words, pornography affects both fantasies and behaviors.

In the present research, however, we were concerned with inferences drawn outside of the laboratory. In particular, we focused on college-age men. In such nonoffender groups, are sexual fantasies and behavior associated with pornography use? If so, is that association mediated by a corresponding increase in deviant fantasies?

PERSONALITY MODERATORS

If not inevitable, the link between deviant fantasies and behaviors may hold for a subset of individuals. This moderator notion is explicit in Malamuth's (1986, 2003) hierarchical-mediational confluence (HMC) model, which distinguishes distal and proximate risk factors for sexual aggression. Distal factors (e.g., psychopathy) are dispositional and may predispose individuals to a variety of antisocial outcomes. Proximate factors are specifically associated with sexual aggression; examples are dominance-oriented sexual arousal and pornography use. According to the model, distal and proximate factors combine interactively to predict sexually aggressive behavior (Malamuth et al., 2000).

Serin, Mailloux, and Malcolm (2001) proposed a similar interactive model for sexual offending. The combination of psychopathy (i.e., a distal factor) and deviant sexual arousal (i.e., a proximate factor) is a particularly potent combination and may lead to malevolent outcomes (for related perspectives, see Abracen, Looman, & Langton, 2008; Marshall & Barbaree, 1990; and Rice, Quinsey, & Harris, 1991).

Although these research programs have focused on sexual aggression, their interaction models may well apply to a variety of forms of sexual deviance. It is possible, for example, that certain deviant sexual fantasies eventuate in deviant behavior only for psychopaths. Similarly, pornography consumption may lead to a variety of sexually deviant behaviors only for the psychopathic subgroup. Alternatively, it may be that the moderating effect of psychopathy holds only for outcomes that are violent in nature.

Two studies were conducted to determine the robustness of the association between deviant sexual fantasies and corresponding behaviors. In Study 1, we evaluated the relative frequencies and intercorrelations of fantasies and behaviors in nine deviance categories. We also examined whether the link between pornography use and deviant behaviors was mediated by deviant fantasies. Study 2 was designed to evaluate the role of personality traits both as predictors and moderators of the relation between deviant behaviors and deviant fantasies.

STUDY 1: DEVIANT FANTASIES AND BEHAVIOR

In Study 1, the following two hypotheses were formulated:

Hypothesis 1.1: The fantasy-behavior association will be significant for all nine categories of sexual deviance.

Hypothesis 1.2: The effects of pornography on deviant behavior will be mediated by increased deviant fantasies.

METHOD

Participants and Procedure

A total of 103 undergraduate students (56% European, 34% East Asian, 10% other heritage; mean age = 19.7 years) at a large western university participated for course credit. Because sexual deviance is considerably more prevalent and troublesome in men than in women, we restricted the sample to men. Participants obtained and returned the confidential self-report questionnaire packages under anonymous conditions. The return rate was 80%.

A number of steps were taken to minimize socially desirable responding. Participants were directed to a private questionnaire pickup location. Instructions on the cover page of the questionnaire advised of the anonymous nature of the research. In particular, participants were warned not to put their names, student numbers, or any other identifying information anywhere on the package. Instructions made it clear that their participation credit would be obtained at another location, which was disconnected from the pickup and drop-off boxes. In short, the questionnaires could be picked up, completed, and dropped off without directly dealing with the researchers.

Measures

Deviant sexual fantasies and behaviors. At the heart of the questionnaire package was the Multidimensional Assessment of Sex and Aggression (MASA; Knight, Prentky, & Cerce, 1994), an established measure of sexual fantasies and behaviors. All items were administered in 5-point, Likert-type format (0 = *never*, 4 = *very often*).

On a rational basis, we organized 74 of the 116 MASA items into nine categories on the basis of the source of sexual stimulation: frotteurism, voyeurism, exhibitionism, transvestism, pedophilia, bondage, sadism, object fetishism, and sexual assault.² The number of items in each fantasy and behavior index were as follows: bondage (2, 3), exhibitionism (3, 2), frotteurism (1, 1), object fetishism (2, 1), pedophilia (2, 2), sexual assault (6, 12), sadism (13, 15), transvestism (1, 2), and voyeurism (4, 2). The precise item categories are available on request.

In the original scoring of that MASA version (Knight et al., 1994), fantasy and behavior items were not specifically separated. We calculated a mean fantasy score and a behavior score for each category. Each participant also received an overall fantasy score and an overall behavior score, calculated by summing the nine category rates. Hence, the overall means could range from 0 to 36.

Demographics. The questionnaire ended with a standard demographics form. Because of concern about possible demographic moderators (Meston, Trapnell, & Gorzalka, 1996), we included questions about age and ethnicity. Also included was a question about current pornography use (yes or no).

RESULTS

Preliminary analyses revealed minimal differences across ethnicity; therefore, all analyses were conducted on the pooled sample. We scored the nine sexual deviance categories using both continuous scales (on the basis of the 0 to 4 scoring of the individual items) and prevalence rates (percentage of the sample scoring above 0). We also calculated the overall

means by averaging over the nine categories for both the continuous scoring (maximum = 36) and the prevalence rates (maximum = 100%). In general, we used (more reliable) continuous scoring to conduct statistical tests and prevalence rates to represent the category comparisons.

Using the continuous scoring procedure, we found substantially higher means for fantasy reports (9.3) than for behavior reports (5.5), $t(101) = 12.1$, $p < .01$, $d = 2.4$. The α reliability coefficients were .86 and .94 for the overall fantasies and behavior scores, respectively. These values are very close to the α value of .91 reported for overall MASA sexual deviance by Knight et al. (1994). Reliabilities for multi-item categories ranged from .45 to .77. Alpha reliabilities could not be calculated for fetishism behaviors or frotteurism (fantasies or behaviors) because they comprised only one item each.

Prevalence Rates of Fantasies and Behaviors

To calculate prevalence rates, we counted any response other than 0 ("never"). For categories assessed with multiple items, the highest value was used.³ The prevalence rates of deviant fantasies and behaviors are listed by category in Table 1. Note that with one exception, the fantasy rates were higher than the corresponding behavior rates. The mean rate for fantasies (52%) was significantly higher than the overall behavior rate (21%) (McNemar $\chi^2 = 38.0$, $p < .001$).

Note from the last row of Table 1 that 95% of our sample reported at least one deviant fantasy. The category rates were over 50% for frotteurism, object fetishes, and voyeurism. Least common were fantasies involving pedophilia and transvestism.

Sixty-three percent of the participants reported at least one deviant sexual behavior. Among the deviant behaviors, frotteurism was again the most common, being reported by 44% of the sample. Transvestism and pedophilic behaviors were least common.

A follow-up analysis showed that a minority of fantasizers were also behaviors ($M = 38\%$). By contrast, virtually all of the behaviors were also fantasizers ($M = 96\%$).

Correlations Between Deviant Fantasies and Behaviors

Correlations were calculated between the continuous fantasy and behavior scores. The values are displayed in the final column of Table 1. Consistent with Hypothesis 1.1, all were positive and (with the exception of pedophilia) statistically significant at the $p < .01$ level. The mean correlation across the nine categories⁴ was $r = .44$, and the correlation between overall deviant sexual fantasies and behaviors was $r = .70$ ($p < .001$).

In sum, participants who reported engaging in deviant behaviors also reported having fantasies about those behaviors. Note that in every case, the deviant behavior was more highly correlated with its corresponding fantasy than with any other fantasy category. Together, these results support the notion of specificity in sexual deviance.

Pornography Use, Fantasies, and Behaviors

On our yes-no question, 63% of participants reported current pornography use. The mean fantasy score for users (9.9) was significantly higher than the mean of 6.1 for the nonusers, $t(101) = 3.41$, $p < .01$, $d = .68$. Similarly, the mean behavior score for users (7.9)

TABLE 1: Prevalence Rates and Intercorrelations Between Deviant Fantasies and Behaviors

Deviance Category	Prevalence (% of Sample)					
	Fantasies		Behaviors		Fantasy-Behavior Intercorrelation	
	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2
Object fetishism	58	55	23	27	.43**	.39**
Transvestism	10	4	10	10	.41**	.45**
Sadism	62	65	22	39	.79**	.78**
Bondage	62	52	14	23	.45**	.53**
Voyeurism	83	71	18	22	.38**	.55**
Exhibitionism	39	36	25	19	.51**	.54**
Frotteurism	72	76	44	42	.26*	.35*
Pedophilia	13	11	5	5	.13	.28
Sexual assault	68	65	25	20	.34**	.38**
Mean of 9 categories	52	48	21	23	.44**	.47**
Any of above	95	93	74	75	.71**	.72**

Note. Study 1 $N = 103$, Study 2 $N = 88$. Prevalence percentages are the percentages of individuals reporting endorsement greater than zero.

* $p < .05$; ** $p < .01$ (both two tailed).

was significantly higher than the mean of 3.1 for the nonusers, $t(101) = 4.11$, $p < .01$, $d = .82$. In sum, pornography users reported substantially more deviant fantasies and behaviors than nonusers.

To evaluate Hypothesis 1.2, we converted the above effect sizes to correlations. The significant relation between pornography use and behavior, $r(100) = .32$, $p < .01$ (one tailed), was reduced but remained significant after overall fantasies was partialled out, $r(100) = .21$, $p < .05$ (one-tailed). The mediating effect of overall fantasies was determined to be significant using the standard Sobel formulas ($Z = 2.3$, $p < .05$). This result provided partial support for Hypothesis 1.2.

DISCUSSION

Study 1 provided nonoffender prevalence rates for a wider range of deviant sexual fantasies than previous studies. For categories previously studied, our data yielded comparable prevalence rates of deviant sexual fantasies. Interestingly, our overall rate of 95% approaches the overall rates of incurring any sexual fantasy (see Leitenberg & Henning, 1995). Thus, the results suggest that if one has had a sexual fantasy, one has probably had a deviant sexual fantasy. As in earlier studies, rates of transvestism and pedophilic fantasies were infrequent, but the rates in other categories were substantial, ranging from 39% to 83%.

However, our self-reported behavior rates differed from those collected in offender samples. Even for nonaggressive categories (e.g., fetishism, voyeurism), our values appear to be lower than those from prison samples. For example, Prentky et al. (1989) reported a 43% rate of voyeuristic behavior in offenders compared with the 22% reported in our college sample.

The fantasy-behavior correlations were substantial, averaging .44 across the nine categories. But only a subset ($M = 38\%$) of those reporting fantasies also carried out the

behavior. These results are congruent with the few previous nonoffender studies, regardless of whether sexually deviant behavior is measured via self-reports of actual behavior (e.g., McCollaum & Lester, 1994) or willingness to commit such acts (e.g., Greendlinger & Byrne, 1987; Smeaton & Byrne, 1987). Our findings confirm but go well beyond those of the most comparable study (McCollaum & Lester, 1994), in which only 31 male participants reported on one category of sexual deviance.

Previous evidence from offender samples was more abundant and cogent. For example, sexually deviant fantasies are highly related to actual commission of sexual offenses (e.g., Ryan, 2004). However, as with most previous research findings, the causal nature of this relationship cannot be determined by our data. That is, it is unclear if (a) fantasies encourage the acting out of behaviors, (b) fantasies represent active reliving of previous acts, or (c) some third variable (e.g., sex drive) independently generates both fantasies and behavior. Combinations of these three are also possible.

We also replicated previous research showing that pornography use is associated with reports of more frequent deviant behaviors. This association was partially mediated by the association between pornography use and deviant fantasies. Our result is consistent with the claim that pornography encourages the translation of fantasy into behavior. However, the pattern is also consistent with the possibility that (a) pornography causes deviant behavior, which then promotes deviant fantasies, or (b) deviant fantasies promote pornography use, which then promotes deviant behavior. A longitudinal study would be required to distinguish among these three causal models.

To summarize, Study 1 showed that individuals who reported carrying out sexually deviant behaviors were a subset of those who had fantasies about the behaviors. So what determines whether a fantasizer also carries out a behavior? As noted in the introduction, personality variables have been implicated. Accordingly, in Study 2, we collected a wide range of potentially relevant personality variables.

STUDY 2: THE ROLE OF PERSONALITY

The literature suggests that personality may play a role in deviant sexuality both as a predictor and as a moderator. Its role as a predictor has already generated substantial research. For example, higher levels of sexual activity, including both fantasies and behavior, have been linked to fundamental personality variables including extraversion (Eysenck, 1943), neuroticism (Wilson, 1997), and disagreeableness (Schmitt, 2004).

Sexual aggression, however, is better predicted by psychopathy. The cardinal features of psychopathy include a deceptive and manipulative interpersonal style, shallow affect (e.g., lack of guilt and empathy), and an impulsive, irresponsible, and antisocial lifestyle (Cleckley, 1941; Hare, 2003). These features make psychopathy an obvious candidate for predicting deviant sexuality. Indeed, the relation between psychopathy and deviant sexual behavior has been established both in offender and nonoffender samples.

PSYCHOPATHY IN OFFENDER SAMPLES

Although psychopathy is associated with virtually all types of criminal behavior, its relation to sexual offending is complex. Some studies have found weak correlations between

psychopathy and overall sexual offending (e.g., Quinsey, Rice, & Harris, 1995). More certain is that psychopathy is associated with violent sexual behavior (Hare, Clark, Grann, & Thornton, 2000; Knight & Guay, 2007; Porter et al., 2000). For example, rates of psychopathy tend to be high in rapists (Porter et al., 2000; see also Brown & Forth, 1997), especially in sadistic rapists (Barbaree, Seto, Serin, Amos, & Preston, 1994; Hare, Cooke, & Hart, 1999) and sexual homicide offenders (Firestone et al., 1998). Physiological studies have demonstrated that compared with nonpsychopaths, psychopaths experience higher sexual arousal while viewing depictions of rape (Quinsey et al., 1995; Serin, Malcolm, Khanna, & Barbaree, 1994). In general, the trend of these findings has led researchers to conclude that psychopaths show a preference for sexual behavior that is violent in nature (e.g., Woodworth & Porter, 2002).

Note that the association of psychopathy with nonviolent sexual offenses has yet to be established. In this study, therefore, we anticipated associations of psychopathy with deviant behaviors only to the extent that they involved aggression.

NONOFFENDER SAMPLES

In nonoffender samples, possible links between personality and sexual fantasies have proved inconsistent (Leitenberg & Henning, 1995). Clearer is the link between personality traits and sexually deviant behavior, particularly sexual aggression. For example, Kosson, Kelly, and White (1997) found that psychopathy, as measured by the Psychopathy Checklist-Revised (PCL-R; Hare, 2003), predicted coercive sexual behaviors in college men. More recently, Jonason, Li, Webster, and Schmitt (in press) found that sexual exploitiveness was higher in those men scoring high on a self-report measure of psychopathy (i.e., subclinical psychopathy).

Other studies have demonstrated associations with personality traits related to psychopathy, for example, impulsivity (Hersh & Gray-Little, 1998; Petty & Dawson, 1989; Spence, Losoff, & Robbins, 1991), aggressiveness (Hersh & Gray-Little, 1998; Malamuth, 1988; Petty & Dawson, 1989), and manipulateness (Christopher, Owens, & Stecker, 1993; Hersh & Gray-Little, 1998; see also Leitenberg & Henning, 1995). Other personality predictors of self-reported sexual aggression include hypermasculinity (Ryan, 2004), hostile masculinity (Malamuth, 2003), narcissism (Kosson et al., 1997), and Machiavellianism (McHoskey, 2001). High scores on Eysenck's psychoticism are positively related to deviant sexual arousal, attitudes, and behaviors (e.g., Barnes, Malamuth, & Check, 1984). Rapaport and Burkhart (1984) reported that responsibility and socialization were negatively associated with sexual coercion, and empathy has been demonstrated to be a protective factor against sexual aggression (Dean & Malamuth, 1997).

All these personality concepts are incorporated in one or more elements of the so-called Dark Triad of personality (Paulhus & Williams, 2002). Machiavellianism, narcissism, and subclinical psychopathy have been identified as among the most aversive personality traits outside of offender and clinical settings (Williams & Paulhus, 2004). Because of their conceptual and psychometric overlap, it is recommended that all three be administered together. We did so in Study 2.

We sought to examine the association of deviant fantasies and behaviors with a wide range of key personality variables in a nonoffender sample. Psychopathy was the most obvious candidate. Considering the subclinical nature of our sample and the absence of

collateral criminal file information, we used a self-report measure (as opposed to a clinical rating scale such as the PCL-R). We also included overlapping variables (narcissism and Machiavellianism) and a measure of the Big Five traits to investigate the fundamental dimensions of personality.

Research has suggested that individual difference variables also moderate the effects of pornography use on sexual aggression (e.g., Anderson et al., 2003; Malamuth et al., 2000; Ryan, 2004; Seto et al., 2001; Vega & Malamuth, 2007). That is, it is likely that certain individuals are most likely to seek out violent or sexually deviant pornography and that the effects of such pornography on deviant sexual behavior will be more pronounced for these individuals. Again, psychopathy has been implicated as the most relevant personality variable (Daversa & Knight, 2007; Malamuth, 2003).

Finally, there is reason to believe that the fantasy-behavior link will be higher in those participants scoring higher on psychopathy. That prediction rests on the callous and impulsive nature of psychopaths, including those diagnosed with self-report scales (Nathanson, Paulhus, & Williams, 2006; Paulhus, Hemphill, & Hare, in press). Impulsive and callous individuals should be more likely to act out their fantasies, thereby increasing their intercorrelation.

Hypothesis 2.1: Psychopathy will be associated with deviant fantasies and aggressive forms of sexual deviance.

Hypothesis 2.2: The fantasy-behavior link will be stronger in those high in psychopathy.

METHOD

Participants and Procedure

Eighty-eight male undergraduate students (58% European, 27% East Asian, 15% other heritage; mean age = 20.4 years, $SD = 2.97$ years) at a large western university participated for course credit. Advertising, questionnaire, and credit distribution procedures were similar to those used in Study 1. Of questionnaires picked up, the return rate was 84%.

Measures

The package included the same 74 MASA items designed to measure deviant sexual fantasies and behaviors. In addition, four personality measures were added. Their selection was based on their theoretical relevance and reputable psychometric properties. Unless otherwise stated, the response format for the questionnaires was a 5-point, Likert-type scale (0 = *disagree strongly*, 4 = *agree strongly*).

Personality. The Big Five Inventory (John & Srivastava, 1999) was used to assess the fundamental Big Five factors of personality: Extraversion, Agreeableness, Conscientiousness, Stability, and Openness to Experience. Respondents are asked to rate the degree to which each of 44 phrases applies to them. Example items (and the corresponding Big Five trait) include "is talkative" (Extraversion), "is considerate and kind to almost everyone" (Agreeableness), "is a reliable worker" (Conscientiousness), "remains calm in tense situations" (Stability), and "has an active imagination" (Openness). Substantial evidence has accumulated for the validity of all five factors (John & Srivastava, 1999).

As noted above, the Dark Triad comprises narcissism, psychopathy, and Machiavellianism. Narcissism was assessed with the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979), a 40-item forced-choice questionnaire. Primary features of narcissism include grandiosity, a sense of entitlement, and excessive attention seeking. An example NPI item requires a choice between "I prefer to blend in with the crowd" and "I like to be the center of attention." Overall NPI scores range from 0 to 40.

The primary features of Machiavellianism are manipulateness and cynicism. We used the 20-item Mach-IV (Christie & Geis, 1970), an instrument with 40 years of construct validation (Jones & Paulhus, 2008). Items include "Anyone who completely trusts anyone else is asking for trouble" and "Never tell anyone the real reason you did something unless it is useful to do so." Overall Mach-IV scores range from 20 to 100.

A 40-item version of the Self Report Psychopathy Scale (SRP-III; Paulhus et al., in press) was used to measure psychopathy. This instrument is considered the closest conceptual and theoretical analogue to the PCL-R (Hare, 2003). Examples of items include "Rules are made to be broken" and "It's sometimes fun to see how far you can push someone." Among the seven reverse-keyed items is "People can usually tell when I am lying." Overall SRP-III scores range from 40 to 200.

The structural and convergent validity of the SRP-III has been demonstrated in several studies. It correlates strongly with other self-report psychopathy measures and basic personality traits (Mahmut, Homewood, & Stevenson, 2008; Williams, Paulhus, & Hare, 2007). Substantial evidence has accumulated for its association with self-report and behavioral measures of antisocial behavior (Nathanson et al., 2006; Williams et al., 2007) including domestic and relationship violence (Williams, Spidel, & Paulhus, 2005) and sexual exploitiveness (Jonason et al., in press).

RESULTS

Preliminary analyses revealed similar results across ethnic background; hence, the results are displayed for the entire pooled sample below. The α reliability coefficients for the MASA were .92 and .94 for the overall fantasies and overall behavior scores, respectively.

Prevalence Rates and Intercorrelations

As in Study 1, we calculated the continuous scores and prevalence rates in each category of sexual deviance as well as overall values across the nine categories. Note from Table 1 that the prevalence rates in Study 2 closely resembled those in Study 1. The fantasy-behavior correlations were also strikingly similar to those found in Study 1. The mean correlation between fantasies and behaviors across the nine categories was $r = .47$, and the correlation between overall deviant sexual fantasies and behaviors was $r = .72$ ($p < .001$).

Personality Correlates of Deviant Sexual Fantasies and Behaviors

Table 2 displays the correlations between the personality variables and the various deviant sexual fantasies. Alpha values along the diagonal indicate that the reliabilities for the personality measures were generally sound, ranging from .64 (Mach-IV) to .85 (NPI).

Only two personality variables were correlated significantly with overall deviant sexual fantasies: neuroticism ($r = .23$, $p < .05$) and psychopathy ($r = .23$, $p < .05$) (both two-tailed

TABLE 2: Personality Correlates of the Deviant Fantasy Subscales in Study 2 (N = 88)

	MASA Subscale										Overall	
	Frotteurism	Voyeurism	Exhibitionism	Pedophilia	Bondage	Sadism	Sexual Assault	Transvestitism	Fetish			
Big Five												
Extraversion	.01	-.08	.05	.13	-.04	.09	-.05	.23*	-.17	.01		
Agreeableness	-.01	.01	-.05	-.01	-.17	-.03	-.07	-.03	-.01	-.06		
Conscientiousness	-.08	-.12	-.16	-.15	.03	-.08	-.19	.05	-.21	-.15		
Neuroticism	.22*	.18	.07	.07	.21*	.20	.15	.04	.17	.23*		
Openness to Experience	.33**	.20	-.06	.27*	.07	.14	.04	.01	-.04	.14		
Dark triad												
Narcissism	-.04	-.07	.06	.15	.16	.31**	.17	.14	.00	.18		
Machiavellianism	-.04	.00	.07	.02	.13	.12	.13	-.03	.08	.11		
Self-report psychopathy	.13	.06	.15	.16	.24*	.28**	.09	.18	.12	.23*		

Note. MASA = Multidimensional Assessment of Sex and Aggression.
* $p < .05$; ** $p < .01$ (both two tailed).

TABLE 3: Personality Correlates of the Deviant Behavior Subscales in Study 2 (N = 88)

	MASA Subscale										Overall	
	Frotteurism	Voyeurism	Exhibitionism	Pedophilia	Bondage	Sadism	Sexual Assault	Transvestitism	Fetish			
Big Five												
Extraversion	-.05	.10	.11	.01	.13	.12	.05	.21*	-.06	.13		
Agreeableness	.03	-.12	-.07	-.03	.00	-.01	.07	.10	.20	.01		
Conscientiousness	.15	.01	-.01	-.03	.04	-.04	.04	-.10	.08	.00		
Neuroticism	.07	.07	-.02	.01	.08	.02	.12	.04	.05	.06		
Openness to Experience	.09	.00	-.09	-.04	.03	-.09	.06	-.01	.01	-.03		
Dark Triad												
Narcissism	-.02	.17	.02	.20	.20	.23*	.27**	.15	-.07	.20*		
Machiavellianism	.10	.09	-.05	.04	-.04	.01	.17	-.15	.11	.03		
Self-report psychopathy	.04	.17	.10	.14	.24*	.24*	.21*	.15	.03	.26*		

Note. MASA = Multidimensional Assessment of Sex and Aggression.
* $p < .05$; ** $p < .01$ (both two tailed).

tests). Further inspection suggests that the neuroticism correlation was strongest with the frotteurism and bondage subscales of the MASA, whereas the psychopathy correlation was highest with the bondage and sadism subscales. Although no other personality variables were correlated significantly with overall deviant fantasies, there was a scattering of other unpredicted correlations with the MASA subscales.

Table 3 displays the correlations between the personality variables and deviant sexual behaviors. The only personality variables that were correlated significantly with total deviant sexual behaviors were subclinical psychopathy ($r = .26, p < .05$) and narcissism ($r = .20, p < .05$) (both two-tailed tests). Note from the table that the strength of these overall correlations can be traced to the more aggression-related subtypes of sexual deviance, namely, bondage, sadism, and sexual assault.

To control for overlap among the dark triad of personality measures, all three were entered simultaneously as predictors of overall deviant fantasies. Subclinical psychopathy yielded the largest β value ($\beta = .19$) compared with narcissism and Machiavellianism (each $\beta = .05$). When this analysis was repeated with overall deviant behaviors as the outcome variable, subclinical psychopathy was again the strongest predictor (psychopathy $\beta = .18$, narcissism $\beta = .13$, Machiavellianism $\beta = -.05$).

Psychopathy as a Moderator of the Fantasy-Behavior Association

We conducted a 2×2 analysis of variance (ANOVA) to determine whether psychopathy moderated the relation between deviant sexual fantasies and behaviors. A median split was used to categorize participants into low- and high-psychopathy groups. The results showed a significant interaction, $F(1, 84) = 8.462, p < .01$. The pattern is clear in Figure 1. The influence of deviant fantasies on behavior was stronger for individuals high in psychopathy⁵ (although Figure 1 suggests some effect for fantasies in the low-psychopathy group, that simple main effect was not significant). This overall result was followed up with separate ANOVAs for the nine deviance categories. The only significant interaction was found with the sexual assault category.

Psychopathy as a Moderator of Pornography Effects on Behavior

We next explored the possibility that psychopathy moderates the relation between pornography use and deviant sexual behaviors. To this end, we conducted a 2 (high psychopathy vs. low psychopathy) \times 2 (high pornography vs. low pornography) ANOVA, using overall deviant sexual behavior as the outcome.

As displayed in Figure 2, the interaction was significant, $F(1, 84) = 6.10, p < .05$. A follow-up analysis using moderated regression showed a similar, albeit weaker effect. In short, pornography use was associated with deviant sexual behavior scores only for individuals scoring high in psychopathy.

GENERAL DISCUSSION

Our two studies of college students indicated substantial prevalence rates of deviant sexual fantasies and behaviors. These rates are consistent with the results of previous studies using

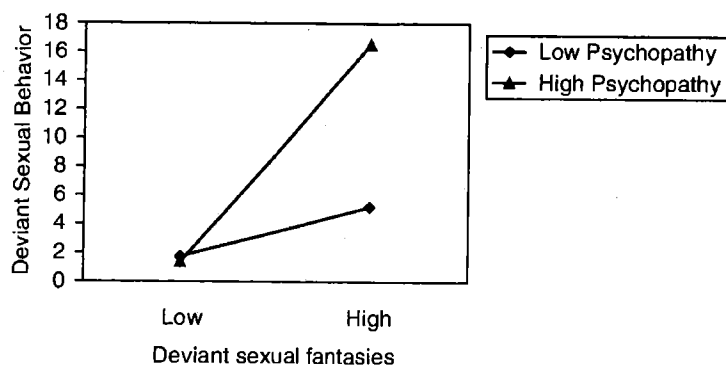


Figure 1: Effects of Self-Reported Psychopathy and Deviant Sexual Fantasies on Deviant Sexual Behavior ($n = 88$)

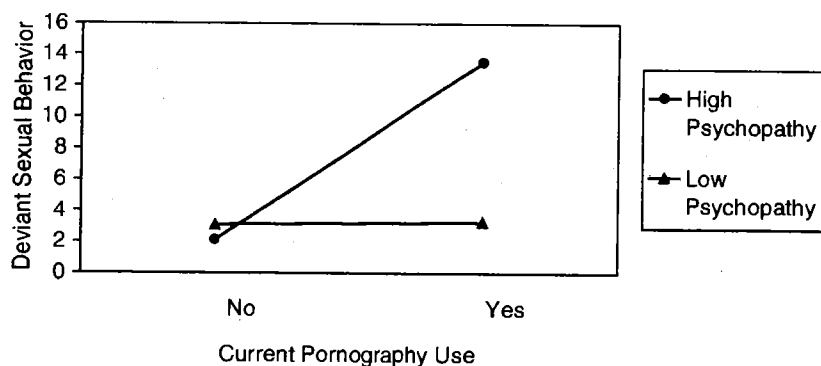


Figure 2: Effects of Self-Reported Psychopathy and Pornography Use on Deviant Sexual Behavior ($N = 88$)

anonymous self-reports (see Koss & Dinero, 1988; Leitenberg & Henning, 1995). The vast majority of participants reported at least one deviant sexual fantasy, though rates varied widely across categories. Within categories, we found substantial correlations between fantasy and behavior tendencies. Behavior rates were much lower, consistent with the notion that only a subset of individuals act on their deviant sexual fantasies. This discrepancy motivated our search in Study 2 for variables that might moderate the link between fantasy and behavior.

PERSONALITY CORRELATES

Of the variety of personality variables included in the present research, only psychopathy uniquely predicted overall deviant sexual behavior. This result extends previous reports of links between psychopathy and self-reported sexual aggression (Kosson et al., 1997). In our data, the association was in the positive direction for every single deviance category but reached conventional levels of significance only for bondage, sadism, and sexual assault. Arguably, these are the most aggression related forms of sexual deviance.

Along with other research (e.g., Williams & Paulhus, 2004), this finding supports the assertion that sexual aggression and general delinquency have a common link with psychopathy in both offender and nonoffender samples. In other words, these findings reinforce the overall image of psychopathy as the most malevolent personality construct. The heightened link with the more aggression related categories supports findings in the clinical-forensic literature that psychopathic traits may be differentially associated with particularly violent types of sexual offending (e.g., Hare, 2003).

The present study is the first to report a link between subclinical psychopathy and such a wide range of sexual fantasies. The only other significant personality correlate was neuroticism. That link has been reported previously, although replication is sometimes elusive (see review by Leitenberg & Henning, 1995). Fantasies associated with neuroticism are likely to be experienced quite differently from those associated with psychopathy. For neurotic individuals, sexually deviant fantasies may be intrusive and unwanted (i.e., ego-dystonic). In contrast, these fantasies may be appealing and welcomed by those scoring high in psychopathy (i.e., ego-syntonic). With respect to bondage, for example, neurotics may envision themselves as the hapless victims of bondage, whereas psychopaths may picture themselves in control.

The notion of dual paths to fantasy evokes the distinction offered by Byers and colleagues (e.g., Little & Byers, 2000; Renaud & Byers, 1999) with regard to the affective valence of sexual fantasies. Our results suggest that although the deviant sexual fantasies of subclinical psychopaths are associated with deviant sexual behaviors, the same cannot be said for the sexually deviant fantasies of neurotics. Finally, although narcissism was also a significant correlate of deviant sexual behaviors, multiple regression analyses revealed that this association vanished after its overlap with psychopathy was accounted for.

PSYCHOPATHY MODERATES THE FANTASY-BEHAVIOR LINK

Our interaction analyses were invaluable in answering the key question raised at the outset of this article: What determines whether sexually deviant behaviors are predictable from sexually deviant fantasies? To a large extent, the answer seems to be personality. We demonstrated that sexually deviant fantasies translated into sexually deviant behavior only for individuals scoring high in psychopathy.

Understandably, interaction results were weaker for the individual deviance categories. After all, most individual category variables were based on one or two items and therefore had low reliabilities. Even then, we can be confident about the results only for the more aggressive behaviors, especially sexual assault. Nonetheless, the message was that deviant sexual fantasies have little association with deviant sexual behavior for those with low psychopathy scores. In other words, both psychopathy and deviant sexual fantasies appear to be necessary but not sufficient conditions for a link between sexual fantasies and behaviors.

Our results suggest a mixed prognosis, at best, for the treatment of sex offenders. Specifically, sexually deviant fantasies and behaviors may be mitigated through some sort of cognitive-behavioral intervention (see Leitenberg & Henning, 1995). Unfortunately, the successful treatment of psychopaths remains questionable, particularly if they receive the same rehabilitation efforts as other offenders (but see Salekin, 2002).

PSYCHOPATHY MODERATES THE PORNOGRAPHY-BEHAVIOR LINK

Our analyses also shed some light on the effects of pornography use. As with the fantasy-behavior link, the association of pornography consumption with deviant sexual behavior

held only for individuals with high psychopathy scores. As with earlier findings (e.g., Check & Guloien, 1989; Malamuth et al., 2000; Seto et al., 2001), this result corresponds well with Malamuth's HMC theory. In HMC terms, our results demonstrate that the combination of psychopathy as a distal risk factor and pornography use as a proximate risk factor is especially predictive of sexually deviant behavior. These results build on previous HMC studies that involved risk factors related to psychopathy (see Malamuth, 2003). However, our results are novel in that they include subclinical psychopathy itself as a distal risk factor. It appears that rather than serving a cathartic function, pornography may activate or escalate the deviant sexual behavior of psychopaths.

This result is not the first indication of the moderating effects of psychopathy on the link between media exposure and misconduct. Similar to the results of our current study, Williams, McAndrew, Learn, Harms, and Paulhus (2001) reported that exposure to violent sports predicted delinquency only for those scoring high in psychopathy. In future research, psychopathy may prove to be a key moderator of the effects of various media on behavior. Indeed, given that psychopathy is associated with a penchant for a wide range of antisocial media (Shim, Lee, & Paul, 2007; Williams & Paulhus, 2004), it would be of great interest to examine whether similar effects could be found with respect to other types of media consumption.

A number of mechanisms are candidates for explaining the relation between psychopathy, pornography, and behavior. Murrin and Laws (1990), for example, concluded that "pornography reinforces the views that sexually aggressive men already hold" (p. 89). In other words, pornography (conveyed in any medium) may encourage and promote the pre-existing attitudes of psychopaths with respect to sexually deviant behavior. Bandura's (1977) reciprocal determinism theory highlights the reciprocal relation between environment and personality: To a large extent, adults in most societies choose their environments. Most relevant here, exposure to pornography is not a random event (see Anderson et al., 2003).

LIMITATIONS AND FUTURE DIRECTIONS

Virtually identical results in two samples raised our confidence in the observed pattern of deviant sexual fantasy-behavior relations. However, both studies are subject to a number of potential methodological limitations.

USE OF SELF-REPORT MEASURES

The validity of self-reports in the domain of sexual behavior continues to be debated (e.g., Ladd, 1996; Lewontin, 1995; Murray, 1996; Schroder, Carey, & Venable, 2003). For the most part, those controversies also apply to our concern: the measurement of sexual deviance (Meston, Heiman, Trapnell, & Carlin, 1999). Nonetheless, for our purposes, self-report remains the method of choice. First, the fantasy side of deviant sexuality cannot be assessed any other way (Leitenberg & Henning, 1995). Second, it is unlikely that any other method would have permitted the measurement of such a wide range of deviance variables. Alternatives such as the use of criminal records are not helpful for assessing nonoffender samples. Even in offender samples, however, criminal records are limited in terms of their description of deviant sexual behavior. Laboratory methods such as penile plethysmography (Barbaree et al., 1994) might improve on self-report, but assessment of reactions to all

deviant categories presents a challenge. Furthermore, these methods are extremely intrusive, and their application in research would negate anonymity.

The most frequent condemnation of self-report methods cites contamination with socially desirable responding (see Paulhus, 1991). For that reason, we took great pains to minimize the demand for desirable responding. The second study, for example, was advertised as about personal relationships rather than sexual behavior per se. Furthermore, the process of data collection was advertised as anonymous, which it was.

To address the social desirability issue directly, we collected some follow-up data on the nine sexual deviance categories. Five graduate students were asked to rank the categories on a scale ranging from *least desirable* (1) to *most desirable* (9). Desirability was to be judged from the perspective of society in general.⁶ None of the judges were familiar with the details of our study. Interrater reliabilities averaged .81, and ratings were therefore combined. Correlations between social desirability rankings and reported frequencies were minimal and nonsignificant for both fantasies ($r = .14$ and $r = -.03$ in Studies 1 and 2, respectively) and behaviors ($r = .11$ and $r = .17$ in Studies 1 and 2, respectively.). Therefore, the tendency to report a particular form of deviance must have been based on motivations other than the wish to appear to appear socially desirable. Indirectly, these results suggest that socially desirable responding did not play a major role in participants' responses (Meston et al., 1999).

The fact that our measure of psychopathy was also self-report may raise concerns about its association with self-reported sexual behavior. That concern may be allayed in part by noting the consistent finding that psychopaths score no higher on impression management scales than nonpsychopaths (Kitching & Paulhus, 2008). However, there is still the possibility that psychopathy, as measured by self-report (i.e., subclinical psychopathy), may be qualitatively different from psychopathy as assessed by a clinical rating scale such as the PCL-R (Hare, 2003). Therefore, we recommend that future research include both self-report and clinical rating measures to test this assumption. Such research could also examine any methodological and measurement differences with respect to the association between psychopathy and sexual behavior.

SELF-SELECTION

In soliciting participants from our subject pool, we sought to cast as wide a net as possible. For most students, the completion of a take-home questionnaire is preferable to alternative laboratory studies that require signing up and showing up at a specific time.

Nonetheless, the return rate may have been affected by factors relevant to the topic of sexual deviance. Students repulsed by discussions of sex may have been less likely to return the questionnaire. Moreover, these same students would likely have participated less in such activities. If so, both the fantasy and behavior rates reported here might be systematically inflated.

Equally convincing, however, is the opposite argument: Students with fewer deviant fantasies and behaviors may be less reluctant to return the questionnaire. After all, those with lower rates of such activities should experience less shame about reporting the (socially desirable) truth. Either way, such potential biases thwart clear conclusions about the rates of deviant sexuality in nonoffender populations.

We are aware of no simple resolution to the potential self-selection problem. A follow-up analysis of our own data provided a partial solution to the concern that prevalence rates

were overestimated. In Study 1, we recalculated the prevalence rates under a conservative assumption, namely, that the nonrespondents (20%) had no deviant fantasies or behaviors to report. The revised estimate of overall fantasy and behavior prevalence rates then dropped to 74% and 44%, respectively. Note that these lower bound estimates still indicate a substantial rate of deviant fantasies and behaviors in nonoffender samples.

In any case, we reiterate that absolute frequencies of fantasy and behavior are not critical to the message of this article. Instead, we have focused on the moderators of the fantasy-behavior association.

CAUSAL ORDERING

As noted earlier, the conclusion that fantasies directly cause behaviors cannot be inferred, even for the participants with high degrees of subclinical psychopathic characteristics in the second study. After all, our data are strictly correlational in nature. A causal modeling approach permitted Knight and Sims-Knight (2004), by contrast, to distinguish three distinct causal pathways. The experimental manipulations necessary to confirm causal models are, for ethical reasons, unlikely to ever be applied.

For example, our data are more consistent with the converse notion that deviant behaviors engender subsequent fantasies. Virtually all participants reporting deviant behavior also reported corresponding fantasies. This claim gains support from research showing that deviant fantasies can be predicted from prior sadistic behavior (Gray, Watt, Hassan, & MacCulloch, 2003). Offenders often report reliving previous deviant behavior via fantasies. Undoubtedly, reciprocal influences are at work. Otherwise, the substantial proportion of those who fantasize but do not act out requires another explanation.

We are equally hesitant to infer a causal effect of pornography use on deviant behavior. Our confidence is stronger regarding the temporal ordering of personality and sexual deviance: Fundamental personality traits precede sexually deviant fantasies and behavior. Indeed, research on our chief moderator, subclinical psychopathy, has shown substantial genetic determination (Taylor, Loney, Bobadilla, Iacono, & McGue, 2003; Viding, Blair, Moffitt, & Plomin, 2005). This finding applies to the self-report measure used here (Vernon, Villani, Vickers, & Harris, 2008). The opposite causal direction (wherein psychopathy is caused by sexual fantasies and behavior) seems less convincing to us (but see Daversa & Knight, 2007).

Differential self-exposure to pornography has already been linked to subclinical psychopathy. It has been shown that subclinical psychopaths generally prefer violent media (Williams et al., 2007) and voluntarily expose themselves to violent pornography (Shim et al., 2007). This potential causal path may increase the association of subclinical psychopathy with sexual aggression. The same argument could be made for other forms of sexual deviance.

ASSESSING PORNOGRAPHY USE

Recall that our measure of pornography consumption was a single global item. More reliable measurement should magnify and sharpen the effects reported here. Future research should also evaluate the content of the pornography. Zillman and Bryant (1984), for example, showed that the content themes in the pornography determine their effects on the consumer. Certainly, the degree of violence is critical: Sexual aggression is particularly associated with violent pornography as opposed to other types of pornography (Allen et al.,

1995). In short, a number of effects obtained in our study may be even more pronounced when specific pornography themes are considered.

GENDER AND ETHNICITY

Our key measurement instrument, the MASA (Knight et al., 1994), was designed specifically for use with male respondents. The development of a parallel instrument is necessary before attempting similar research on women.

Among the known sex differences are significant differences in fantasy rates (Leitenberg & Henning, 1995) and themes (Byrne & Osland, 2000). Rates of pornography consumption are also much higher in men (e.g., Malamuth et al., 2000), and differences in thematic preferences are often observed (e.g., Gardos & Mosher, 1999). The association between pornography use and deviant sexual fantasies and behaviors in females remains, however, an empirical question.

The ethnic composition of our sample was unusual in that it included (a) a higher proportion of East Asians and South Asians than most other undergraduate samples, and (b) fewer African Americans and Latin Americans than found in most American samples. Although we found no ethnic differences in the patterns of results, larger samples are necessary before such differences can be tested with confidence.

CONCLUSIONS

Together, our studies make several contributions to the literature. They provide prevalence rates of nine sexually deviant fantasies and the corresponding behaviors in two college samples. Because of their education and socioeconomic status, college samples provide a conservative estimate of deviant behaviors, if not fantasies. Our results also confirm but qualify the link between sexually deviant fantasies and sexually deviant behaviors in nonoffenders. Only a subset of those with fantasies also report carrying out the behavior. Although the link is not inevitable, it is consistent and coherent across a wide range of sexual deviance categories.

Only one personality variable was consistently associated with both fantasies and behavior, namely, psychopathy, as measured with a self-report instrument. Psychopathy also proved to be the key moderator of behavioral consequences. First, it helped isolate the subset of individuals for whom sexually deviant fantasies do translate into behavior. Second, it helped isolate the subset of individuals for whom pornography consumption was related to deviant sexual behavior. In short, claims for these two controversial links were sustained only in this particularly susceptible subgroup.

Note again that psychopathy was measured with a self-report instrument, the SRP-III (Paulhus et al., in press). The fact that our pattern of findings was consistent with the forensic literature suggests that self-report measurement of psychopathy is a viable methodology.

One implication for the criminal justice system is straightforward. Deviant sexual fantasies are rampant among nonoffender samples and should not be solely used to infer corresponding deviant behavior. In conjunction with a high psychopathy score, however, the inference from fantasy to behavior is better justified.

NOTES

1. Leitenberg and Henning (1995) suggested that fantasies should not be labeled "deviant" unless they result in deviant behavior (p. 488). Although we appreciate the spirit of that restriction, honoring it here would necessitate a more confusing wording of our central question, namely, "Are sexually deviant behaviors precipitated by corresponding fantasies?"

2. We used an earlier pencil-and-paper version of the MASA. Revised versions are more extensive and are computer administered (Davera & Knight, 2007). Unfortunately, no masochism items appear on the instrument we used. Three other categories, bestiality, coprophilia, and necrophilia, did not have matching fantasy and behavior items.

3. The rationale was that the lower frequency items were subsets of the category and were therefore less representative.

4. Mean correlations were calculated by applying Fisher's r -to- z and z -to- r transformations.

5. The same pattern of results was verified using moderated multiple regression. After accounting for the main effects of psychopathy and deviant sexual fantasy scores, the interaction term significantly increased the prediction of deviant sexual behavior, $\Delta R^2 = .07$, $F(1, 84) = 16.24$, $p < .001$.

6. Although the sample was entirely college-age men, they understood that the audience that would see their self-reports was psychology researchers. Therefore, any self-presentation strategies would be aimed at an older and likely mixed-gender audience.

REFERENCES

- Abel, G. G., & Blanchard, E. E. (1974). The role of fantasy in the treatment of sexual deviation. *Archives of General Psychiatry*, *30*, 467-475.
- Abel, G. G., & Rouleau, J. L. (1990). The nature and extent of sexual assault. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories and treatment of the offender* (pp. 91-121). New York: Plenum.
- Abracen, J., Looman, J., & Langton, C. M. (2008). Treatment of sexual offenders with psychopathic traits: Recent research developments and clinical applications. *Trauma, Violence, and Abuse*, *9*, 144-166.
- Allen, M., D'Alessio, D., & Brezgel, K. (1995). A meta-analysis summarizing the effects of pornography II: Aggression after exposure. *Human Communication Research*, *22*, 258-283.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Anderson, C. A., Berkowitz, L., Donnerstein, E., Huesmann, L. R., Johnson, J. D., Linz, D., et al. (2003). The influence of media violence on youth. *Psychological Science in the Public Interest*, *4*, 84-110.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barbaree, H. E., Seto, M. C., Serin, R., Amos, N., & Preston, D. (1994). Comparison between sexual and nonsexual rapist subtypes: Sexual arousal to rape, offense precursors, and offense characteristics. *Criminal Justice and Behavior*, *21*, 95-114.
- Barnes, G., Malamuth, N., & Check, J. (1984). Psychoticism and sexual arousal to rape depictions. *Personality and Individual Differences*, *5*, 273-279.
- Baumgartner, J. V., Scalora, M. J., & Huss, M. T. (2002). Assessment of the Wilson Sex Fantasy Questionnaire among child molesters and nonsexual forensic offenders. *Sexual Abuse: A Journal of Research and Treatment*, *14*, 19-30.
- Briere J., & Runtz, M. (1989). University males' sexual interest in children: Predicting potential indices of "pedophilia" in a nonforensic sample. *Child Abuse and Neglect*, *13*, 65-75.
- Brown, S. L., & Forth, A. E. (1997). Psychopathy and sexual assault: Static risk factors, emotional precursors, and rapist subtypes. *Journal of Consulting and Clinical Psychology*, *65*, 848-857.
- Byrne, D., & Osland, J. A. (2000). Sexual fantasy and erotica/pornography: Internal and external imagery. In L. T. Szuchman & F. Muscarella (Eds.), *Psychological perspectives on human sexuality* (pp. 283-305). New York: John Wiley.
- Check, J.V.P., & Guloien, T. H. (1989). Reported proclivity of coercive sex following repeated exposure to sexually violent pornography, nonviolent dehumanizing pornography, and erotica. In D. Zillman & J. Bryant (Eds.), *Pornography: Research advances and policy considerations* (pp. 159-184). Hillsdale, NJ: Lawrence Erlbaum.
- Christie, R., & Geis, F. L. (1970). *Studies in Machiavellianism*. New York: Academic Press.
- Christopher, F. S., Owens, L. A., & Stecker, H. L. (1993). An examination of single men's and women's sexual aggressiveness in dating relationships. *Journal of Social & Personal Relationships*, *10*, 511-527.
- Cleckley, H. (1941). *The mask of sanity*. St. Louis, MO: Mosby.
- Crepault, C., & Couture, M. (1980). Men's erotic fantasies. *Archives of Sexual Behavior*, *9*, 565-581.
- Cumoe, S., & Langevin, R. (2002). Personality and deviant sexual fantasies: An examination of the MMPIs of sex offenders. *Journal of Clinical Psychology*, *58*, 803-815.
- Davera, M. T., & Knight, R. A. (2007). A structural examination of the predictors of sexual coercion against children in adolescent sexual offenders. *Criminal Justice and Behavior*, *34*, 1313-1333.
- Dean, K. E., & Malamuth, N. M. (1997). Characteristics of men who aggress sexually and of men who imagine aggressing: Risk and moderating variables. *Journal of Personality and Social Psychology*, *72*, 449-455.

- Donnerstein, E. (1984). Pornography: Its effect on violence against women. In N. M. Malamuth & E. Donnerstein (Eds.), *Pornography and sexual aggression* (pp. 53-81). Orlando, FL: Academic Press.
- Eysenck, H. J. (1943). A study of human aversions and satisfactions, and their relation to age, sex, and temperament. *Journal of Genetic Psychology*, *62*, 289-299.
- Feierman, J. R., & Feierman, L. A. (2000). Paraphilias. In L. T. Szuchman & F. Muscarella (Eds.), *Psychological perspectives on human sexuality* (pp. 480-518). New York: John Wiley.
- Firestone, P., Bradford, J. M., Greenberg, D. M., Larose, M. R., & Curry, S. (1998). Homicidal and nonhomicidal child molesters: Psychological, phallometric, and criminal features. *Sexual Abuse: Journal of Research and Treatment*, *10*, 305-325.
- Gardos, P. S., & Mosher, D. L. (1999). Gender differences in reactions to viewing pornographic vignettes: Essential or interpretive? *Journal of Psychology and Human Sexuality*, *11*, 65-83.
- Gee, D. G., Devilly, G. J., & Ward, T. (2004). The content of sexual fantasies for sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, *16*, 315-331.
- Gray, N. S., Watt, A., Hassan, S., & MacCulloch, M. J. (2003). Behavioral indicators of sadistic sexual murder predict the presence of sadistic sexual fantasy in a normative sample. *Journal of Interpersonal Violence*, *18*, 1018-1034.
- Greenlinger, V., & Byrne, D. (1987). Coercive sexual fantasies of college men as predictors of self-reported likelihood to rape and overt sexual aggression. *Journal of Sex Research*, *21*, 1-23.
- Hare, R. D. (2003). *The Hare Psychopathy Checklist-Revised (PCL-R)* (2nd ed.) Toronto, Canada: Multi-Health Systems.
- Hare, R. D., Clark, D., Grann, M., & Thornton, D. (2000). Psychopathy and the predictive validity of the PCL-R: An international perspective. *Behavioral Sciences and the Law*, *18*, 623-645.
- Hare, R. D., Cooke, D. J., & Hart, S. D. (1999). Psychopathy and sadistic personality disorder. In T. Millon, P. H. Blaney, & R. D. Davis (Eds.), *Oxford textbook of psychopathology* (pp. 555-584). New York: Oxford University Press.
- Hersh, K., & Gray-Little, B. (1998). Psychopathic traits and attitudes associated with self-reported sexual aggression in college men. *Journal of Interpersonal Violence*, *13*, 456-471.
- Irons, R. D., & Schneider, J. P. (1996). Differential diagnosis of addictive sexual disorders using the DSM-IV. *Sexual Addiction & Compulsivity*, *3*, 7-21.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102-138). New York: Guilford.
- Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. P. (in press). The dark triad: Facilitating a short-term mating strategy in men. *European Journal of Personality*.
- Jones, D. N., & Paulhus, D. L. (2008). Machiavellianism. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp.). New York: Guilford.
- Jones, J. C., & Barlow, D. H. (1990). Self-reported frequency of sexual urges, fantasies, and masturbatory fantasies in heterosexual males and females. *Archives of Sexual Behavior*, *19*, 269-279.
- Kafka, M. P. (2000). The paraphilia-related disorders: Nonparaphilic hypersexuality and sexual compulsivity/addiction. In S. R. Leiblum & R. C. Rosen (Eds.), *Principles and practice of sex therapy* (3rd ed., pp. 471-503). New York: Guilford.
- Kitching, S., & Paulhus, D. L. (2008, June). *Why do psychopaths score lower on impression management scales?* Paper presented at the meeting of the Canadian Psychological Association, Halifax, Canada.
- Knight, R. A., & Guay, J.-P. (2007). The role of psychopathy in sexual coercion against women. In C. J. Patrick (Ed.), *Handbook of psychopathy* (pp. 512-532). New York: Guilford.
- Knight, R. A., Prentky, R. A., & Cerce, D. D. (1994). The development, reliability, and validity of an inventory for the Multidimensional Assessment of Sex and Aggression. *Criminal Justice and Behavior*, *21*, 72-94.
- Knight, R. A., & Sims-Knight, J. E. (2003). The developmental antecedents of sexual coercion against women: Testing alternative hypotheses with structural equation modeling. *Annals of New York Academy of Science*, *989*, 72-85.
- Koss, M. P., & Dinero, T. (1988). Predictors of sexual aggression among a national sample of male college students. *Annals of the New York Academy of Science*, *528*, 133-147.
- Kosson, D. S., Kelly, J. C., & White, J. W. (1997). Psychopathy-related traits predict self-reported sexual aggression among college men. *Journal of Interpersonal Violence*, *12*, 241-254.
- Ladd, E. C. (1996). Why should anyone lie on a questionnaire? *Public Perspective*, *7*, 57.
- Langevin, R., Lang, R. A., & Curnoe, S. (1998). The prevalence of sex offenders with deviant fantasies. *Journal of Interpersonal Violence*, *13*, 315-327.
- Leitenberg, H., & Henning, K. (1995). Sexual fantasy. *Psychological Bulletin*, *117*, 469-496.
- Leue, A., Borchard, B., & Hoyer, J. (2004). Mental disorders in a forensic sample of sexual offenders. *European Psychiatry*, *19*, 123-130.
- Lewontin, R. C. (1995). Measuring American society: Sex, lies, and social science. *Public Perspective*, *6*, 4.
- Little, C. A., & Byers, E. S. (2000). Differences between positive and negative sexual fantasies. *Canadian Journal of Human Sexuality*, *9*, 167-179.
- Looman, J. (1995). Sexual fantasies of child molesters. *Canadian Journal of Behavioral Science*, *27*, 321-332.
- MacCulloch, M. J., Snowden, P. R., Wood, P. J. W., & Mills, H. E. (1983). Sadistic fantasy, sadistic behavior, and offending. *British Journal of Psychiatry*, *143*, 20-29.

- Mahmut, M. K., Homewood, J., & Stevenson, R. J. (2008). The characteristics of non-criminals with high psychopathy traits: Are they similar to criminal psychopaths. *Journal of Research in Personality, 42*, 679-692.
- Malamuth, N. M. (1986). Predictors of naturalistic sexual aggression. *Journal of Personality and Social Psychology, 50*, 953-962.
- Malamuth, N. M. (1988). Predicting laboratory aggression against female vs. male targets: Implications for research on sexual aggression. *Journal of Research in Personality, 22*, 474-495.
- Malamuth, N. M. (2003). Criminal and noncriminal sexual aggressors: Integrating psychopathy in a hierarchical mediational confluence model. *Annals of the New York Academy of Sciences, 989*, 33-58.
- Malamuth, N. M., Addison, T., & Koss, M. (2000). Pornography and sexual aggression: Are there reliable effects and can we understand them? *Annual Review of Sex Research, 11*, 26-91.
- Marshall, W. L., & Barbaree, H. E. (1990). An integrated theory of the etiology of sexual offending. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault* (pp. 257-275). New York: Plenum.
- McCollaun, B., & Lester, D. (1994). Violent sexual fantasies and sexual behavior. *Psychological Reports, 75*, 742.
- McHoskey, J. W. (2001). Machiavellianism and sexuality: On the moderating role of biological sex. *Personality and Individual Differences, 31*, 779-789.
- Meston, C. M., Heiman, J. R., Trapnell, P. D., & Carlin, A. S. (1999). Ethnicity, desirable responding, and self-reports of abuse: A comparison of European- and Asian-ancestry undergraduates. *Journal of Consulting and Clinical Psychology, 67*, 139-144.
- Meston, C. M., Trapnell, P. D., & Gorzalka, B. B. (1996). Ethnic and gender differences in sexuality: Variations in sexual behavior between Asian and non-Asian university students. *Archives of Sexual Behavior, 25*, 33-72.
- Money, J. (1986). *Lovemaps: Clinical concepts of sexual/erotic health and pathology, paraphilia, and gender transposition in childhood, adolescence, and maturity*. New York: Irvington.
- Murray, D. (1996). Polling America: Past and present; searching by the light: In defense of social science. *Public Perspective, 7*, 54.
- Murrin, M. R., & Laws, D. R. (1990). The influence of pornography on sexual crimes. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of sexual assault: Issues, theories, and treatment of the offenders* (pp. 73-91). New York: Plenum.
- Nathanson, C., Paulhus, D. L., & Williams, K. M. (2006). Predictors of a behavioral measure of scholastic cheating: Personality, and competence, but not demographics. *Contemporary Educational Psychology, 31*, 97-122.
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). San Diego, CA: Academic Press.
- Paulhus, D. L., Hemphill, J. F., & Hare, R. D. (in press). *Manual for the Self-Report Psychopathy Scale (SRP-III)*. Toronto, Canada: Multi-Health Systems.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality, 36*, 556-563.
- The People of the State of Colorado v. Timothy L. Masters, Colorado App. Ct. No. 99CA0896 (2001).
- Petty, G. M., & Dawson, B. (1989). Sexual aggression in normal men: Incidence, beliefs, and personality characteristics. *Personality and Individual Differences, 10*, 355-362.
- Porter, S., Fairweather, D., Drugge, J., Hervé, H., Birt, A., & Boer, D. P. (2000). Profiles of psychopathy in incarcerated sexual offenders. *Criminal Justice and Behavior, 27*, 216-233.
- Prentky, R. A., Burgess, A. W., Rokous, F., Lee, A., Hartman, C., Ressler, R., et al. (1989). The presumptive role of fantasy in serial sexual homicide. *American Journal of Psychiatry, 146*, 887-891.
- Quinsey, V. L., Rice, M. E., & Harris, G. T. (1995). Actuarial prediction of sexual recidivism. *Journal of Interpersonal Violence, 10*, 85-105.
- R. v. Robin Sharpe, 1 S.C.R. 45, Supreme Court Canada 2 (2001).
- Rapaport, K., & Burkhart, B. R. (1984). Personality and attitudinal characteristics of sexually coercive males. *Journal of Consulting and Clinical Psychology, 59*, 643-661.
- Raskin, R., & Hall, C. S. (1979). A Narcissistic Personality Inventory. *Psychological Reports, 45*, 590.
- Renaud, C. A., & Byers, E. S. (1999). Exploring the frequency, diversity, and content of university students' positive and negative sexual fantasies. *Canadian Journal of Human Sexuality, 8*, 17-30.
- Rice, M. E., Quinsey, V. L., & Harris, G. T. (1991). Sexual recidivism among child molesters released from a maximum security psychiatric institution. *Journal of Consulting and Clinical Psychology, 59*, 381-386.
- Ryan, K. M. (2004). Further evidence for a cognitive component of rape. *Aggression and Violent Behavior, 9*, 579-604.
- Salekin, R. T. (2002). Psychopathy and therapeutic pessimism: Clinical lore or clinical reality? *Clinical Psychology Review, 22*, 79-112.
- Schmitt, D. P. (2004). The Big Five related to risky sexual behaviour across 10 world regions: Differential personality associations of sexual promiscuity and relationship infidelity. *European Journal of Personality, 18*, 301-319.
- Schroder, K.E.E., Carey, M. P., & Venable, P. A. (2003). Methodological challenges in research on sexual risk behavior: II. Accuracy of self-reports. *Annals of Behavioral Medicine, 26*, 104-123.
- Serin, R. C., Mailloux, D., & Malcolm, B. P. (2001). Psychopathy, deviant sexual arousal, and recidivism among sexual offenders. *Journal of Interpersonal Violence, 16*, 234-246.

- Serin, R. C., Malcolm, P. B., Khanna, A., & Barbaree, H. E. (1994). Psychopathy and deviant sexual arousal in incarcerated sexual offenders. *Journal of Interpersonal Violence, 9*, 3-11.
- Seto, M. C., Maric, A., & Barbaree, H. E. (2001). The role of pornography in the etiology of sexual aggression. *Aggression and Violent Behavior, 6*, 35-53.
- Shim, J. W., Lee, S., & Paul, B. (2007). Who responds to unsolicited sexually explicit materials on the Internet? The role of individual differences. *CyberPsychology & Behavior, 10*, 71-79.
- Smeaton, G., & Byrne, D. (1987). The effects of R-rated violence and erotica, individual differences, and victim characteristics on acquaintance rape proclivity. *Journal of Research in Personality, 21*, 171-184.
- Spence, J. T., Losoff, M., & Robbins, A. S. (1991). Sexually aggressive tactics in dating relationships: Personality and attitudinal correlates. *Journal of Social & Clinical Psychology, 10*, 289-304.
- Taylor, J., Loney, B. R., Bobadilla, L., Iacono, W. G., & McGue, M. (2003). Genetic and environmental influences on psychopathy trait dimensions in a community sample of male twins. *Journal of Abnormal Child Psychology, 31*, 633-645.
- Vega, V., & Malamuth, N. M. (2007). Predicting sexual aggression: The role of pornography in the context of general and specific risk factors. *Aggressive Behavior, 33*, 104-117.
- Vernon, P. A., Villani, V. C., Vickers, L. C., & Harris, J. A. (2008). A behavioral genetic investigation of the dark triad and the Big Five. *Personality and Individual Differences, 44*, 445-452.
- Viding, E., Blair, R.D.R., Moffitt, T. E., & Plomin, R. (2005). Evidence for substantial genetic risk for psychopathy in 7-year-olds. *Journal of Child Psychology and Psychiatry, 46*, 592-597.
- Ward, T., Laws, D. R., & Hudson, S. M. (2003). *Sexual deviance: Issues and controversies*. London: Sage Ltd.
- Williams, K., McAndrew, A., Learn, T., Harms, P., & Paulhus, D. L. (2001, August). *Dark personalities: Anti-social behavior and entertainment preferences*. Paper presented at the meeting of the American Psychological Association, San Francisco, CA.
- Williams, K. M., & Paulhus, D. L. (2004). Factor structure of the Self-Report Psychopathy Scale in non-forensic samples. *Personality and Individual Differences, 37*, 765-778.
- Williams, K. M., Paulhus, D. L., & Hare, R. D. (2007). Capturing the four-facet structure of psychopathy in college students via self-report. *Journal of Personality Assessment, 88*, 205-219.
- Williams, K. M., Spidel, A., & Paulhus, D. L. (2005). *Sex, lies, and more lies: Exploring the intimate relationships of psychopaths*. Poster presented at the First Biannual Meeting of the Society for the Scientific Study of Psychopathy, Vancouver, Canada.
- Wilson, G. D. (1997). Sex and personality. In H. Nyborg (Ed.), *The scientific study of human nature: Tribute to Hans J. Eysenck at eighty* (pp. 163-188). New York: Pergamon/Elsevier.
- Woodworth, M., & Porter, S. (2002). In cold blood: Characteristics of criminal homicides as a function of psychopathy. *Journal of Abnormal Psychology, 111*, 436-445.
- Zillman, D., & Bryant, J. (1984). Effects of massive exposure to pornography. In N. M. Malamuth & E. Donnerstein (Eds.), *Pornography and sexual aggression* (pp. 115-138). Orlando, FL: Academic Press.
- Zurbriggen, E. L., & Yost, M. R. (2004). Power, desire, and pleasure in sexual fantasies. *Journal of Sex Research, 41*, 288-300.

Kevin M. Williams, PhD, is a senior research associate at Multi-Health Systems, Inc., in Toronto. His primary research interests include psychopathy in nonclinical and nonforensic populations, personality assessment, and the dynamics of criminality.

Barry S. Cooper, PhD, RPsych., is a partner and director of research for The Pacific Alliance of Forensic Scientists and Practitioners, Ltd. Formerly a senior psychologist with the Correctional Service of Canada, he is currently employed by the Forensic Psychiatric Services Commission in British Columbia. His research and clinical interests include psychopathy, eyewitness memory, and the evaluation of truthfulness.

Teresa M. Howell, PhD, is a therapist working in a community mental health agency. Her research interests include Aboriginal offenders and reintegration strategies.

John C. Yuille is a professor emeritus in the Department of Psychology at the University of British Columbia. His research interests are in eyewitness memory, credibility assessment, interview techniques, and offending patterns. He also has a forensic psychology consulting practice.

Delroy L. Paulhus, PhD, is a professor of psychology at the University of British Columbia. His recent research has focused on such topics as dark personalities, questionnaire response styles, psychopathy, and self-deception. He is also the author of several popular personality questionnaires.

Opportunity in the identification of the projects to be funded by that agency, as well as to meet the purposes of this act.

CHAPTER 1613

An act to amend Sections 11107, 11165, and 11170 of the Penal Code, and to amend Section 326 of the Welfare and Institutions Code, relating to child abuse reporting, making an appropriation therefor, and declaring the urgency thereof, to take effect immediately.

[Approved by Governor September 29, 1984. Filed with
Secretary of State September 30, 1984.]

The people of the State of California do enact as follows:

SECTION 1. Section 11107 of the Penal Code is amended to read:

11107. Each sheriff or police chief executive shall furnish all of the following information to the Department of Justice on standard forms approved by the department:

Daily reports of those misdemeanors and felonies that are required to be reported by the Attorney General including, but not limited to, forgery, fraud-bunco, bombings, receiving or selling stolen property, safe and commercial burglary, grand theft, child abuse, homicide, threats, and offenses involving lost, stolen, found, pledged, or pawned property.

The reports required by this section shall describe the nature and character of each such crime and note all particular circumstances thereof and include all additional or supplemental data. The Attorney General may also require that the report shall indicate whether or not the submitting agency considers the information to be confidential because it was compiled for the purpose of a criminal investigation of suspected criminal activities. The term "criminal investigation" includes the gathering and maintenance of information pertaining to suspected criminal activity.

SEC. 2. Section 11165 of the Penal Code is amended to read:

11165. As used in this article:

(a) "Child" means a person under the age of 18 years.

(b) "Sexual abuse" means sexual assault or sexual exploitation as defined by the following:

(1) "Sexual assault" means conduct in violation of one or more of the following sections of this code: Section 261 (rape), 264.1 (rape in concert), 285 (incest), 286 (sodomy), subdivision (a) or (b) of Section 288 (lewd or lascivious acts upon a child under 14 years of age), 288a (oral copulation), 289 (penetration of a genital or anal opening by a foreign object), or 647a (child molestation).

(2) "Sexual exploitation" refers to any of the following:

(A) Conduct involving matter depicting a minor engaged in obscene acts in violation of Section 311.2 (preparing, selling, or

distributing obscene matter) or subdivision (a) of Section 311.4 (employment of minor to perform obscene acts).

(B) Any person who knowingly promotes, aids or assists, employs, uses, persuades, induces, or coerces a child, or any parent or guardian of a child under his or her control who knowingly permits or encourages a child to engage in, or assist others to engage in, prostitution or to either pose or model alone or with others for purposes of preparing a film, photograph, negative, slide, or live performance involving obscene sexual conduct for commercial purposes.

(C) Any person who depicts a child in, or who knowingly develops, duplicates, prints, or exchanges, any film, photograph, videotape, negative, or slide in which a child is engaged in an act of obscene sexual conduct, except for those activities by law enforcement and prosecution agencies and other persons described in subdivisions (c) and (e) of Section 311.3.

(c) "Neglect" means the negligent treatment or the maltreatment of a child by a person responsible for the child's welfare under circumstances indicating harm or threatened harm to the child's health or welfare. The term includes both acts and omissions on the part of the responsible person.

(1) "Severe neglect" means the negligent failure of a person having the care or custody of a child to protect the child from severe malnutrition or medically diagnosed nonorganic failure to thrive. "Severe neglect" also means those situations of neglect where any person having the care or custody of a child willfully causes or permits the person or health of the child to be placed in a situation such that his or her person or health is endangered, as proscribed by subdivision (d), including the intentional failure to provide adequate food, clothing, shelter, or medical care.

(2) "General neglect" means the negligent failure of a person having the care or custody of a child to provide adequate food, clothing, shelter, medical care, or supervision where no physical injury to the child has occurred.

For the purposes of this chapter, a child receiving treatment by spiritual means as provided in Section 16509.1 of the Welfare and Institutions Code or not receiving specified medical treatment for religious reasons, shall not for that reason alone be considered a neglected child. An informed and appropriate medical decision made by a parent or guardian after consultation with a physician or physicians who have examined the minor does not constitute neglect.

(d) "Willful cruelty or unjustifiable punishment of a child" means a situation where any person willfully causes or permits any child to suffer, or inflicts thereon, unjustifiable physical pain or mental suffering, or having the care or custody of any child, willfully causes or permits the person or health of the child to be placed in a situation such that his or her person or health is endangered.

(e) "Corporal punishment or injury" means a situation where any

person willfully inflicts upon any child any cruel or inhuman corporal punishment or injury resulting in a traumatic condition.

(f) "Abuse in out-of-home care" means a situation of physical injury on a child which is inflicted by other than accidental means, or of sexual abuse or neglect or the willful cruelty or unjustifiable punishment of a child, as defined in this article, where the person responsible for the child's welfare is a foster parent or the administrator or an employee of a public or private residential home, school, or other institution or agency.

(g) "Child abuse" means a physical injury which is inflicted by other than accidental means on a child by another person. "Child abuse" also means the sexual abuse of a child or any act or omission proscribed by Section 273a (willful cruelty or unjustifiable punishment of a child) or 273d (corporal punishment or injury). "Child abuse" also means the neglect of a child or abuse in out-of-home care, as defined in this article.

(h) "Child care custodian" means a teacher, administrative officer, supervisor of child welfare and attendance, or certificated pupil personnel employee of any public or private school; an administrator of a public or private day camp; a licensee, an administrator, or an employee of a community care facility licensed to care for children; headstart teacher; a licensing worker or licensing evaluator; public assistance worker; employee of a child care institution, including, but not limited to, foster parents, group home personnel and personnel of residential care facilities; a social worker or a probation officer.

(i) "Medical practitioner" means a physician and surgeon, psychiatrist, psychologist, dentist, resident, intern, podiatrist, chiropractor, licensed nurse, dental hygienist, or any other person who is currently licensed under Division 2 (commencing with Section 500) of the Business and Professions Code.

(j) "Nonmedical practitioner" means a state or county public health employee who treats a minor for venereal disease or any other condition; a coroner; a paramedic; a marriage, family, or child counselor; or a religious practitioner who diagnoses, examines, or treats children.

(k) "Child protective agency" means a police or sheriff's department, a county probation department, or a county welfare department.

(l) "Commercial film and photographic print processor" means any person who develops exposed photographic film into negatives, slides, or prints, or who makes prints from negatives or slides, for compensation. The term includes any employee of such a person; it does not include a person who develops film or makes prints for a public agency.

SEC. 2.2. Section 11165 of the Penal Code is amended to read: 11165. As used in this article:

(a) "Child" means a person under the age of 18 years.

(b) "Sexual abuse" means sexual assault or sexual exploitation as

defined by the following:

(1) "Sexual assault" means conduct in violation of one or more of the following sections of this code: Section 261 (rape), 264.1 (rape in concert), 285 (incest), 286 (sodomy), subdivision (a) or (b) of Section 288 (lewd or lascivious acts upon a child under 14 years of age), 288a (oral copulation), 289 (penetration of a genital or anal opening by a foreign object), or 647a (child molestation).

(2) "Sexual exploitation" refers to any of the following:

(A) Conduct involving matter depicting a minor engaged in obscene acts in violation of Section 311.2 (preparing, selling, or distributing obscene matter) or subdivision (a) of Section 311.4 (employment of minor to perform obscene acts).

(B) Any person who knowingly promotes, aids or assists, employs, uses, persuades, induces, or coerces a child, or any parent or guardian of a child under his or her control who knowingly permits or encourages a child to engage in, or assist others to engage in, prostitution or to either pose or model alone or with others for purposes of preparing a film, photograph, negative, slide, or live performance involving obscene sexual conduct for commercial purposes.

(C) Any person who depicts a child in, or who knowingly develops, duplicates, prints, or exchanges, any film, photograph, videotape, negative, or slide in which a child is engaged in an act of obscene sexual conduct, except for those activities by law enforcement and prosecution agencies and other persons described in subdivisions (c) and (e) of Section 311.3.

(c) "Neglect" means the negligent treatment or the maltreatment of a child by a person responsible for the child's welfare under circumstances indicating harm or threatened harm to the child's health or welfare. The term includes both acts and omissions on the part of the responsible person.

(1) "Severe neglect" means the negligent failure of a person having the care or custody of a child to protect the child from severe malnutrition or medically diagnosed nonorganic failure to thrive. "Severe neglect" also means those situations of neglect where any person having the care or custody of a child willfully causes or permits the person or health of the child to be placed in a situation such that his or her person or health is endangered, as proscribed by subdivision (d), including the intentional failure to provide adequate food, clothing, shelter, or medical care.

(2) "General neglect" means the negligent failure of a person having the care or custody of a child to provide adequate food, clothing, shelter, medical care, or supervision where no physical injury to the child has occurred.

For the purposes of this chapter, a child receiving treatment by spiritual means as provided in Section 16509.1 of the Welfare and Institutions Code or not receiving specified medical treatment for religious reasons, shall not for that reason alone be considered a neglected child. An informed and appropriate medical decision

**CRIMES AND OFFENSES—SEX OFFENSES—SEXUAL
EXPLOITATION**

CHAPTER 264

A.B. No. 1775

AN ACT to amend Section 11165.1 of the Penal Code, relating to child abuse.

[Filed with Secretary of State August 22, 2014.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1775, Melendez. Child Abuse and Neglect Reporting Act: sexual abuse.

Existing law, the Child Abuse and Neglect Reporting Act, defines sexual abuse as sexual assault or sexual exploitation for purposes of mandating certain persons to report suspected cases of child abuse or neglect. Under the act, sexual exploitation refers to, among other things, a person who depicts a child in, or who knowingly develops, duplicates, prints, or exchanges, a film, photograph, videotape, negative, or slide in which a child is engaged in an act of obscene sexual conduct, except as specified. Failure to report known or suspected instances of child abuse, including sexual abuse, under the act is a misdemeanor.

This bill would provide that sexual exploitation also includes a person who knowingly downloads, streams, or accesses through any electronic or digital media, a film, photograph, videotape, video recording, negative, or slide in which a child is engaged in an act of obscene sexual conduct. Because the bill would expand the scope of a crime and impose additional duties on local officials, the bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that with regard to certain mandates no reimbursement is required by this act for a specified reason.

With regard to any other mandates, this bill would provide that, if the Commission on State Mandates determines that the bill contains costs so mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

The people of the State of California do enact as follows:

SECTION 1. Section 11165.1 of the Penal Code is amended to read:

11165.1. As used in this article, "sexual abuse" means sexual assault or sexual exploitation as defined by the following:

(a) "Sexual assault" means conduct in violation of one or more of the following sections: Section 261 (rape), subdivision (d) of Section 261.5 (statutory rape), 264.1 (rape in concert), 285 (incest), 286 (sodomy), subdivision (a) or (b), or paragraph (1) of subdivision (c) of Section 288 (lewd or lascivious acts upon a child), 288a (oral copulation), 289 (sexual penetration), or 647.6 (child molestation).

(b) Conduct described as "sexual assault" includes, but is not limited to, all of the following:

(1) * * * Penetration, however slight, of the vagina or anal opening of one person by the penis of another person, whether or not there is the emission of semen.

(2) * * * Sexual contact between the genitals or anal opening of one person and the mouth or tongue of another person.

(3) * * * Intrusion by one person into the genitals or anal opening of another person, including the use of an object for this purpose, except that, it does not include acts performed for a valid medical purpose.

(4) The intentional touching of the genitals or intimate parts * * *, including the breasts, genital area, groin, inner thighs, and buttocks, or the clothing covering them, of

a child, or of the perpetrator by a child, for purposes of sexual arousal or gratification, except that * * * it does not include acts which may reasonably be construed to be normal caretaker responsibilities; interactions with, or demonstrations of affection for, the child; or acts performed for a valid medical purpose.

(5) The intentional masturbation of the perpetrator's genitals in the presence of a child.

(c) "Sexual exploitation" refers to any of the following:

(1) Conduct involving matter depicting a minor engaged in obscene acts in violation of Section 311.2 (preparing, selling, or distributing obscene matter) or subdivision (a) of Section 311.4 (employment of minor to perform obscene acts).

(2) A person who knowingly promotes, aids, or assists, employs, uses, persuades, induces, or coerces a child, or a person responsible for a child's welfare, who knowingly permits or encourages a child to engage in, or assist others to engage in, prostitution or a live performance involving obscene sexual conduct, or to either pose or model alone or with others for purposes of preparing a film, photograph, negative, slide, drawing, painting, or other pictorial depiction, involving obscene sexual conduct. For the purpose of this section, "person responsible for a child's welfare" means a parent, guardian, foster parent, or a licensed administrator or employee of a public or private residential home, residential school, or other residential institution.

(3) A person who depicts a child in, or who knowingly develops, duplicates, prints, downloads, streams, accesses through any electronic or digital media, or exchanges, a film, photograph, videotape, video recording, negative, or slide in which a child is engaged in an act of obscene sexual conduct, except for those activities by law enforcement and prosecution agencies and other persons described in subdivisions (c) and (e) of Section 311.3.

SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution for certain costs that may be incurred by a local agency or school district because, in that regard, this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

However, if the Commission on State Mandates determines that this act contains other costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

HEALTH CARE FACILITIES—REPORTS—FEDERAL AGENCIES

CHAPTER 265

A.B. No. 1812

AN ACT to amend Section 128766 of the Health and Safety Code, relating to health facilities.

[Filed with Secretary of State August 22, 2014.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1812, Pan. Health facilities: information: disclosure.

Existing law requires health facilities to file specified reports with the Office of Statewide Health Planning and Development. These reports include a Hospital Discharge Abstract Data Record, an Emergency Care Data Record, and an Ambulatory Surgery Data Record, which contain information regarding each patient. Existing law requires the office to maintain a file containing these reports and, subject to any rules

1 **PROOF OF SERVICE**

2 STATE OF CALIFORNIA)
3 COUNTY OF LOS ANGELES) ss

4 I am employed in the County of Los Angeles, State of California. I am over the age of 18
5 and not a party to the within action; my business address is ARNOLD & PORTER KAYE
6 SCHOLER LLP, 777 South Figueroa Street, 44th Floor, Los Angeles, California 90017.

7 On **October 23, 2017**, I served the foregoing document described as follows:

8 **MOTION FOR JUDICIAL NOTICE BY *AMICI CURIAE* SCHOLARS
9 IN SUPPORT OF PLAINTIFFS AND PETITIONERS**

10 by placing a true copy thereof enclosed in a sealed envelope addressed as follows:

11 *See Attached Service List*

12 **BY FEDERAL EXPRESS** I am readily familiar with KAYE SCHOLER LLP's business
13 practices of collecting and processing items for pick up and next business day delivery by
14 Federal Express. Under said practices, items to be delivered the next business day are
15 either picked up by Federal Express or deposited in a box or other facility regularly
16 maintained by Federal Express in the ordinary course of business on that same day with the
17 cost thereof billed to KAYE SCHOLER LLP's account. I placed such sealed envelope for
18 delivery by Federal Express to the offices of the addressee(s) as above on the date hereof
19 following ordinary business practices.)

20 **STATE** I declare under penalty of perjury under the laws of the State of California that the
21 foregoing is true and correct.

22 I declare under penalty of perjury under the laws of the State of California that the foregoing is true
23 and correct.

24 Executed on October 23, 2017, at Los Angeles, California.

25 Diana Hernandez
26 Printed Name

27 *Diana Hernandez*
28 Signature

SERVICE LIST

Mathews v. Becerra, et al.

California Supreme Court, Case No. S240156

4 Mark Hardiman, Esq. Jonathan Radke, Esq. 5 Salvatore Zimmitti, Esq. NELSON HARDIMAN LLP 6 11835 West Olympic Blvd., Suite 900 7 Los Angeles, CA 90064 Tel: 310.203.2800 8 Fax: 310.203.2727	<i>Attorneys for Plaintiffs/Appellants</i>
9 Marc A. LeForester 10 Supervising Deputy Attorney General S. Michele Inan 11 Deputy Attorney General 455 Golden Gate Avenue, Suite 1100 12 San Francisco, CA 94102-7004 Tel: 415.703.5474 13 Fax: 415.713.5840	<i>Attorneys for Defendant/Respondent XAVIER BECERRA</i>
14 Thomas C. Hurrell, Esq. 15 Melinda Cantrall, Esq. Maria Markova, Esq. 16 HURRELL CANTRALL LLP 300 South Grand Avenue, Suite 1300 17 Los Angeles, CA 90071 Tel: 213.426.2000 18 Fax: 213.426.2020	<i>Attorneys for Defendant/Respondent JACKIE LACEY</i>
19 Curtis A. Cole, Esq. 20 Cassidy C. Davenport, Esq. COLE PEDROZA LLP 21 2670 Mission St., Suite 200 22 San Marino, California 91108 Tel: 626.431.2787 23 Fax: 626.431.2788	<i>Attorneys for Amici Curiae CALIFORNIA MEDICAL ASSOCIATION, CALIFORNIA DENTAL ASSOCIATION, and CALIFORNIA HOSPITAL ASSOCIATION</i>