

Transforming Trauma's Effects on the
Developing Brain:
How Educators, Judges and Other
Professionals Can Help to Foster
Resilience and Promote School Success

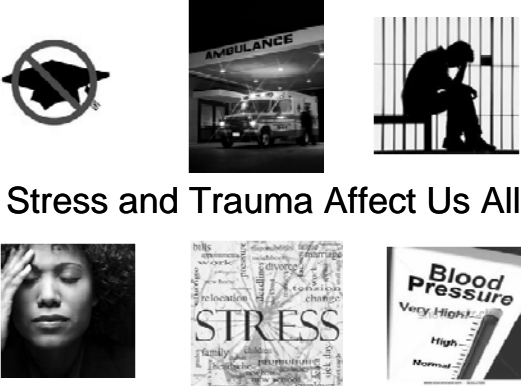
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Outline of Presentation

- a) Overview of Stress and Trauma
- b) Neurobiology of Stress and Trauma
- c) Importance of Relationships
- d) Principles of Trauma-Informed Systems
- e) Discussion: How to Apply to Your Work
- f) UCSF Healthy Environments and Response to Trauma in Schools

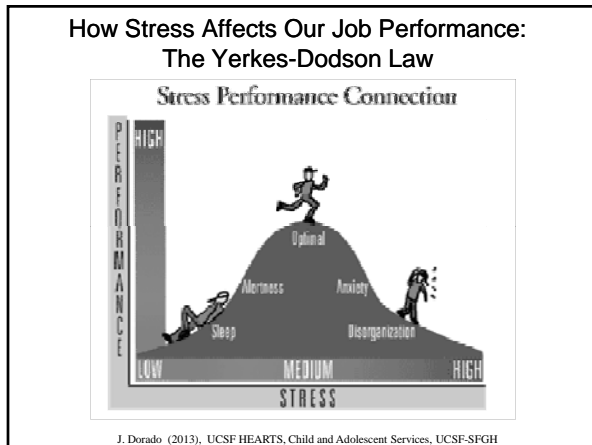
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Stress and Trauma Affect Us All

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Stress and Trauma Is a Public Health Issue

- Stress linked to 6 leading causes of death
 - Heart disease, cancer, lung ailments, accidents, cirrhosis of the liver, and suicide
- Trauma impacts more than just the individual
 - Ripple effect to others
- Some communities disproportionately affected:
 - Bigotry + Urban Poverty + Trauma = Toxic
- Intergenerational transmission of trauma
- Systemic, preventative approach needed

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**Unaddressed Trauma Feeds the
“Cradle to Prison Pipeline”**

- Unaddressed trauma related to higher risk of school dropout (Porche et al, 2011)
- In SFUSD, African American students have drop out rate 2.24 times that of district average, Latino students 1.4 times district average (2011-2012)
- Dropping out of school increases the risk of being imprisoned (Center for Labor Market Studies, 2009)
- An African-American boy born in 2001 has a 1 in 3 chance of being imprisoned in his lifetime, and a Latino boy has 1 in 6 (Children's Defense Fund Cradle to Prison Pipeline Report, 2007) (statistics attributed to intersection between poverty & racial disparities)



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Vignette




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**What is wrong with
Carlos?**



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What is wrong with his teacher?



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Shift Your Perspective

Change the paradigm from one that asks,
"What is wrong with you?"
to one that asks,
"What has happened to you?"

(from SAMHSA National Center for
Trauma-Informed Care, 2013
www.samhsa.gov/nctic)

Provides **context**, fosters **compassion**,
helps us to see **strengths** in face of adversity


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What's has happened to Carlos?



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What has happened to his teacher?



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Understanding Chronic Stress and Trauma

“Learning about the psychobiology of stress, toxic stress, and trauma is liberating for people. It gives us explanatory reasons for some of the puzzling behaviors we engage in and the feelings that can come to dominate us.” (Bloom, 2013, p. 48)




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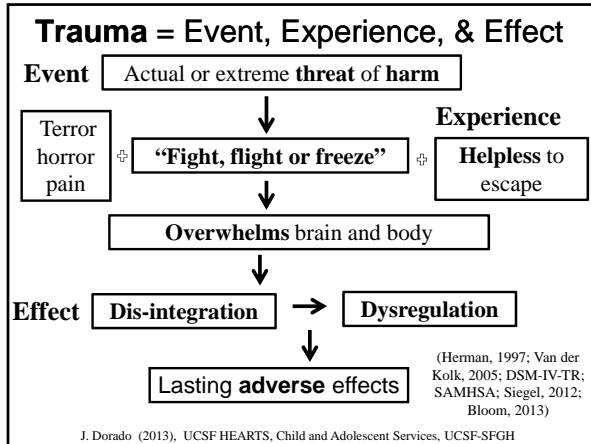
Toxic Stress Response

- ↑ Stress response system
- Overwhelms brain and body
- → Stressors that are chronic, uncontrollable, experienced without support from caring others


(National Scientific Council on the Developing Child, 2005)



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Complex Trauma



Children’s experiences of multiple traumatic events, often that occur within the caregiving system – the social environment that is supposed to be the source of safety and stability in a child’s life

(National Child Traumatic Stress Network (NCTSN), 2003)

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People who have experienced trauma may be injured, but they are not “sick” or “bad”

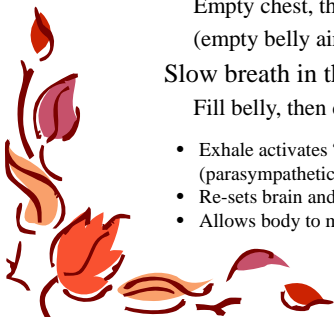
Resilience and healing is possible with support

Belly Breathing

Slow breath out through mouth
Empty chest, then belly
(empty belly air all the way out)

Slow breath in through nose
Fill belly, then chest with air

- Exhale activates “brakes” in body (parasympathetic nervous system)
- Re-sets brain and body
- Allows body to metabolize stress arousal



We Share the Same Neurobiology

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Neurons that fire together wire together (Hebb's Rule):
Formation of habits (automatic thoughts, feelings, behaviors)



Adolescent Brain Development and Brain Plasticity

- **Brain still not at adult level of development**
 - Frontal lobe and integrative brain structures not yet fully developed
 - Ability to plan, organize, control impulses, manage emotions (Sullivan, 2010)
- **Synaptic pruning begins**
 - Brain breaks down least-used connections
 - Brain strengthens most-used connections
- **Brain develops and grows new connections throughout lifespan**

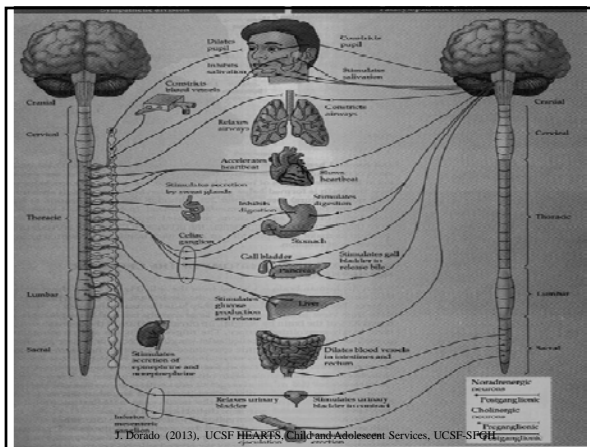
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Trauma “Wears a Groove” in the Brain

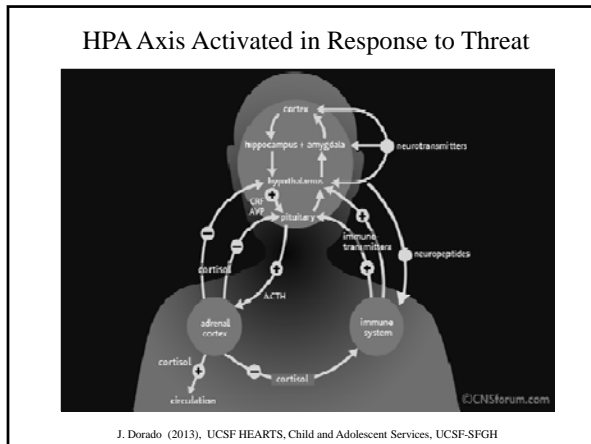


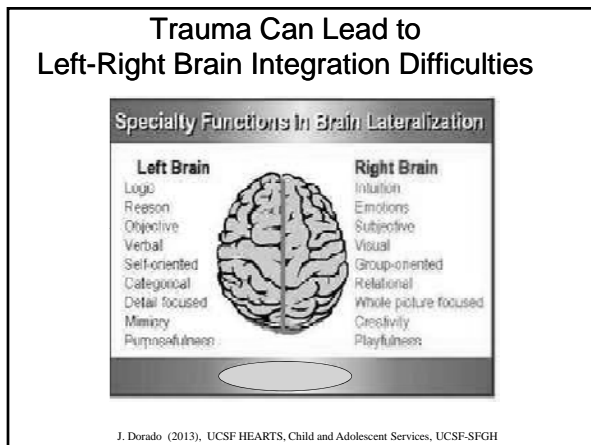
- **Chronic state of fear-related activation = brain more easily triggered into the “fear” track**
- **Fear-related activation:**
 - hypervigilance, increased muscle tone, focus on threat-related cues, anxiety, and behavioral impulsivity (Perry, 2000)

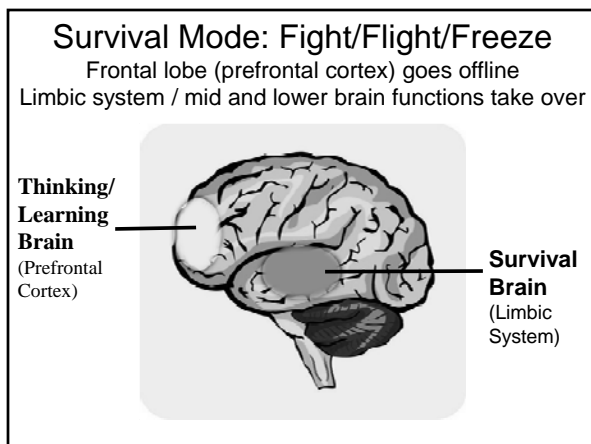
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Learning Brain and Survival Brain



❖ **Learning Brain = Rider**

- Makes informed, rational decisions

❖ **Survival Brain = Horse**

- Protective instincts based on feelings

❖ **When triggered, the rider falls off the horse**

(van der Kolk)(Ford, 2009)

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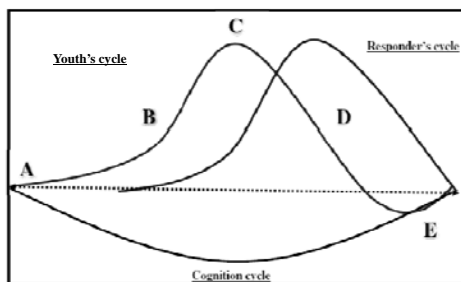
Common Triggers

- Unpredictability or sudden change
- Transitions
- Loss of control
- Feeling vulnerable or rejected
- Absence or loss of staff or peers
- Feeling alone
- Sensory overload
- Confrontation
- Praise, intimacy, and positive attention

(from ARC, Kinniburgh & Blaustein, 2005)

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Escalation Cycle: Where Are You in the Cycle?

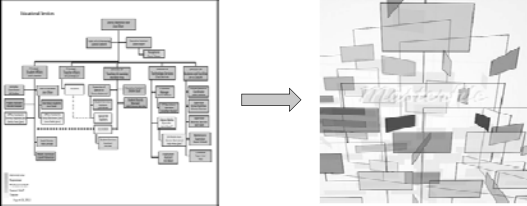


Adapted from SFGH Safety Management and Response Techniques (SMART) Training

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At Systemic Level: Chronic Stress and Trauma Can Lead to Dis-organization


Difficulty Maintaining Structure, Dis-integration, Lack of Cohesiveness, Blurred Roles, Boundary Difficulties, Scapegoating



- Must address stress on organizational level
- Need to coordinate with other professionals and systems

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A Trauma-Informed System Takes Care of the Caregivers



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System-Wide Strategy: Establish Safety

- Youth cannot upshift from “Survival Brain” to “Learning/Thinking Brain” if they do not feel safe (true for all of us)
- External/Physical Safety
 - Protection from harm
 - Reduction of unnecessary triggers
 - Predictable environment (schedules, clear procedures)
 - Routines and consistency
 - Explicit preparation for changes and transitions
- Internal/Emotional Safety
 - Build self-regulation skills
- Relational/Social Safety
 - Prevent victimization and abuses of power
 - Build youths’ relationship(s) with safe, dependable, supportive adults and peers that can help with co-regulation

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**Key Strategy: Get Your Rider
on Your Horse**

- **Aggravating behavior is “a cause for a pause”**
- **Ask yourself, “What has happened to you?” and/or “What is happening here?”**
 - Activates your frontal lobe instead of relying on your lower and mid brain
 - Helps us respond instead of just react
- **BEHAVIOR HAS MEANING**
 - What **need** is this behavior communicating?
 - What is the **healthy goal** behind the behavior?
 - What can be done to address this need or healthy goal?
- Applies to the youth we serve and to our colleagues

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What is happening here?

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**Strategy: Build Student Skills to
Address Hidden Injuries**

Address the needs underlying the behaviors
instead of simply penalizing surface behavior

- Vigorously address underlying safety and welfare concerns for youth
- Find the “wheelchair ramp” rather than punishing youth for having an underlying skill deficit or being in “survival brain”
 - Highlight and factor strengths, resilience, progress, improvements into decisions regarding interventions
 - Consider differential discipline practices

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Strategy: Build Student Skills to Address Hidden Injuries

Provide opportunities for youth to build skills in managing emotions and thinking clearly (e.g., social information processing and problem-solving) (Ford et al., 2006)

- Helps to integrate brain functioning
- Seek trauma-informed community services that promote success and minimize youth's exposure to unnecessarily restrictive, coercive, punitive, or triggering environments
- Provide opportunities for building sense of mastery and competence
- Whenever possible, engage and scaffold youth in making meaningful choices and decisions about their lives

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Classroom Strategy: Regular Brain Breaks to Maintain Calm and Build Skills

- Belly breathing
 - Breathe in through nose; Fill belly, then chest with air
 - Breathe out through mouth; Empty chest, then belly
- Physical activity
 - Stretches
 - Drumming
 - Dance moves
 - Self-massage
 - Drawing figure 8's in air with both hands
 - Tighten muscles, then relax muscles (e.g. quarterback)
 - Tactile grounding
 - Music (e.g., during transitions)
- Drink water
- Cool-Down Kits and/or Peace Corners

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Materials for Cool-Down Kits

For Portable Kit

- Soft tactile objects (velvet-covered, plush)
- Rubbery, stretchy objects
- Stress balls
- Stencils, colored pencils, paper
- Scented lotion (citrus or lavender)

For Cool-Down Area

- Headphones with music
- Bean-bag chair, pillows
- Blanket (with some heaviness)

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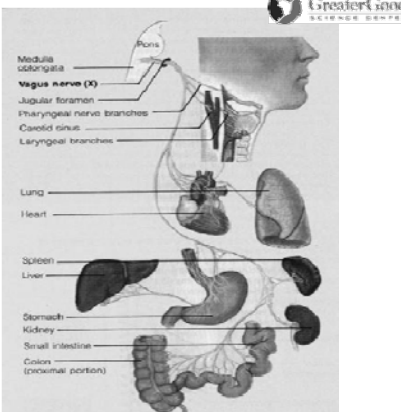


Stretch

Wellness break:

- One thing at a time
- Physical activity
- Breathe deeply


Relationships Are Central to Healing



Vagal
Nervous
System:
"The Nerve of
Compassion"

Humans are
Hardwired to
Connect with
Others

Mirror Neurons: We Are Hardwired to Connect




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Secure Attachment = Healthy Relationships

- Connection with others is a basic need, as important as food (Harlow, 1958)
- Healthy/secure attachment involves attunement
 - Being sensitive, responsive, and in harmony with the feelings and needs of another person; holding and reflecting back another person's experience/perspective
- Early attachment relationships form foundations for adult relationships and expectations about the world
 - Cascading effects on emotion regulation, cognitive abilities, and social skills (Kagan, 2005)
- Attuned relationships help us to feel safe and calm down when we are stressed out

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Co-Regulation



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Co-Regulation



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Complex Trauma Interferes with Co-Regulation

- Excruciating dilemma created when humans we depend on are the cause of extreme suffering
- In childhood, if caregiver is source of trauma or unavailable to provide co-regulation, development of emotion regulation skills can be derailed
- This in turn affects relationships in adulthood



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Reframing Risk Behaviors

- What do we do when the thing we need as much as food and water is the source of fear and pain?
- Sometimes the solution to this dilemma can be disturbing to others:
- Tension reduction behaviors
 - Drugs and alcohol
 - Risk-taking behavior
 - Self-injurious behavior
 - Compulsive stealing
 - Aggression
 - Problematic sexual behaviors (where any relationship feels better than abandonment and isolation)



(from training on Integrated Treatment for Complex Trauma by John Briere, 2009)
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Relationship Difficulties

- When humans have experienced chronic trauma
 - We may be overly clingy/dependent
 - We may push teachers away
 - We may not know how to make use of helpful others (including providers)
- Working with youth who have experienced trauma can pull for intense emotions in staff
 - Vicarious/secondary trauma

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Trauma and Activated Implicit Memories



- A stimulus can cue a **habit** without us knowing it
- We all have implicit memories – they are normal
 - Normal to have things that “push our buttons”
 - For people who have experienced complex trauma, when triggered, implicit memories associated trauma and fear are activated
- Confusion between “there and then” & “here and now”
 - Activated implicit memories are not experienced as memories but rather as current visceral feelings
- Activation of implicit memories in staff can intensify reactions to youth (and colleagues)

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You Can Make a Difference

- “Big I” = Interventions
- “Little i” = interactions (Ghosh-Ippen, 2013)
 - Patterned, repetitive activities help rewire the brain
 - Every positive, attuned interaction with a trustworthy other can help to rewire the brain (Perry, 2008, 2009)

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Restorative Practices

Social Discipline Window

↑ HIGH control (limit-setting, discipline) ↓ LOW	TO	WITH
	punitive	restorative
	<small>authoritarian</small>	<small>authoritative</small>
	NOT	FOR
	neglectful	permissive
	<small>irresponsible</small>	<small>paternalistic</small>
	← support (encouragement, nurture) →	

Underlying premise:
People will make positive changes when those in positions of authority **do things with them rather than to them or for them.**

From SFUSD Restorative Practices Training and International Institute for Restorative Practices (2011)

Strategies for Building Strong Relationships

- 5:1 ratio for relationship “deposits” to “withdrawals” (ratio of affirmations to criticisms/confrontations)
- Understand “difficult” youth through a trauma-sensitive lens
 - Don’t take traumatized client’s behavior personally
- Connect, then re-direct (Siegel & Bryson, 2012)
- Provide opportunities to build healthy relationships and sense of connection and belonging
- Engage youth’s family and caregivers
- Provide authentic empathy and attunement
 - “No-matter-what” caring

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**Transforming Stress and Trauma:
Fostering Growth, Wellness, and
Resilience**



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**Trauma-Informed System:
Core Guiding Principles**

- **Understanding Chronic Stress and Trauma**
 - Being aware of our own stress and practicing self-care
 - Assessing for trauma exposure, and referring youth to trauma-informed services when needed supports healing
- **Cultural Awareness and Responsiveness**
 - Working to counteract institutional oppression, as well as being responsive to each other's differences in experience and reaction to trauma fosters understanding and healing
- **Comprehensive Safety**
 - Building physical, emotional, and social, safety for youth and staff promotes healing, growth and creativity

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**Trauma-Informed System:
Core Guiding Principles**

- **Trust and Dependability**
 - Trusting relationships are fundamental to engagement and healing
 - Empathy and responsiveness
 - Consistency and clarity
- **Collaboration and Empowerment**
 - Promoting voice and choice restores a sense of empowerment, agency, and control
- **Resilience and Recovery**
 - Healing is possible with effective supports
 - Focusing on strengths and clear steps toward wellness fosters resilience and recovery

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Discussion

- What are approaches and strategies that you are already doing in your work or would like to do more of that incorporate what you have learned today?

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Goals of UCSF HEARTS

- To promote school success for children and youth who have experienced trauma by creating school environments that are more trauma-sensitive, safe, and supportive:
CULTURE CHANGE
- To increase time spent on teaching and learning and reduce time spent on discipline
- To promote wellness for school personnel by attending to the effects of stress, burnout, and vicarious trauma

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UCSF HEARTS Public Health Approach to Addressing Stress and Trauma in Schools

Intensive/Tertiary Intervention (5%)
Psychotherapy with students + consultation with teachers
IEP consultation

Early/Secondary Intervention (15%)
Care Team Meetings for at-risk students and school-wide issues
Trauma-informed discipline policies; Teacher wellness groups

Primary Prevention (80%)
Capacity building with school staff
Trauma-sensitive practices
Promote staff wellness and address stress, burnout, & vicarious trauma

Augment universal supports using stress and trauma lens
Positive Behavioral Intervention Supports (PBIS)
Health education on coping with stress
Safe and supportive school climate
Social Emotional Learning curricula
Proactive classroom management practices

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Key Intervention Components

- Multicultural and social justice lens
 - Focus on most under-resourced neighborhoods in city
- Lending a trauma lens to expertise of educators to
 - Develop classroom and school-wide strategies
 - Help build strong student-teacher relationships
- On-site at HEARTS schools 3 days per week
- Intensive on-site, trauma-informed psychotherapy
 - Intensive consultation with clients' teachers
 - Milieu support and crisis management with clients
- Training of Trainers with all school social workers in SFUSD to make their schools more trauma-sensitive
- Dovetail goals, strategies, and outcomes on SFUSD's
 - Strategic Plan for reducing achievement gap
 - Restorative Practices Initiative
 - Behavioral RTI
 - Equity

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HEARTS Success Highlights

- 57% increase in use of trauma-sensitive practices at HEARTS schools
- 32% decrease in disciplinary office referrals after 1st year of HEARTS implementation at one HEARTS school
- 42% decrease in student violence incidents after 1st year of HEARTS implementation at one HEARTS school
- 27% decrease in absences for students who were HEARTS therapy clients

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Creating Trauma-Sensitive School Environments

UCSF HEARTS *“has shifted the way we discipline students at the school... We are a lot more empathetic... we take more time to allow kids to cool off... to have those meltdowns and then come to back without being suspended or sent home... So...getting at that ‘Cradle to Prison Pipeline’ that you’re talking about, we’re not reproducing the same model of “oh, you’re out of here,” ostracizing kids and sending them out for things that they may feel are out of their control.”* (quote from school principal)

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Resources

- National Child Traumatic Stress Network www.nctsn.org
 - NCTSN Bench-Card for the Trauma-Informed Judge
 - www.ncjfcj.org/sites/default/files/JudgeBenchCards_final.pdf
 - NCTSN Trauma-Informed Juvenile Justice System Resource Site
 - <http://learn.nctsn.org/course/view.php?id=74>
- Massachusetts Advocates for Children: Trauma and Learning Policy Initiative
 - Helping Traumatized Children Learn (Cole et al.)
Freely downloadable at traumasensitiveschools.org/

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Resources

- Trauma and Resilience: An Adolescent Provider Toolkit
 - Adolescent Health Working Group “Trauma Resilience Module”
 - www.ahwg.net/resources-for-providers.html
- Mindfulness in Education
 - www.mindfuleducation.org/resources.html
- Greater Good Science Center (for science-based wellness strategies)
 - greatergood.berkeley.org

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Resources for Educators

- Reaching and Teaching Children Who Hurt: Strategies for Your Classroom (Book by Susan Craig for educators, full of concrete strategies)
- The Heart of Learning: Compassion, Resiliency, and Academic Success (Ray Wolpov, et al.)
Freely downloadable at the website below
www.k12.wa.us/CompassionateSchools/HeartofLearning.aspx

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For more information on UCSF HEARTS

- coe.ucsf.edu/coe/spotlight/ucsf_hearts_story.html
- coe.ucsf.edu/coe/spotlight/ucsf_hearts.html
- www.fixschooldiscipline.org/toolkit/educators/ucsf/
- Greater Good Science Center articles incorporating HEARTS approaches
 - greatergood.berkeley.edu/article/item/the_silent_epidemic_in_our_classrooms
 - greatergood.berkeley.edu/article/item/how_to_support_stressed_out_teachers

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