Beyond Toxic Stress:
Why Preventing Childhood Adversity is NOT Enough

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Learning Objectives

• Define **toxic stress** and describe how it helps to elucidate “the problem.”

• Define **relational health** and describe how it helps to elucidate “the solution.”

• Define at least 3 components of a **public health approach** to build relational health.
Linking Childhood Experiences and Adult Outcomes

PCEs
Attuned adults
Play/ROR

ACEs
Violence, Abuse, Disasters …
Poverty, Racism, Social Isolation …

Healthy Lifestyles
Academic Success
Economic Stability

Poor Health
Academic Failure
Economic Hardship

Slide adapted from Thinking Developmentally: Nurturing Wellness in Childhood to Promote Lifelong Health, Garner and Saul, 2018. Used with permission.
Defining **Adversity or Stress**

**Positive Stress Response**

- Brief, infrequent, mild to moderate intensity
- In response to normative childhood adversities
  - Inability of the 15 month old to express their desires
  - The 2 year old who stumbles while running
  - Beginning school or childcare
  - The big project in middle school
- **Safe, Stable, Nurturing Relationships*** allow a return to **baseline**
  (responding to non-verbal clues, consolation, reassurance, planning assistance)
- Builds **motivation**, **confidence** and **RESILIENCE IN THE FUTURE!!**
- “Positive Stress” is **NOT** the **ABSENCE** of stress
Defining **Adversity or Stress**

**Toxic Stress Response**

- Long lasting, frequent, or strong intensity
- In response to the more extreme adversities of childhood (**ACEs**)
  - Physical, sexual, emotional abuse
  - Physical, emotional neglect
  - Household dysfunction

- **Insufficient social-emotional buffering (not enough SSNRs)**
  (Deficient levels of emotion coaching, re-processing, reassurance/support)

- Chronic exposure to the physiologic mediators of stress (cortisol, epi) leads to **potentially permanent changes** and long-term effects
  - **Molecular level** (epigenetics)
  - **Cellular level** (brain connectivity)
  - **Behavioral level** (allostasis)

The same biology also explains how **RH** becomes biologically embedded.
TS and RH are Two Sides of Same Coin!

Molecular level

Cellular level

Behavioral level

If TS is the problem, RH is the solution!
Refers to the ability to develop and sustain the safe, stable and nurturing relationships (SSNRs). These, in turn, provide kids with positive childhood experiences (PCEs).

- Dyadic level (parent or caregiver and child interactions)
- Familial level (intra-familial interactions)
- Community level (societal interactions and “normative” behaviors)
- Provider level (pediatric provider and patient/family interactions)
- Practice level (FCPMH and staff / community level interventions)

Buffers adversity (toxic stress -> tolerable or positive)
- Builds the skills needed to be resilient in the future
Bethell et al., 2019. Health Affairs 38:729-737
National Survey of Children’s Health, 2016-7, ages 6-17, \( n = 51,156 \), parent report
Child Flourishing Index (CFI), ranges from 0-3, “definitely true” that their child:
1) “shows interest and curiosity in learning new things” - curious
2) “works to finish tasks he or she starts” - completes
3) “stays calm and in control when faced with a challenge” - control

Family Resilience and Connection Index (FRCI), ranges from 0-6
- “When your family faces a problem, how often are you likely to:”
1) “talk together about what to do”
2) “work together to solve our problems”
3) “know we have strengths to draw on”
4) “stay hopeful even in difficult times”
   - Asked parents how well they:
5) can “share ideas or talk about things that really matter”
6) are “handling the day-to-day demands of raising children”
Nationally, only **40.3%** of children are “flourishing”
*(curious, complete tasks, are in control when faced with a challenge)*

**Percent flourishing, by Family Resilience & Connection**

<table>
<thead>
<tr>
<th>Number of ACEs</th>
<th>0 or 1</th>
<th>2 or 3</th>
<th>4 – 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>All children</td>
<td>21.5</td>
<td>38.1</td>
<td>51.5</td>
</tr>
<tr>
<td>0</td>
<td>26.8</td>
<td>44.3</td>
<td>57.6</td>
</tr>
<tr>
<td>1</td>
<td>20.1</td>
<td>36.6</td>
<td>48.4</td>
</tr>
<tr>
<td>2 or 3</td>
<td>16.8</td>
<td>30.6</td>
<td>40.8</td>
</tr>
<tr>
<td>4 – 9</td>
<td>11.9</td>
<td>21.6</td>
<td>30.5</td>
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</tbody>
</table>

**IF WE ARE ONLY LOOKING AT ADVERSITY, WE ARE MISSING THE POINT: ALL KIDS NEED RELATIONAL HEALTH TO FLOURISH**

Bethell et al., 2019. *Health Affairs* 38:729-737
HIGH adversity does NOT mean that you are "broken or "doomed!"

Kids with high adversity but high relational health may fare relatively well
LOW adversity does NOT mean that you are “well” or “in the clear!”

Kids with low adversity but low relational health may fare relatively poorly.

Preventing ACEs is not enough. All kids – especially kids w/ ACEs – need PCEs!

Adverse and Positive experiences CO-EXIST in the lives of children everyday.
What’s Inside the Proverbial Black Box?

Childhood Experience

ACEs
Violence, Abuse…
Poverty, Racism…

PCEs
Attuned adults
Play/ROR

We must proactively promote RH / SSNRs!

Healthy Lifestyles
Academic Success
Economic Stability

Poor Health
Academic Failure
Economic Hardship

Preventing adversity and TS is not enough!

Safe, Stable and Nurturing Relationships

Social-Emotional Learning
Healthy Adaptations

Toxic Stresses
Epigenetic Modifications
Changes in Brain Connectivity
Behavioral Allostasis

We must proactively promote RH / SSNRs!

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Preventing adversity and TS is not enough!

Caregivers in Survival Mode

STEP 1: Provide Social Supports, Meet Caregiver Deficiency Needs

Caregivers in Relational Mode

STEP 2: Develop Safe, Stable and Nurturing Relationships with Child

STEP 3: Promote Developmentally Appropriate Play/ROR

Child in Relational Mode

Healthy Child Attachment to the Caregivers

Foundational Social, Emotional & Language Skills

Social Determinants of Health, Unmet Caregiver Deficiency Needs

Scaffolding of New Skills

<table>
<thead>
<tr>
<th>Public Health Level</th>
<th>Types of Prevention</th>
<th>Population Being Served</th>
<th>Primary Objectives</th>
<th>Examples Regarding Lead Poisoning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>\underline{<strong>Primary Universal Preventions</strong>}</td>
<td>Prevent disease</td>
<td>Remove lead from products for everyone</td>
<td>Promote wellness like gasoline and paint</td>
<td></td>
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<tr>
<td><strong>Secondary</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>\underline{<strong>Secondary Targeted Interventions</strong>}</td>
<td>Identify risks</td>
<td>Screen for lead based on for those at higher risk</td>
<td>Abate if possible and early disease</td>
<td></td>
</tr>
<tr>
<td><strong>Tertiary</strong></td>
<td></td>
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</tr>
<tr>
<td>\underline{<strong>Tertiary Indicated Treatments</strong>}</td>
<td>Treat disease and Chelation therapy for those with defined symptoms and diagnoses</td>
<td>Prevent progression</td>
<td></td>
<td></td>
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</tbody>
</table>

**ALL LEVELS ARE NECESSARY ... NONE ARE SUFFICIENT!**
<table>
<thead>
<tr>
<th>Public Health Level</th>
<th>Types of Prevention</th>
<th>Approaches to Toxic Stress</th>
<th>Examples</th>
<th>Approaches to Relational Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get Well</td>
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<tr>
<td>Stay Well</td>
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<td></td>
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<tr>
<td>Be Well</td>
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A Layered Public Health Approach to Relational Health is the Objective!

A Public Health Approach to **Prevent** Toxic Stress **IS** a Public Health Approach to **Promote** Relational Health!

Public Health Level | Types of Prevention | Approaches to Relational Health | Why this isn’t working (the pyramid is upside down):
--- | --- | --- | ---
Tertiary | Repair strained or compromised relationships (ABC, CPP, PCIT, TF-CBT) | | Although there are evidence-based interventions to repair or compromised relationships, they are expensive, labor and time relationships intensive, and hard to access due to limited providers. (ABC, CPP, PCIT, TF-CBT) Demand already outstrips supply, and demand is increasing.
Secondary | Identify / Address potential barriers to SSNRs (SDoH, ↑ ACEs, ↓ PCEs) | | Although there is a growing movement to identify /address potential barriers to Relational Health, systems are not incentivized to do so, and there are not enough community resources available to address these barriers.
Primary | Promote SSNRs by building 2-Gen relational skills (PPP, play, ROR, VIP) | | Supporting families and their communities is the foundation, by building 2-Gen but that is not a priority in our society. It also runs counter to relational skills the current financial incentives in healthcare, which prioritize procedures over relationships, and quantity over quality.

Early Relational Health is Essentially Dyadic, But it is ...

... Strongly Influenced by Many Other Relationships

Horizontal integration is necessary across all family serving sectors!

No magic bullets! We need layered public health approaches!
Toxic stress defines the problem.

Toxic stress explains how many of our society’s most intractable problems (disparities in health, education and economic stability) are rooted not in our shared biology but in our divergent experiences and opportunities.
CONCLUSION:
(with apologies to Frederick Douglass)

It is easier
to help the caregivers
as they build strong children
than to repair broken men [and women].


