Join the path to HOPE

Vision: A world that recognizes, honors and fosters positive experiences as being fundamental to people's health and well-being.
Learning Objectives

- Explain how Positive Childhood Experiences can reduce the effects of ACEs
- List the four building blocks of HOPE
- Describe how hospitals can pivot towards the promotion of key positive childhood experiences for their patients, staff, and community

Disclosures

- The presenter has disclosed no commercial interests related to this topic, except royalties from UpToDate for sections on youth violence prevention and the effects of media exposure on children
- This presentation does not contain any content related to pharmaceuticals or devices, including off-label uses
Topics

- Definitions
- The ACEs paradox
- Positive childhood experiences protect adult mental health
- Plausible biological mechanisms
- The 4 Building Blocks of HOPE
- Incorporating HOPE into CHILD health care

Positive Experiences

Common Positive Experiences

- Attachment
- Conversation
- Literacy
- Independence
- Mastery

Photo: Zuri Nakeki-Bedros-Browne, First Things First
Healthy Outcomes

**Health** is:
“A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”
World Health Organization

**Navajos** include in their health concept not only a perfect body and mind but also harmony with their surrounding environment.
Sobralske, 1985

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Poll 1: How much do you know about ACEs (Adverse Childhood Experiences)

1. Never heard of them
2. I know a little
3. I know some, but would like to know more
4. I think of myself as an expert in understanding them
Adverse Childhood Experiences (ACEs) cause chronic disease: Population attributable fractions by ACEs score

<table>
<thead>
<tr>
<th>Outcome</th>
<th>1 ACE</th>
<th>2-3 ACE</th>
<th>4 or more</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car Heart Disease</td>
<td>2.6</td>
<td>3.4</td>
<td>6.6</td>
<td>12.7</td>
</tr>
<tr>
<td>Asthma</td>
<td>4.2</td>
<td>8.1</td>
<td>11.7</td>
<td>24.0</td>
</tr>
<tr>
<td>Depression</td>
<td>6.4</td>
<td>14.7</td>
<td>23.0</td>
<td>44.1</td>
</tr>
<tr>
<td>Heavy Drinker</td>
<td>5.6</td>
<td>9.0</td>
<td>9.3</td>
<td>23.9</td>
</tr>
<tr>
<td>Education &lt; HS</td>
<td>4.6</td>
<td></td>
<td></td>
<td>4.6</td>
</tr>
</tbody>
</table>

Additional community and societal factors that contribute to toxic stress:

- Poverty
- Institutional racism
- Historical Trauma
- War and migration
- Neighborhood effects

ACEs are only part of the picture

- Many people with 4 or more ACEs are OK
- Other experiences affect the brain
- Do positive experiences affect outcomes too?
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Poll 2: How much do you know about PCEs (Positive Childhood Experiences)

1. Never heard of them
2. I know a little
3. I know some, but would like to know more
4. I think of myself as an expert in understanding them

Positive experiences are so important

Positive experiences:
- Promote long-term health and well-being
- Allow children to form relationships and connections
- Provide a sense of belonging and mattering
- Build skills to cope with stress
Exploring Positive Childhood Experiences

Positive Childhood Experiences (PCEs) Protect Adult Mental Health

- 0–2 PCEs vs. 6–7 PCEs: 72% lower odds of depression or poor mental health
- 3–5 PCEs vs. 0–2 PCEs: 52% lower odds of depression or poor mental health
- 48% vs. 12.6%, OR 0.28; 95% CI 0.21-0.36. 3.8x higher rate for 0–2 vs. 6-7 PCEs.

Positive Childhood Experiences Scale

1. Felt able to talk to their family about feelings
2. Felt their family stood by them during difficult times
3. Enjoyed participating in community traditions
4. Felt a sense of belonging in high school
5. Felt supported by friends
6. Had > 1 non-parent adults who took genuine interest in them
7. Felt safe and protected by an adult in their home

Positive Childhood Experiences (PCEs) vs. ACEs

- 0–2 PCEs: 72% lower odds of depression or poor mental health
- 3–5 PCEs: 52% lower odds of depression or poor mental health
- 48% vs. 12.6%, OR 0.28; 95% CI 0.21-0.36. 3.8x higher rate for 0–2 vs. 6-7 PCEs.
Positive Childhood Experiences Mitigate ACEs Effects

% with Depression or Poor Mental Health

- 0-2 PCE
- 3-5 PCE
- 6-7 PCE
- 4+ ACEs

Bethell C, Jones J, Gombojav N, Linkenbach, Sege R. Positive Childhood Experiences and Adult Mental and Relational Health in a Statewide Sample: Associations Across Adverse Childhood Experiences Levels. *JAMA Pediatr*. 2019; e193007

Research supporting Healthy Outcomes from Positive Experiences

- Health Affairs
- The Journal of Pediatrics
- Family Medicine and Caregiver Power: Preventing harm to children, those who abuse

Interwoven physical health, family health, and school readiness

- The Basics
- Kangaroo Care
- Early Relational Health
HOPE in Context

Unifying framework

HOPE adds the child perspective to complement existing successful programs

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- **Plausible biological mechanism**
  - The 4 Building Blocks of HOPE
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PCEs and the brain

- Brain changes
- Healing
- How the phenomenon works
Brain changes with meditation

RCT of meditation v. relaxation

Functional Improvement
• Mindfulness (Cognitive and Affective Mindfulness Scale)
• Resilience (Resilience Quotient Test)

Brain changes
• Resting state functional connectivity (fMRI)


Brain changes with learning to read

• Pre-post evaluation of illiterate adults who learned to read
• The acquisition of literacy is associated with a reinforcement of left temporo-parietal connections
• Learning to read changes the cortical networks for vision and language


Brain changes and healing from stroke

Clinical improvement with therapy correlated with changes in fMRI scans

Activity-Based Therapies
Cognitive-Based Therapies

Brain changes and healing from trauma

Post-traumatic growth (PTG) is characterized by subjective, positive psychological changes resulting from major life crises or traumatic events.

Recovery

(Post Traumatic Growth) following the East Japan Great Earthquake (2011) associated with increased regional grey matter volume.*

Resilience

Higher PTG Inventory scores had stronger activation in the executive functioning network region of the brain on fMRI.**

Post-traumatic growth (PTG) is characterized by subjective, positive psychological changes resulting from major life crises or traumatic events.

* Nakagawa et al. (2016) Effects of post-traumatic growth on the dorsolateral prefrontal cortex after a disaster. Nature/Scientific Reports. 6:34364

How it works: changing brain wiring

Experiences that promote oligodendrocyte development:
- Exercise
- Social interactions
- Environmental stimulation

Experiences that suppress oligodendrocyte development:
- Sedentary lifestyle
- Social isolation
- Environmental deprivation

Experiences build brain super highways

Experiences that promote oligodendrocyte development:
- Exercise
- Social interactions
- Environmental stimulation

Experiences that suppress oligodendrocyte development:
- Sedentary lifestyle
- Social isolation
- Environmental deprivation

**Mechanism: Oxytocin and love**

Oxytocin – the love hormone:
- Supports childbirth and lactation
- Oxytocin increases in all parents, regardless of gender, after the birth of their child
- Synchronous release promotes affiliative interactions

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**Emotional Growth**

The Four Building Blocks of HOPE

Emotional growth through playing and interacting with peers for self-awareness and self-regulation.

Sege and Browne. Responding to ACEs with HOPE: Health Outcomes From Positive Experiences. Academic Pediatrics 2017; 17:S79-S85
The Four Building Blocks of HOPE

Relationships with other children and with other adults through interpersonal activities.

Safe, equitable, stable environments for living, playing, learning at home and in school.

Emotional growth through positive experiences for self-worth and self-regulation.

Environment, safe, stable environments for living, playing, learning at home and in school.

Sege and Browne. Responding to ACEs with HOPE: Health Outcomes from Positive Experiences. Academic Pediatrics 2017; 17:S79-S85
Social and civic engagement to develop a sense of belonging and connectedness.

Emotional growth through playing and interacting with peers for self-awareness and self-regulation.

ACEs affect the Building Blocks of HOPE

Child Abuse
- Disrupts foundational relationships

Child Neglect
- Disrupts relationships
- Disrupts safe environments (food, education)

Family Disruption
- Disrupts safe environment & relationships

Adverse Community Environments
- Reduce engagement
- Reduce opportunities for peer play
Topics

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(Fostering Social-Emotional Health

Pediatrics

Using HOPE to pull out intertwined benefits, and coordinate approaches for an expanded PCMH

Fostering Social-Emotional Health

HRSN, Playing, and Growth

Parental Mental Health and Resilience

HOPE involvement in Pediatrics

Policy / AAP
- AAP policies
- Bright Futures
- healthychildren.org content
- Podcasts
- Projects

Programs
- CSSP
- DULCE
- Strengthening Families
- Early Relational Health
Workflow

- Intake and assessment
- Anticipatory guidance

Take two: Intake with HOPE
Family Stress and Closeness: Key Points

6 in 10 school-aged children had school closed.

24% Stress
36% Positive
47% Stress
70% Positive
772

When reporting stress, most also report positive growth.

Most U.S. children have experienced disruptions. School disruptions have caused tension and stress. Despite this, families have grown closer together!
Workshop surveys show an improvement in provider-client relationship three months after a workshop:

"It is providing an opportunity to have the parents be proud of things they are doing well instead of focusing on areas that need improvement. I feel this has increased their willingness to engage and work with me."

Promising Early Learnings

**HOPE Supports Practice Transformation**

Stanford Pediatric Clinic – piloting a HOPE informed screening tool

"Parents love hearing that they’re doing something well. For many, they’ve had a parent not say something well. Oh my gosh, thank you for saying that! I’ve never had a parent not say something well."

**HOPE Supports Families**

"Parents love hearing that they’re doing something well. For many, they’ve had a parent not say something well. Oh my gosh, thank you for saying that! I’ve never had a parent not say something well."
HOPE seeks to address racist systems
• Blog posts
• Evaluation metrics
• Practical tools
• Difficult conversations
Guiding Principles for Positive Transformation

We honor the hope, goodness, and strength that exists inside every single one of us.

We believe in the goodness embodied by the deep loving relationships between parents and their children.

We stand together, our differences as our collective strength and speak out against racism and stereotypes for the harm they inflict.

We join with others to advance the evidence of positive experiences to support health and well-being for all children and families.

We act with humility, respect, and gratitude for others in everything we say and do.

We seek to create equitable conditions for health and well-being so that all families and children have the opportunity to thrive.

Organizational Collaboration

1. Direct outreach
2. Innovation network: co-developing organizational change
3. Behind the scenes: working with PCAA, AAP, TMI, First 5's, states and school districts
4. Beyond our direct reach: publications, statewide efforts

HOPE is Spreading!
Join us in the HOPE transformation

**LEARN**
- Visit our website
- Download our material
- Watch our videos
- Complete our online modules

**SHARE**
- Tell your colleagues
- Encourage your agency to sign up for a workshop about implementing HOPE

**ACT**
- Sign up for a Train the Trainer
- Use the Anti-racism Toolkit to increase access to the 4 Building Blocks in your community
- Revise your intake and assessment forms to be HOPE-informed

Children's Hospitals
- Teaching
- Research
- Clinical Care
- Public outreach and community benefits
Poll 3: HOPE and CHA

HOPE fits with my organization's mission and vision
1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

We carry our pasts with us