

HOPE

Healthy Outcomes from Positive Experiences

Robert Sege MD, PhD
HOPE National Resource Center



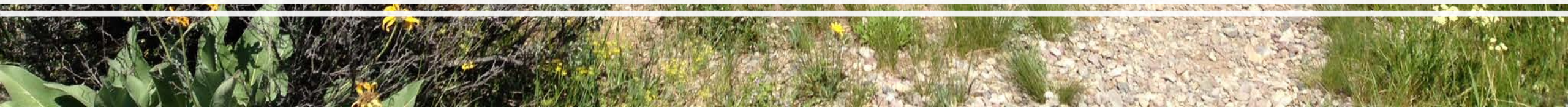


Join the path to HOPE





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



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Learning Objectives

- Participants in this session will be able to:
 - Describe the relationship between childhood experiences and adult outcomes
 - List at least 3 of 7 kinds of positive childhood experiences that are associated with protecting adult mental health in a population survey
 - Label the positive experiences disrupted by adverse childhood experiences (ACEs)
 - Plan 1 new activity in the next 30-90 days incorporating the HOPE approach



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 ACEs work



Topics

■ **Definitions**

- The ACEs paradox
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Positive Experiences



Photo from Navaho Nation Region, First Things First

Common Positive Experiences

Attachment

Conversation

Literacy

Independence

Mastery



Healthy Outcomes

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

Other Definitions of Health

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

Sobralcke, 1985



Topics

- Definitions

- **The ACEs paradox**

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Adverse Childhood Experiences (ACEs)

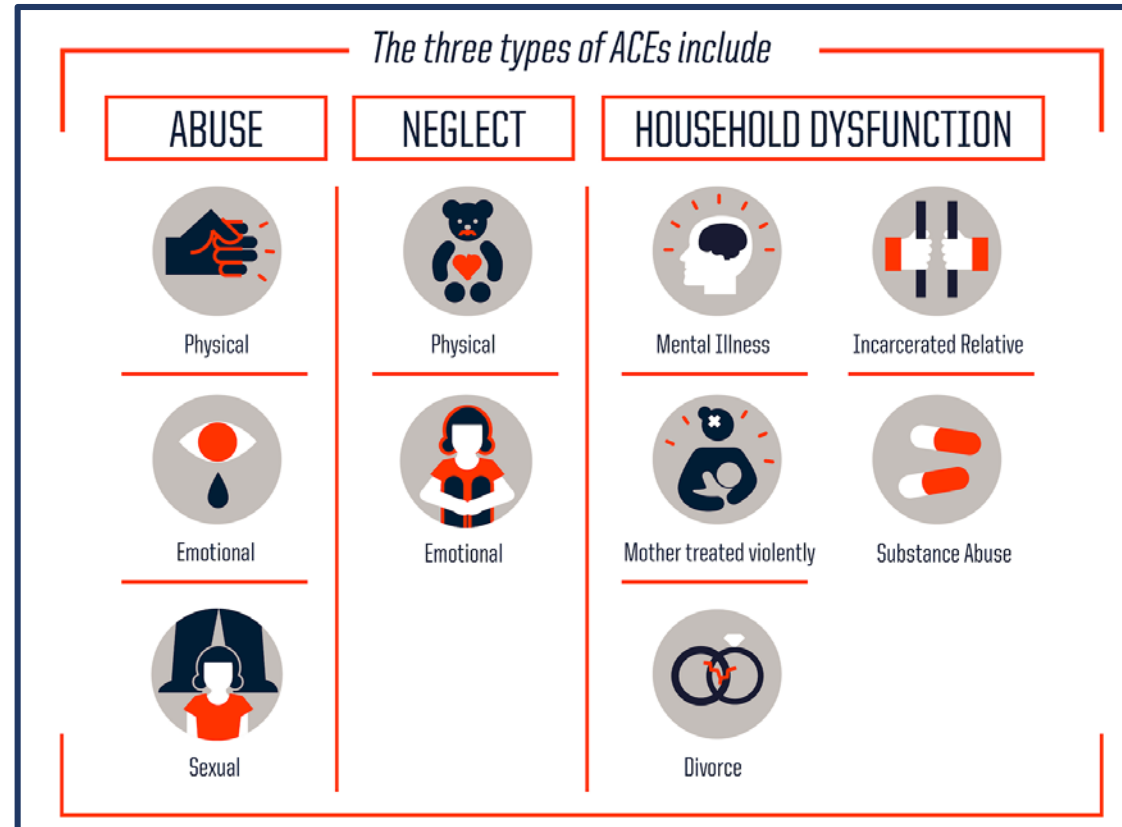


Image courtesy of RWJF



ACEs cause chronic disease: Population attributable fractions by ACEs score

Outcome	1 ACE	2-3 ACE	4 or more	Overall
Cor Heart Disease	2.6	3.4	6.6	12.7
Asthma	4.2	8.1	11.7	24.0
Depression	6.4	14.7	23.0	44.1
Heavy Drinker	5.6	9.0	9.3	23.9
Education < HS			4.6	4.6

Merrick MT, Ford DC, Ports KA, et al. *Vital Signs: Estimated Proportion of Adult Health Problems Attributable to Adverse Childhood Experiences and Implications for Prevention — 25 States, 2015–2017*. MMWR Morb Mortal Wkly Rep. ePub: 5 November 2019



Adverse Childhood Experiences and Other Risk Factors for Toxic Stress

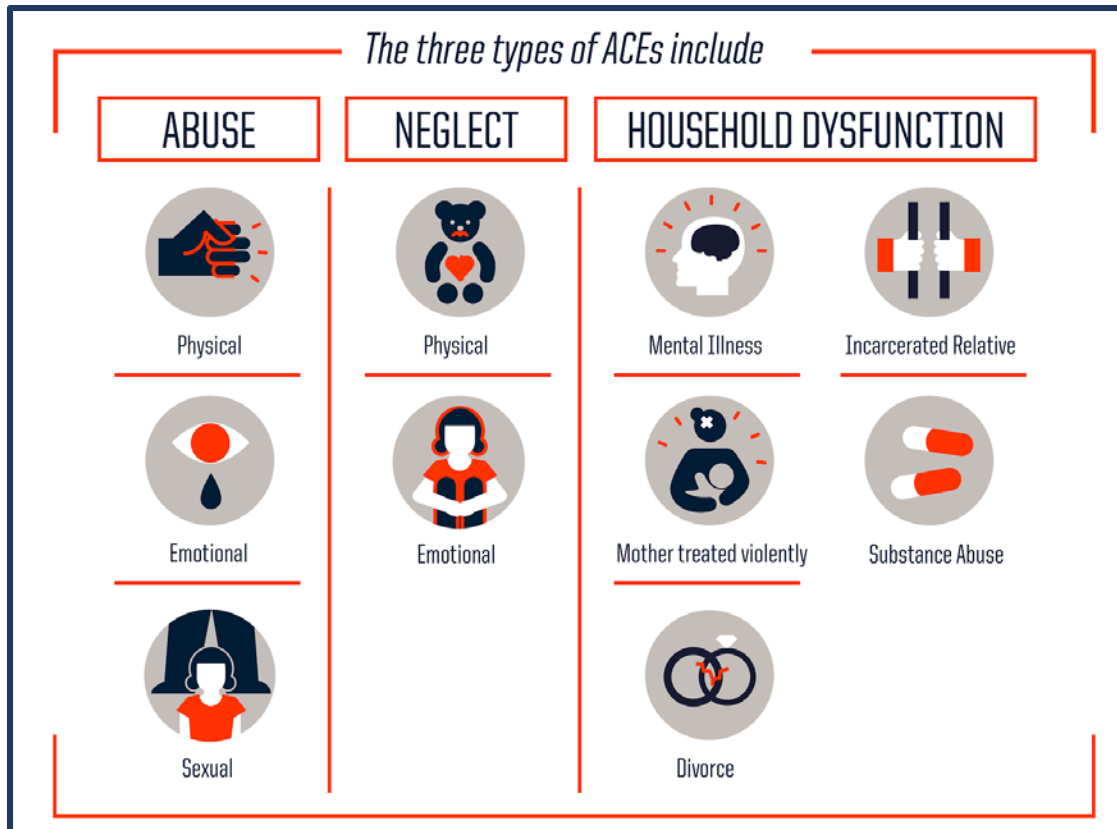
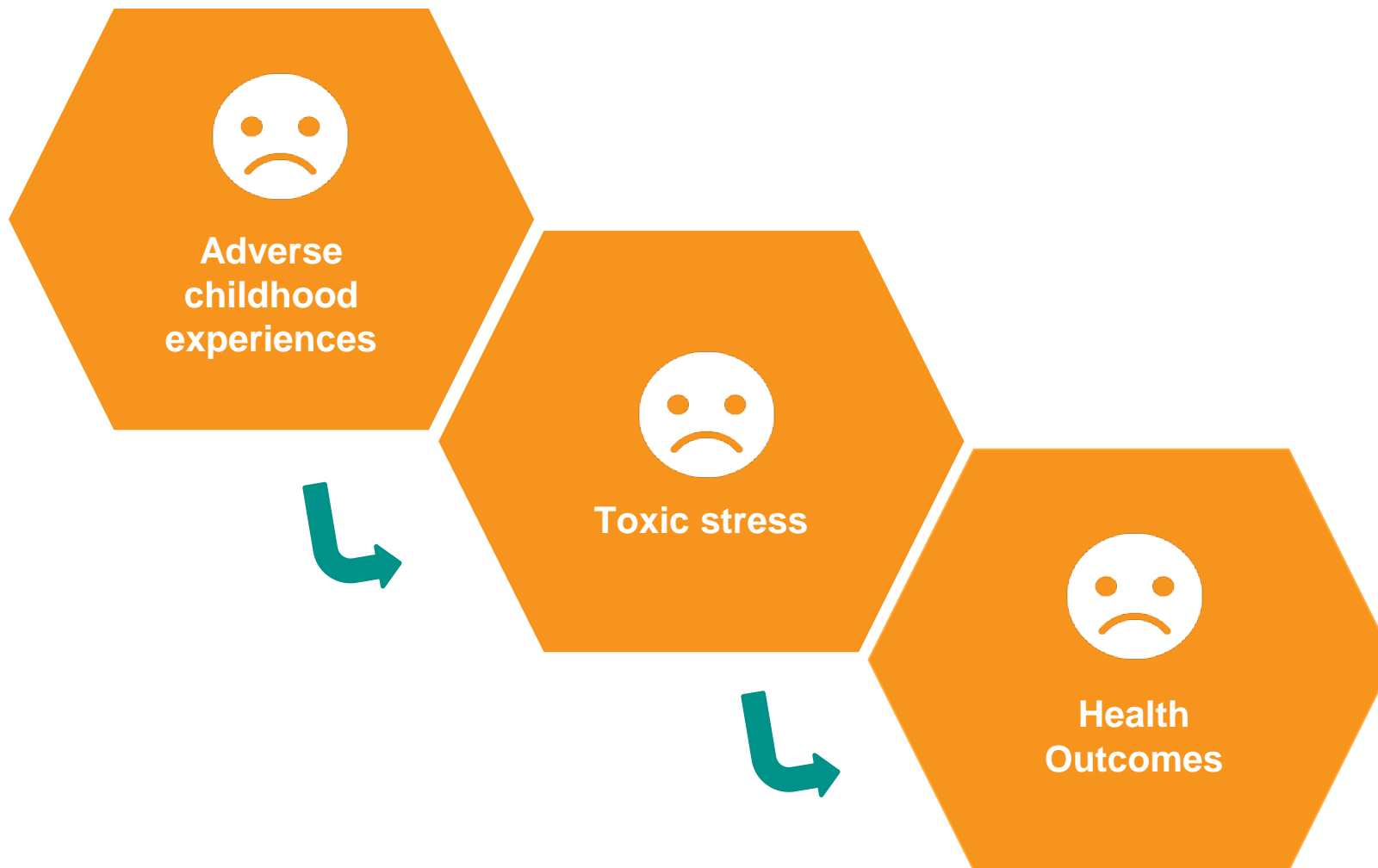


Image courtesy of RWJF

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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ACEs

- 1998 study of employed people in Southern California
- Patients answered questions about their childhood
- Correlated with mental and physical health

PCEs

NEW

- 2015 population study in Wisconsin
- Part of the BRFSS
- Asked about ACEs
- Asked about Positive Childhood experiences
- Correlated with mental health



Positive Childhood Experiences (PCEs) questions asked how often respondent:

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 at least two non-parent adults who took genuine interest in them
7. Felt safe and protected by an adult in their home



- Internal consistency reliability: 0.77
- Principal components factor analysis: single factor with an Eigenvalue > 1 (2.95).
- Factor loadings ranged from 0.57 (“felt safe/home”) to 0.72 (“family stood by/difficult times”)



Research

JAMA Pediatrics | [Original Investigation](#)

Positive Childhood Experiences and Adult Mental and Relational Health in a Statewide Sample

Associations Across Adverse Childhood Experiences Levels

Christina Bethell, PhD, MBA, MPH; Jennifer Jones, MSW; Narangerel Gombojav, MD, PhD; Jeff Linkenbach, EdD; Robert Sege, MD, PhD

[+ Supplemental content](#)

IMPORTANCE Associations between adverse childhood experiences (ACEs) and risks for adult depression, poor mental health, and insufficient social and emotional support have been documented. Less is known about how positive childhood experiences (PCEs) co-occur with and may modulate the effect of ACEs on adult mental and relational health.

OBJECTIVE To evaluate associations between adult-reported PCEs and (1) adult depression and/or poor mental health (D/PMH) and (2) adult-reported social and emotional support (ARSES) across ACEs exposure levels.

DESIGN, SETTING, AND PARTICIPANTS Data were from the cross-sectional 2015 Wisconsin Behavioral Risk Factor Survey, a random digit-dial telephone survey of noninstitutionalized Wisconsin adults 18 years and older (n = 6188). Data were weighted to be representative of the entire population of Wisconsin adults in 2015. Data were analyzed between September 2016 and January 2019.

MAIN RESULTS AND MEASURES The definition of D/PMH includes adults with a depression

Bethell C, Jones J, Gombojav N, Linkenbach J, 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.





Positive Childhood Experiences (PCEs) Protect Adult Mental Health

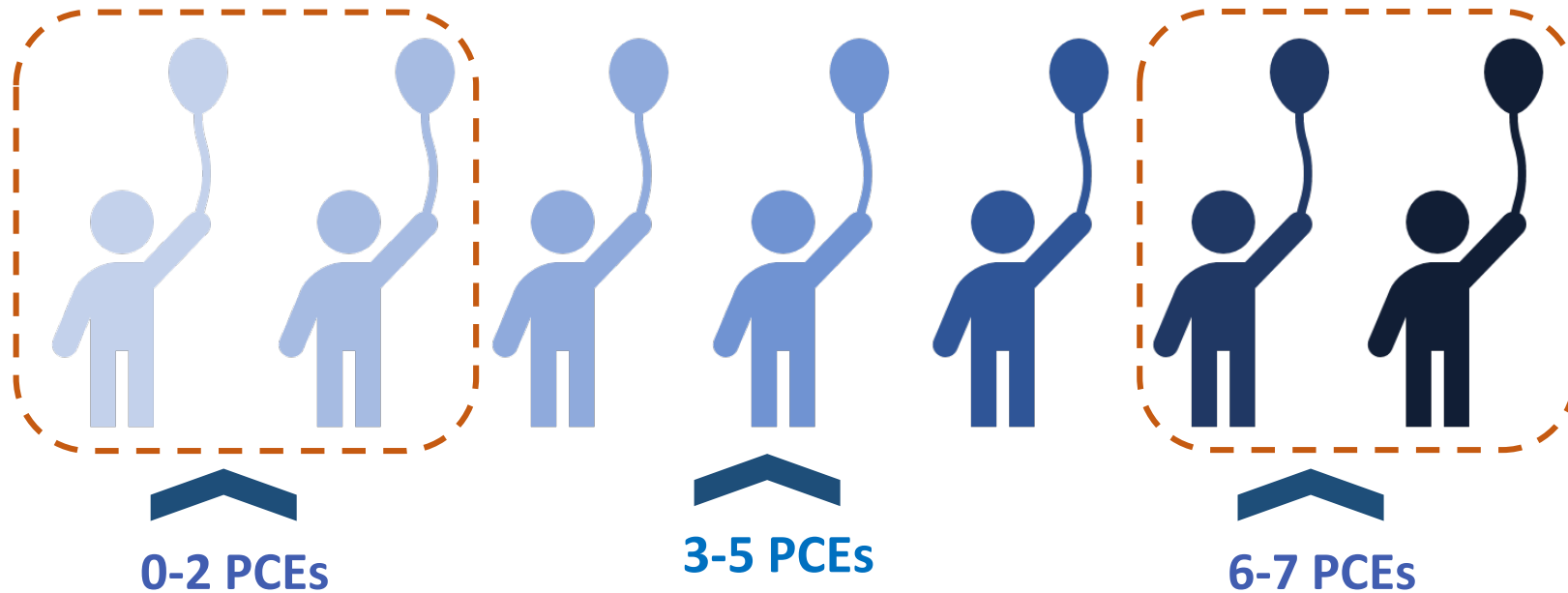


6-7 vs. 0-2 PCEs: 72% lower odds

3-5 PCEs v 0-2 PCEs 52% lower odds

of depression or poor mental health

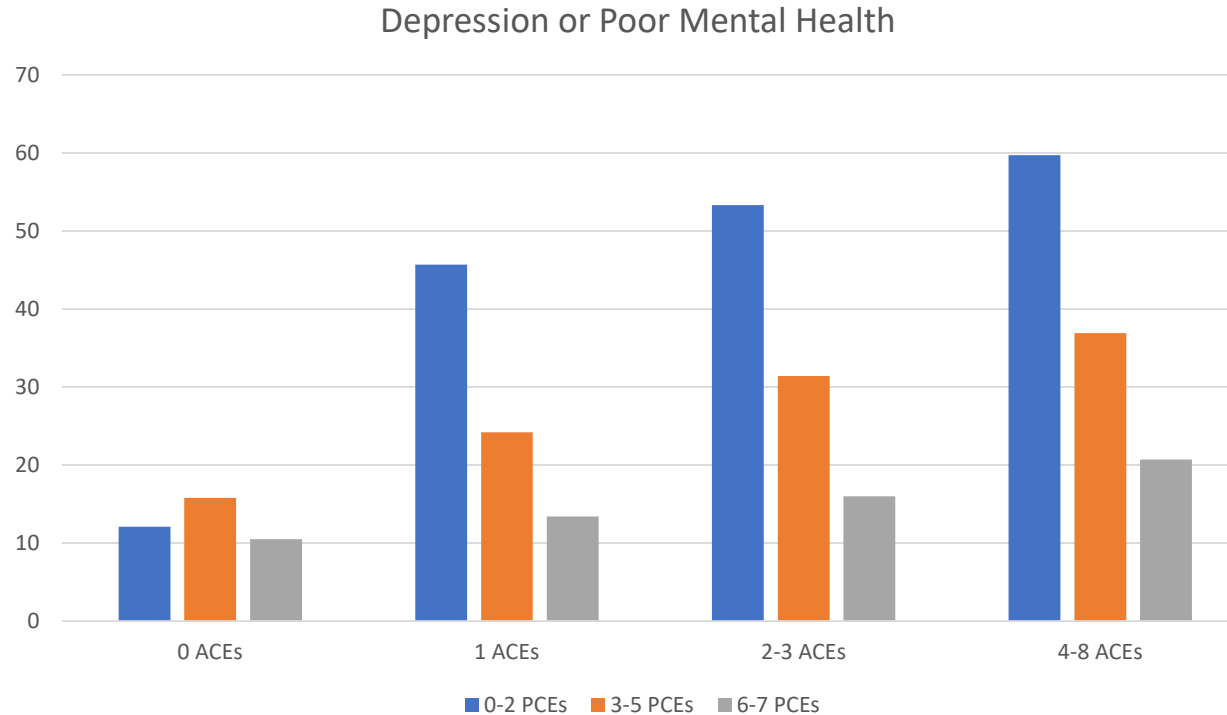
48% v. 12.6%, OR 0.28; 95% CI 0.21-0.39. 3.8x higher rate for 0-2 vs. 6-7 PCEs.



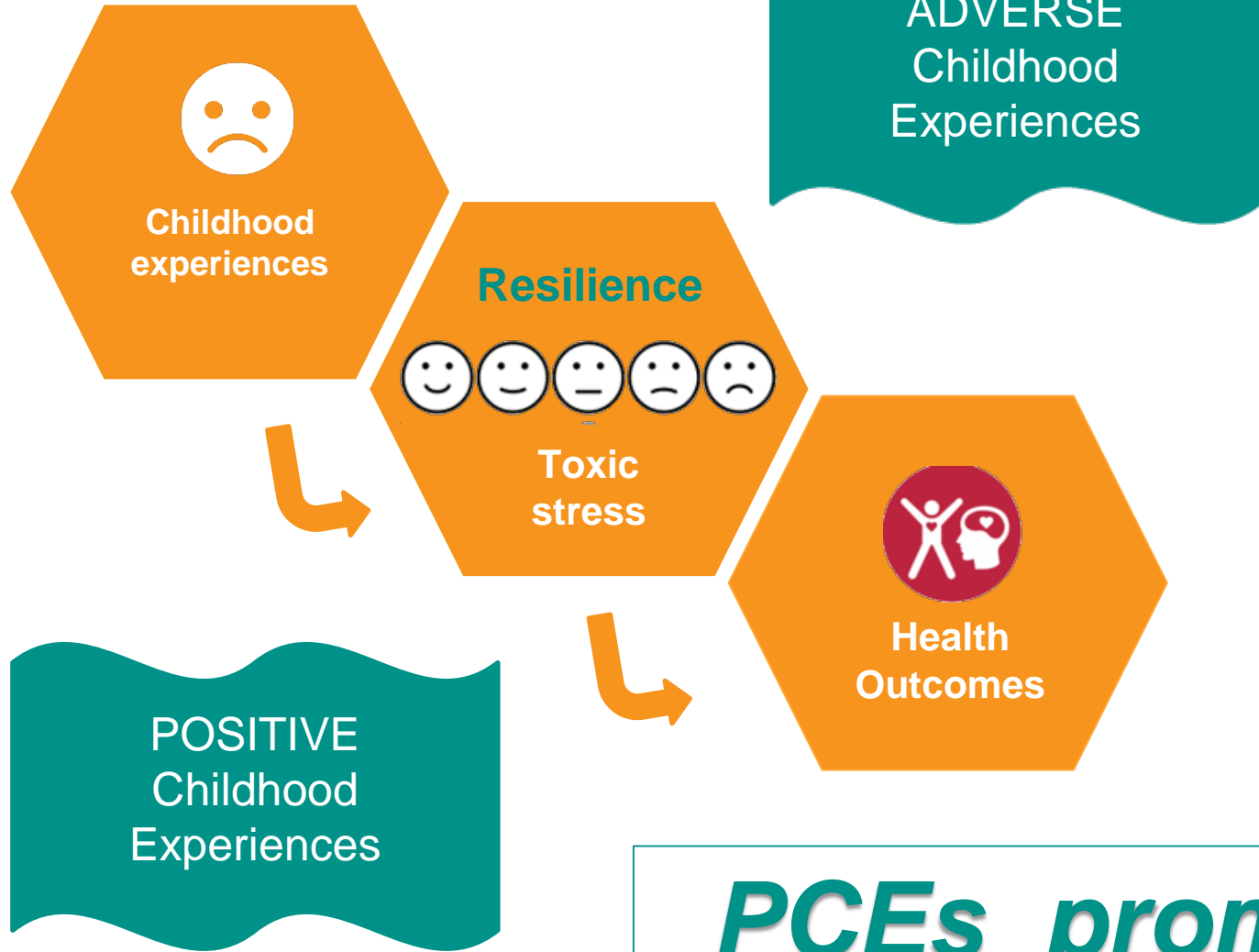
Bethell C, Jones J, Gombojav N, Linkenbach J, Sege R. Positive Childhood Experiences and Adult Mental and Relational Health in a Statewide Sample: Associations Across Adverse Childhood Experiences Levels. *JAMA Pediatr.* 2019:e193007.



Positive Childhood Experiences Mitigate ACEs Effects



Bethell C, Jones J, Gombojav N, Linkenbach J, 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.

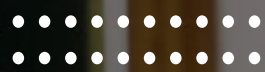


PCEs promote resilience



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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)

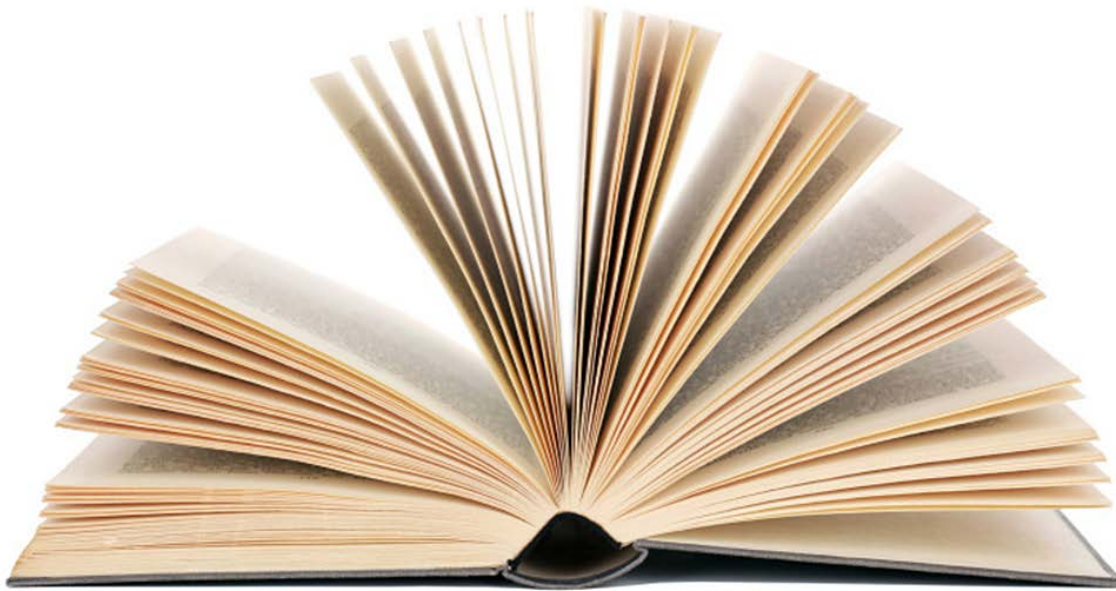
Brain changes

- 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 ***

** Thiebaut de Schotten et al., (2014). *Cerebral Cortex*. 24:989-995. and *** T Dehaene, et al
SCIENCE DEC 2010 : 1359-1364

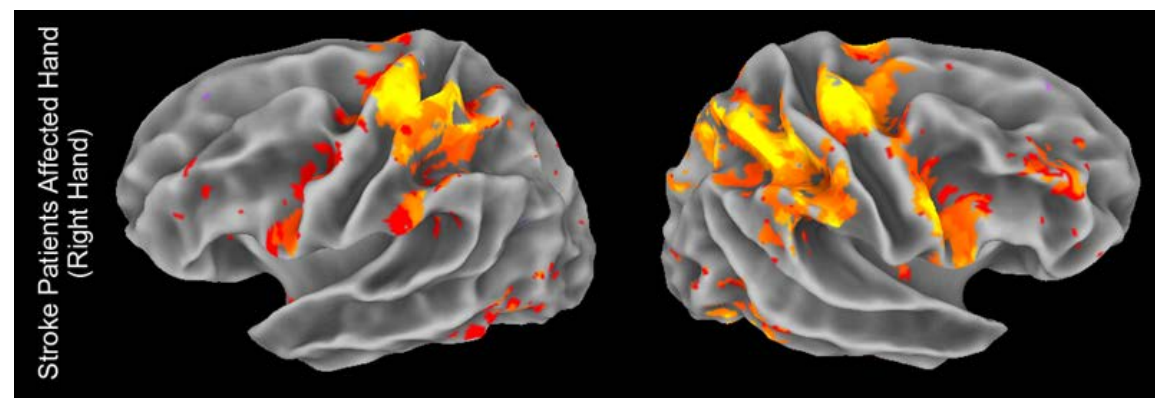
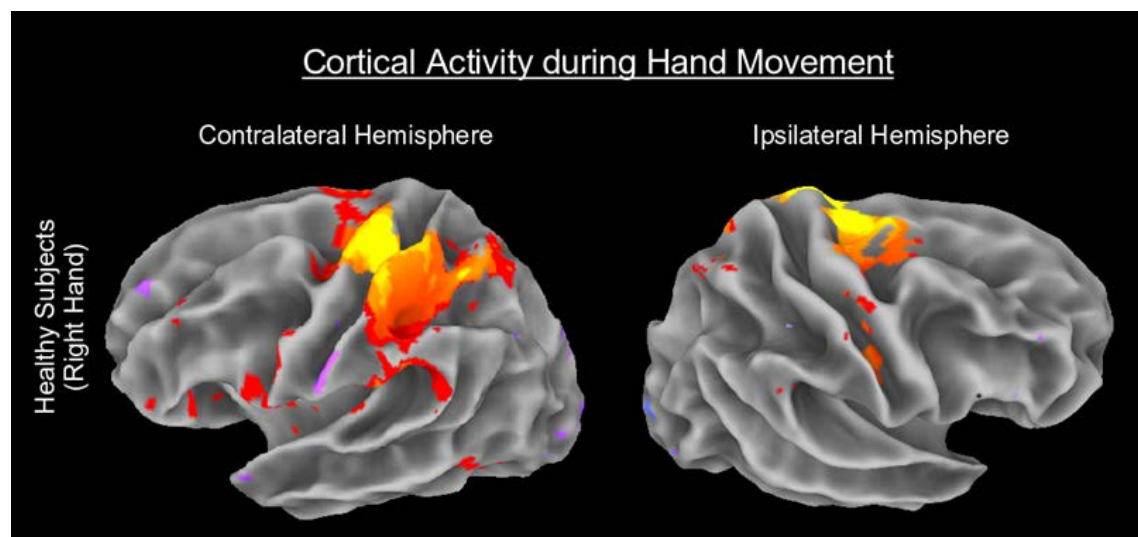


Brain changes and healing from stroke

Clinical improvement with therapy correlated with changes in fMRI scans

Activity-Based Therapies

Cognitive-Based Therapies

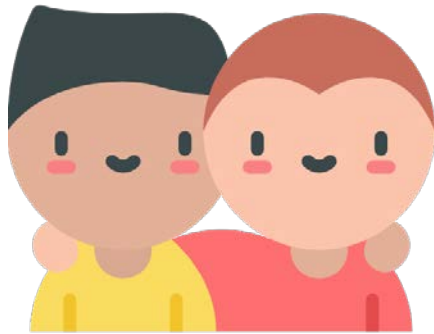




Brain changes and healing from trauma

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 {was} . . . associated with increased regional grey matter volume.*

Resilience



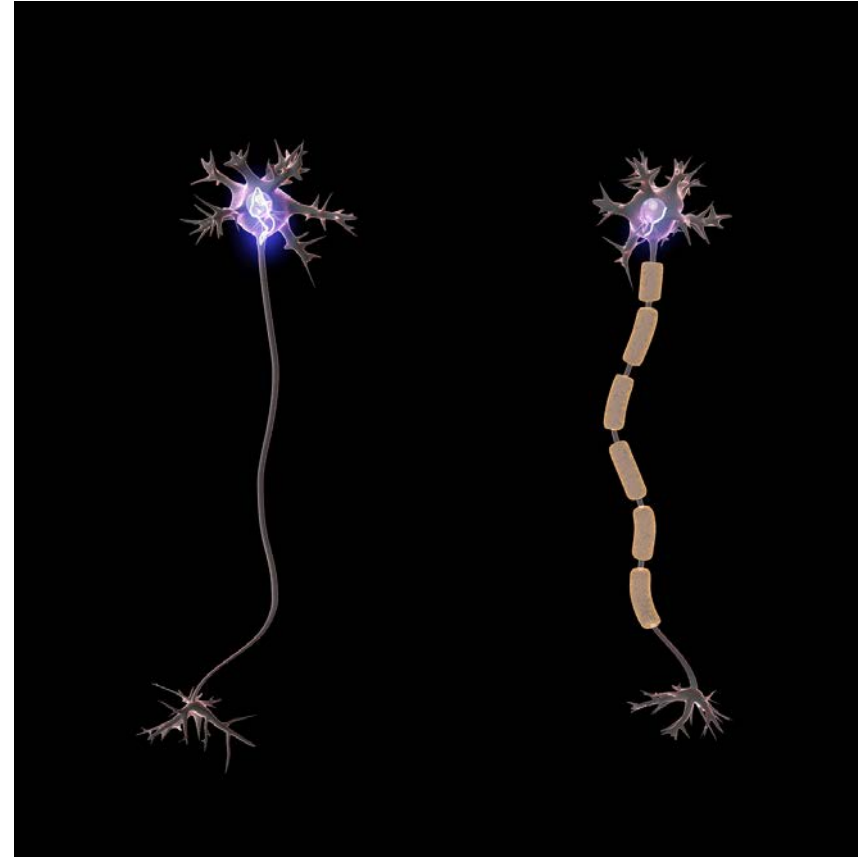
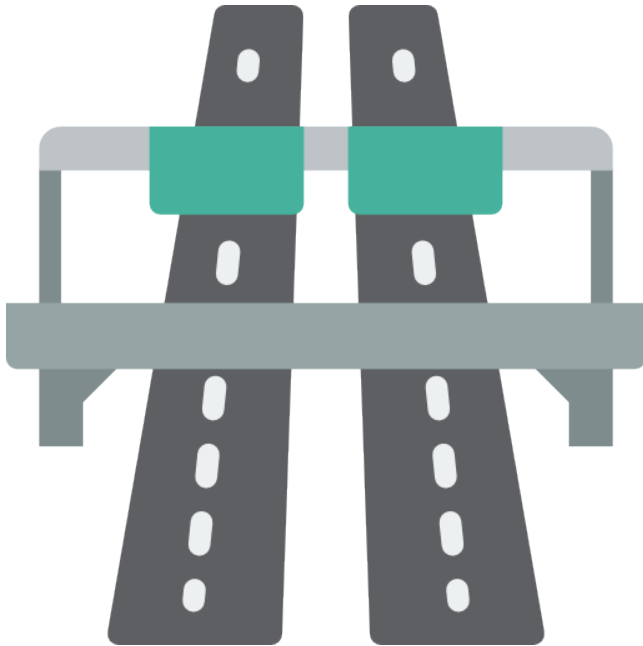
Higher PTG Inventory scores had stronger activation in the executive functioning network region of the brain on fMRI.**

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

**Fujisawa et al., (2015) Neural Basis of Psychological Growth following Adverse Experiences: A Resting-State Functional MRI Study. *PLoS ONE* 10(8)



How it works: changing brain wiring





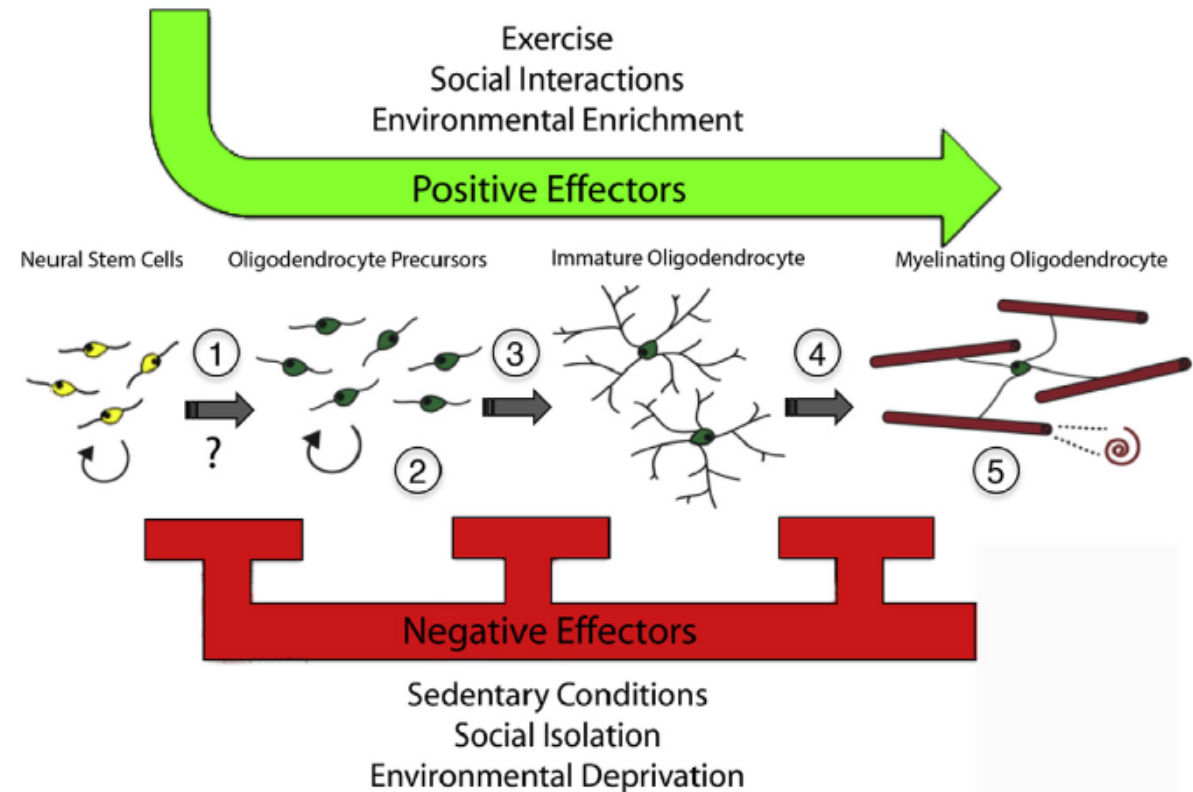
Experiences build brain super highways

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



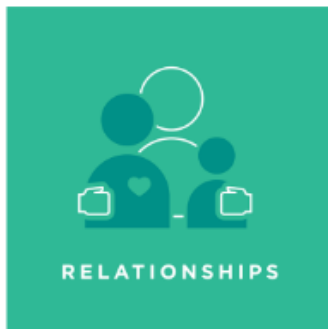


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The Four Building Blocks of HOPE



RELATIONSHIPS

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



ENVIRONMENT

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



ENGAGEMENT

Social and civic engagement to develop a sense of belonging and connectedness.



EMOTIONAL GROWTH

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



Relationships

The Four Building Blocks of HOPE



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



Photo by Wesley Tingey on Unsplash



Environment

The Four Building Blocks of HOPE



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

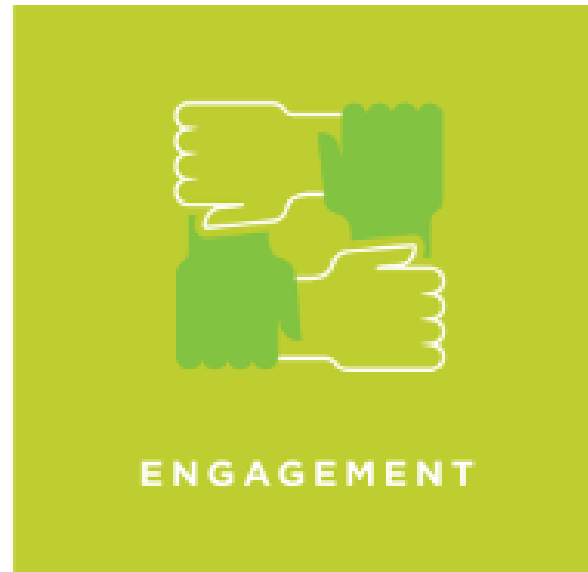


Photo by Shona Corsten on Unsplash



Engagement

The Four Building Blocks of HOPE



Social and civic engagement to develop a sense of belonging and connectedness.



Photo by tribesh kayastha on Unsplash



Emotional Growth

The Four Building Blocks of HOPE



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



ACEs affect the Building Blocks of HOPE



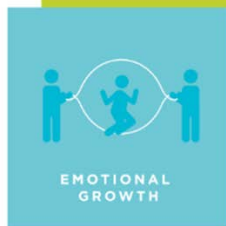
Relationships with other children and with other adults through interpersonal activities.



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



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.

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



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- The 4 Building Blocks of HOPE
- **Incorporating HOPE into ACEs work**



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



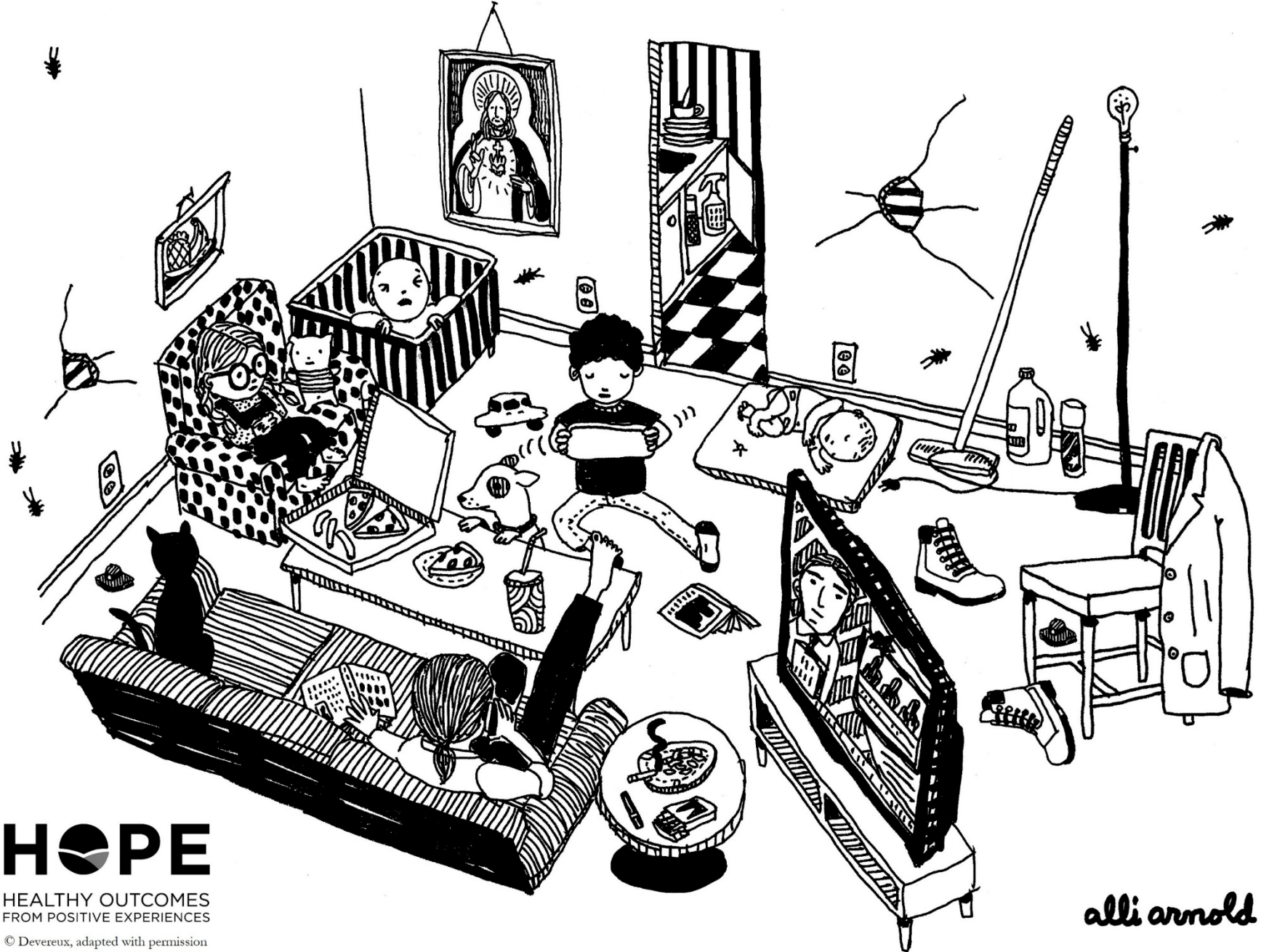
Workflow

- Intake and assessment
- Anticipatory guidance



What RISK factors do you see?

Share in Chat Box



HOPE

HEALTHY OUTCOMES
FROM POSITIVE EXPERIENCES

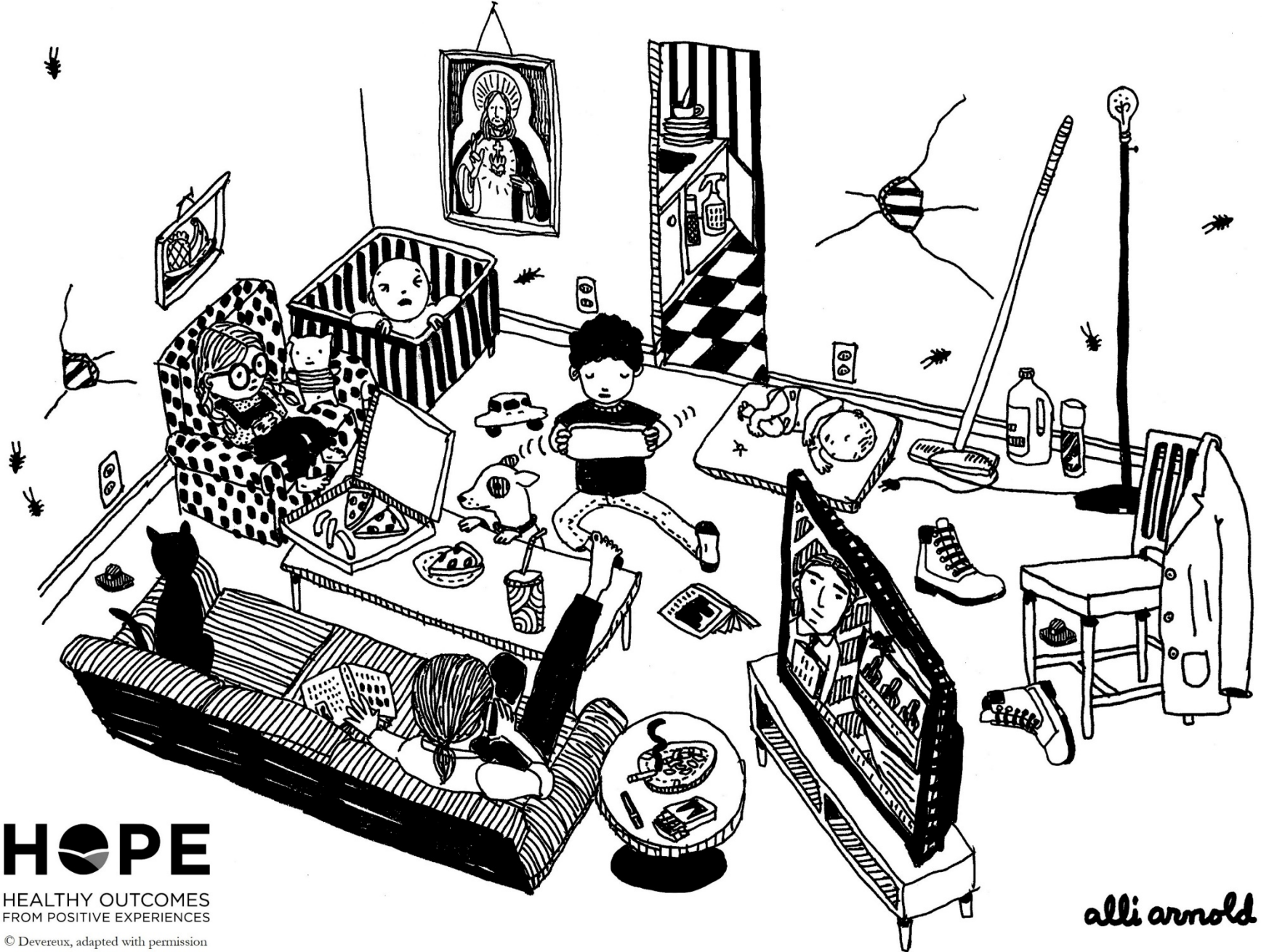
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What
PROTECTIVE
factors do you
see?

Share in Chat Box



HOPE

HEALTHY OUTCOMES
FROM POSITIVE EXPERIENCES

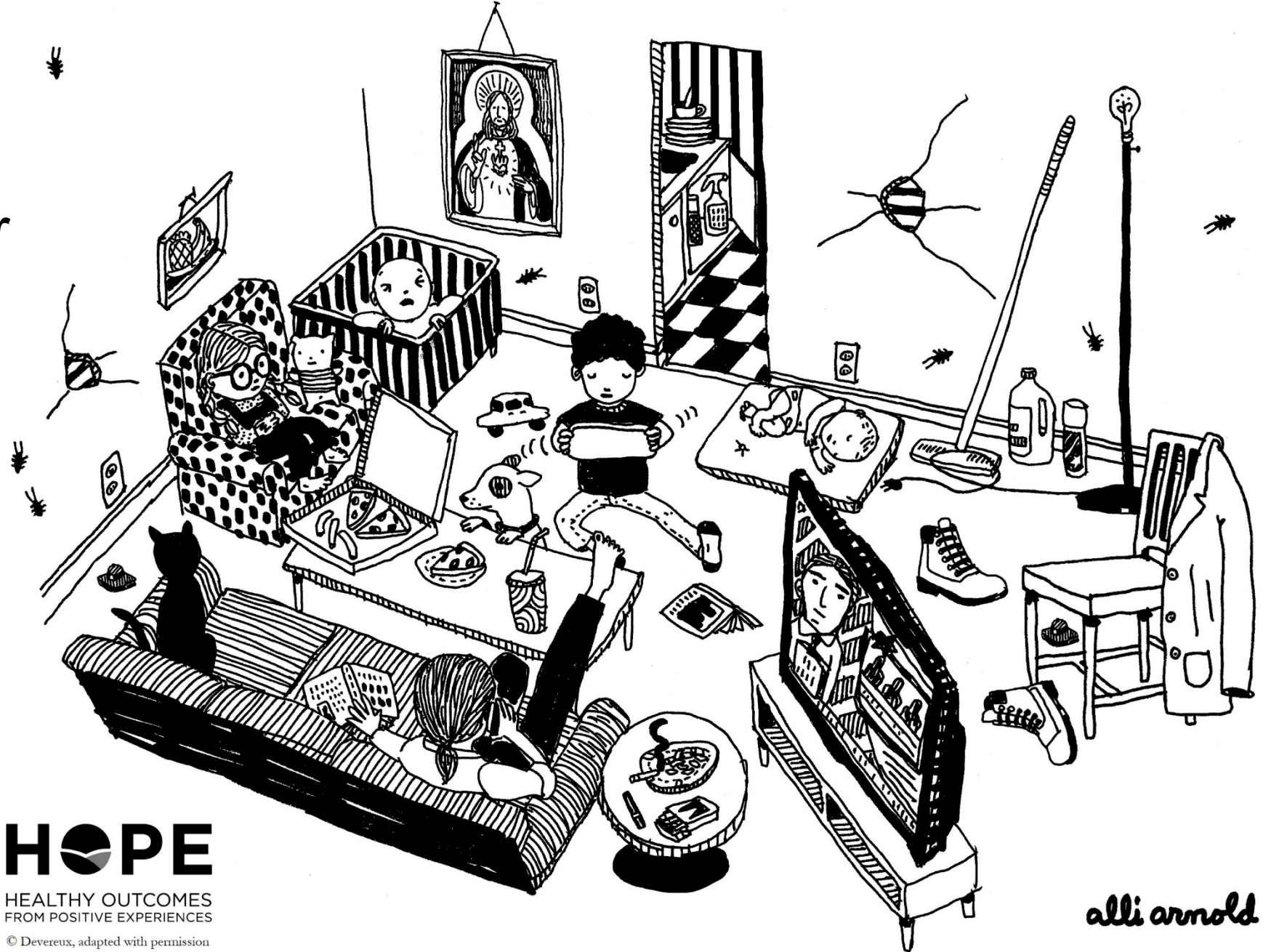
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Which was easier to see—RISK or PROTECTIVE factors?

Zoom Poll



HOPE

HEALTHY OUTCOMES
FROM POSITIVE EXPERIENCES

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Type 1 vs. Type 2 thinking

Type 1 thinking

- ✓ Fast, intuitive, unconscious thought
- ✓ Everyday activities
- ✓ Effortless
- ✓ Training and experience



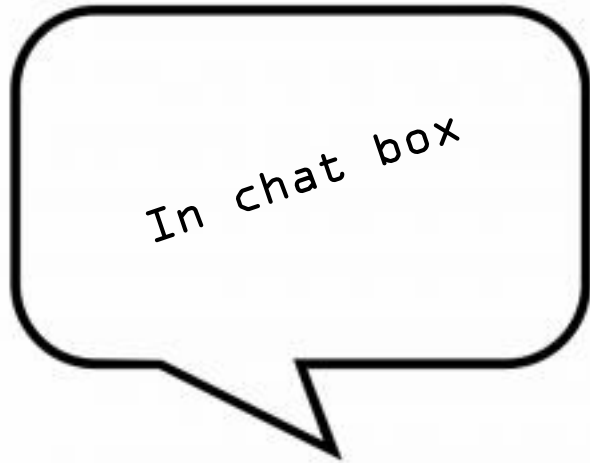
Type 2 thinking

- ✓ Slow, calculating, conscious thought
- ✓ Solving a problem
- ✓ Takes more effort!
- ✓ Something novel

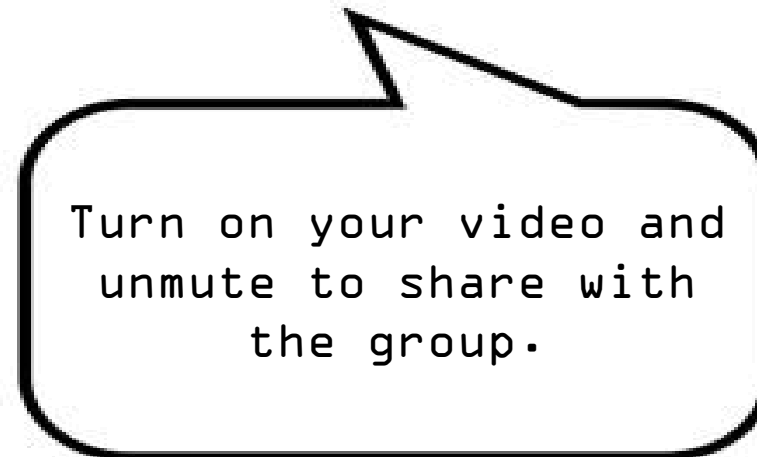
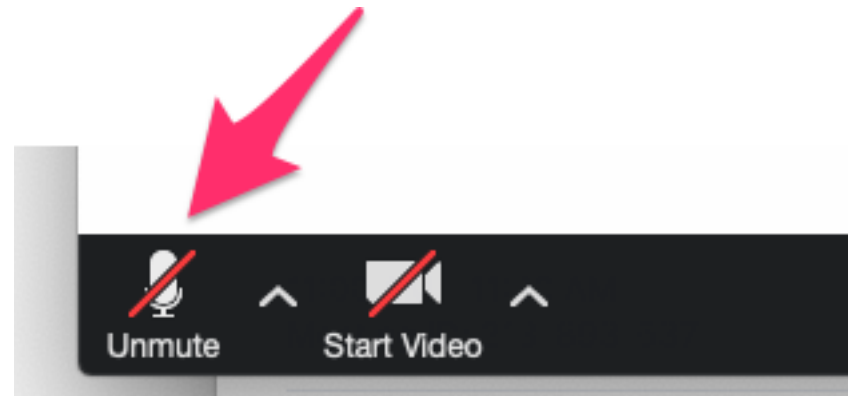




What differences did you see in this video vs. the first one?



OR





Workflow

- Intake and assessment

- **Anticipatory guidance**

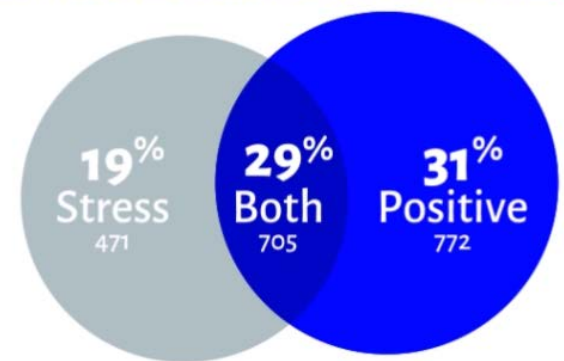
Positive Experiences to AG

Family Snapshots: Life During the Pandemic

Patient Care / Family Snapshots: Life During the Pandemic

The screenshot shows the KidsData website interface. At the top right, there are links for "Email Subscriptions", "A-Z Index", and "Help" with a Twitter icon. The main header features the "KidsData" logo (POWERED BY PRB) and a search bar with the placeholder text "Enter a location and/or a topic". Below the header is a navigation menu with buttons for "Home", "Data by Topic", "Data by Region", "Data by Demographic", "Data in Action", and "News". The breadcrumb trail reads "Home > Research & Links > Family Experiences During the COVID-19 Pandemic". A "Print" icon is visible on the right. The main content area is titled "Research and Links" and includes a section for "Family Experiences During the COVID-19 Pandemic" with a sub-link "(see data for this topic)". Below this, there are two columns of related information: "Select a topic to view related research & links:" with sub-links for "Child and Youth Safety" and "Children with Special", and "Websites with Related Information".

Parents Who Reported That Educating Their Children at Home Has Been Stressful Only, Positive Only, or Both



Neither positive nor stressful: 527 (21%)



Step One

- ✓ How do we see ourselves and our clients?
- ✓ *Risk and strengths*
- ✓ *Cognitive re-framing*



Courtesy – change in Mind Initiative, National Alliance for Strong Families and Communities



How were the 4 Building Blocks used in the second video?

Sege and Browne.
Responding to ACEs
with HOPE: Health
Outcomes from
Positive Experiences.
Academic Pediatrics
2017; 17: S79-S85



3

Promising Early Learnings

HOPE Supports Practice Transformation

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.”

HOPE Supports Families

Stanford Pediatric Clinic – piloting a HOPE informed screening tool:

“Parents love hearing that they're doing something well. I've never had a parent not say something akin to ‘Oh my gosh, thank you for saying that!’ or ‘I'm not used to people saying I'm doing something well.’”



PACEs
Connection
formerly ACEsConnection

PREVENT
ACEs

HEAL
trauma

BUILD
resilience

JOIN the
movement

PACEs = Positive & Adverse Childhood Experiences

Our name has changed, but we will still be the same healing-centered social network you rely on. [Click here to learn more.](#)

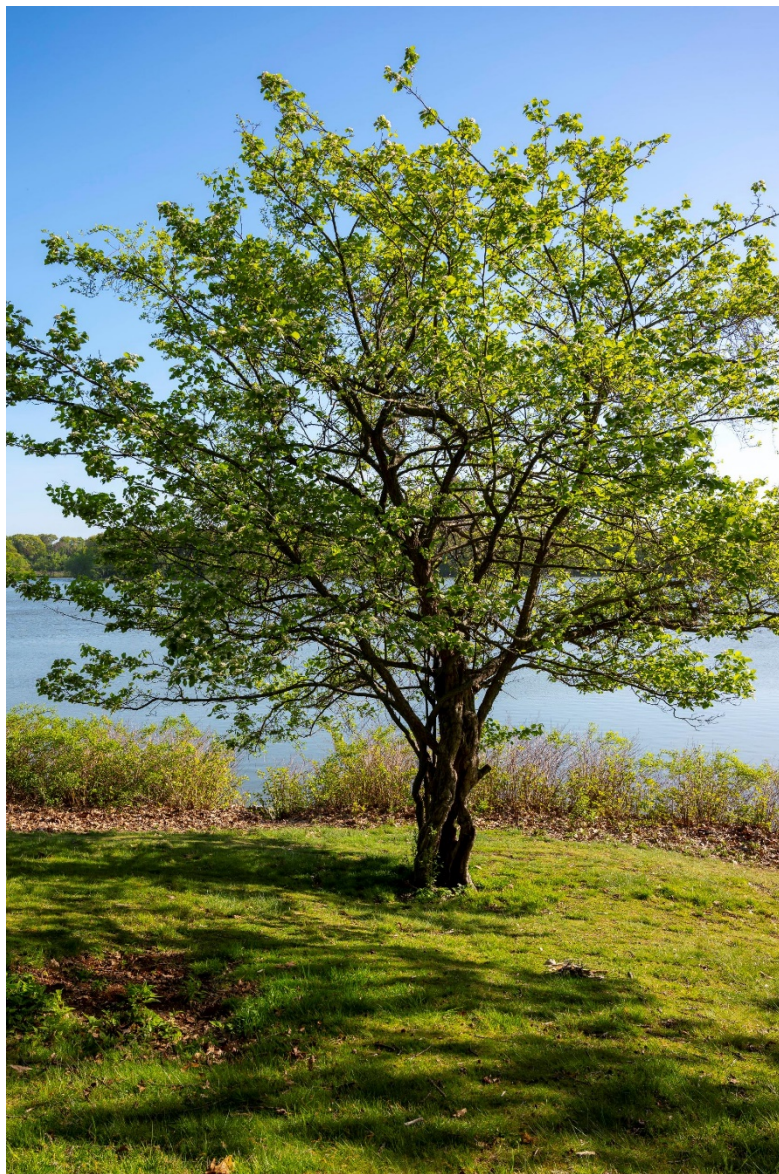
**We carry
our pasts
with us**















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





Spreading HOPE



E M A I L : HOPE@tuftsmedicalcenter.org W E B S I T E : positiveexperience.org

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