



HEALTHY OUTCOMES FROM  
POSITIVE EXPERIENCES

# HOPE Resource Binder

# HOPE

HEALTHY OUTCOMES  
FROM POSITIVE EXPERIENCES

## The Four Building Blocks of HOPE

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### HOPE as an Antiracism Framework in Action

### JAMA Pediatrics Article



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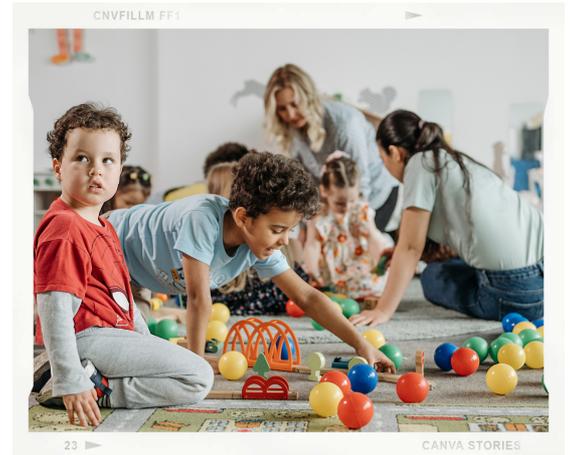
HOPE (Healthy Outcomes from Positive Experiences)

# HOPE

Healthy Outcomes  
from Positive Experiences

## Four building blocks of HOPE

Research has shown that positive childhood experiences (PCEs) can help protect against the poor health outcomes associated with adverse childhood experiences (ACEs). These PCEs can be categorized by four building blocks.



### **Relationships within the family and with other children and adults through interpersonal activities.**

Being in nurturing, supportive relationships are critical for children to develop into healthy, resilient adults. Individuals that recall having these types of relationships during childhood experience significantly lower rates of depression and

poor mental health during adulthood. What kinds of relationships are we talking about?

- Foundational relationships with parents who respond to a child's needs and offer warm, responsive reactions
- Adults outside of the family who take a genuine interest in a child and support their growth and development
- Healthy, close, and positive relationships with peers

### **What can you do to promote access to the four building blocks?**

- Be a supportive relationship! Take the time to connect with the children around you
- Share information about after school activities where they might connect with coaches, mentors, or peers
- Ask parents about the positive experiences they remember from childhood and

what made those experiences good. Celebrate those with them, and encourage them to think about which of these components of those relationships they want to offer their children

- Share information about parent-child attachment. Validate and reflect back when you see warm reactions between parent and child.
- Ask about other positive adults in the child's life - coaches, teachers, pastors, mentors. Celebrate those relationships and encourage and consistent connection with those individuals.
- Play and connect with your children regularly! Be silly, move your bodies together, read a book, watch a movie. The options are endless!

It takes a village, and the larger village, the more opportunities a child has for connection and support.



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

Children who live, learn, and play in safe, stable, and equitable environments are less likely to experience poor mental and physical health as adults. What do we mean by safe, stable, and equitable environments?

- A safe, stable environment secure in meeting a child's basic needs, including adequate food, shelter, and health care.
- A nurturing home where a child is emotionally secure.
- A stable school environment where children feel valued and receive high-quality education
- A community environment to play and interact with other children safely and equitably

### **How can you promote access to safe, stable, equitable environments?**

- Make sure schools are safe spaces for all students! Address bullying and teasing, and encourage students to be upstanders, not bystanders.
- Make sure that children and families feel represented. Look at any books, posters, curricula, or handouts. Are all kinds of families, all genders, all races, and people with disabilities represented?
- If your school does not provide food on the weekends and over breaks, see if you can start a program.
- Know the community resources! If children are hungry, without secure housing, or having witnessed violence, connect families to resources.
- Check for safety issues around you, including access to guns, medications, alcohol, and drugs. Make a plan to take care of any risks you see.

- Listen to children when they talk about school. Do they feel safe there? Are they treated well by their peers or school staff? If not, children, families, and schools can work together on solutions
- Help children find safe places to play outside. Is there a backyard, local park, and recess time where they can play with siblings and friends?
- If families are living in a home that does not meet safety or health codes, try working with a local legal aid clinic to draft a template letter that families can give their landlords.
- Get information on local subsidized preschools, Early Head Start, and Head Start programs.

### **How can you promote access to safe, stable, equitable environments?**

- Schools must be a safe space for all students! Address bullying and teasing in the moment, and encourage students to be upstanders, not bystanders.
- Make sure that children and families feel represented. Look at any books, posters on the wall, or handouts. Are all kinds of families, all genders, all races, people with disabilities represented?
- If your school does not provide food on the weekends and over breaks, see if you can start a program.
- Know the community resources! More students than you think come to school hungry, without secure housing, or having witnessed violence. Be the person who connects families to resources.
- Check for safety issues around you, including access to guns, medications, alcohol, and drugs. Make a plan to take care of any risks you see.



### **Safe, equitable, stable environments to develop a sense of belonging and connectedness.**

Children need to feel connected to their communities, loved, and appreciated. Involvement in social institutions and environments, awareness of cultural customs and traditions, and a sense that they matter and belong helps them develop into secure and resilient adults/ What are

some examples of social and civic engagement?

- Being involved in projects, peer mentoring, or community service through one's school or religious organization
- Participating in family cultural traditions
- Joining a music, art, or sports group.

### **How can you promote access to social and civic engagement?**

- Ask children about the activities they do outside of school, and delight with them in those activities.
- Work on creative projects about sharing their favorite activities with their friends.

- Have fliers available for Community Centers, after school activities, and mentoring programs in your community.
- Families can volunteer in the community together
- Create new after school activities
- Get involved in a place of worship, if that feels supportive. Many spiritual and religious institutions have youth groups or classes for children and youth.



## **Opportunities for social and emotional growth.**

Children need to have a lot of opportunities to develop their sense of self-awareness and social cognition, learn how to self-regulate emotions and behavior, and acquire skills needed to respond functionally and productively to challenges. Many of these skills arise during child-centered play. Some children will pick-up these skills naturally, but

others may need adults to help them name and understand their own feelings. Either way, these skills are critical for children to be able to become resilient, emotionally-healthy adults. What do we mean by opportunities for social and emotional growth?

- Developing a sense of emotional and behavioral self-regulation
- Having the ability to respond to challenges in a productive way
- Developing key social and culturally-appropriate communication and interpersonal skills

## **How can you support social and emotional growth?**

- Help children to name their feelings as they talk about them and what they feel like
- Remember that disagreements in peer groups are normal and show children how to disagree respectfully and productively
- Schools can implement social and emotional learning (SEL) curriculum
- Make time for open play with friends and siblings that the children lead on their own
- Encourage social connection the same way you encourage eating healthy foods or exercising

The information in this handout is based on the research of Dr. Robert Sege, Director of the Center of Community-Engaged Medicine at Tufts Medical Center and Dr. Charlyn Harper Browne from the Center for the Study of Social Policy. The four building blocks of HOPE were first published in the following paper:

Sege, R. and Browne, C. Responding to ACEs with HOPE: Healthy Outcomes from Positive Experiences. *Academic Pediatrics* 2017; 17:S79-S85



# Los Cuatro Pilares Fundamentales de HOPE

se componen de Experiencias Infantiles Positivas esenciales (PCE, por sus siglas en inglés)—y las fuentes de esas experiencias y oportunidades, que ayudan a los niños a convertirse en adultos sanos y resistentes.

## The Four Building Blocks of HOPE

are composed of key Positive Childhood Experiences (PCEs)—and the sources of those experiences and opportunities—that help children grow into healthy, resilient adults.

**Relaciones** con la familia y con otros niños y adultos mediante actividades interpersonales.



**Relationships** within the family and with other children and adults through interpersonal activities.

**Ambiente seguro, recíproco y estable** en casa y en la escuela, para vivir, jugar y aprender.



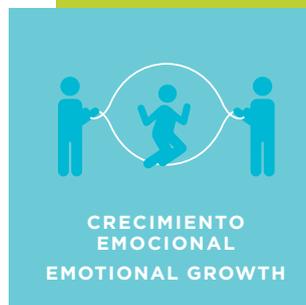
**Safe, equitable, stable environments** for living, playing, learning at home and in school.

**Participación social y cívica** para desarrollar un sentido de pertenencia y a relacionarse con otros.



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

**Crecimiento emocional** mediante el juego y la interacción con los compañeros, para el conocimiento de sí mismo y autorregulación emocional.



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

# Moments of HOPE



**The HOPE frameworks helps transform our work by actively promoting positive experiences that drive health and well-being for children, families, and communities. HOPE begins with a shift in mindset that calls on each of us to identify, celebrate, and promote individual and family strengths in each moment.**

**Moments of HOPE can be integrated into existing models and layered into the work you're already doing including:**

1. [In each encounter.](#)

Start each encounter with a family or child with a moment of HOPE. What has gone well since the last time you saw each other? What is something they are proud of? Celebrate the successes with them, however big or small.

2. [During intake and assessments.](#)

Each of us has a unique mixture of strengths and challenges. Create a moment of HOPE by asking about strengths first. Consider asking open-ended questions about relationships, environments, engagement, and emotional growth. Please see the [training videos](#) that demonstrate HOPE-informed screening, and for a [description of four ways to assess for PCEs](#).

3. [When sharing referrals or community resources.](#)

Ensure that each connection you make for a family is individualized to their specific strengths, challenges, and culture. Offer a moment of HOPE to families by connecting referrals and community resources to the Building Block that it relates to. Infusing information about the protective nature of Positive Childhood Experiences into conversations about community resources reminds parents of the tremendous power they have to protect their children's adult health!

4. [When creating or revising policies.](#)

Does your policy promote access to one of the Four Building Blocks? Does it block access? Does it intentionally recognize the positive? Are there certain groups of individuals who are disproportionately affected by your policy? Take a look at our [HOPE-informed Checklist for Decision Making](#) and [HOPE as an Anti-racist Framework in Action](#) to see how your everyday policies can promote equitable access to the Four Building Blocks.

5. [In your internal organizational culture.](#)

Spreading HOPE goes beyond what happens with families and children. It's starts with an internal culture of HOPE. Not sure where to begin? Start with our [HOPE-informed Supervision and Leadership document](#).

**Whether big or small, moments of HOPE can occur every day. We know they help us stay grounded and positive. We hope they do the same for you!**



## Four Ways to Assess Positive Childhood Experiences

Inquiring about strengths, learning proxy measures for resilience, and promoting access to positive childhood experiences are key components of the HOPE framework. While there is not a single, evidence-based approach providers can use to ask about positive childhood experiences, the following options represent research-informed methods currently being used in the field.

*The first two techniques are based on standardized, validated queries and will generate scores. Higher scores are associated with stronger resilience. The questions can be included in any standard intake form, paired with an ACEs screen, or used as a stand-alone screening tool.*



### 1 Positive Childhood Experiences scale (Bethell et al, 2019)

In a population survey conducted in a largely White sample in Wisconsin, this scale has been shown to protect adult mental health. A score is calculated based on the number of questions that were answered “always” or “almost always”.

Thinking back to your childhood, up to the age of 18, please indicate how often you:

- Felt able to talk to their family about feelings
- Felt their family stood by them during difficult times
- Enjoyed participating in community traditions
- Felt a sense of belonging in high school
- Felt supported by friends
- Had at least two non-parent adults who took genuine interest in them
- Felt safe and protected by an adult in their home

### 2 Benevolent Childhood Experiences (Narayan, Rivera, Bernstein, Harris, & Lieberman, 2018).

This instrument was developed for clinical use at the primary care clinic at the University of California, San Francisco. It has been validated in small studies conducted among high-risk populations. Similar to the Positive Childhood Experience scale above, a total score is generated by tallying the number of affirmative answers.

When you were growing up, during the first 18 years of life

- Did you have at least one caregiver with whom you felt safe?
- Did you have at least one good friend?
- Did you have beliefs that gave you comfort?
- Did you like school?
- Did you have at least one teacher who cared about you?
- Did you have good neighbors?
- Was there an adult (non-parent/caregiver) who could provide you with support and advice?
- Did you have opportunities to have a good time?
- Did you like yourself or feel comfortable with yourself?
- Did you have a predictable home routine, like regular meals and a regular bedtime?



*The next two approaches are more conversational. They serve to better understand the child and family circumstances while forming a foundation for engaged, collaborative problem solving.*

# 3

## The Four Building Blocks of HOPE

The Building Blocks can be adapted for use between any child serving provider and the family. Research has shown that programs that promote access to these childhood experiences help children and youth, including those who have experienced trauma and adversity. This is not a formal screen and does not result in a score. Instead, families respond with what these experiences mean to them, and the worksheet serves as a conversation starter with the clinician. This is part of a tool developed by Dr. Gretchen Pianka in Lewiston, Maine and is reproduced with permission. The complete tool can be [found here](#).

### Building Blocks for Health

These four building blocks are important factors in growing up healthy. Share what's working & your provider will brainstorm with you for solutions to anything that is not working

#### Engagement:

What is one thing you like to do as a family outside the home? Where do you feel the most connected to others?

#### Environment:

Describe a place you love to go or play. Where is your safe space?

#### Relationships:

What do you like to do at home with your family? Who is someone outside of your family that really cares about you?

#### Emotional Health:

What feelings do you talk about at home? Who can you talk to about feelings with? How can you take care of yourself when you have big feelings?

# 4

## Narrative Therapy Techniques

Providers can use narrative therapy to draw out family and child strengths asking questions like:

- Can you describe the last time you managed to get free of {the problem} for a couple of minutes?
- How have you handled {pressing concern} in the past?
- Can you share a bit about something you've done recently that you're proud of?

Then, explore with them the factors that enabled them to succeed. Listen for the building blocks of HOPE – relationships, environments, engagement, and emotional growth. Careful listening to a person's past successes places the provider in a position to better understand what resources to draw on to address current challenges. This approach may fit best when confronted with a challenging situation, or when a person feels helpless to approach a problem.

To learn more about HOPE, the Four Building Blocks and MORE, visit [positiveexperience.org](http://positiveexperience.org) or email [HOPE@tuftsmedicalcenter.org](mailto:HOPE@tuftsmedicalcenter.org).



# The Four Building Blocks of HOPE

are composed of key Positive Childhood Experiences (PCEs)—and the sources of those experiences and opportunities—that help children grow into healthy, resilient adults.

## Los Cuatro Pilares Fundamentales de HOPE

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**Instructions for Parents:** Reflect on positive aspects of your child's life that fit each of the four building blocks and select the boxes provided next to each building block that you feel your child has in their life.

Instrucciones para los padres: Reflexione sobre los aspectos positivos de la vida de su hijo que se ajusten a cada uno de los cuatro pilares y seleccione las casillas que se encuentran junto a cada uno de los pilares que cree que su hijo tiene en su vida.

**Relaciones** con la familia y con otros niños y adultos mediante actividades interpersonales.



**Relationships** within the family and with other children and adults through interpersonal activities.

- A healthy relationship with an adult that lives with them
- A healthy relationship with an adult that does not live with them
- Other: \_\_\_\_\_

**Ambiente seguro, recíproco y estable** en casa y en la escuela, para vivir, jugar y aprender.



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

- Regular access to healthy food or resources to get them
- A safe & stable place to live
- A safe place to play at home
- A safe place to play outside of the home
- Other: \_\_\_\_\_

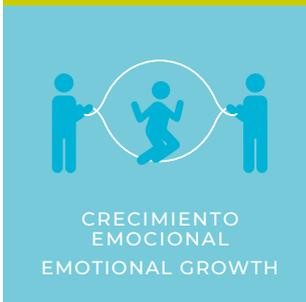
**Participación social y cívica** para desarrollar un sentido de pertenencia y a relacionarse con otros.



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

- A group that they meet with regularly (e.g. a play group, swim class, etc.)
- Participation in activities that connect them with their cultural heritage (music, art, etc.)
- Other: \_\_\_\_\_

**Crecimiento emocional** mediante el juego y la interacción con los compañeros, para el conocimiento de sí mismo y autorregulación emocional.



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

- A friend they play with regularly at home
- A friend they play with regularly outside of the home
- Other: \_\_\_\_\_

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- Una relación sana con un adulto que vive con ellos.
- Una relación sana con un adulto que no convive con ellos.
- Otro: \_\_\_\_\_

**Relaciones** con la familia y con otros niños y adultos mediante actividades interpersonales.



RELACIONES  
RELATIONSHIPS

**Relationships** within the family and with other children and adults through interpersonal activities.

- Acceso regular a alimentos y recursos saludables para obtenerlos.
- Un lugar seguro y estable para vivir
- Un lugar seguro para jugar en casa
- Un lugar seguro para jugar fuera de casa.
- Otro: \_\_\_\_\_

**Ambiente seguro, recíproco y estable** en casa y en la escuela, para vivir, jugar y aprender.



AMBIENTE  
ENVIRONMENT

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

- Un grupo con el que se reúnen regularmente (por ejemplo, un grupo de juegos, una clase de natación, etc.)
- Participación en actividades que te conecten con tu patrimonio cultural (música, arte, etc.)
- Otro: \_\_\_\_\_

**Participación social y cívica** para desarrollar un sentido de pertenencia y a relacionarse con otros.



PARTICIPACIÓN  
ENGAGEMENT

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

- Un amigo con el que juegan regularmente en casa.
- Un amigo con el que juegan regularmente fuera de casa.
- Otro: \_\_\_\_\_

**Crecimiento emocional** mediante el juego y la interacción con los compañeros, para el conocimiento de sí mismo y autorregulación emocional.



CRECIMIENTO  
EMOCIONAL  
EMOTIONAL GROWTH

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**Relaciones** con la familia y con otros niños y adultos mediante actividades interpersonales.



RELACIONES  
RELATIONSHIPS

**Relationships** within the family and with other children and adults through interpersonal activities.

- A healthy relationship with an adult that lives with them
- A healthy relationship with an adult that does not live with them
- A healthy relationship with an adult at school
- Other: \_\_\_\_\_

**Ambiente seguro, recíproco y estable** en casa y en la escuela, para vivir, jugar y aprender.



AMBIENTE  
ENVIRONMENT

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

- Regular access to healthy foods or resources to get them
- A safe & stable place to live
- A safe place to play at home
- A safe place to play outside of the home
- Other: \_\_\_\_\_

**Participación social y cívica** para desarrollar un sentido de pertenencia y a relacionarse con otros.



PARTICIPACIÓN  
ENGAGEMENT

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

- A group that they meet with regularly (e.g. a play group, music group, church, etc.)
- Participation in activities that connect them with their cultural heritage (music, art, etc.)
- Participation in activities they feel passionate about (e.g. community service)
- Other: \_\_\_\_\_

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CRECIMIENTO  
EMOCIONAL  
EMOTIONAL GROWTH

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

- A friend they play with regularly at home
- A friend they play with regularly at school or outside the home
- A friend that helps them feel supported
- Other: \_\_\_\_\_

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- Otro: \_\_\_\_\_

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- Participación en actividades que te conecten con tu patrimonio cultural (música, arte, etc.)
- Participación en actividades que les apasionen (por ejemplo, servicio comunitario)
- Otro: \_\_\_\_\_

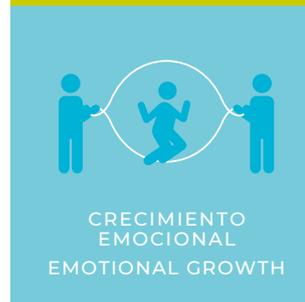
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- Un amigo con el que juegan regularmente en casa.
- Un amigo con el que juegan regularmente fuera de casa.
- Un amigo que te ayude a sentirte apoyado en tu vida.
- Otro: \_\_\_\_\_

**Crecimiento emocional** mediante el juego y la interacción con los compañeros, para el conocimiento de sí mismo y autorregulación emocional.



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RELACIONES  
RELATIONSHIPS

**Relationships** within the family and with other children and adults through interpersonal activities.

- A healthy relationship with an adult that lives with you
- A healthy relationship with an adult that does not live with you
- A healthy relationship with an adult at school
- Role models and mentors that you interact with regularly
- Other: \_\_\_\_\_

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AMBIENTE  
ENVIRONMENT

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

- Regular access to healthy foods and resources to get them
- A safe & stable place to live
- A safe place to play at home
- A safe place to play or spend time outside of your home
- Other: \_\_\_\_\_

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PARTICIPACIÓN  
ENGAGEMENT

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

- A group that you meet with regularly (e.g. sports team, music group, church, etc.)
- Participation in activities that connect you with your cultural heritage (music, art, etc.)
- Participation in activities that you feel passionate about (e.g. community service)
- A community that you feel you belong to
- Other: \_\_\_\_\_

**Crecimiento emocional** mediante el juego y la interacción con los compañeros, para el conocimiento de sí mismo y autorregulación emocional.



CRECIMIENTO  
EMOCIONAL  
EMOTIONAL  
GROWTH

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

- A friend you play with regularly at home
- A friend you play with regularly at school or outside the home
- A friend that listens when you talk about your feelings or difficult topics
- A friend that helps you feel supported in your life
- Other: \_\_\_\_\_

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are composed of key Positive Childhood Experiences (PCEs)—and the sources of those experiences and opportunities—that help children grow into healthy, resilient adults.

Instructions: Reflect on positive aspects of your life that fit each of the four building blocks and select the boxes provided next to each building block that you feel you have in your life.

**Instrucciones:** Reflexione sobre los aspectos positivos de su vida que se ajusten a cada uno de los cuatro pilares y seleccione las casillas que se encuentran al lado de cada pilares que sienta que tiene en su vida.

- Una relación sana con un adulto que vive contigo.
- Una relación sana con un adulto que no vive contigo.
- Una relación sana con un adulto en la escuela.
- Modelos a seguir y mentores con los que interactúa con regularidad.
- Otro: \_\_\_\_\_

**Relaciones** con la familia y con otros niños y adultos mediante actividades interpersonales.



RELACIONES  
RELATIONSHIPS

**Relationships** within the family and with other children and adults through interpersonal activities.

- Acceso regular a alimentos y recursos saludables para obtenerlos.
- Un lugar seguro y estable para vivir
- Un lugar seguro para jugar en casa
- Un lugar seguro para jugar fuera de casa.
- Otro: \_\_\_\_\_

**Ambiente seguro, recíproco y estable** en casa y en la escuela, para vivir, jugar y aprender.



AMBIENTE  
ENVIRONMENT

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

- Un grupo con el que se reúne regularmente (por ejemplo, equipo deportivo, grupo de música, iglesia, etc.)
- Participación en actividades que te conecten con tu patrimonio cultural (música, arte, etc.)
- Participación en actividades que le apasionen (por ejemplo, servicio comunitario)
- Una comunidad a la que sientes que perteneces
- Otro: \_\_\_\_\_

**Participación social y cívica** para desarrollar un sentido de pertenencia y a relacionarse con otros.



PARTICIPACIÓN  
ENGAGEMENT

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

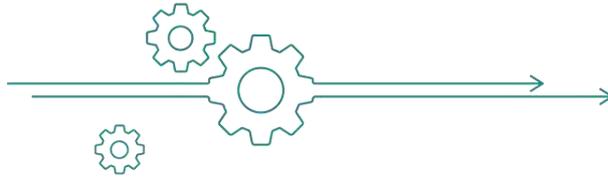
- Un amigo con el que juegas habitualmente en casa.
- Un amigo con el que juegas regularmente en la escuela.
- Un amigo que te escucha cuando hablas de tus sentimientos o temas difíciles.
- Un amigo que te ayude a sentirte apoyado en tu vida.
- Otro: \_\_\_\_\_

**Crecimiento emocional** mediante el juego y la interacción con los compañeros, para el conocimiento de sí mismo y autorregulación emocional.



CRECIMIENTO  
EMOCIONAL  
EMOTIONAL GROWTH

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



# HOPE-Informed Checklist

## for Decision Making

**This simple checklist will walk you through assessing if the decision you are making, policy you are creating, or tool you are considering is HOPE-informed. As you consider moving forward, ask yourself if your decision, policy, or tool does the following things.**

- Identifies, celebrates and honors strengths and resilience
- Supports access to the 4 Building Blocks of HOPE (relationships, environments, engagement, and emotional growth)
- Reflects practice that promotes empathy, recognizes common goals, and understands that individuals are doing the best they can
- Incorporates community feedback into robust continuous quality improvement
- Has clear mechanisms to identify and address systems failures that result in inequities

**Equally as important, you will want to screen your decision/policy/tool to ensure that it does NOT check any of the following boxes.**

- Exclusive focus on identifying problems and referring to services
- Creates an "us" and "them" dynamic in association with services
- Inadvertently perpetuates labeling, stigma, or bias

**If it checks all the boxes on the top of the page and none on the bottom, wonderful! You're on your way towards more HOPE-informed practice. Otherwise, use this checklist as a guide for improvement. If you're stuck, we're here to help! Reach out to the HOPE National Resource Center team at [hope@tuftsmedicalcenter.org](mailto:hope@tuftsmedicalcenter.org).**



# HOPE

HEALTHY OUTCOMES  
FROM POSITIVE EXPERIENCES

## as an Anti-Racism Framework in Action



RELATIONSHIPS

The Four Building Blocks of HOPE—supportive relationships, safe, equitable, and stable environments, social and civic engagement, and emotional growth—can be incorporated into decision making at every level and in every sector to ensure that all children, including children of color, have what they need to thrive.



ENVIRONMENT

Access to the Four Building Blocks is often disrupted by systemic racism, historical trauma, and adverse childhood experiences. HOPE-informed agencies can partner with their communities, and together identify existing resources to promote HOPE and identify unmet needs. Working together, HOPE and our partners seek to ensure that every family and child can have those key experiences that promote resiliency.



ENGAGEMENT

[Racism is harmful to all of us](#). Anti-racism frameworks intentionally upend racist policies and practice in an effort to combat White supremacy. As author and anti-racism activist Ibram X. Kendi describes it, a racist policy is “any measure that produces or sustains racial inequality.” This work requires tacit acknowledgement that systems, institutions, policies, practices and norms privilege White people, even when they do not explicitly mention race. While bias operates at the individual level, providers, practitioners, and educators are also operating within

systems built on racist foundations. In this resource, we will be focusing specifically on systemic racism and unconscious bias.

This resource walks the reader through the process of thinking about policy and practice change from an anti-racist, HOPE-informed lens grounded in [CommunityWise Resource Center’s document on Anti-racist Organizational Change](#). Let’s take a look at how a HOPE-informed organization might address two notable racial disparities in systems that serve children and families.

In each of the following scenarios, the same process will be followed:

1. **Start with Data:** What is the racial disparity you are trying to address, and how does it connect with access to a HOPE Building Block?
2. **Engage the Community:** How do those most affected by the disparity feel? What do they see as the problem? What would they like to see in the solution?
3. **Prioritize and Change Policy:** What change can you make to increase access to one or more of the HOPE Building Blocks?



As you work through each problem, keep in mind that effective change processes require the active engagement and inclusion of people from diverse racial, ethnic, economic, and social groups—especially including those most impacted by the disparity at hand. Make sure that your process includes colleagues and other stakeholders from the community you serve, so that brainstorming and problem solving are based on relevant values and experiences.



## Early Childhood Education

*Ezra is a 3-year-old Black child in preschool who is playing with blocks with another child. The other child snatches the block away from him. Ezra, in an attempt to take the block back, accidentally pushes over the other child. Because this is the third time that Ezra has been involved in a “violent” incident, Ezra is suspended from preschool.*



### 1. Start with Data: What is the racial disparity you are trying to address, and how does it connect with access to a HOPE Building Block?

[Black preschoolers are disproportionately expelled and suspended from preschool in America.](#) These disruptions can have [long-lasting effects](#) on children’s educational attainment. School expulsion has unintended consequences: in unstable homes, it can increase the risk for child abuse or neglect; in low income homes, it can worsen financial hardship by forcing parents to decide between going to work and caring for their child; in food insecure homes, children lose out on the meals provided during school hours.

Access to quality preschool can bolster resiliency in children across all of the HOPE Building Blocks.

- **Relationships:** A strong relationship between a child and a preschool teacher increases the number of supportive relationships a child can depend on.
- **Safe, Equitable, Stable Environments:** The school setting serves as a safe, stable, and (hopefully) equitable environment for playing and learning.
- **Social and Civic Engagement:** Preschool is one of the first spaces away from home where children develop a sense of belonging.
- **Emotional Growth:** Children develop emotional regulation through interaction with peers.



### 2. Engage the Community: How do those most affected by the disparity feel? What do they see as the problem? What would they like to see in the solution?

Based on this data, you and your colleagues host a community forum with current and previous families of color from your school. What you hear is unsettling. You know that there is currently no written expulsion policy in your preschool. Families state loudly and clearly that the absence of a of policy requires individual

providers to make their own determinations, which can be grounded in implicit bias. This lack of a standardized policy is fertile ground for the infiltration of racist practices. Parents share that their children's challenging behaviors are often interpreted as these very young children being willfully disobedient, with little insight into the lives of the children and their families. One parent shares a research article showing that, in fact, [children of color are seen as more culpable for misbehavior and receive harsher punishments than White peers](#). Often, parents or family members, also living through the same systemic racism as the child, face the provider's judgement, rather than being welcomed as partners to redirect the child's behavior.

The community is asking for a clear policy around expulsion and an all-staff training on implicit bias.



### 3. Prioritize and Change Policy: What change can you make to increase access to one or more of the HOPE Building Blocks?

As an educator, you make a commitment to decreasing the number of expulsions in your school and increasing access to all four of the HOPE Building Blocks by creating a taskforce to develop a clear, objective policy. This taskforce includes teachers, administrators, and parents of kids of color. Additionally, you find a trainer who can offer implicit bias and anti-racist training to preschool teachers.



## Pediatric Practice

*Sally is an 8-year-old black child with asthma who lives in an apartment by the freeway with cockroaches and mold in the bathroom. She has missed several days of school for asthma symptoms this year.*



### 1. Start with Data: What is the racial disparity you are trying to address, and how does it connect with access to a HOPE Building Block?

[Black children are nearly five times more likely than White children to die from asthma-related complications](#). This disparity is the effect of a conglomeration of systemic and [environmental racism](#) from decades of racist redlining practices. [Redlining](#), actually drawing red lines on maps around neighborhoods considered "less desirable" by mortgage brokers and insurance providers, resulted in communities of color today more often living in areas with high pollution, poor living conditions, and unresponsive property owners.

This disparity directly affects children's access to the second Building Block.

- **Safe, Equitable, Stable Environments:** Managing asthma effectively often requires changes to living environments to ensure that the child has a home free of habitability issues. Cockroaches and other pests, mold, mildew, dust mites, and otherwise substandard housing conditions can worsen asthma control and trigger exacerbations, despite adequate medical compliance.



## 2. Engage the Community: How do those most affected by the disparity feel? What do they see as the problem? What would they like to see in the solution?

You begin systematically asking parents of Black children with asthma about their experience with their child's diagnosis at the end of their medical appointments. Parents share their frustration that despite being compliant with their children's medication, they are still experiencing attacks and flare-ups. As you inquire further, you learn that often, the families are living in homes with severe asthma triggers. When you share that the environment may be making their child's asthma worse, many parents report that this is new information to them. They seem eager for more information about the safety of their homes but overwhelmed at the idea of remedying any identified issues. Parents clearly state that they will need support convincing the property owner that changes are necessary.



## 3. Prioritize and Change Policy: What change can you make to increase access to one or more of the HOPE Building Blocks?

Helping families assess their home environment is the first step to better control of their child's asthma diagnosis. At a practice level, providers don't always screen for assess the habitability of a child's home environment. You work with the Department of Public Health to create a screening check list that parents can complete in the office. When these results suggest substandard housing or code violations, parents are connected with a visiting nurse to support them in addressing the concerns. They are also provided with a template letter from a local legal aid agency to request remediation of the conditions from the property owner.

At the systems level, your clinic educates local officials about this health disparity and advocates for the development of an automatic referral system for a housing inspection when children are hospitalized for asthma. Additionally, you partner with a local legal aid agency and host evening clinics to support families through medical-legal partnerships that can assist with addressing habitability and code-violation issues when property owners are not initially responsive.



## Now you try it!

**Go through the four questions above and see if you can proactively use a HOPE-informed lens to upend a racist policy or decrease racial disparities by decreasing the impact of systemic racism on those affected. And remember, the process is only truly effective in decreasing disparities when it's representative of the communities you're serving! Ask yourself who is missing from decision-making processes, and then invite them to be part of the solution.**

All of us here at HOPE encourage all of you to put on your HOPE lenses and commit to infusing HOPE in your community. Stuck? We'd love to brainstorm with you. Reach out to Amanda at [awinn1@tuftsmedicalcenter.org](mailto:awinn1@tuftsmedicalcenter.org) to figure out how your organization can use HOPE as an antiracist framework.

# 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 OUTCOMES AND MEASURES** The definition of D/PMH includes adults with a depression diagnosis (ever) and/or 14 or more poor mental health days in the past month. The definition of PCEs includes 7 positive interpersonal experiences with family, friends, and in school/the community. Standard Behavioral Risk Factor Survey ACEs and ARSES variables were used.

**RESULTS** In the 2015 Wisconsin Behavioral Risk Factor Survey sample of adults (50.7% women; 84.9% white), the adjusted odds of D/PMH were 72% lower (OR, 0.28; 95% CI, 0.21-0.39) for adults reporting 6 to 7 vs 0 to 2 PCEs (12.6% vs 48.2%). Odds were 50% lower (OR, 0.50; 95% CI, 0.36-0.69) for those reporting 3 to 5 vs 0 to 2 PCEs (25.1% vs 48.2%). Associations were similar in magnitude for adults reporting 1, 2 to 3, or 4 to 8 ACEs. The adjusted odds that adults reported "always" on the ARSES variable were 3.53 times (95% CI, 2.60-4.80) greater for adults with 6 to 7 vs 0 to 2 PCEs. Associations for 3 to 5 PCEs were not significant. The PCE associations with D/PMH remained stable across each ACEs exposure level when controlling for ARSES.

**CONCLUSIONS AND RELEVANCE** Positive childhood experiences show dose-response associations with D/PMH and ARSES after accounting for exposure to ACEs. The proactive promotion of PCEs for children may reduce risk for adult D/PMH and promote adult relational health. Joint assessment of PCEs and ACEs may better target needs and interventions and enable a focus on building strengths to promote well-being. Findings support prioritizing possibilities to foster safe, stable nurturing relationships for children that consider the health outcomes of positive experiences.

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Research demonstrates that both positive and adverse experiences shape brain development and health across the life span.<sup>1-5</sup> Understanding human development requires a model that incorporates both risks (factors that decrease the likelihood of successful development) and opportunities (factors that increase the likelihood of successful development). On the positive side, successful child development depends on secure attachment during the first years of life.<sup>6,7</sup> As the child grows, exposure to spoken language<sup>8</sup> and having the presence of safe, stable, nurturing relationships and environments are important factors for optimal development.<sup>9,10</sup> On the other hand, children with adverse childhood experiences (ACEs) are at risk for observable changes in brain anatomy,<sup>11</sup> gene expression,<sup>12,13</sup> and delays in social, emotional, physical, and cognitive development lasting into adulthood.<sup>3-5,14-17</sup>

According to standardized measures, an estimated 61.5% of adults<sup>18</sup> and 48% of children<sup>19</sup> in the United States have been exposed to ACEs, with more than one-third of these having multiple exposures.<sup>18,19</sup> The wide-ranging negative associations between exposure to multiple ACEs and diminished adult and child health are well documented.<sup>14,19-22</sup> Most notable is the especially strong evidence linking ACEs with adult mental health problems including depression.<sup>22-28</sup> A robust literature also exists regarding the effect of ACEs on adult relational health (often assessed by whether adults report that they get the social and emotional support they need) and how diminished adult social and emotional support contributes to poorer adult physical and mental health.<sup>29-56</sup>

Beyond the extensive and growing body of research dealing with lifelong correlates of adversity, many prior studies identify resiliency factors and adaptive skills and interventions associated with improved child development and child and adult health outcomes.<sup>2,3,16,17,25-55</sup> For example, the Search Institute developed a list of “40 Developmental Assets” and demonstrated associations between the number of assets and both positive and negative outcomes.<sup>52</sup> A national population-based study<sup>53</sup> on child flourishing and resilience shows strong associations with levels of family resilience and parent-child connection for children with exposures to greater ACEs, poverty, and chronic conditions. Similar studies, such as those assessing the US Centers for Disease Control and Prevention (CDC)’s “safe, stable, and nurturing relationships” model, show similar findings.<sup>55</sup>

Despite these advances, standardized measures and the prevalence of positive childhood experiences (PCEs) at the population level for adults or children are still unknown. Yet prior studies, using data from small or nonrepresentative samples, have explored interactions between PCEs and ACEs.<sup>25,41,56</sup> For example, 1 study,<sup>41</sup> conducted by Kaiser Permanente and CDC investigators, analyzed a cohort of 4648 women. They found that adult reports of specific positive family experiences in childhood (including closeness, support, loyalty, protection, love, importance, and responsiveness to health needs) were associated with lower rates of adolescent pregnancy across all ACEs exposure levels.<sup>41</sup> The protective effects of reported interpersonal PCEs against mental health problems in adulthood have also been found among preg-

## Key Points

**Question** Are positive childhood experiences (PCEs) associated with adult depression and/or poor mental health (D/PMH) and adult-reported social and emotional support (ARSES) independent from adverse childhood experiences (ACEs)?

**Findings** In this cross-sectional study, adults reporting higher PCEs had lower odds of D/PMH and greater ARSES after accounting for ACEs. The associations of PCEs with D/PMH also remained stable when controlling for ARSES.

**Meaning** Positive childhood experiences demonstrate a dose-response association with adult D/PMH and ARSES after adjustment for ACEs; assessing and proactively promoting PCEs may reduce adult mental and relational health problems, even in the concurrent presence of ACEs.

nant women<sup>25</sup> and young adults<sup>56</sup> exposed to ACEs. Despite these findings, few subsequent studies on ACEs have simultaneously evaluated PCEs.

Collectively, prior studies on child development point to the importance of research focusing on PCEs, especially those associated with parent-child attachment, positive parenting (eg, parental warmth, responsiveness, and support), family health, and positive relationships with friends, in school, and in the community. Knowledge of whether retrospectively reported PCEs co-occur with ACEs and how PCEs interact with ACEs to effect adult mental and relational health is needed to inform the nation’s growing focus on addressing early life and social determinants of healthy development and lifelong health.

This study used data from the 2015 Wisconsin Behavioral Risk Factor Survey (WI BRFS), a representative, population-based survey,<sup>57</sup> to assess the prevalence of PCEs in an adult sample and evaluate hypothesized associations with adult mental and relational health across 4 ACEs exposure levels. This study builds on a 2017 *Health Outcomes of Positive Experiences* report<sup>58</sup> featuring bivariate findings from the 2015 WI BRFS associating individual PCEs with negative adult health outcomes. Here, we construct a PCEs cumulative score measure and use multivariable regression methods to assess the magnitude and significance of associations between this PCEs score and (1) adult depression and/or poor mental health (D/PMH) and (2) adults’ reported social and emotional support (ARSES). Separate assessment of associations was conducted for each of 4 ACEs exposure levels.

## Methods

### Population and Data

Data were from the cross-sectional 2015 WI BRFS, a representative, telephone survey of noninstitutionalized Wisconsin adults 18 years and older who speak English or Spanish (n = 6188).<sup>57</sup> The WI BRFS response rate was 45.0% (weighted American Association of Public Opinion Research median, 47.2%). The cooperation rate was 64.9% (weighted American Association of Public Opinion Research median, 68.0%). The 2015 WI BRFS core and state-added items data sets were linked.

Institutional review board (IRB) approval was not required because data are based on a survey conducted by a public agency and do not include personal health information. Respondent oral consent methods and construction of race/ethnicity variables used standard CDC BRFSS approved methods.

There were 18.1% to 21.1% missing cases for state-added ARSES, ACEs, and PCEs items. “Don’t know/refused” responses to these questions were 0.2% to 0.9%. A 10% missing value rate for the WI BRFSS state-added items is expected and is attributed to the administration of the core WI BRFSS survey by another state to Wisconsin residents who have out-of-state cellular phones. In these cases, the WI BRFSS state-added items were not available to be administered.<sup>59</sup> The remainder of missing cases were nearly all owing to respondent dropoffs prior to administering the ARSES, ACEs, and PCEs questions after administration of the core WI BRFSS. Differences in D/PMH prevalence rates between respondents and missing cases were not notable. See eTable 1 in the [Supplement](#) for additional details.

### Key Measures

#### Positive Childhood Experiences Score

The PCEs score included 7 items asking respondents to report how often or how much as a child they: (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 (not including those who did not attend school or were home schooled); (5) felt supported by friends; (6) had at least 2 non-parent adults who took genuine interest in them; and (7) felt safe and protected by an adult in their home. The PCEs score items were adapted from 4 subscales included in the Child and Youth Resilience Measure–28<sup>60</sup>: (1) 4 items from the Psychological, Caregiving subscale (see PCEs items 1, 2, 7, and 6 listed previously); (2) 1 from the Education subscale (PCEs item 4); (3) 1 from the Culture subscale (PCEs item 3), and (4) 1 from the Peer Support subscale (PCEs item 5). Items were designed in the Child and Youth Resilience Measure–28 for cultural sensitivity, and their validity was supported by associations with improved resilience.<sup>61</sup> Psychometric analyses confirmed use of a PCEs cumulative score. See eTable 2 in the [Supplement](#) for details.

#### Adverse Childhood Experiences

We used data from the standardized ACEs survey items defined by the CDC.<sup>62,63</sup> The ACEs measure included 11 ACEs items assessing recollections of childhood experiences of physical or emotional abuse or neglect, sexual abuse, and household dysfunctions such as substance abuse, parental incarceration, and divorce. As recommended by the CDC, items were coded using cumulative score groupings of 0, 1, 2 to 3, or 4 to 8 ACEs. Subjective reports of experiences in childhood are the intended construct for assessment of both PCEs and ACEs and not whether what is reported would be validated using objective assessments.<sup>64</sup>

#### Adult-Reported Social and Emotional Support

Adult-reported social and emotional support is assessed using a standardized single item, “How often do you get the social

and emotional support you need?” Response choices were “always,” “usually,” “sometimes,” “rarely,” or “never.” Based on previous research and analysis of this ARSES variable, this study separately evaluated “always” and “usually” responses and created a combined “sometimes/rarely/never” response category.<sup>45,47,48</sup>

#### Depression/Poor Mental Health

The D/PMH category was constructed using (1) the single item on depression asking whether a physician or other health professional “ever told you that you have a depressive disorder, including depression, major depression, dysthymia, or minor depression?”; and (2) a score of 14 or higher on the single item validated as an indicator of current poor mental health<sup>59,60,65,66</sup> that asked, “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?” Adults reporting either or both of these outcomes were included in the D/PMH variable.

#### Other Covariates

Demographic covariates included age (18–34 years, 35–54 years, 55–64 years, and 65 years or older), race/ethnicity (nonwhite or white/non-Hispanic), and annual income (less than \$25 000, \$25 000–\$49 999, \$50 000–\$74 999, and \$75 000 or more). Sample size and statistical power analysis findings required combining race/ethnicity subgroups into 2 categories for purposes of statistical analysis.

#### Analytic Methods

Prevalence rates for all variables were computed, and bivariate associations between individual PCE items and PCEs cumulative score groups and all other variables were evaluated using  $\chi^2$  tests. Iterative and recursive analyses confirmed independent variable construction and focused on confirmation of assumptions on the linearity and comparability of associations with study outcomes when ordinal (count) or cumulative score groupings of PCEs and ACEs were used. Cumulative score groups of 0 to 2, 3 to 5, and 6 to 7 PCEs and 0, 1, 2 to 3, and 4 to 8 ACEs were also selected to ensure adequate statistical power to detect meaningful associations. Such score groups also simplify reporting of results by narrowing the number of comparative groups requiring reporting. Interaction variables crossing PCEs by ACEs and PCEs by ARSES were also analyzed for each study outcome and supported decisions to assess PCEs, ACEs, and ARSES as independent (vs interacting) variables in regression models.

As noted, multivariable logistic regression analyses evaluated 2 association pathways between PCEs items and cumulative score groups and 2 outcome variables: (1) meeting criteria for D/PMH and (2) reports of “always” on ARSES. Regression models were adjusted for age, sex, race/ethnicity, income, and ACEs. Separate models were evaluated for each ACEs exposure level (0, 1, 2–3, and 4–8) to examine stability of associations across ACEs exposure levels. We further assessed the stability of associations between D/PMH and PCEs when ARSES were or were not controlled for in regression models. This was done to further understand more nuanced asso-

ciation pathways between PCEs and ARSES and their individual or interacting association with D/MPH. Additional sensitivity analyses of PCEs associations when ACEs were or were not included in models were also conducted. The survey data were weighted to be representative of the Wisconsin population. We used SPSS Complex Samples, version 24 (IBM Corporation) for data analysis.<sup>67</sup> A *P* value of .05 or less was used to determine statistical significance.

## Results

### Population Characteristics and Prevalence of Study Outcomes by PCEs

Demographic characteristics for the 2015 WI BRFSS mirrored the state population: 50.7% women and 84.9% white. About half (52.3%) reported 6 to 7 PCEs, more than half (56.7%) reported ACEs, 21.2% met D/MPH criteria, and more than half (55.1%) reported “always” to getting the social and emotional support they needed (ARSES). Nonwhite, younger, and lower-income adults reported fewer levels of PCEs (Table 1). Compared with those reporting 6 to 7 PCEs, adults reporting 0 to 2 PCEs had nearly 4 times higher prevalence of D/MPH (48.2% vs 12.6%) and were half as likely to report “always” to getting the social and emotional support they needed (33.0% vs 67.9%) (Table 2). Similar variations in prevalence were observed when each of the 7 PCEs items were separately evaluated for each study outcome (Figure 1 and Figure 2). As hypothesized and shown in these Figures, stronger associations emerged for cumulative PCEs scores.

The lowest adult D/MPH prevalences were observed for respondents reporting both 6 to 7 PCEs and either no ACEs (10.5%) or “always” on the ARSES variable (8.5%). Highest D/MPH prevalences were for those reporting 0 to 2 PCEs and either 4 to 8 ACEs (59.7%) or “sometimes/rarely/never” on the ARSES variable (61.7%). Yet, even among those reporting always getting needed social and emotional support, a subset reported 0 to 2 PCEs, and this group had 4 times greater prevalence of D/MPH compared with those reporting 6 to 7 PCEs (33.8% vs 8.5%). Likewise, 21.2% of those with 4 to 8 ACEs and 26.6% of those reporting “sometime/rarely/never” to the ARSES item nonetheless also reported 6 to 7 PCEs. (Table 1, Table 3, and eTable 3 in the Supplement).

### Association Pathway 1: PCEs and D/MPH

After controlling for ACEs, the adjusted odds of D/MPH were 72% lower (odds ratio [OR], 0.28; 95% CI, 0.21-0.39) for adults with the highest vs lowest PCEs scores (12.6% vs 48.2%). Odds were 50% lower (OR, 0.50; 95% CI, 0.36-0.69) for those reporting intermediate PCEs scores of 3 to 5 (25.1% vs 48.2%) (Table 2). Associations were similar in magnitude for adults reporting 1, 2 to 3, or 4 to 8 ACEs (Table 3).

### Association Pathway 2: PCEs and ARSES

The adjusted odds of “always” reports on the ARSES item were 3.53 times (95% CI, 2.60-4.80) greater for adults with the highest vs lowest PCEs scores. Adjusted odds of reports of “always” on the ARSES variable were not significant for adults

with intermediate PCEs of 3 to 5 (adjusted OR, 1.31; 95% CI, 0.97-1.78) (Table 2). Findings were similar across all ACEs exposure level subgroups (Table 3). Because PCEs and ARSES were strongly associated as hypothesized, we further examined whether each variable demonstrated an independent association with D/MPH and whether associations of PCEs with D/MPH remained stable when ARSES was included in regression models. Results showed that PCEs associations with D/MPH remained significant and changed only modestly when ARSES was included. Associations between ARSES and D/MPH also remained stable when PCEs were or were not included. See eTable 4 in the Supplement for details.

## Discussion

This study examined the prevalence of adult reports of both PCEs and ACEs in a statewide sample and found that PCEs both co-occur with and operate independently from ACEs in their associations with the adult health outcomes evaluated here. Findings also confirm the hypotheses that PCEs may exert their association with D/MPH through their association with ARSES. However, PCEs maintained an association with D/MPH independent from ARSES. Findings are both consistent with prior research showing that relational experiences in childhood are associated with adult social and relational skills and health<sup>3,15,56,68</sup> and also point to enduring effects of PCEs on D/MPH separate from their influence on adult ARSES.

While PCEs associations with D/MPH were substantial and similar for adults reporting ACEs, associations were not statistically significant for those reporting no ACEs. Insignificant findings may be owing to low sample sizes for respondents with no ACEs and fewer PCEs. Results still raise questions for further exploration. We hypothesize that PCEs may have a greater influence in promoting positive health, such as getting needed social and emotional support or flourishing as an adult. In turn, these positive health attributes may reduce the burden of illness even if the illness is not eliminated. This is consistent with prior research demonstrating a dual continuum of health whereby flourishing is found to be present for many adults despite concurrent mental health conditions.<sup>69</sup>

### Limitations

First, this study is cross-sectional and cannot confirm causal effects. Second, the 2015 Wisconsin adult population is less diverse than the United States as a whole. Third, PCEs focused on the domain of positive emotional experiences in interpersonal relationships. Other types of positive experiences, (eg, safe and supportive environments, nature or spiritual experiences, participation in activities, or accomplishment) require further study, highlighting the need to develop and test additional measures of PCEs. Fourth, we were not able to directly examine bias in reporting of PCEs among adults with depression, although studies show an absence of such biases for reports of ACEs.<sup>64,70</sup> Finally, the WI BRFSS did not assess overall well-being or flourishing.<sup>69</sup> As such, we were not able to assess whether PCEs affect positive adult health out-

Table 1. Study Population Characteristics and Prevalence of PCEs by D/PMH, ACEs, ARSES, and Demographic Characteristics

Population Characteristics (n = Unweighted Sample Size)	Statewide Population Prevalence Estimates		Prevalence of PCEs (n = 4926) <sup>a</sup>						P Value (Test of Independence)
			0-2 PCEs		3-5 PCEs		6-7 PCEs		
	Unweighted No.	Weighted %	Unweighted No.	Weighted %	Unweighted No.	Weighted %	Unweighted No.	Weighted %	
All respondents	6188	100	635	13.2	1606	34.5	2685	52.3	NA
D/PMH (n = 6187)									
Yes	1289	21.2	294	29.4	402	40.1	347	30.5	<.001
No	4898	78.8	341	8.7	1204	33.0	2338	58.3	
ACEs exposure levels (n = 4974) <sup>a,b</sup>									
0 ACEs	2275	43.3	106	4.9	567	27.3	1568	67.8	<.001
1 ACE	1142	23.0	100	8.3	406	38.6	625	53.1	
2-3 ACEs	967	19.9	174	18.5	400	42.1	390	39.5	
4-8 ACEs	590	13.7	255	39.4	232	39.4	100	21.2	
ARSES (n = 5021) <sup>a</sup>									
Always	2707	55.1	195	7.9	687	27.3	1743	64.8	<.001
Usually	1337	25.8	171	12.9	507	41.9	635	45.2	
Sometimes, rarely, or never	977	19.1	263	28.7	393	44.7	284	26.6	
Age (n = 6127), y									
18-34	977	28.8	98	13.0	267	37.9	350	49.2	.03
35-54	1737	33.0	201	15.6	407	31.9	748	52.5	
55-64	1426	17.6	169	12.6	389	36.0	613	51.4	
65 or older	1987	20.5	163	10.4	532	33.1	954	56.5	
Sex (n = 6188)									
Male	2720	49.3	248	11.9	763	36.3	1133	51.7	.09
Female	3468	50.7	387	14.3	843	32.8	1552	52.9	
Race/ethnicity (n = 6129)									
Nonwhite	757	15.1	107	17.0	208	44.7	233	38.3	<.001
White, non-Hispanic	5372	84.9	521	12.6	1385	33.1	2433	54.3	
Income level (n = 5461), <sup>c</sup> \$									
<24 999	1331	22.5	219	22.0	387	38.3	437	39.6	<.001
25 000-49 999	1511	27.8	168	14.9	431	36.9	631	48.3	
50 000-74 999	1010	18.9	83	9.7	288	39.1	465	51.3	
75 000 or more	1609	30.7	105	8.2	334	25.9	888	66.0	

Abbreviations: ACEs, adverse childhood experiences; ARSES, adult-reported social and emotional support; D/PMH, depression and/or poor mental health; NA, not applicable; PCEs, positive childhood experiences; WI BRFS, Wisconsin Behavioral Risk Factor Survey.

<sup>a</sup> A 10% missing value rate is expected and attributed to core WI BRFS survey administration to out-of-state cellular phone holders who never received the WI BRFS state added items.<sup>59</sup> The remainder were nearly all owing to respondent dropoffs prior to administering the ARSES, ACEs, and PCEs questions, which were administered after the end of the core WI BRFS. No

notable differences in prevalence of D/PMH were found between respondents and cases missing ARSES, ACEs, or PCEs data. See eTable 1 in the Supplement.

<sup>b</sup> The ACEs cumulative scores were created placing adults into categories of 0, 1, 2 to 3, or 4 to 8 ACEs based on their responses to the 11 ACEs items. Three sexual abuse items were combined into a single item, and alcohol and substance abuse items were presented as a single ACEs item.

<sup>c</sup> Income missing values rate was 11.7%.

comes as hypothesized. Sample size limitations may have resulted in false-negative findings in some cases.

## Conclusions

Overall, study results demonstrate that PCEs show a dose-response association with adult mental and relational health, analogous to the cumulative effects of multiple ACEs. Findings suggest that PCEs may have lifelong conse-

quences for mental and relational health despite co-occurring adversities such as ACEs. In this way, they support application of the World Health Organization's definition of health emphasizing that health is more than the absence of disease or adversity.<sup>71</sup> The World Health Organization's positive construct of health is aligned with the proactive promotion of positive experiences in childhood because they are foundational to optimal childhood development and adult flourishing. Including PCEs as well as positive health outcomes measures in routinely collected

**Table 2. Prevalence and Adjusted Odds Ratios of Adult D/PMH and Reports of “Always” on the ARSES Item by PCEs and Other Regression Model Variables**

Population Characteristics (Raw Sample Size)	Prevalence of D/PMH			Adjusted Odds Ratio (95% CI) for Meeting D/PMH Criteria	Prevalence of “Always” on ARSES Item			Adjusted Odds Ratio (95% CI) for Reports of “Always” on ARSES Item <sup>a</sup>
	Unweighted No.	Weighted %	P Value		Unweighted No.	Weighted %	P Value	
All Respondents	1289	21.2	NA	NA	2707	55.1	NA	NA
Positive childhood experiences (PCEs) (n = 4926) <sup>a,b,c</sup>								
0-2 PCEs reported	294	48.2	<.001	1 [Reference]	195	33.0	<.001	1 [Reference]
3-5 PCEs reported	402	25.1		0.50 (0.36-0.69)	687	43.6		1.31 (0.97-1.78)
6-7 PCEs reported	347	12.6		0.28 (0.21-0.39)	1743	67.9		3.53 (2.60-4.80)
Adverse childhood experiences (ACEs) (n = 4974) <sup>a</sup>								
No ACEs reported	252	11.9	<.001	1 [Reference]	1394	62.4	<.001	1.22 (0.88-1.69)
1 ACE reported	215	20.2		1.62 (1.18-2.21)	596	53.9		0.93 (0.67-1.30)
2-3 ACEs reported	294	9.2		2.40 (1.77-3.24)	439	47.6		0.90 (0.64-1.27)
4-8 ACEs reported	285	42.4		3.10 (2.20-4.37)	226	44.2		1 [Reference]
Age (n = 6127), y								
18-34	215	21.0	.01	1.09 (0.78-1.53)	408	56.8	.44	1.09 (0.84-1.42)
35-54	406	22.6		1.51 (1.10-2.06)	766	54.9		0.97 (0.76-1.23)
55-64	331	24.2		1.64 (1.20-2.24)	600	52.1		0.88 (0.69-1.13)
65 or older	332	16.9		1 [Reference]	911	55.8		1 [Reference]
Sex (n = 6188)								
Male	444	16.9	<.001	0.59 (0.47-0.74)	1189	55.3	.80	0.97 (0.81-1.17)
Female	845	25.5		1 [Reference]	1518	54.8		1 [Reference]
Race/ethnicity (n = 6129)								
Nonwhite	203	23.8	<.25	0.98 (0.67-1.42)	294	53.5	.64	1.19 (0.84-1.70)
White, non-Hispanic	1078	20.9		1 [Reference]	2391	55.2		1 [Reference]
Income level (n = 5461), <sup>d</sup> \$								
<24 999	454	33.3	<.001	2.91 (2.11-4.02)	465	47.8	<.001	0.67 (0.51-0.88)
25 000-49 999	340	22.6		1.76 (1.29-2.41)	667	53.4		0.81 (0.64-1.03)
50 000-74 999	172	18.4		1.43 (1.02-2.01)	458	54.3		0.81 (0.62-1.05)
75 000 or more	205	13.1		1 [Reference]	857	62.3		1 [Reference]

Abbreviations: ACEs, adverse childhood experiences; ARSES, adult-reported social and emotional support; D/PMH, depression and/or poor mental health; NA, not applicable; PCEs, positive childhood experiences; WI BRFS, Wisconsin Behavioral Risk Factor Survey.

<sup>a</sup> A 10% missing value rate is expected and attributed to core WI BRFS 5 survey administration to out-of-state cellular phone holders who never received the WI BRFS state added items.<sup>59</sup> The remainder were nearly all owing to respondent dropoffs prior to administering the ARSES, ACEs, and PCEs questions, which were administered after the end of the core WI BRFS. No notable differences in prevalence of D/PMH were found between respondents and cases missing ARSES, ACEs, or PCEs data. See eTable 1 in the Supplement.

<sup>b</sup> Without adjustment for ACEs, PCEs associations with D/PMH were 0.19 (95% CI, 0.14-0.25) and 0.40 (95% CI, 0.30-0.54) for adults reporting 6 to 7 and 3 to 5 PCEs vs 0 to 2 PCEs, respectively.

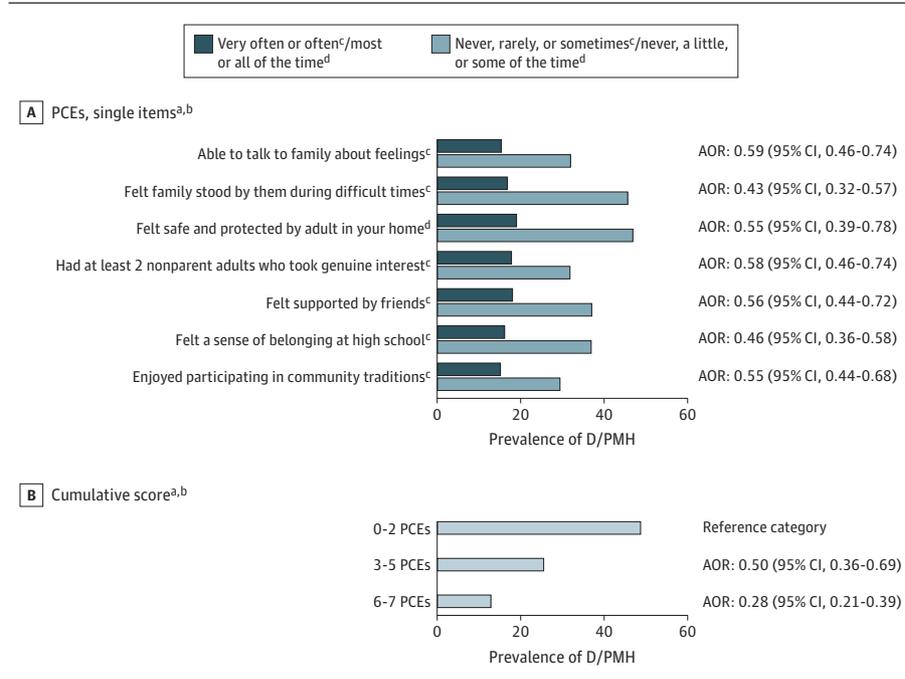
<sup>c</sup> Without adjustment for ACEs, PCEs associations with “always” on the ARSES variable were 3.83 (95% CI, 2.89-5.06) and 1.35 (95% CI, 1.01-1.81) for adults reporting 6 to 7 and 3 to 5 PCEs vs 0 to 2 PCEs, respectively.

<sup>d</sup> Income missing values rate is 11.7%. Income was not imputed for the WI BRFS by the Wisconsin Department of Health Services so federal poverty level could not be calculated.

public health surveillance systems, such as the National Survey of Children’s Health and state Behavioral Risk Factor Surveillance Surveys, may advance knowledge and allow the nation to track progress in promoting flourishing despite adversity or illness among children and adults in the United States.

Even as society continues to address remediable causes of childhood adversities such as ACEs, attention should be given to the creation of those positive experiences that both reflect and generate resilience within children, families, and communities. Success will depend on full engagement of families and communities and changes in the health care, education,

**Figure 1. Prevalence of Depression and/or Poor Mental Health Among Adults by Positive Childhood Experiences (PCEs) Single Items and Cumulative Scores**



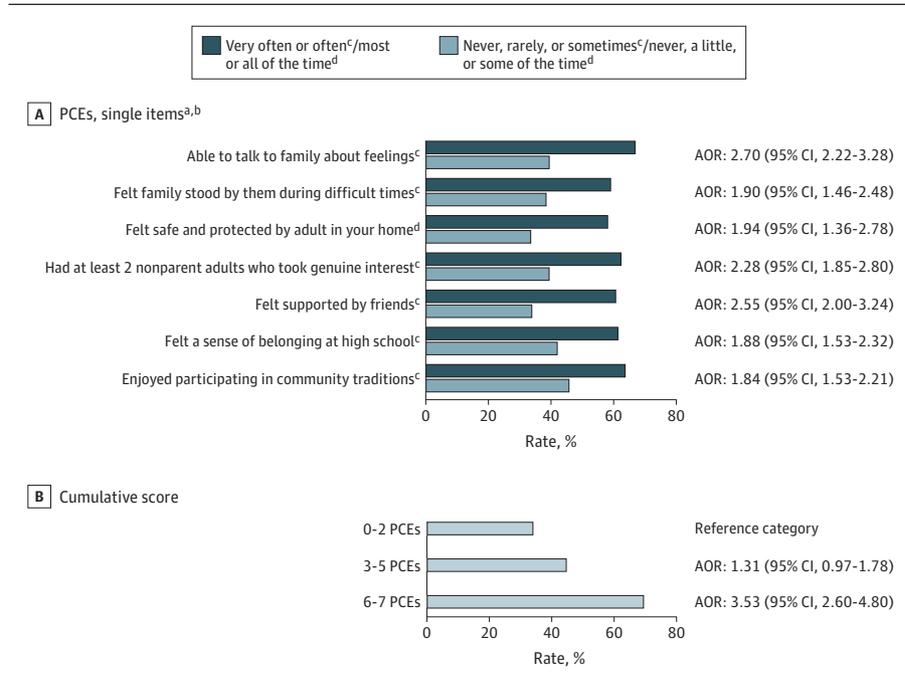
<sup>a</sup> Source: authors' analysis of the 2015 Wisconsin Behavioral Risk Factor Survey.

<sup>b</sup> Adjusted odds ratios (AORs) shown are adjusted for age, sex, race/ethnicity, income, and adverse childhood experiences.

<sup>c</sup> Never, rarely, or sometimes is the reference category.

<sup>d</sup> Never, a little, or some of the time is the reference category.

**Figure 2. Prevalence of Adult Reporting Always Receiving Needed Social Emotional Support by Positive Childhood Experiences (PCEs) Single Items and Cumulative Scores**



<sup>a</sup> Source: authors' analysis of the 2015 Wisconsin Behavioral Risk Factor Survey.

<sup>b</sup> Adjusted odds ratios (AORs) shown are adjusted for age, sex, race/ethnicity, income, and adverse childhood experiences.

<sup>c</sup> Never, rarely, or sometimes is the reference category.

<sup>d</sup> Never, a little, or some of the time is the reference category.

and social services systems serving children and families. A joint inventory of ACEs and PCEs, such as the positive experiences assessed here, may improve efforts to assess needs, target interventions, and engage individuals in addressing the adversities they face by leveraging existing assets and

strengths.<sup>72</sup> Initiatives to conduct broad ACEs screening, such as those ensuing in California's Medicaid program, may benefit from integrated assessments including PCEs.<sup>73</sup>

Recommendations and practice guidelines included in the *National Bright Futures Guidelines for Health Supervision of In-*

**Table 3. Prevalence of D/PMH and Reports of “Always” on the ARSES Item by PCEs Scores for Each of 4 Adverse Childhood Experiences ACEs Exposure Levels (0, 1, 2-3, or 4-8)**

Categories by ACEs and PCEs	Meets D/PMH Criteria <sup>a</sup>			Reports of “Always” to Getting Needed Social and Emotional Support (ARSES)		
	Unweighted No.	Weighted %	Adjusted Odds Ratio <sup>b</sup> (95% CI)	Unweighted No.	Weighted %	Adjusted Odds Ratio <sup>b</sup> (95% CI)
No ACEs reported						
0-2 PCEs	17	12.1	1 [Reference]	35	34.6	1 [Reference]
3-5 PCEs	86	15.8	1.15 (0.51-2.62)	266	47.3	1.58 (0.84-2.95)
6-7 PCEs	148	10.5	0.88 (0.42-1.87)	1072	70.5	4.18 (2.31-7.55)
1 ACE reported						
0-2 PCEs	35	45.7	1 [Reference]	38	30.9	1 [Reference]
3-5 PCEs	85	24.2	0.38 (0.17-0.83)	161	39.5	1.33 (0.68-2.62)
6-7 PCEs	94	13.4	0.21 (0.10-0.46)	390	67.6	4.93 (2.54-9.58)
2-3 ACEs reported						
0-2 PCEs	87	53.3	1 [Reference]	47	30.3	1 [Reference]
3-5 PCEs	131	31.4	0.47 (0.26-0.84)	167	43.9	1.65 (0.90-3.02)
6-7 PCEs	76	16.0	0.18 (0.10-0.34)	223	59.2	2.80 (1.53-5.13)
4-8 ACEs reported						
0-2 PCEs	155	59.7	1 [Reference]	75	35.1	1 [Reference]
3-5 PCEs	100	36.9	0.49 (0.28-0.84)	93	41.7	1.19 (0.69-2.03)
6-7 PCEs	29	20.7	0.23 (0.11-0.46)	56	65.6	3.37 (1.66-6.84)

Abbreviations: ACEs, adverse childhood experiences; ARSES, adult-reported social and emotional support; D/PMH, depression and/or poor mental health; PCEs, positive childhood experiences.

cumulative score category (0-2, 3-5, and 6-7) at  $P < .01$ .

<sup>b</sup> Adjusted odds ratios adjusted for age, sex, race/ethnicity, and income.

<sup>a</sup> Prevalence of D/PMH varied across levels of ACEs within each PCEs

*fants, Children, and Adolescents*<sup>74</sup> and the CDC’s *Essentials for Childhood* initiative<sup>9</sup> encourage policies and initiatives to help child-serving professionals and programs to adopt effective approaches to promote the type of PCEs evaluated in this study. The *Health Outcomes of Positive Experiences* framework<sup>48</sup> and the Prioritizing Possibilities national agenda for promoting child health and addressing ACEs<sup>75</sup> each seek to advance existing and emerging evidence-based approaches<sup>44,45,47,48,50,54,76,77</sup>

that promote a positive construct of health in clinical, public health, and human services settings. This study adds to the growing evidence that childhood experiences have profound and lifelong effects. Results hold promise for national, state, and community efforts to achieve positive child and adult health and well-being by promoting the largely untapped potential to promote positive experiences and flourishing despite adversity.<sup>53,78</sup>

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**REFERENCES**

- Lamb ME, Lerner RM. *Handbook of Child Psychology and Developmental Science: Socioemotional Processes*. Vol 3. 7th ed. Hoboken, NJ: John Wiley & Sons Inc; 2015.
- Masten AS, Barnes AJ. Resilience in children: developmental perspectives. *Children (Basel)*. 2018;5(7):98. doi:10.3390/children5070098
- Raby KL, Roisman GI, Fraley RC, Simpson JA. The enduring predictive significance of early maternal

- sensitivity: social and academic competence through age 32 years. *Child Dev.* 2015;86(3):695-708. doi:10.1111/cdev.12325
4. Hoppen TH, Chalder T. Childhood adversity as a transdiagnostic risk factor for affective disorders in adulthood: a systematic review focusing on biopsychosocial moderating and mediating variables. *Clin Psychol Rev.* 2018;65:81-151. doi:10.1016/j.cpr.2018.08.002
  5. Shonkoff JP, Garner AS; Committee on Psychosocial Aspects of Child and Family Health; Committee on Early Childhood, Adoption, and Dependent Care; Section on Developmental and Behavioral Pediatrics. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics.* 2012;129(1):e232-e246. doi:10.1542/peds.2011-2663
  6. Ainsworth MD, Blehar MC, Waters E, Wall S. *Patterns of Attachment: a Psychological Study of the Strange Situation.* Hillsdale, NJ: Lawrence Erlbaum Associates, Inc; 1978.
  7. Rees C. Childhood attachment. *Br J Gen Pract.* 2007;57(544):920-922. doi:10.3399/096016407782317955
  8. Thiebaut de Schotten M, Cohen L, Amemiya E, Braga LW, Dehaene S. Learning to read improves the structure of the arcuate fasciculus. *Cereb Cortex.* 2014;24(4):989-995. doi:10.1093/cercor/bhs383
  9. US Centers for Disease Control and Prevention National Center for Injury Prevention and Control. Essentials for childhood: steps to create safe, stable, nurturing relationships and environment. 2014. <https://www.cdc.gov/violenceprevention/pdf/essentials-for-childhood-framework508.pdf>. Accessed February 5, 2019.
  10. Sege RD, Harper Browne C. Responding to ACEs with HOPE: health outcomes from positive experiences. *Acad Pediatr.* 2017;17(7S):S79-S85. doi:10.1016/j.acap.2017.03.007
  11. McEwen BS, Bowles NP, Gray JD, et al. Mechanisms of stress in the brain. *Nat Neurosci.* 2015;18(10):1353-1363. doi:10.1038/nn.4086
  12. Essex MJ, Boyce WT, Hertzman C, et al. Epigenetic vestiges of early developmental adversity: childhood stress exposure and DNA methylation in adolescence. *Child Dev.* 2013;84(1):58-75. doi:10.1111/j.1467-8624.2011.01641.x
  13. Boyce WT. Epigenomics and the unheralded convergence of the biological and social sciences. Agency for Healthcare Research and Quality, Rockville, MD. <https://www.ahrq.gov/sites/default/files/publications/files/population-health.pdf>. Accessed October 2, 2019.
  14. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) study. *Am J Prev Med.* 1998;14(4):245-258. doi:10.1016/S0749-3797(98)00017-8
  15. Jones DE, Greenberg M, Crowley M. Early social-emotional functioning and public health: the relationship between kindergarten social competence and future wellness. *Am J Public Health.* 2015;105(11):2283-2290. doi:10.2105/AJPH.2015.302630
  16. Slopen N, Chen Y, Priest N, Albert MA, Williams DR. Emotional and instrumental support during childhood and biological dysregulation in midlife. *Prev Med.* 2016;84:90-96. doi:10.1016/j.ypmed.2015.12.003
  17. Chen Y, Kubzansky LD, VanderWeele TJ. Parental warmth and flourishing in mid-life. *Soc Sci Med.* 2019;220:65-72. doi:10.1016/j.socscimed.2018.10.026
  18. Merrick MT, Ford DC, Ports KA, Guinn AS. Prevalence of adverse childhood experiences from the 2011-2014 behavioral risk factor surveillance system in 23 states. *JAMA Pediatr.* 2018;172(11):1038-1044. doi:10.1001/jamapediatrics.2018.2537
  19. Bethell CD, Newacheck P, Hawes E, Halfon N. Adverse childhood experiences: assessing the impact on health and school engagement and the mitigating role of resilience. *Health Aff (Millwood).* 2014;33(12):2106-2115. doi:10.1377/hlthaff.2014.0914
  20. US Centers for Disease Control and Prevention. ACEs study: violence prevention. <https://www.cdc.gov/violenceprevention/acestudy/>. Published April 1, 2016. Accessed October 6, 2018.
  21. Burke NJ, Hellman JL, Scott BG, Weems CF, Carrion VG. The impact of adverse childhood experiences on an urban pediatric population. *Child Abuse Negl.* 2011;35(6):408-413. doi:10.1016/j.chiabu.2011.02.006
  22. Lehman BJ, Taylor SE, Kiefe CI, Seeman TE. Relationship of early life stress and psychological functioning to blood pressure in the CARDIA study. *Health Psychol.* 2009;28(3):338-346. doi:10.1037/a0013785
  23. Chapman DP, Whitfield CL, Felitti VJ, Dube SR, Edwards VJ, Anda RF. Adverse childhood experiences and the risk of depressive disorders in adulthood. *J Affect Disord.* 2004;82(2):217-225. doi:10.1016/j.jad.2003.12.013
  24. Hayashi Y, Okamoto Y, Takagaki K, et al. Direct and indirect influences of childhood abuse on depression symptoms in patients with major depressive disorder. *BMC Psychiatry.* 2015;15:244. doi:10.1186/s12888-015-0636-1
  25. Chung EK, Mathew L, Elo IT, Coyne JC, Culhane JF. Depressive symptoms in disadvantaged women receiving prenatal care: the influence of adverse and positive childhood experiences. *Ambul Pediatr.* 2008;8(2):109-116. doi:10.1016/j.ambp.2007.12.003
  26. Poole JC, Dobson KS, Pusch D. Childhood adversity and adult depression: the protective role of psychological resilience. *Child Abuse Negl.* 2017;64:89-100. doi:10.1016/j.chiabu.2016.12.012
  27. Copeland WE, Shanahan L, Hinesley J, et al. Association of childhood trauma exposure with adult psychiatric disorders and functional outcomes. *JAMA Netw Open.* 2018;1(7):e184493. doi:10.1001/jamanetworkopen.2018.4493
  28. Young-Wolff KC, Alabaster A, McCaw B, et al. Adverse childhood experiences and mental and behavioral health conditions during pregnancy: the role of resilience. *J Womens Health (Larchmt).* 2019;28(4):452-461.
  29. Cohen S. Social relationships and health. *Am Psychol.* 2004;59(8):676-684. doi:10.1037/0003-066X.59.8.676
  30. Uchino BN. Social support and health: a review of physiological processes potentially underlying links to disease outcomes. *J Behav Med.* 2006;29(4):377-387. doi:10.1007/s10865-006-9056-5
  31. Shor E, Roelfs DJ, Yogev T. The strength of family ties: a meta-analysis and meta-regression of self-reported social support and mortality. *Soc Networks.* 2013;4(35):626-638. doi:10.1016/j.socnet.2013.08.004
  32. Schüssler-Fiorenza Rose SM, Eslinger JG, Zimmerman L, et al. Adverse childhood experiences, support, and the perception of ability to work in adults with disability. *PLoS One.* 2016;11(7):e0157726. doi:10.1371/journal.pone.0157726
  33. Reblin M, Uchino BN. Social and emotional support and its implication for health. *Curr Opin Psychiatry.* 2008;21(2):201-205. doi:10.1097/YCO.0b013e3282f3ad89
  34. Strine TW, Chapman DP, Balluz L, Mokdad AH. Health-related quality of life and health behaviors by social and emotional support: their relevance to psychiatry and medicine. *Soc Psychiatry Psychiatr Epidemiol.* 2008;43(2):151-159. doi:10.1007/s00127-007-0277-x
  35. Brinker J, Cheruvu VK. Social and emotional support as a protective factor against current depression among individuals with adverse childhood experiences. *Prev Med Rep.* 2016;5:127-133. doi:10.1016/j.pmedr.2016.11.018
  36. Cheong EV, Sinnott C, Dahly D, Kearney PM. Adverse childhood experiences (ACEs) and later-life depression: perceived social support as a potential protective factor. *BMJ Open.* 2017;7(9):e013228. doi:10.1136/bmjopen-2016-013228
  37. Grav S, Hellzèn O, Romild U, Stordal E. Association between social support and depression in the general population: the HUNT study, a cross-sectional survey. *J Clin Nurs.* 2012;21(1-2):111-120. doi:10.1111/j.1365-2702.2011.03868.x
  38. Brody GH, Yu T, Beach SR. Resilience to adversity and the early origins of disease. *Dev Psychopathol.* 2016;28(4pt2):1347-1365. doi:10.1017/S0954579416000894
  39. Banyard V, Hamby S, Grych J. Health effects of adverse childhood events: identifying promising protective factors at the intersection of mental and physical well-being. *Child Abuse Negl.* 2017;65:88-98. doi:10.1016/j.chiabu.2017.01.011
  40. Biglan A, Van Ryzin MJ, Hawkins JD. Evolving a more nurturing society to prevent adverse childhood experiences. *Acad Pediatr.* 2017;17(7S):S150-S157. doi:10.1016/j.acap.2017.04.002
  41. Hillis SD, Anda RF, Dube SR, et al. The protective effect of family strengths in childhood against adolescent pregnancy and its long-term psychosocial consequences. *Perm J.* 2010;14(3):18-27. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2937841/>. doi:10.7812/TPP10-028
  42. Boyce T. *The Orchid and the Dandelion.* New York, NY: Knopf Publishing; 2019.
  43. Cadet JL. Epigenetics of stress, addiction, and resilience: therapeutic implications. *Mol Neurobiol.* 2016;53(1):545-560. doi:10.1007/s12035-014-9040-y
  44. Leslie LK, Mehus CJ, Hawkins JD, et al. Primary health care: potential home for family-focused preventive interventions. *Am J Prev Med.* 2016;51(4)(suppl 2):S106-S118. doi:10.1016/j.amepre.2016.05.014
  45. Rayce SB, Rasmussen IS, Klest SK, Patras J, Pontoppidan M. Effects of parenting interventions for at-risk parents with infants: a systematic review and meta-analysis. *BMJ Open.* 2017;7(12):e015707. doi:10.1136/bmjopen-2016-015707

46. Southwick SM, Charney DS. The science of resilience: implications for the prevention and treatment of depression. *Science*. 2012;338(6103):79-82. doi:10.1126/science.1222942
47. Traub F, Boynton-Jarrett R. Modifiable resilience factors to childhood adversity for clinical pediatric practice. *Pediatrics*. 2017;139(5):e20162569. doi:10.1542/peds.2016-2569
48. National Scientific Council on the Developing Child. Supportive relationships and active skill-building strengthen the foundations of resilience: working paper 13. <http://www.developingchild.harvard.edu> Published 2019. Accessed March 5, 2019.
49. Shonkoff JP. Capitalizing on advances in science to reduce the health consequences of early childhood adversity. *JAMA Pediatr*. 2016;170(10):1003-1007. doi:10.1001/jamapediatrics.2016.1559
50. Leitch L. Action steps using ACEs and trauma-informed care: a resilience model. *Health Justice*. 2017;5(1):5. doi:10.1186/s40352-017-0050-5
51. Schaefer LM, Howell KH, Schwartz LE, Bottomley JS, Crossniece CB. A concurrent examination of protective factors associated with resilience and posttraumatic growth following childhood victimization. *Child Abuse Negl*. 2018;85:17-27. doi:10.1016/j.chiabu.2018.08.019
52. Bleck J, DeBate R. Long-term association between developmental assets and health behaviors: an exploratory study. *Health Educ Behav*. 2016;43(5):543-551. doi:10.1177/1090198115606915
53. Bethell CD, Gombojav N, Whitaker RC. Family resilience and connection promote flourishing among US children, even amid adversity. *Health Aff (Millwood)*. 2019;38(5):729-737. doi:10.1377/hlthaff.2018.05425
54. Marie-Mitchell A, Kostolansky R. A systematic review of trials to improve child outcomes associated with adverse childhood experiences. *Am J Prev Med*. 2019;56(5):756-764. doi:10.1016/j.amepre.2018.11.030
55. Schofield TJ, Lee RD, Merrick MT. Safe, stable, nurturing relationships as a moderator of intergenerational continuity of child maltreatment: a meta-analysis. *J Adolesc Health*. 2013;53(4)(suppl):S32-S38. doi:10.1016/j.jadohealth.2013.05.004
56. Kosterman R, Mason WA, Haggerty KP, Hawkins JD, Spoth R, Redmond C. Positive childhood experiences and positive adult functioning: prosocial continuity and the role of adolescent substance use. *J Adolesc Health*. 2011;49(2):180-186. doi:10.1016/j.jadohealth.2010.11.244
57. Wisconsin Department of Health Services/Centers for Disease Control and Prevention. *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2015.
58. Sege R, Bethell C, Linkenbach J, Jones J, Klika B, Pecora PJ. *Balancing Adverse Childhood Experiences With HOPE: New Insights Into the Role of Positive Experience on Child and Family Development*. Boston, MA: The Medical Foundation; 2017.
59. Chowdhury P, Pierannunzi C, Garvin WS, Town M. Health behaviors and chronic conditions of movers: out-of-state interviews among cell phone respondents. *BRFSS* 2014. *Surv Pract*. 2018;11(2). doi:10.29115/SP-2018-0010
60. Liebenberg L, Ungar M, LeBlanc JC. The CYRM-12: a brief measure of resilience. *Can J Public Health*. 2013;104(2):e131-e135.
61. Ungar M, Liebenberg L, Boothroyd R, et al. The study of youth resilience across cultures: lessons from a pilot study of measurement development. *Res Hum Dev*. 2008;5(3):166-180. doi:10.1080/15427600802274019
62. National Center for Injury Prevention and Control. BRFSS Adverse Childhood Experiences (ACE) module. [https://www.cdc.gov/violenceprevention/acestudy/pdf/brfss\\_adverse\\_module.pdf](https://www.cdc.gov/violenceprevention/acestudy/pdf/brfss_adverse_module.pdf). Accessed February 5, 2019.
63. Child Abuse & Neglect Prevention Board, Children's Hospital of Wisconsin. The influence of adverse childhood experiences on the health of Wisconsin citizens in adulthood (revised version). 2016. [https://preventionboard.wi.gov/Documents/WisconsinACEBrief%282011-13%29WEB\\_9.16.pdf](https://preventionboard.wi.gov/Documents/WisconsinACEBrief%282011-13%29WEB_9.16.pdf). Accessed October 11, 2018.
64. Rohner RP, Khaleque A, Cournoyer DE. Parental acceptance-rejection: theory, methods, cross-cultural evidence and implications. *Ethos*. 2005;33(3):299-334. doi:10.1525/eth.2005.33.3.299
65. Moriarty DG, Zack MM, Kobau R. The Centers for Disease Control and Prevention's Healthy Days Measures: population tracking of perceived physical and mental health over time. *Health Qual Life Outcomes*. 2003;1(37):37. doi:10.1186/1477-7525-1-37
66. Pierannunzi C, Hu SS, Balluz L. A systematic review of publications assessing reliability and validity of the Behavioral Risk Factor Surveillance System (BRFSS), 2004-2011. *BMC Med Res Methodol*. 2013;13(49):49. doi:10.1186/1471-2288-13-49
67. Corp IBM. Released 2016. IBM SPSS Statistics and SPSS Complex Samples for Windows, Version 24.0. Armonk, NY: IBM Corp.
68. Schor EL. Why becoming a good parent begins in infancy: how relationship skills are developed throughout the life course. <https://www.lpfch.org/publication/why-becoming-good-parent-begins-infancy-how-relationship-skills-are-developed-throughout>. Published January 3, 2018. Accessed March 5, 2019.
69. Agenor C, Conner N, Aroian K. Flourishing: an evolutionary concept analysis. *Issues Ment Health Nurs*. 2017;38(11):915-923. doi:10.1080/01612840.2017.1355945
70. Frampton NMA, Poole JC, Dobson KS, Pusch D. The effects of adult depression on the recollection of adverse childhood experiences. *Child Abuse Negl*. 2018;86:45-54. doi:10.1016/j.chiabu.2018.09.006
71. Misselbrook D. W is for wellbeing and the WHO definition of health. *Br J Gen Pract*. 2014;64(628):582. doi:10.3399/bjgp14X682381
72. Leitch L. Positive and Adverse Childhood Experiences Survey (PACES): threshold global works. <https://www.thresholdglobalworks.com/portfolio-items/paces-survey/>. Published March 2017. Accessed March 5, 2019.
73. California Pan Ethnic Health Network. Governor Newsom's budget makes important investments in health equity and prevention. <https://cpehn.org/blog/201901/governor-newsom%E2%80%99s-budget-makes-important-investments-health-equity-and-prevention>. Published January 11, 2019. Accessed March 5, 2019.
74. Hagan JF, Shaw JS, Duncan PM. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. Elk Grove Village, IL: Bright Futures/American Academy of Pediatrics; 2017.
75. Bethell CD, Solloway MR, Guinosso S, et al. Prioritizing possibilities for child and family health: an agenda to address adverse childhood experiences and foster the social and emotional roots of well-being in pediatrics. *Acad Pediatr*. 2017;17(7S):S36-S50. doi:10.1016/j.acap.2017.06.002
76. Bloom SL. Advancing a national cradle-to-grave-to-cradle public health agenda. *J Trauma Dissociation*. 2016;17(4):383-396. doi:10.1080/15299732.2016.1164025
77. Bethell C, Gombojav N, Solloway M, Wissow L. Adverse childhood experiences, resilience and mindfulness-based approaches: common denominator issues for children with emotional, mental, or behavioral problems. *Child Adolesc Psychiatr Clin N Am*. 2016;25(2):139-156. doi:10.1016/j.chc.2015.12.001
78. VanderWeele TJ, McNeely E, Koh HK. Reimagining health-flourishing. *JAMA*. 2019;321(17):1667-1668. doi:10.1001/jama.2019.3035