Adverse childhood experiences (ACEs) and trauma in young children:
What we know and what we can do

Children's Mental Health eReview

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Extension Center for Family Development
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Adverse childhood experiences (ACEs) and trauma in young children: What we know and what we can do

CHILDREN'S MENTAL HEALTH eREVIEW

The Children's Mental Health eReview summarizes children's mental health research and applications for practice and policy.

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This issue of the *Children's Mental Health eReview* focuses on infant and early childhood mental health and is part of the larger Extension Scholar in Residence Program. Dr. Katie Lingras served as our 2018 Scholar in Residence and brought research expertise on early childhood mental health and development, trauma, adverse childhood experiences and intervention approaches for working with families of young children. Together with a team of professionals from University, state and community agencies, Dr. Lingras provided training on these topics for faculty, providers and parents in locations throughout Minnesota.

The *Children's Mental Health eReview* summarizes children's mental health research and implications for practice and policy. It addresses the gap between what we know from the literature and what we experience working with families. Each issue explores a specific topic area and reflects the expertise of a group of people working in various research and practice settings. This *eReview* issue is the product of a year-long process of collaborative work with research and community authors. Dr. Lingras is the primary author for this issue. Maya Griefer served as the Graduate Research Assistant for the Scholar in Residence program and co-authored the Research Section. Community authors Kiran Sheikh, Head Start/Early Head Start Community Action Partnership of Ramsey and Washington Counties, and Barb Fabre, Indigenous Visioning, lend their significant expertise in applying this research within community settings. All authors also served as planners or presenters at this year's Lessons from the Field seminar event, which was part of the first annual Minnesota Infant and Early Childhood Mental Health Multidisciplinary Conference. I am grateful to our event partners, the Minnesota Association for Children's Mental Health – Infant and Early Childhood Division (MACMH-IEC) and the University of Minnesota Center for Early Education and Development (CEED).

I want to thank our community partners, presenters, authors and team members who are dedicated to promoting infant and early childhood mental health and share here their wisdom, dedication and passion in serving our youngest children.

Cari Michaels

TERMINOLOGY

ACEs — Adverse Childhood Experiences (ACEs) are specific events experienced in childhood that include abuse, neglect, or household dysfunction. Studies have shown that exposure to one or more ACEs puts a child at risk for mental or physical health issues throughout their lifetime (Got Your ACE Score?, 2019).

Cumulative risk — Cumulative risk is determined by summing risk factors, much like the ACEs scores. The original cumulative risk index began with Rutter (1979) and included factors such as marital discord, low socioeconomic status, household overcrowding, paternal criminality, maternal psychiatric disorder, and child foster care involvement. Cumulative risk research also focuses on how to build resilience in children who have experienced these types of risks (Masten, 2018).

Protective factors — A protective factor is a "characteristic at the biological, psychological, family, or community (including peers and culture) level that is associated with a lower likelihood of problem outcomes or that reduces the negative impact of a risk factor on problem outcomes" (O'Connell, Boat, & Warner, 2009).

Promotive factors — Promotive factors are "assets, resources, relationships or strengths that appear to contribute in positive ways to good adaptation and development, regardless of risk level" (Southwick, Litz, Charney, & Friedman, 2011).

Resilience — Resilience is the ability to overcome adverse experiences or hardships experienced in childhood. According to the Harvard Center on the Developing Child, science has shown that some children develop resilience while others do not, or do not to the same extent (Center on the Developing Child, n.d.).

Toxic stress — Toxic stress is a biological response that can occur when any person experiences a prolonged period of exposure to adverse environments or experiences. This prolonged period of exposure can result in biological changes that can disrupt brain development or other bodily systems (Center on the Developing Child, n.d.).

Trauma — According to the National Child Traumatic Stress Network, a traumatic event is any "frightening, dangerous or violent event that poses a threat to a child's life or bodily integrity" (Peterson, 2018).

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BACKGROUND

The topic of Adverse Childhood Experiences, or ACEs, has recently become more salient in the popular press and in health fields. ACEs include childhood abuse, neglect, and/or household dysfunction that is experienced prior to age 18. California Surgeon General Dr. Nadine Burke-Harris has identified toxic stress and ACEs as a statewide public health concern and it is likely that other states will follow, building on research that calls for attention to ACEs from the earliest years of childhood. The first Adverse Childhood Experiences (ACEs) study was published in 1998 (Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, Marks, 1998). In the 20 years following, research on ACEs, trauma, adversity and resilience has expanded and informed discussion about the importance of ACEs and their impact on child development and later health.

However, there is still much that is unknown. What information, perspectives, and voices are left out when we talk about ACEs? What is the difference between ACEs and trauma? How might our understanding of ACEs be informed by research in related fields? While the study of ACEs as its own field is relatively new, the related concepts of cumulative risk and resilience offer decades of research and an opportunity to centralize knowledge across disciplines. Although not always identified as ACEs, these concepts offer suggestions for evidence-based practices and interventions to mitigate the effects of ACEs in children and families. This sets the

> What is the difference between ACEs and trauma? How might our understanding of ACEs be informed by research in related fields?

context for this issue of the *Children's Mental Health eReview*. Here, we present a summary of current ACES research and are joined by community authors who explain how this research affects their daily work and experiences with children and their families.

ACES RESEARCH — WHAT DO WE KNOW?

Stress, trauma, and ACEs represent several ways in which young children's development can go awry. To fully understand their impact, it is important to first understand Early Childhood Mental Health (ECMH). ECMH, also referred to as social-emotional development, refers to a young child's ability to: (1) form close and secure relationships, (2) experience, express, and regulate emotions, and (3) explore the environment and learn. All of these occur in the context of family, community, and cultural expectations for young children (Zero to Three Task Force, 2016). Broadly, these early experiences matter because they influence long-term physical and emotional health. The groundbreaking ACEs study conducted by Felitti and colleagues (1998) examined patient reports for a connection between childhood experiences and long-term physical and mental health outcomes. The first important finding from this research was the presence of three categories of *Adverse Childhood Experiences*, or "*ACEs*":

1. Childhood abuse (physical, sexual, and emotional)

2. Neglect (physical and emotional), and

3. Household dysfunction during childhood (parental mental illness, incarcerated relative, mother treated violently, parental substance abuse, and parental separation).

If a respondent indicated they experienced more than one of these events, they were identified as having been exposed to multiple adverse experiences (Felitti et al., 1998). An important finding from the initial study were the 'Three Cs' of ACEs:

- ACEs are *common*: More than 50% of respondents had experienced one or more ACEs. Most people had been exposed to at least one adverse experience prior to turning 18.

- ACEs *cluster*: Those who experienced one ACE were more likely to have experienced more than one ACE. Later studies examined how ACEs occur together particularly for people living in poverty; families who lack resources of time, money, and access to services are more likely to encounter adverse experiences.

- ACEs are *cumulative*: The more ACEs a child experiences, the more likely that child is to experience health and behavior concerns and the stronger those concerns are likely to be – this is called a dose-response relationship (Felitti et al., 1998).

A second important finding of this study relates to health risks later in life. People in the study who had experienced one or more ACEs had an increased risk of experiencing negative health behaviors and diseases in adulthood (Felitti et al., 1998). They were also more likely to engage in risky health behaviors and suffer from poor mental health as adults. Additionally, people who reported multiple types of ACEs were more likely to have higher morbidity and mortality than the general population. Since this groundbreaking study, more recent studies have confirmed these results (Wade, Shea, Rubin, & Wood, 2014). Felitti and colleagues made the argument that there were cascading effects across the lifespan, as depicted by the now-famous pyramid graphic (see Figure 1).
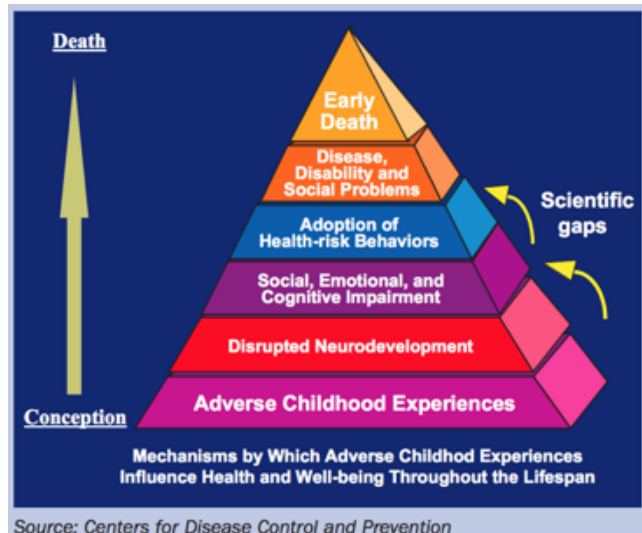
Figure 1. ACEs Pyramid

In general, early experiences of adversity impact brain development, which in turn can cause impairments in social skills, emotion regulation, and cognitive skills (e.g. Shonkoff & Philips, 2000). Over time, these deficits are associated with higher risk health behaviors and long-term risk for disease, disability, and social problems (for example, incarceration, poverty, etc.) (Felitti, 1998). Researchers have now replicated these findings and are studying similar associations with prospective reports, which are those that follow children over time rather than interviewing adults who recall ACEs from childhood (Wade, et al., 2014).

ACES RESEARCH — WHAT DON'T WE KNOW?

The growing pool of ACEs-related research has revealed more about their significance, but there is much we do not yet know.

Studies thus far have determined only associations. This means that the links between adverse experiences and long-term physical and social-emotional health outcomes are not causal; the presence of ACEs does not always result in negative outcomes, nor can the association be assumed automatically without understanding other contributing factors.

ACEs are not always traumatic.

Trauma is an emotional response to a terrible event (Peterson, 2018). It is important to note that "traumatic events are defined not only by the nature of the event but also the person's perception of it as

overwhelming" (Michaels, Borsheim., & Lohrbach, 2010). The presence of ACES does not always indicate the presence of trauma or a post-traumatic stress response for the individuals who experience them. The terms "adverse childhood experience" and "trauma" should not be used interchangeably.

ACEs questionnaires lack contextual meaning.

The "yes/no" items on ACEs questionnaires provide limited information about duration, timing and family context, all of which are important factors in determining the impact of an adverse experience on development.

- *Duration* — The length of time a child is exposed to an adverse experience matters. For instance, McKelvey and colleagues (2017) have shown that young children with consistent exposure to ACEs over time showed more limited cognitive ability, receptive language, aggressive behaviors, emotion regulation, and child health than those with lower exposure over time.

- *Timing* — When an adverse experience occurs during development is important. For example, significant brain development takes place between the ages of 0-3, and adverse experiences that occur during that period may also impact brain development in ways that have lasting effects (e.g. Shonkoff & Philips, 2000; Lieberman & Knorr, 2007). Further, Schalinski and colleagues (2016) demonstrate that the timing of an ACE can result in different types of symptoms. Specifically, ages 5-14 are identified as sensitive periods for associations between exposure to ACEs and mental health symptoms such as depression or PTSD. But, the type and specific timing of ACEs impact which mental health symptoms are most salient. Thus, the timing of these events can shape the way even higher numbers or severity of ACEs can impact long-term outcomes (Schalinski, Teicher, Nischk, Hinderer, Müller, & Rockstroh, 2016).

- *Dosage* — The number of times an event is experienced matters. For instance, the current ACEs questionnaires do not distinguish between a one-time experience or repeated experiences of abuse. Chronic or complex trauma can have a different course and treatment implications (e.g.

van der Kolk, 2005, Herman, 1992). Studies that distinguish single-incident trauma and on-going or repeated trauma also result in different types of mental health outcomes (e.g. Spinazzola, J., Ford, Zucker. Bessel, Silva, Smith, Blaustein (2017).; Cloitre, Stolbach, Herman, Kolk, Pynoos, Wang, & Petkova (2009).

ACEs questionnaires do not address resilience or the presence of protective factors.

Protective factors such as a supportive family environment, adequate housing, and access to health and social services can minimize the risk of adverse experiences (Bethell, Solloway, Guinosso, Hassink, Srivastav, Ford, & Simpson, (2017). The presence of protective factors can change a person's response to an adverse event, which in turn protects against long-term negative outcomes. On the other hand, risk factors such as poverty, parent mental illness, violent crime, and death of a parent or close loved one can increase the likelihood of a poor outcome (Garmezy, 1993; Luthar, 2003; Walker, Wachs, Grantham-McGregor, Black, Nelson, Huffman S.L., Baker-Henningham, Chang, Hamadani, Lozoff, Gardner, Powell, Rahman, & Richter 2011). It is important to note that protective and risk factors can change and do not stay the same throughout life.

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The exact definition of "resilience" has changed over the years and is often debated by academics, but the main idea has remained the same over time. According to Masten (2018), resilience refers to "the capacity of a dynamic system to adapt successfully

to disturbances that threaten the viability, the function, or the development of that system". When applied to children, resilience can refer to "achieving positive outcomes despite challenging or threatening circumstances, coping successfully with traumatic experiences, and avoiding negative paths linked with risks." (Zolkoski & Bullock, 2012). By definition, ACEs are examples of these challenging or threatening circumstances and are sometimes, but not always, traumatic experiences. Researchers continue to ask what causes one child to be more resilient than another. We know that "resilience is inhibited by risk factors and promoted by protective factors" (Zolkoski & Bullock, 2012) and recent studies have begun to illuminate the role of resilience in experiences of childhood adversity (Bellis, Hardcastle, Ford, Hughes, Ashton, Quigg, & Butler, 2017), but few guidelines are available to suggest how best to assess for resilience or protective factors. The website ACEs Too High (https://acestoohigh.com), a clearinghouse of literature related to ACEs, suggests using a protective factors questionnaire along with the ACEs questionnaire. Similarly, preliminary work identifies a set of parallel questions to include alongside the ACEs questionnaire. The Benevolent Childhood Experiences (BCEs) offers an opportunity to assess the positive life experiences of children with a history of adversity (Narayan, Rivera, Bernstein, Harris, & Lieberman, 2018). Though still in the early stages of research validation, this approach could help identify ways to support families in reducing the impact of ACEs. Importantly, researchers have noted that resilience is an ongoing and malleable characteristic of the individual (Zolkoski & Bullock, 2012; Masten, 2018), so even children who have experienced a high number of ACEs can benefit from building protective factors and strengths. Identifying ways to build resilience is essential to a complete understanding of how to reduce the impact of ACEs.

Little is currently known about how ACEs are understood and perceived across various contexts, cultures, and communities.

Non-white children may experience ACEs at higher rates, both nationally and in Minnesota (Felitti, et al., 1998). Non-white Minnesotan children are 3 to 4 times more likely to experience poverty, which inherently has more risk for ACEs due to limited access to healthcare, resources, and supports (Minnesota Department of Health, 2018). Symptom emergence may also vary across racial or ethnic groups, but this area has little research thus far (Youseff, Belew, Hao, Wang, Treiber, Stefanek, & Su, 2016) Since the initial 1998 study, subsequent studies have broadened what is considered an adverse childhood experience, to include, for example, exposure to community violence, discrimination, and peer victimization (Wade, Shea, Rubin, & Wood, 2014). More recently, ACEs researchers such as Dr. Adiaha Spinks-Franklin have called for the inclusion of racism as an ACE that can impact both physical and mental health outcomes for children and adults (Vlessides, 2019). This broader definition better reflects the full experiences of many people. Due to the fact that marginalized cultural groups experience some of these risk factors more than others, more recent literature has focused on resilience within specific cultural groups. Utsey and colleagues (2007) state that "understanding factors that predict risk and resilience in African Americans requires an appreciation of the cultural beliefs, behaviors, and practices unique to this population". This in turn illuminates effective coping strategies within this population. Importantly, perceptions and experiences of "protective factors" vary within and between cultures. And in general, definitions of "adverse experiences", "trauma" or "mental health" vary widely across cultural contexts. In order to understand which protective factors result in positive outcomes, we must understand how the concept of ACEs fits with the beliefs and culture of specific communities.

The presence of ACEs as originally defined does not encapsulate the experience of historical trauma

Historical trauma is defined as "a complex and collective trauma experienced over time and across generations by a group of people who share an identity, affiliation, or circumstance" (Brave Heart, Chase, Elkins, & Altschul, 2011). This type of trauma is often experienced in the United States by indigenous or colonized people such as Native Americans and African Americans. However, historical trauma could be experienced by any group or family that has faced oppression and mistreatment of their community. According to Brave Heart and colleagues (2011), historical trauma is faced as a collective group and involves multiple generations of people. What makes it different from other types of trauma is that it can be present without a person actually facing the traumatic event. Epigenetic research, which examines gene expression, has shed light on the fact that experiences of trauma can be passed down through generations and lead to

vulnerabilities in future generations who were not present for the initial events.

More recent research has focused on the effects of historical trauma in combination with significant oppression and discrimination faced by colonized groups in their everyday lives. This has been called "cultural trauma" within African Americans communities (Eyerman, 2008). Instead of focusing solely on the historical aspects of trauma, cultural trauma studies examine the current and ongoing trauma as well (Maxwell, 2014). A family history of traumatic events coupled with everyday persistent racism can lead to significant mental and physical health issues (Sue, Capodilupo, Torino, Bucceri, Holder, Nadal, & Esquilin, 2007). Microaggressions are one form of oppression that people of color and underrepresented groups face in the United States. There is a wide range of microaggressions that are generally defined as "brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that
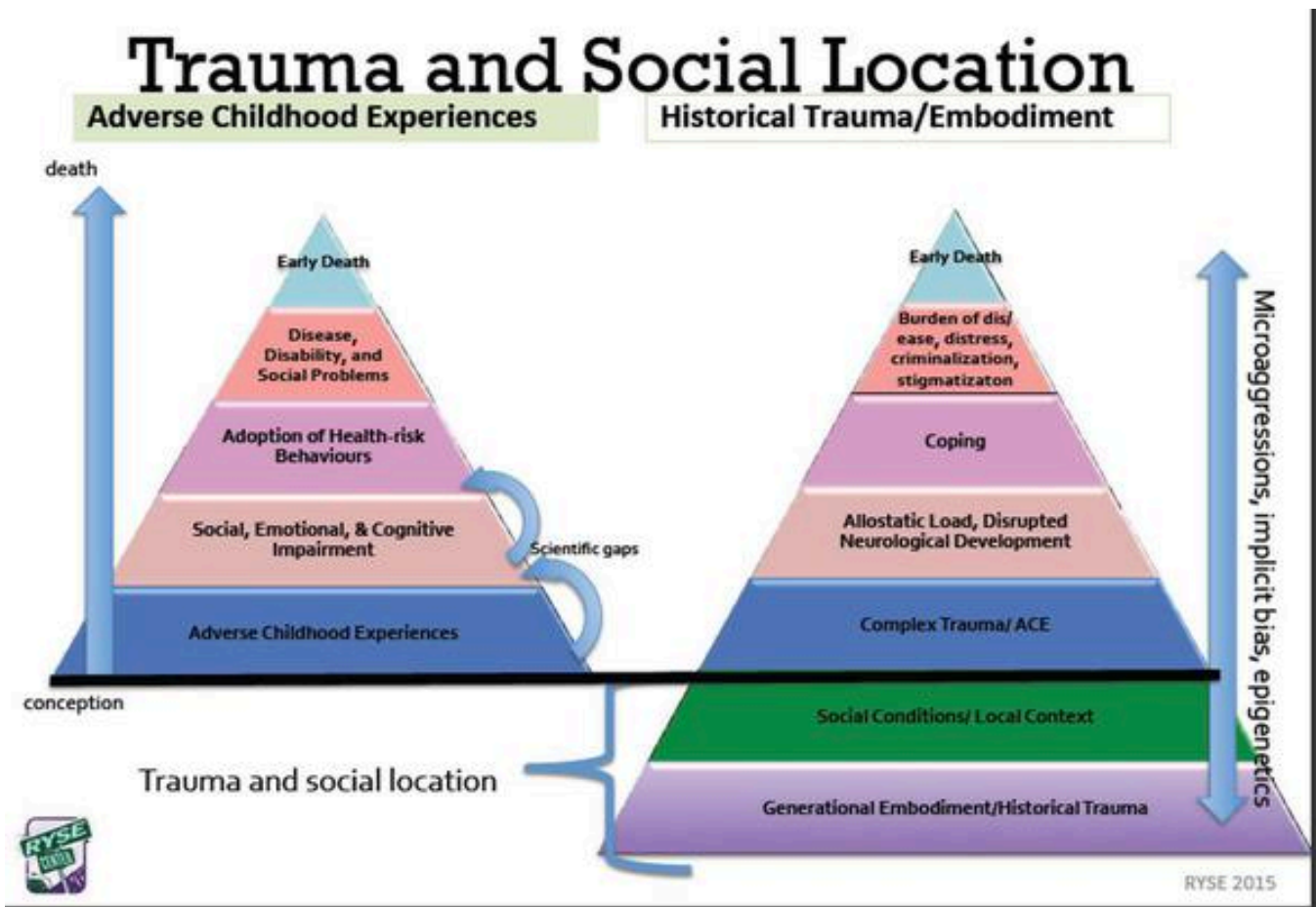

Figure 2. Expanded ACEs Pyramid

communicate hostile, derogatory, or negative racial slights" (Sue et al., 2007). In some communities, microaggressions are better described as implicit or explicit racism or discrimination. Many communities of color experience institutionalized or structural racism that has been in place for generations, and has been more recently understood to impact health inequities (e.g. Hardeman, Medina, & Kozhimannil, 2016). Although this topic is more frequently discussed in healthcare fields, it is rarely accounted for when discussing ACEs. The revised pyramid graphic in Figure 2 shows how historical trauma and social location (e.g., microaggressions, racism, discrimination, implicit biases) underlie the presence of ACES (Stevens, 2015). For example, parental incarceration is considered an adverse childhood experience (ACE), but addressing it without context leaves out the discriminatory and oppressive history many communities face regarding disparities in incarceration rates. Linking ACEs to physical and mental health outcomes without the consideration of historical trauma, discriminatory social conditions, and institutionalized racism ignores the presence of major contributing risk factors.

ACES IN PRACTICE — WHAT CAN WE DO?

Practitioners may be hesitant about discussing ACEs with families due to uncertainty about next steps. However, we know a great deal about adversity in childhood from earlier child development research that helps illuminate this. While the focus on ACEs is relatively new, the idea of adversity in childhood is not. The concept of a "high ACEs score" is very similar to the concept of cumulative risk, which has decades of research behind it. Cumulative risk is determined by summing risk factors, much like ACEs scores. The original cumulative risk index began with Rutter (1979) and included factors such as marital discord, low socioeconomic status, household overcrowding, paternal criminality, maternal psychiatric disorder, and child foster care involvement. The index identifies a threshold similar to current ACEs studies, with particularly negative outcomes noted in the presence of four or more risk factors. Later researchers created similar cumulative risk indices, which often included the same factors as the ACEs questionnaire (e.g. Hooper, Burchinal, Roberts, Zeisel, & Neebe, 1998; Masten & Wright, 2009; Obradović, Shaffer, & Masten, 2012). Many

studies since have identified links between cumulative risk and challenges in children's emotional and behavioral outcomes (e.g. Appleyard, Egeland, Van Dulmen, & Sroufe, 2004) language development (e.g. Stanton-Chapman, Chapman, Kaiser, & Hancock, 2004), and social and academic outcomes (Masten & Coatsworth, 1998; Cutuli, Desjardins, Herbers, Long, Heistad, Chan, Hinz, and Masten, 2013; Labella, Narayan, McCormick, Desjardins, & Masten, 2019). Many of these findings associating early adversity with negative emotional and behavioral outcomes are consistent with recent literature on ACEs. And in fact, some research on cumulative risk raises similar questions as ACEs research, such as considering individual types of adversities as compared to a simple numerical risk (ACEs) score (McLaughlin & Sheridan, 2016; Obradovic, et al., 2012).

Specifically, the field of cumulative risk offers suggestions for how to build and support resilience in the face of adversity (Wright & Masten, 2005). Individual child factors can be protective (Gewirtz & Edleson, 2007) and buffer children from adversity (Garmezy & Masten, 1994). These include temperament (Wachs, 2006), intellectual capacity (e.g. average or higher), and social competence. Family factors can also be protective (Gewirtz & Edleson, 2007; Rosanbalm & Murray, 2017). These include secure attachment to primary caregivers, cultural ties, and living in a supportive, safe, close-knit community. Many of these protective factors are now being replicated in emerging ACEs literature. For example, Yamaoka & Bard (2019) point to positive parenting as a protective factor, regardless of the number of ACEs experienced. While many of these factors may seem 'fixed' in that children come to providers and community-based settings with already established temperaments, intellectual capacities, family constellations, etc., some can be reinforced. For instance, promoting a growth mindset, which articulates that intelligence is malleable and can be strengthened rather than fixed (Dweck, 2016), allows for growth in persistence and intellectual capacity. Similarly, creating opportunities to explore new environments in a supported way can increase the flexibility of a child's temperament. We also know that children may vary in their sensitivity to context. 'Dandelion children' can flower in most any type of environment, while 'Orchid children' have

been described as being more sensitive to the environments in which they are placed (Kennedy, 2013). This model of Biological Sensitivity to Context (Boyce & Ellies, 2005) suggests that we need to understand more about biological markers. As we do so in the coming decades, we will learn about the biological mechanisms for increasing resilience. Below we describe several known ways to strengthen things like cultural ties, family and parenting relationships, and community ties.

Early Intervention

Intervention that supports physical, cognitive, language, and social development during the earliest years is the most effective (Guralnick, 2001; Pungello, Kainz, Burchinal, Wasik, Sparling, Ramey, & Campbell, 2010; Appleyard et al., 2004) and is offered in most states free of cost. However, many families and providers are not aware of Early Intervention services. Although mechanisms for providing the services may vary, children 0-3 (and in most states 0-5) are eligible for these services.

Home Visiting programs

Home visiting programs in which public health nurses conduct visits with families beginning either pre- and post-birth allow caregivers to learn how to support their baby's development (e.g. Lowell, Carter, Godoy, Paulicin, & Briggs-Gowan, 2011). The Nurse-Family Partnership is a well-established example of a home visiting program that supports first-time mothers from low-income backgrounds (Olds, Hill, O'Brien, Racine, & Moritz, 2003; Olds, 2006). Goals include improving mothers' prenatal health, improving child health and development by building parents' caregiving skills, and improving future family outcomes by helping parents plan future pregnancies as well as educational and work goals. Decades of randomized control trials in various communities have shown that this program reduces instances of child abuse and neglect, improves infant emotional and language development, improves maternal life course (e.g. workforce participation, reduced assistance on public assistance, food stamps, etc.), and reduces long-term incarceration and substance use rates of children of enrolled mothers (Olds, 2006). Based on these successes, HeadStart and other programs have incorporated home visiting components into their work.

Effortful control and executive functioning skills training (EC/EF)

Effortful control and executive functioning skills include things like working memory (being able to hold and manipulate information in your mind), inhibiting impulses, shifting between tasks, paying attention, thinking abstractly, and controlling emotional responses. Training children in EC/EF skills can help build resilience. For instance, training children in cognitive flexibility is related to expanded imagination and/or perspective-taking abilities (Carlson, White, & Davis-Unger, 2014). Espinet, Anderson, and Zelazo, (2013) found that training children in reflection and providing corrective feedback improved their performance in a task assessing executive functioning skills (Diamond & Lee, 2011). This type of training may also expand children's pretend play, imagination, and abstract thinking skills (Carlson & White, 2013), working memory (Thorell, Lindqvist, Bergman Nutley, Bohlin, & Klingberg, 2009), and inhibitory control (Dowsett & Livesey, 2000), which are all important for later social-emotional and academic learning.

Self-regulation skills

There are many ways to build self-regulation skills. The first step is to work with a child to "co-regulate", or help to soothe them. As children develop, they begin to model what they see and learn to regulate with less support. This can be as simple as rubbing a child's back or singing as you put them to bed. Programs aimed at preschoolers are being tested in order to solidify these skills prior to kindergarten and provide them with a strong foundation for academic learning. One example of this type of program is Adele Diamond's Tools of the Mind,

which integrates play-based activities into preschool classroom settings. By playing games similar to Simon Says, children are able to strengthen their self-regulation skills, which enhance both academic and social skills (Barnett, Jung, Yarosz, Thomas, Hornbeck, Stechuk, & Burns, 2008).

Positive parenting skills

Nearly every aspect of parenting affects young children, and risk and resilience research demonstrates that parenting quality can buffer the effects of adversity (e.g. Masten, 2001; Herbers, Cutuli, Lafavor, Vrieze, Leibel, Obradović & Masten, 2011; Cutuli & Herbers, 2014; Labella, et al., 2019). Some programs such as Circles of Security, Attachment Biobehavioral Catch-Up (Lind, Raby, Caron, Roben & Dozier, 2017), and Incredible Years Parenting Series (Webster-Stratton & Reid, 2002) strengthen parent-child attachment. Others such as Early Risers (Holtrop, Piehler, Gewirtz, & August, 2017) and Parent Management Training Oregon Model (Improving MI Practices) build parents' behavior management skills across multiple areas of development (Forgatch, Patterson & Gewirtz, 2013). Comprehensive descriptions of effective parenting programs may be found in several free databases. Two of the most common and comprehensive are the California Evidence-Based Clearinghouse for Child Welfare (http://www.cebc4cw.org/), which rates parenting programs that reduce parents' risk for child maltreatment, and the Substance Abuse and Mental Health Services Administration's National Registry of Evidence-Based Programs and Practices (http://www.samhsa.gov/nrepp), which includes effective parenting programs that reduce mental health and substance use problems in children (Forgatch, Patterson & Gewirtz, 2013).

Social-emotional skills and/or social competence

Young children can benefit from building social-emotional skills at every possible opportunity. This is particularly important for the child experiencing risk. Many early education programs have begun to explore ways to strengthen these skills within a classroom context. Small-group and parenting programs focus on helping individual children and parents develop these skills. Incredible Years and the Pyramid Model are examples of manualized programs that can be implemented in various

contexts (e.g. Webster-Stratton & Reid, 2004; Webster-Stratton, 2001; Reinke, Stormont, Webster-Stratton, Newcomer, & Hermab, 2012; Fox, Dunlap, Hemmeter, & Strain, 2003; Hemmeter, Snyder, Fox, & Algina, 2016; Mincic, Smith, & Strain, 2009).

Much more research exists to support these types of programs that build resilience and protect against adversity. Although many have not yet been specifically linked with ACEs, the risk factors identified as targets significantly overlap with what we have come to understand as ACEs. These types of programs provide specific practical next steps once ACEs have been identified in children or families.

CONCLUSION

In summary, the current and recent research on adverse childhood experiences has revealed risks for short- and long-term physical and emotional health. However, there is much we do not know and many factors that are often neglected. In this *eReview*, we highlight next steps for ACEs research. Various sectors that serve children are incorporating ACEs information and working to raise awareness. For instance, recommendations have been made by the American Academy of Pediatrics and others that children and families be screened for ACEs in pediatric well-child visits (American Academy of Pediatrics, 2014). This is important and represents a unique opportunity to identify and intervene early. When screening and referring, it is important to take into account the limitations discussed above as well as the recommendations suggested by cumulative risk literature. Further, several toolkits and guidelines for assessing and addressing ACEs are becoming available for use in primary care (American

Academy of Pediatrics, 2014). These protocols need not be limited to primary care, but should include home visitors, early care providers and educators, child welfare professionals and others. Interventions might be shaped differently with the knowledge of a history of ACEs, trauma and/or cumulative risk. Focusing interventions on two-generation work (i.e. parent/caregiver and child) is important. Identifying protective factors and the mechanisms to assess them informs our work with children and families in ways that motivate them, reinforce existing supports, and promote positive change. Finally, an understanding of historical trauma, cultural variation, and resilience are essential to contextualize and mitigate the impact of ACEs on development. As we expand our screening for and awareness of ACEs, it is essential to engage communities and individuals of color to provide perspectives informed by an understanding of historical trauma and varied definitions of mental health and wellness. Our community authors will add important perspectives reflecting their respective roles within early care and education, and home visiting.

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Over the years, the topic of trauma and adversity is one that has gained much awareness across multiple disciplines, including but not limited to mental health, medicine, and education. As the understanding of trauma and adversity and its impact on early childhood development unfold, programs such as Head Start and Early Head Start (HS/EHS) must work towards investing time and resources in creating a better understanding of the research and its implications towards program practice.

The HS/EHS program has always maintained an approach that acknowledges the importance of providing comprehensive services directly to children enrolled in their program, but also to the family of the child. The program focuses on early learning, health, and family well-being. More recently, the Administration for Children and Families under the U.S. Department of Health and Human Services has spearheaded the initiative to encourage the whole family, or two-generation, approach in service delivery mentioned in this research summary. This initiative allows and encourages programs to recognize the impact of family experiences on individual child development. This concept directly intertwines with the research presented in this *eReview* that suggests that adverse experiences early on in life, whether direct or indirect, can lead to long term impact on overall development.

This review of the research leads to three key implications for practice within the Head Start and Early Head Start communities:

1) a requirement for training of all staff on ACEs and trauma as it relates to their work with families

2) creation of systems, policies, and processes that address and recognize adversity and trauma occurring within families and communities in the HS/EHS program, and

3) a need for trauma informed practices across direct line program support staff and classrooms.

Because HS/EHS is based on community needs (e.g. homelessness, # of children in foster care, disability, unemployment, etc.), staff must be aware that most, if not all, families enrolling in the program have faced some form of adversity. Some of these adverse experiences may include homelessness, mental health needs, domestic violence, incarceration, toxic stress, death of a family member, as well documented or suspected child abuse or neglect. Often times, HS/EHS applications for enrollment include questions pertaining to the adverse situations listed above in order to determine child and family eligibility into the program. It is imperative, therefore, for all staff of the HS/EHS program to be trained on the potential impact and exposure of adverse experiences on child and family development. Trainings must be structured in a way in which staff are introduced to the information and encouraged to maintain a continued awareness of the research. A challenge, however, will be ensuring that the training of staff does not lead to a lens in which it is assumed that families dealing with adversity are automatically subject to trauma. As outlined in this *eReview*, there are limitations present in what we know about ACEs, one of which is that the presence of ACEs does not automatically result in negative outcomes. In addition, not all ACEs are considered traumatic. This information is pertinent to share

during trainings as it would prompt staff to contemplate the "big picture," taking into account adversities present as well as the presence of protective factors in each family system. Staff must be trained to learn about adverse experiences, learn ways to decipher whether these adverse experiences are viewed as traumatic by families, and use this awareness of ACEs and trauma to plan how to best support building resiliency within family systems.

It is clear through research on program implementation that training alone does not automatically lead to structural change. Programs, therefore, must utilize the information shared in trainings to guide their systems, policies, and procedures. As an example, HS/EHS programs may benefit from procedures during the enrollment process that require staff to engage families in conversations centered around adverse experiences. This may be presented as a questionnaire that staff and families complete and/or a qualitative summary that must be written describing the families' exposure to adverse experiences. Creating this process as part of the enrollment procedures would allow for staff to consistently keep their training on ACEs and trauma in mind when working directly with families and children. Additionally, and in response to the research presented, these questionnaires should include additional questions that inquire about protective and resilience factors present in family systems, as well as family perception of the adverse experiences. Including the aforementioned information would allow for staff to move away from assumptions that the presence of ACEs result in trauma, but allow for staff to more appropriately plan for needed services and supports for family and child success.

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An additional consideration for HS/EHS programs entails the use of trauma informed practices by direct line program support staff and classrooms. Through the completion of training and

implementation of processes and procedures to recognize ACEs and trauma, programs may then further begin utilizing practices to support families and children in the development of skills to promote resiliency. This will require a focus on social emotional skill development with an emphasis on building relationships and connections with children, families, and the communities in which they reside. As indicated in the emerging ACEs literature, the primary support for children and families experiencing adversity is caring and stable relationships. The use of evidence-based practices to promote social-emotional well-being across HS/EHS programs will provide staff with information, strategies, and practices to manage their adverse experiences and strengthen their resilience. Programs should, therefore, invest their time and resources in implementing models that promote social-emotional skill development such as the Pyramid Model Framework, Conscious Discipline, Incredible Years, etc. With a framework to identify practices that promote social-emotional development, staff may have an opportunity to better support children and families within their HS/EHS program.

Barb Fabre
CEO
Indigenous Visioning

The information in this *eReview* issue provides great historical context on ACEs research, the implications of ACEs for a child's development, and important resources such as early intervention, home visiting and positive parenting.

Over the last couple years, there has been an increase in awareness and training about ACEs for tribal early childhood educators that has influenced tribal child care, Head Start/Early Head Start and preschool programs. Providing frontline staff with a more comprehensive understanding of the causes of ACEs empowers staff to help reverse their effects with positive childhood experiences in the classroom. ACEs training also provides an understanding of behaviors. Instead of being frustrated with behaviors we can instead consider a child's or their parent's ACE score to help provide resources and support rather than discipline or expulsion. While awareness and training about ACEs is growing amongst professionals, the need to continue providing parents, grandparents and foster parents with this information is critical. If parents understood their own ACE score and its potential impact, it is sure to empower them to change how they parent and make an informed decision to change their child's life circumstances. Parents do not know what they do not know, and this holds true particularly around this current research. If we want to make positive change in parenting, we need to educate our parents at every possible opportunity.

Now that we know something about the "what" and "how" of ACEs, we need to work on reversing them. One way to do this is by empowering parents and frontline staff to create *positive* childhood experiences. This is a team effort. The risk of ACEs can be reduced if everyone who has children, cares for children or teaches children is educated on child development and brain development. If this training were offered, for example, in a required high school course, then we can increase the chances that young people will make better choices in life and in their parenting. This is how important this research is; it has the potential to change generations.

Within tribal communities, we know the impact of historical trauma on generations of children who were removed from their families to attend boarding schools. Parents couldn't parent, and children were being raised in sterile and sometimes hostile environments designed to strip the child's language and culture from them. Generations of this practice has changed our genetic make-up over the years. To reverse this and change outcomes, we have to ensure

that every single person understands ACEs and brain development. It can be that simple.

Until this becomes a course that is taught to every high school student, there are many things that states and tribes can do to help ensure that every adult they work with has some sort of ACEs and brain development training. When White Earth Reservation was selected by the State of Minnesota to participate in the federal Race-to-the-Top grant, they took the opportunity to require that all participants attend a two-hour child development class twice a year. Parents were also offered home-visiting services. The tribe made trainings convenient to attend by holding them during evenings or on Saturdays, and they provided food and mileage reimbursement. At first, some parents were concerned about this mandatory requirement, but at the first training, parents and caregivers enjoyed it so much that the class went an hour over the scheduled time and participants were already looking forward to the next one.

Knowledge is power, and by empowering parents, caregivers and teachers we can make a difference to future generations. In a recent article, Dr. Maria Yellow Horse Brave Heart stated 'We start with the assumption that our parents want to be good parents. All our parents love their children, but they haven't necessarily received parenting tools through their own childhood experiences' (Grunewald, 2017). This is a strong beginning for prevention and intervention in any community, but especially communities of color. There must be a more coordinated effort across systems to pass this knowledge to parents, expectant parents and others planning to parent if we truly want to change child outcomes. With the information in this *eReview* issue, parents will also understand the importance of high-quality early childhood programs and demand higher quality, for example, in child care. Taking this 'two-generation' approach of informed parents and caregivers and high-quality child care for children ensures positive childhood experiences for generations to come.

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