Building Resilience: Reducing the Impact of Adverse Childhood Experiences

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Shelter chronicles a frightening, stormy night for the animals in a forest (Claire & Leng, 2017). During the night, bears who are newcomers, ask for help and are turned away by the animal families who have hunkered down for the night, but little fox braves the storm to bring a lantern to the strangers. Later, when the fox den collapses, these bears share their shelter with the fox family. *Shelter* was featured by the Southern Early Childhood Association during 2019 and conveys the essence of actions which promote positive relationships. These are the same types of relationships which can promote resilience in early childhood.

Edith Grotberg (1995) reported results of an international resilience study across 14 countries with 589 children aged birth-11 years. Resilience was not a new subject then, she reported. Her definition of resilience was "a universal capacity which allows a person, group or community to prevent, minimize or overcome the damaging effects of adversity" (p 3). The study focused on what parents, caregivers, and children themselves do to promote resilience. More than 25 years later, we are still interested in the answers to these questions. Additional research and new technologies have enhanced our understanding of brain development, the role of stress, and the characteristics of human interactions in relation to resilience.

Impact of Stress on Children's Development

The development of young children can be disrupted by repeated stress because stress triggers a response which changes the chemistry of their bodies (National Scientific Council on the Developing Child (NSCDC), 2014). Everyone is susceptible to stress. The body's response is essential to prepare for a fight or to run away (fight or flight response) by increasing the heart rate, blood pressure, and stress hormones. As teachers of young children, we can relate to this response. We face pressures each day and often struggle to maintain self-control in the face of disagreements among children, tense interactions with parents or other staff, and serious health threats. How often do we remember that young children encounter the same stressful situations, yet have fewer resources to manage them?

Stress can be positive, tolerable, or toxic (Child Welfare Information Gateway, 2015; NSCDC, 2014). Positive stress has a helpful impact on our lives. For example, there is stress involved with entering a new childcare center or school, getting ready for a major life event like a wedding, or meeting a new employer. Such stress is common and, while uncomfortable, resolves in a reasonable time and often results in positive changes. Positive stress helps us grow and develop. Tolerable stress is difficult but does not damage growth and development in the long run. Examples of tolerable stress include the death of a loved one and

accidents or illness which can be healed. Tolerable stress can be endured and is helped by supportive relationships. Toxic stress is stress which is on-going and damages growth and development. Toxic stress results in developmental damage due to the strong, frequent chemical changes brought on by the body's stress response. Examples of toxic stress include child abuse and neglect, lack of safety such as domestic violence or violent neighborhoods, and chronic physical or mental health conditions.

Life experiences alter brain development. Neuroimaging methods such as magnetic resonance imaging have provided biological evidence about how the brain develops. When the brains of healthy children and those neglected are compared, there is a striking difference. Children abandoned in Romanian orphanages showed major differences compared to children placed in foster care or raised in families from birth (Nelson, et al., 2013). When the researchers evaluated brain activity, volume, and composition, they found that the institutionalized orphans had delayed brain development and less volume in both gray and white matter. These children also were found to have lower IQ scores. In another study, researchers at Emory University (Dias & Ressler, 2014) found that a first generation of mice subjected to olfactory fear conditioning had offspring with no conditioning for 2 generations that responded to the smell presented in the first generation. They found changes in the DNA of the mice which appear to carry the fear intergenerationally. These studies help us understand that exposure to toxic stress has long-term negative effects on children's development.

Early brain development is the foundation for later development, health, and relationships. Just as a house is built from the ground up, needing a sturdy foundation, human brains are built from the bottom up (Tennessee Commission on Children and Youth (TCCY), 2020). Without a sturdy foundation in the early years, brain architecture is compromised.

Adverse Childhood Experiences (ACEs) is used to describe stressful or traumatic experiences which threaten children's development. The term was coined by Felitte, et al. (1998) in a study conducted by the Centers for Disease Control and Kaiser Permanente exploring the link between childhood ACEs and later-life health. There were 13,494 Kaiser health plan members who completed standardized medical evaluations during 1995-1996. Participants were mailed a survey after their clinic visit that included questions about their childhood exposure to ACEs. Seven categories of abuse and household dysfunction were included: psychological, physical, and sexual abuse; and household dysfunction, specifically substance abuse, mental illness, mother treated violently, and criminal behavior. In a second wave of data collection, another 13,330 plan members received physicals and were sent a survey after their physicals. In this study eight ACEs were used – with parental separation or divorce added. In all, 17,337 adults returned surveys concerning their childhood exposure to ACEs (Brown, et al., 2009). Further sources have used 10-11 categories of ACEs and a number of ACEs surveys can be found (ACEs Connection Resource Center, 2019). It was discovered that ACEs were common across the population and that as the number of ACEs went up, so did the risk of chronic disease, risky behaviors, and lost life potential. These studies provide evidence that traumatic stress during childhood is related to behavioral and health problems during adulthood. National and state organizations as well as non-governmental non-profits use the ACEs framework today to promote the importance of early development in lifelong health and take action to reduce toxic stress and promote resilience (Centers for Disease Control and Prevention (CDC), 2020; TCCY, 2020).

Evidence does not support the conclusion that all children exposed to significant early stress will always develop stress-related disorders. The degree to which children are impacted by ACEs varies due to a variety of factors such as age and gender, severity and duration of exposure, and the presence or absence of supportive adults. ACEs create risk but are not fate. However, there is evidence that toxic stress does have the potential to impact a child's future outcomes (Centers for Disease Control Vital Signs, 2019; Tennessee Department of Health, 2015). Brain development is at the highest level during the early years. Stress can be damaging to health and well-being if activated too often or for too long (toxic stress). Adrenaline and cortisol are produced in response to stress and prepare the body to respond to adversity. Sustained or frequent stress can lead to impairment in brain architecture and developing organs affecting learning, memory, and self-regulation (NSCDC, 2014; NSCDC, 2020).

The social and economic outcomes associated with childhood exposure to adverse experiences is immense. A person with 4 or more ACEs is less likely to have health care coverage, and more likely to have a lower income and be out of work than a person with no ACEs. A person with 4 or more ACEs is less likely to graduate from high school and college than a person with 0 ACEs. Also, a person with higher ACE scores is more likely to have depression as well as experience more days of poor physical and mental health than someone with no ACEs (Tennessee Department of Health, 2015). Women and persons from several ethnic minority groups are at higher risk of experiencing ACEs than the general population (CDC, 2020). The social and economic costs to our country are estimated to be hundreds of billions of dollars each year. The impact of ACEs on one generation of parents continues to the next generation of children unless positive change occurs (CDC, 2019).

Building Resiliency

How do we reduce toxic stress and promote resilience for the children and families in our communities? ACEs are preventable. Safe, stable, and nurturing relationships help children reach their potentials and reduce the likelihood and harm linked to ACEs (CDC, 2019). Strategies include strengthening economic supports to families, promoting social values which protect against violence and adversity, ensuring a strong start for children, teaching social-emotional skills, connecting youth to caring adults, and intervening to lessen harm when it already has been experienced by children and families.

Clearly, early childhood professionals have an important role in ACE prevention. Resilience is built by supplying safe environ-

ments, giving caring attention, building trusting relationships, listening to feelings, responding in positive ways, and providing opportunities for success (Pizzolongo & Hunter, 2011). Home visitation programs such as Healthy Families and Nurse-Family Partnership help ensure healthy development and reduce the risk of child maltreatment. High quality childcare and early childhood enrichment programs which involve, and support parents reduce potential harm and promote healthy development. Teaching social-emotional skills helps children and young adults benefit when relationship skills and parenting skills are taught and supported (CDC, 2019).

Though many perceive resilience as solely an internal trait, science tells us environmental factors profoundly influence a child's capacity to be resilient. Resilience is built throughout development when a child consistently has safe, stable nurturing relationships and environments (NSCDC, 2015).

It is easier to get things right the first time by building a strong foundation both for strong houses and strong children than to try to re-build on an unsteady foundation. Supportive relationships and positive experiences during the early years of life are essential in shaping brain architecture, wiring the brain in a manner which allows the development of key abilities such as the ability to plan ahead and to monitor and regulate behaviors (NSCDC, 2015). Several decades of research have helped explain how some people are able to overcome major adversity and others are not. The most common factor for children who do well, despite the stress of adverse experiences, is having at least one stable, supportive relationship. Supportive relationships help children respond to adversity and thrive. Additionally, when caregivers actively help children develop skills to interact with others and to cope with stress, this capacity to manage stress lessens the effect of toxic stress – essentially transforming it to tolerable stress.

Building resiliency

How can we as early childhood professionals build resilience? Children must feel safe and secure, therefore, providing a positive, safe environment, with caring attention and trusting relationships for each child is a vital first step (Grotberg, 1995; Pizzolongo & Hunter, 2011; Sciaraffa, et al.,2018). Safe environments allow caregivers to interact with children using positive attitudes and listening to feelings. Providing responsive care and kindness leads to a trusting relationship. In a trusting relationship, individuals feel their voices are heard and develop the confidence to explore and do things independently. Providing opportunities for children's success can counteract negative experiences.

Infants and toddlers are in a stage of rapid brain development which sets a foundation for life-long relationships and learning. Positive interactions with young children facilitate brain development. Using stories and songs as well as verbally engaging children in routine daily interactions creates the foundation for later learning. The term serve and return is used to describe these back and forth interactions (Tennessee Department of Health, 2015). For example, a baby may serve by smiling or vocalizing and a caregiver returns by responding with a smile or talking to the child. These interactions continue, much like a dance, creating the foundation for later relationships and learning.

Children's development may be thought of as a scale or a see-saw with two sides, one negative and one positive (NSCCD, 2015). Toxic stress piles up the negative side of the scale and positive experiences on the other side can tip the scale the other way. A fulcrum, on which the scale balances, is set by inheritance. Children start with their fulcrums set in different places on the scale and this influences their responses to the weight of the experiences they have. But the fulcrum is not fixed, it can be shifted by life experiences. One way to move the fulcrum so that the scale is better able to bear the weight of negative experiences is to build the capacities needed to manage stress. Problem solving, regulating behavior, planning, adjusting to changes, and controlling impulses are examples of skills which reposition the fulcrum by loading the positive side of the scale. This can

Early childhood educators are an influential factor in the lives of children. (Photo courtesy of early childhood teacher, Malik Johnson.)

Table 1. How will building resilience look in the classroom for babies and toddlers?

Area of Focus	Daily Activities
Express Love Both physically and verbally	Hold babies when they are being fed, talk with them during diaper changes, notice and name babies' individual characteristics.
Acknowledge Feelings Watch carefully and name feelings	"You are happy, I see you smiling!" or "You are so mad that you have to wait for your turn with the truck!"
Keep Children Safe Monitor their efforts as babies and toddlers explore	Create classroom environments which invite exploration, are secure, and free of hazardous items. Introduce the concept of rules to older infants and toddlers. Rules make our classrooms safe for everyone. The toddler who hits to get a toy can be stopped and reminded "Hitting hurts, I want everyone in our class to be safe!"
Model Confidence and Optimism Create developmentally appropriate challenges for babies and toddlers	Create obstacle courses, and plan activities which present challenges, yet can be done with some effort. For babies, place a preferred toy nearby, just out of reach, encouraging the child to move to get it. Verbally describe what the child does and how you notice the effort, saying, "You are really reaching your hands out – look at how you have wiggled closer! You have it now; you got that dolly!" Toddlers love to climb. Create a classroom with climbing opportunities and encourage their climbing efforts.
Encourage Independence Allow children to make simple choices to promote autonomy	Young babies can make decisions about which toys they enjoy and when they are tired or hungry. Notice their decisions and honor them. For example, "You chose the truck." or "I thought you were sleepy, it looks like you are ready to play!" Toddlers love to make decisions. Offering limited choices, each of which are appropriate, brings toddlers great joy and provides decision-making practice. Give toddlers choices of books, toys, ways to wait for a turn, e.g.," While you wait for a turn, would you rather watch or play with puzzles?" Allow toddlers to help with tasks such as holding doors and putting away toys. Teach the steps for putting on jackets, taking them off, and hanging them up.

happen throughout our lifetimes, but it is more difficult to shift the fulcrum as children grow older. Therefore, it is important for early childhood educators to understand the incredible influence they can make in the lives of children in their care because they are able to help shift the fulcrum.

Practical suggestions to promote resilience in infant and toddler classrooms are shared in Table 1. Ideas to promote resilience in children ages 3-5 years are presented in Table 2.

The Center on the Social and Emotional Foundations for Early Learning (n.d.) provides resources for teachers, caregivers, and parents including videos, activities, books, and strategies to address challenging behaviors. Many materials are available in Spanish as well as English. Resilient children are problem solvers (Tartakovsky, 2016). Caregivers, teachers, and parents can help children develop resilience by not accommodating every need and allowing appropriate risks while keeping children safe. Teach children problem solving skills and specific skills to handle certain situations, for example, teaching children strategies to use to join play activities such as, "Can I play?" Be ready to make suggestions in case the child says "No." Use "How" questions rather than "Why" questions, for example, "How can you wait while your friend has a turn?" rather than "Why don't you ride a tricycle while you wait for a turn?" Allow children to come up with ideas rather than providing all the answers. Also, role-model resilience for children. Use problem solving and do your thinking out loud, admit mistakes, and strive to find good solutions as you help children travel through the ups and downs of childhood.

Ellen Galinsky (2020) provides further guidance about moving from trauma-informed care to asset-informed care. Reviewing

Table 2. How will building resilience look in the classroom for 3-5-year-olds?

Area of Focus	Daily Activities
Love and Respect Watch for children's skills and strengths	Acknowledge children with your attention and words. For example, "I noticed you put your puzzle away, thank you." or "You worked hard on that painting, I see 5 different colors." Appreciation for children's presence and being is helpful, for example, "I am so glad you are here today!"
Encourage Independence Create activities children can do with little or no adult help	Remember that preschool-aged children love to help. Find ways they can help with daily routines such as putting their own blankets out at naptime and setting their places and cleaning up after meals and snacks.
Have Reasonable Rules Post rules in the classroom	Remind children of the rules each day and notice when children follow the rules. Make sure that you can provide a short explanation for each rule. If you cannot explain it – do not have it. Rules are all about making the classroom a safe, secure environment for each child.
Empathy Role model empathy	Empathy is the art of understanding how another person may feel. For example, "You look like you are frustrated with that puzzle, let me see if I can help." or "I wonder if you are missing your Nana, you look sad." Read books about feelings to teach words which express feelings. Display pictures of children expressing their feelings at children's height in the classroom. Accept both positive and negative feelings. Help children find ways to express their feelings in appropriate ways; show children what empathy and caring look and sound like.

the effort to help professionals and the public understand the impact of trauma on children, she reminds us that it is possible to recover from the effects of toxic stress, that it is important not to use ACEs to stereotype, to remember the concept of the whole child – that people are more than what happened to them, and that we can do even better. We can do better by building on the assets and strengths of children and families. The route to doing this begins with ourselves. As human beings, caregivers, parents, and teachers, we have the power to change ourselves. Self-knowledge and self-reflection help us respond more thoughtfully to others. Galinsky urges us to observe children's behavior to understand what it is communicating. We cannot change children and families, but we can set up the conditions that allow them to change. Finally, Galinsky recommends that we seek the support we need and help families find resources they need, valuing relationships, helping children understand and regulate their feelings, and supporting children's autonomy. In short, using a collaborative problem-solving process helps children and families build on their strengths.

We can reduce the impact of ACEs and promote resilience. ACEs are not destiny (TCCY,2020). Some children are more susceptible than others to toxic stress. Adults play a buffering role for children against stress. Relationships with caring adults—parents, teachers, and caregivers—support children and promote resilience, tipping the balance of their lifelong development from negative toward positive outcomes.

Visual supports such as a schedule help children with decision making, a key element in becoming resilient.

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