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Early Childhood Education

How Teachers Can Support Young Children Who Experience Stress and Trauma

Helping

Them

Karen L. Peterson, PhD



Helping Them Heal

How Teachers Can Support

Young Children Who Experience

Stress and Trauma

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Helping Them Head

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Preface

Young children's need for engaging in creative, spontaneous play; having warm, caring interactions with interested and committed adults; and engaging in authentic activities, rich with experiences that pique intellectual curiosity, remains universal and unchanged. What has changed for a significant number of children, however, not only in the United States but across the globe, is the world in which children are growing up. These changes are marked by the exponential growth in information availability and use of technology, the continued rise in poverty with its limitations and barriers for families and communities, observable alterations to the natural environment, and a significant increase in the pace and complexity of life, even for young children. Accompanying these seemingly daunting realities are a multitude of positive changes and outcomes. What remains for many children is the issue of adapting to change while managing the intricate and complicated process of becoming a self-confident, self-reliant, and socially responsible individual. In short, growing up is more stressful than it once was.

For much of the past 25 years, stress and trauma has been a major focus of professionals in both the mental and physical health fields. Our awareness of the significance of its impact, as well as our general inability to successfully cope with stress, has been at the forefront of discussion and scientific investigation. Led by the innovative work that identified the adult-health outcomes from adverse childhood experiences, coupled with better diagnostic assessments of trauma effects, better understanding of chronic disease etiology, and greater agreement on the nature of developmentally appropriate practice, our appreciation of stress and its influence on children's development has become a topic of importance.

We know now that the number and kinds of experiences that are stressful and traumatic for young children are more widespread than previously known (or admitted) and that the detrimental effects of stress are more extensive and long lasting than we had imagined. Contemporary research and practice have provided well-documented scientific and clinical evidence that support the need to strengthen prevention initiatives and intervention strategies focusing on children and their families. Translating this information (both research and practice) is an important task for those of us who work with children in preschool, child care, and kindergarten-elementary school settings where many (if not most) of the children affected by stress are located.

Over the past five years, I have given several trainings for early childhood professionals on understanding stress, complex trauma, and their effects on the development of young children. There continued to be strong interest, especially as presentations became more centered on classroom practice. I gave one of these presentations at a preconference session at the annual conference sponsored by the National Association for the Education of Young Children (NAEYC) in November 2011, where the focus was on supporting children in classroom settings-those places where stressed children find themselves being taught and cared for by adults who may be unaware of their experiences and the powerful effects of stress on development. This book was written as an expansion of that session and focuses on understanding stress and trauma, how professionals might approach their work with affected children, and suggestions for practice. While the contents highlight some of the ways early childhood professionals can help reduce the negative effects of stress and trauma, it is by no means a complete guide.

This book approaches the topic of working with children affected by stress and trauma with three goals in mind:

- 1. Provide readers with a research-based foundation on stress.
- 2. Offer suggestions for classroom practice that are based on real-life conditions.
- Honor the work and commitment of early childhood professionals who give so much of their time, talent, and commitment to children.

Chapters 1 and 2 provide background on stress, trauma, and their impact on children's development. Chapter 3 outlines ideas and approaches for focusing adult interactions and program planning that may best provide support for children's resiliency skills. Chapter 4 provides a series of ideas and questions focused on creating classroom community and how it can support children affected by stress. The content of Chapter 5 emphasizes the critical need to strengthen children's self-regulation skills as part of a comprehensive process for reducing stress impact. Chapter 6 is about building self-competence and self-efficacy as key ways to foster resiliency. Chapter 7 provides information on using literature as a tool for understanding, with an annotated book list presented in Appendix B. A reference bibliography and annotated resource list of books and articles and websites providing current and relevant information is provided at the end of the book.

This book is not intended to be used as a curriculum plan or therapy guide. It is my hope that the information and perspectives will provide answers, ideas, options for practice, and encouragement to those who work with young children. This book is dedicated to the proposition that all children are entitled to a childhood where curiosity, engagement, nurturance, and connection are at the forefront of experiences and where mature, thoughtful, caring adults who respect children and childhood can serve as their mentors, protectors, and partners. Most importantly, this book has been written for those teachers, assistants, adult students, directors, specialists, and other caring adults who work on behalf of preschool- and kindergarten-aged children each and every day.

Helping Them Heal

Understanding Children's **Stress and** Trauma

Chapter





FIVE THINGS WE KNOW

- **1** Because a child's brain is growing and developing at such a rapid rate and is highly sensitive to overwhelming and disorganized sensory input, it is uniquely sensitive to the disruptive forces of stress and trauma.
- 2 The child's brain develops quickly, with the newest areas supporting increased cognitive and behavioral function. Stress causes a decrease in the effectiveness of these "most used" and newest areas.
- **3** Events that children experience do not have equal influence throughout development; there are periods where the brain is particularly sensitive to having too much or too little stimulation. This is especially true during the time when children are acquiring functional language skills.
- **④** Stress hormones in the brain change how neural connections are made. Pruning or making connections between different areas of the brain determines our uniqueness. Stress hormones affect connections among emotional regulation, communication, and problem-solving areas.
- **5** The child's brain is experience dependent—ordinary experiences of touch, sight, sound, and warm, engaging social connections with others are absolutely essential for building healthy connections among different parts of the brain.





Henry is four years old and has started his first month in Head Start. His biological father died during military service in Afghanistan when Henry was just two. His mother has recently remarried, and Henry now has an eight-year-old stepsister. His mother and new stepfather drink often on the weekends and argue loudly after Henry goes to bed. Sometimes no one is awake when he gets up in the morning. Henry has become more timid and also more angry and reactive with his stepfather and with other children in the apartment building where they live. His new stepsister is often angry and bullies him when no one is around. His grandfather (his biological father's father) visits and disapproves of his new stepfather and how Henry acts around him. Grandpa thinks Henry needs to "man up" and be more like his "real dad."

Many of us would consider Henry's situation to be stressful. Others may hold the opinion that arguing and fighting between parents is part of many children's lives. Children are considered hardy, resilient, and naturally equipped to adjust and move forward (Developing Child 2010; 2012a). The expectation is that events will be forgotten as the child enters school, makes new friends, and things settle down at home. While many people (usually those who are not familiar with the developmental needs of young children) do feel that stress in the lives of children is "just part of growing up," research and best practice provides a different picture (Chu and Lieberman, 2010). What we do know is that stress is experienced in different ways for children of all ages, as compared with adults. Its impact is significant, long lasting, and important to address in the early years of growth and development. Stress and its partner, trauma, are part of many children's childhood experiences. Understanding what stress is, what are its sources, and how it is described is an important part of learning more about the lives of children who spend so much of their time in early childhood programs.

What Is Stress?

Stress is a part of every person's life. Its effect on children, their development, and their resulting behavior is one of the major challenges for most early childhood professionals. Stressed children react in a variety of ways that can make daily life in early childhood classrooms a bit chaotic, tense, and exhausting! Moreover, we all have somewhat different understandings of what stress is and what creates stressful situations for children.

The concept of stress was first introduced in the early 1900s in relation to understanding changes in metals: when an external force is applied (a strain), stress is the outcome. The term was later applied in connection to behavior and mental health (Selye, 1956). Stress refers to a response to stimulus. A stressor is any stimulation that causes a reaction or response that is above and beyond what the person is expecting or with which that person has had prior experience. Stress responses can be caused by loud noises, excessive hunger, fear of the dark, or being asked to speak in front of a group. Regardless of what the specific stressor may be, stressors always cause an imbalance in how the person is functioning (Rice, 1992). The person is then forced to adapt to the change in balance; it is this process of adapting that is stressful. While all living creatures experience the effects of stress as they grow and develop, our responses to stress are highly individualized. How a three-year-old responds will be different from the way a sixyear-old may react when facing the exact same event or stressor. While there are typical responses to stress, such as jumping when the door suddenly slams, each individual responds in his own way. No two stress events are experienced in the same way.

Stress experiences can vary by a number of different criteria, based on how much impact stress experiences have had or may have on an individual. Stress experiences are often measured or described according to four criteria:

- 1. The amount of time that stress is experienced, from shortterm (acute) to long-lasting (chronic)
- 2. The extent to which stress experiences are considered as part of everyday life, from ordinary and routine to those that are truly extreme
- The level of impact or intensity, from positive (meeting a challenge that is within one's ability) to exceptionally negative (toxic)
- 4. The source of stress experiences, from internal (body pain, anxiety) to external (events happening directly and indirectly)

Developmental Stress

One way to better understand the effect of stress experiences on children is to consider the idea of developmental stress. Most early childhood professionals take a whole-child approach when looking at the developmental needs and abilities of young children (Hendrick, 2003). Additionally, we focus on attributes that children have within developmental domains: social, emotional, cognitive (including language), and physical (Bredekamp and Copple, 2009). The developmental "work" of a young child is twofold: to acquire skills and understandings in each of these domains and to coordinate these emerging abilities across domains.

Growth and change in each of these domains does not occur at the same rate. For example, it is typical for a four-year-old to have the physical skills of a five-year-old, the cognitive abilities of a four-year-old, but the social and emotional abilities of a three-anda-half-year-old. Those newly acquired skills or understandings are most vulnerable to loss when a child is stressed or when a child is required to function at a high level. Developmental stress can occur when a child is expected to respond to demands that overtax at least two of these developmental domains at the same time; for example:

1. Asking a five-year-old to compete in a relay race (new experience for her) where she is given the rules verbally

(cognitive task requiring sequential thinking, language decoding, and memory for a novel task),

- 2. where she is then expected to speed walk to the other end of the play field (novel task requiring control and concentration along with a coordinated cognitive task requiring estimation of distance and placement of the body in space),
- 3. while trying to ignore or respond to friends shouting from the sidelines (dual requirements for emotional and social engagement and "screening out").



The combination of skills needed to complete the relay-race task requires that each domain operate at a maximum or top-level capacity at the same time. For this experience, the child is asked to utilize cognitive problem solving, language interpretation, physical control and coordination, and social engagement for a single coordinated and integrated event. Most likely, this event would not be a positive experience for a child who has any degree of selfdoubt or inexperience. A negative outcome, such as not completing the race, forgetting the rules, being laughed at, or tripping, is an example of negative developmental stress. Negative reactions to developmental stress, which are usually very short term, decrease as children develop their skills and cognitive sophistication. Developmental stress is concerned with pushing those not-yetcoordinated domains beyond their capacity and explains why young children can be so easily thrown off-balance by seemingly "easy and fun" experiences.

Acute and Chronic Stress

Acute stress results from a single or limited experience; it is intense, sudden, and unexpected. Acute stress has an end, but it may vary in how long it takes to resolve. In most cases of acute stress, physiological balance is restored and children have the opportunity for recovery. For most children, their experiences with stress are usually acute. Responses to acute stress may occur immediately or may be somewhat delayed; for example, a child begins to get more clingy a day or two after a fire in her house. As the child develops an understanding of the event, she creates or uses familiar coping strategies to manage the disruption, fear, or unknown consequences of the event. Examples of acute stress include the following:

- undergoing medical tests or procedures,
- being chased or bitten by a dog,
- witnessing a car accident in which someone is hurt,
- nearly drowning,
- an encounter with a stranger who is drunk or mentally unstable, or
- getting lost for a period of time away from home.

Chronic stress includes experiences that are ongoing and pervasive. There is very little recovery time or opportunity to recover from repeated stress experiences. The types of events that occur in chronic stress are often unpredictable, multisensory, and occur within the child's immediate environment (Summers and Chazan-Cohen, 2012). Chronic stress experiences consist of multiple individual events, and it is the accumulation of these multiple experiences over time that results in a significantly different experience with stress.

The developmental characteristics of young children make them uniquely vulnerable to the persistent pressure, anxiety, and trauma that define chronic stress. Compared with those who undergo occasional acute stress, children who experience chronic stress face significantly greater negative outcomes. Of greater concern for many researchers and other clinical professionals is the understanding that much of the chronic stress children experience is at the toxic or traumatic level. Examples of chronic stress include the following:

- poverty and ongoing economic challenges,
- lack of essentials or other resources,
- community/neighborhood violence and the inability to escape or relocate,
- homelessness, even temporary,
- incarcerations or residential placement of parent or immediate family member,
- ongoing sexual, physical, or emotional abuse,
- chronic physical or emotional neglect,
- displacement, refugee status, or relocation,
- war and combat involvement or exposure,
- exposure to death, dying, and direct experience with grotesque images of events,
- witnessing violence in one's immediate environment, especially domestic violence,
- environmental devastation from floods, fire, earthquake, tornado damage, or toxic pollution.

Positive and Negative Stress

Stress is also referred to in terms of the intensity or degree of impact. It begins with mild or positive stress and then builds to negative or toxic levels, peaking to the point of trauma. Stress is a part of every person's life. Its effect on children, their development, and their resulting behavior is one of the major challenges for most early childhood professionals.

FIGURE 1A

Stress Types and Responses				
Mild or Positive Stress	Tolerable or	Toxic or	Trauma	
	Moderate Stress	Chronic Stress		
Push Forward	Concern, Anxiety	Hypervigilance, Fear	Terror,	
			flight-fight-freeze	

(adapted from Perry, 1997; 2007)



While mild stress can be a motivator to push forward to meet deadlines, finish projects, or keep on schedule, more forceful stress can have more serious consequences. The effect of mild or positive stress is temporary, and its impact usually disappears once the deadline is met or a transition is made.

For children, positive stress may occur when they are asked to put on coats to go outside or put toys or projects away when they are not finished playing, when they have to delay play until Dad is finished grocery shopping, or they are told to take a bath when clearly (from the child's point of view) it is not needed. All of these mild or positive stressors provide a structure and build a series of behavioral expectations for children that are part of the socialization process. These mild stressors are intense only in the short run. They are manageable and generally predictable or familiar.

Most children have the skills and dispositions to manage these ongoing mild stressors without any negative consequences. While children may seem to overreact to these minor events, mild positive stress events do not result in behaviors that become a part of a negative or inappropriate pattern of coping. Parents and teachers play an important role in helping children recognize their successes in overcoming mild stress and learning to evaluate their efforts and accomplishments.

When stressors become more intense, based on the individual's awareness and perceived threat, the level of stress still remains manageable and is considered tolerable. In this state, the reaction results in feelings of anxiety, worry, and concern, which remain with the child for a longer period of time. Anxiety and worry occur when the child is aware and has had enough previous (negative) experience that she remains in a state of anxiety and concern. The uneasiness and apprehension continue until the child's level of physical and emotional distress is reduced or the threat ends. Young children usually focus their anxiety and worry on a potential loss or the expectation of a repeated negative experience. For example, Mom begins a new job, and the routines at home change; or Uncle Manuel was angry when he picked me up last night. Will he be like that again today? These experiences are stress inducing because the child's reaction is focused on both stopping the physical feelings of loss or threat and worrying about the continuation of the experience in the future.

The next level of stress are those experiences so significant and pervasive (long lasting and/or intense) that they are toxic. Toxic stress experiences are so multisensory and intense that the child is unable to respond immediately or loses the ability to quickly regain a sense of balance and calm. The experiences of toxic stress create a physical and emotional reality of significant fear, ongoing threat, overwhelming physical and sensory stimulation, and instability.

What occurs for many children is a prolonged sensation of risk and fear that produces behaviors associated with hypervigilance. A hypervigilant child rarely relaxes and is on the lookout for more incidents of the initial stressor or stress event. This is especially true when the child experiences the same negative, intense event over time. In hypervigilance, the wariness and watchfulness take priority over playing with other children, eating with enjoyment, playing constructively, and ultimately trusting the intentions of other children and adults.

The last and most negative level of stress is that of trauma. Trauma stress is excessively intense, threatening, generally chaotic, overwhelming, and horrifying. As defined by Zero to Three (2012), *trauma* refers to "an event or events that involve actual or threatened death or serious injury to the child or others, or a threat to the psychological or physical integrity of the child or others." A child or adult who experiences a trauma event has little control over his physical and emotional responses to the event. The impact of this type of intense trauma is long lasting and can result in substantial physical and mental health issues for a developing child (Arnold and Fisch, 2011; Summers and Chazan-Cohen, 2012).

New research reveals that when toxic stress and trauma are experienced repeatedly, the impact on a child's development is significant and negative: the younger the child, the greater the negative impact (Arnold and Fisch, 2011). Events that are stressful for children, especially young children, are those which involve unexpected changes in their connections to other people and overwhelming negative sensory stimulation. Young children are not capable of "thinking through" stress and traumatic experiences; consequently, they receive a more intense effect than adults do.

Sources of Stress for Children

Any number of events, experiences, or actions of people can be stressful for children. Stressors can be physical, psychological (social-emotional-behavioral), and cognitive and are rarely "just physical" in nature. It is the association between the person and the experience that determines whether something is stressful. This is one reason why the same event to one person is experienced as "terrible" while the experience is thought to be "nonstressful" or "no big deal" by another.

What we do know is that stress-inducing experiences for children are different from those experienced by adults. These varying reactions are the result of the unique developmental characteristics that children possess. As children vary in age, temperament, experience, and cognitive style, they will differ in how they react to and respond to stress (Blaustein and Kinniburgh, 2010). Jason will experience the scary, barking dog next door differently at age three than he will at age six, simply because of his physiological maturity.

There are two major sources of stress for young children: internal and external (Jewett and Peterson, 2002). Within these two categories, any number of experiences can be stress inducing for children. Remember that some of the following experiences are considered acute while others are chronic. Children frequently experience combinations of acute and chronic stress simultaneously. For most children, the stressors are external but may result in symptoms and feelings of internal stress. The stressors listed below are grouped by similarity of event to help provide some sense of organization and clarity. This list is certainly not a complete one but offers ideas for thinking about children's stressors.

Sensory Input

- pain
- bright light or darkness
- loud and/or unpredictable noise
- significant change in temperature
- unpleasant smell
- being pushed, shoved, hit, or threatened in a loud or violent way



Self-Sufficiency Needs

- lack of control over food, water, clothing, and protection from weather
- unpleasant or toxic air quality
- unfit housing (place to sleep or play)
- having treatment for illness
- being confined in or abandoned in an unfamiliar place
- losing or having familiar objects taken away
- living in crowded conditions

Loss of or Change in Connection to Family and Familiar Friends

- incarceration
- death

- deployment
- separation or divorce
- parental mental health problems, such as depression, substance use or abuse
- abandonment
- remarriage
- new family members
- sibling loss (even temporary)
- death of a pet
- change in housing location
- going to a new school or child care program

Physical Injury*

- accidents
- acute or chronic illness
- abuse
- * Includes injury experienced by other people in immediate contact with the child.

Social Issues within a Community

- poverty, violence, and disorganization
- lack of access to transportation
- isolation and overt discrimination by others
- witnessing violence and threats to others
- constant change in the neighborhood's physical makeup, such as construction, building/demolition, traffic, population shifts
- poor, inadequate, and/or unsafe housing, water, and/or sanitation
- lack of access to safe play spaces

All of these stressors share the combination of physical and emotional factors. As a result, children's reactions to stress will be seen in their emotional responses, social behaviors, ways of thinking, and in their physical sensations. Since all developmental domains are affected when stress is experienced, a child's response reflects this whole-body-and-mind impact.

Stress as a Multisensory Experience

Because both negative and positive experiences can lead to stress reactions, it is the intensity and duration of the feelings of imbalance that result in negative outcomes. Many events of living can be stressful for both adults and children, but children find events that are new and unique to be more troubling than a similar event may be for an adult (Loy, 2010). For example, a noninjury car accident is stressful for everyone involved, but the events for an adult will have a different stress impact. For an adult, stress can be cognitive as well as emotional: Does my insurance cover this? What will I do while the car is being repaired? Will this go on my driving record? Why did this happen to me? Wow, my neck hurts! Now, I am going to be late to work!

For a child, however, the experience will be focused on the overwhelming sensory stressors: the sound of the impact and the ensuing sirens, physical disorientation from the abrupt jolt of the accident itself, seeing and feeling the fear or anger expressed by the person driving. A child may feel trapped in the car seat; experience anxiety about being in an unfamiliar place with adults who are upset and angry; or endure a long wait sitting on the side of the road or waiting in a car while being hungry, without a favorite toy to ward off boredom, or needing to use the bathroom. Then, the child may be afraid that this whole experience will happen again.

For children, stress is never about a single stressor (hearing an unexpected loud noise, feeling the pain of being spanked, responding to someone else's anger and anxiety about being late to school); it is always a multisensory event. Stress for children happens to multiple areas of development at the same time and as a result has a more overwhelming impact (Stanford and Yamamoto, 2001). Experiences do not have to be direct, such as being slapped, but can be equally stressful and disturbing when defined as indirect, such as hearing parents fighting, witnessing an older child being hit or physically bullied, or being evicted from one's home (Summers and Chazan-Cohen, 2012). The concept of stress was first introduced in the early 1900s in relation to understanding changes in metals: when an external force is applied (a strain), stress is the outcome. For example, children who live in significant poverty are indirectly affected by the lack of resources for clothes, stable housing, and transportation. However, the stress experienced by the adults who care for them, the feelings of hunger, or constantly moving from place to place are direct stress and trauma experiences. Children are overwhelmed by these kinds of complex experiences because they lack social experience with the world, have limited cognitive abilities to apply complex thinking to cause and effect, and lack a fully integrated neurological system, making them highly sensitive to changes in their physical and sensory environments (Blaustein and Kinniburgh, 2010; Chu and Lieberman, 2010).

Vulnerability to Stress

All children experience stress and are at risk for its more negative effects. The impact of negative stress may be intensified, however, by two factors: the nature of the stress itself and the individual characteristics of the child. Any child's response to stress is unique and an expression of his age, genetic vulnerability, temperament, and in some situations, gender. Response levels of arousal, sensory intensity, the strength of his attachment system, prior experience with stress, and lack of opportunity to interact with an environment that is nonstressful play a role as well (Chu and Lieberman, 2010). Very young children, especially infants and toddlers, are most vulnerable due to their developmental immaturity. They are unable to regulate physical and emotional responses or to understand the causes and circumstances of their negative experiences. The coping patterns and responses that are adopted by very young children carry forward into behaviors in the preschool and early school years.

TEMPERAMENT

Temperament refers to the ways a person responds and adapts to the events of daily life. A person's temperament is biologically based, appears in infancy, and is relatively stable throughout life. It is determined by how a person responds according to certain characteristics:

- degree of sensitivity to sensory stimulation
- intensity of response to stimulation and circumstance
- activity and movement level
- approach to or withdrawal from new situations
- persistence in continuing with activities
- predictability of patterns of sleep, activity, bodily functions (also called *rhythmicity*)
- overall quality of mood
- distractibility

Janice Katz identifies three types of temperament: easy, cautious, and difficult. A person's temperament is remarkably consistent across settings, so a child who is easygoing at home will generally be easygoing at school. Temperament plays a major role in children's capacity to adapt, make friends, and manage the effects of stress.

Measuring Stress

There are no specific medical tests to determine whether a child has experienced a certain type of stress. Experts do know that experiencing stress elevates the heart rate; increases shallow breathing; causes restricted blood flow to the arms and legs; increases blood flow in the trunk of the body; increases the presence of stress-related hormones; and reduces the activity in multiple sections of the brain that manage areas of problem solving, memory, sensory integration, and emotional regulation. At risk: having a greater potential of vulnerability to conditions and experiences that endanger or compromise health and development

Stress and trauma place children at risk for possible negative outcomes for all domains of development—social, physical, emotional, and cognitive. However, being at risk does not mean negative outcomes are certain, just more likely to occur (Osofsky, 2004).





Understanding the extent of a child's stress experiences (acute and tolerable versus chronic and toxic) is important when professionals are trying to determine the extent of a person's stress experiences or history. For adults, the Holmes and Rahe (1967) Social Readjustment Scale is frequently used (see Appendix A for an adapted copy). The scale lists multiple occurrences of life experience (for example, death of a spouse, loss of employment), and then assigns each a ranking of stress impact. The greater the total number of life-stress events, the greater that person's experience with stress is likely to be. More importantly, the greater the experience of stress, the greater its impact on the individual's physical and mental health and general well-being (Karr-Morse, 2012).

For children, one measure of stress experiences used by mental health professionals is the Trauma Symptoms Checklist for Young Children (Briere, 2005). It lists a number of life-stress experiences that are specific to childhood. This scale is used with elementaryaged children but is not generally used with preschool children. Self-report of experiences by parents and other significant adults is the method used in most settings for determining the extent of stress experiences and assumed impact for children. It is well known that traumatic and stress events that affect parents also affect their children (Chu and Lieberman, 2010). For early childhood professionals, it may be important to look beyond the experiences of the child and consider the experiences of the family as a primary source of information.

Complex Trauma: A Special Type of Stress

Complex trauma is the term for multiple stress-related life events experienced by a child. While similar to toxic or chronic stress, complex trauma describes a broader kind of negative experience that comes with multiple, repetitive events that occur within the intimate, caregiving circle between birth and five years of age. The effects are long lasting (O'Neill et al., 2010).

For example, we know that living in poverty results in multiple kinds of stress for many people, especially children. While stress is used to describe more specific responses to events, complex trauma focuses on understanding the integrated experiences of multiple kinds of negative events. Someone who has experienced complex trauma may have many experiences with violence, may have suffered corporal punishment as a child, may have lost a parent to death or incarceration, or may have endured prolonged poverty. The effect of these toxic experiences is cumulative. Medical researchers Robert Anda and Vincent Felitti developed the Adverse Childhood Experiences (ACE) Scale as part of a groundbreaking research study looking at health outcomes for adults. Items on the scale include such events as physical neglect, incarceration of a parent, and parental divorce. Studies indicate that adults who experienced at least four of these events show significant negative outcomes in mental and physical health in adulthood. It is not necessarily the intensity, duration, or potential physical negativity of these events, but the variety and total number in childhood that is associated with potential negative outcomes for adults (Arnold and Fisch, 2011; Blaustein and Kinniburgh, 2010). Multiple incidents with adverse childhood experiences have significant long-term health effects on individual well-being, capacity to manage relationships, significant risktaking behavior, engaging in healthy life choices, and securing and sustaining productive employment (www.acestudy.org).

A stressor is any stimulation that causes a reaction or response that is above and beyond what the person is expecting or with which that person has had prior experience.

Why Is It Important to Address the Impact of Stress on Young Children?

We know most children can adapt and recover from moderate levels of stress and show no known negative long-term outcomes. But, we also know that young children who experience persistent, especially toxic, or enduring tolerable stress will display behaviors that are often not constructive and are damaging to themselves and their relationships with others. Not only does stress force children to adapt in ways that may not be in their best interest, but stress effects also pose problems for their physical health. Children acquire and build responses to stress that become longterm coping strategies. These strategies will remain part of the child's behavioral repertoire because children have little control over how they respond and what they understand. These coping behaviors are resistant to change, and children often use them in situations where such strong reactions are not appropriate or even effective.

Persistent and toxic stress also impairs a child's ability to problem solve or to "read" the environment accurately and to move comfortably from one setting or event to another. These characteristics are long lasting and affect children's potential for leading productive social lives, learning in school settings, and understanding and managing their own feelings. With greater understanding of the mechanics of how stress and trauma work and how children cope with stress and trauma, we are closer to developing intervention strategies and techniques that may be helpful to children.

Ideas for Practice

Consider each of the following situations, which are taken from real-life experiences. For each example, identify the category of stress experienced by the child: mild, tolerable, toxic, trauma, and complex trauma. Then, identify the developmental domain(s) that are impacted: cognitive, physical, social, and/or emotional. a neighborhood dog that ran into her front yard where she was playing with her nine-year-old brother.2. Sanji, three years old, had tubes placed in his ears to stop

1. Nancy, five years old, was bitten on the hands and face by

- his frequent ear infections.
- 3. Gerald, six years old, was moved to his third foster home last week. He was placed in foster care after his father's girlfriend was arrested for physically abusing him and his younger sister over a period of two years.
- 4. Nathan, five years old, was on the way to kindergarten when the family car stalled on the road; Grandma came and picked him up and took him to school.
- 5. Remy, four years old, has just moved to a new apartment in the neighborhood where his family has always lived. This new place is smaller and has no heat, and Remy shares a room with two siblings. He says the neighborhood is scary and loud, and he worries about his dad riding the bus to work.
- 6. Kate, five years old, is in kindergarten. After six hours of school time, she has lessons each week (depending on the season) for gymnastics, soccer, or T-ball. She always goes to piano on Tuesdays and stays with a sitter on Wednesday and Friday until 7 p.m., when her grandma picks her up for alternate weekend visits with her separated parents.
- 7. Mason, four years old, often wets the bed. His parents are taking him to the urologist at the hospital who will examine him. After the exam, he will have an MRI and lab work.
- 8. Mari, four years old, is a newly immigrated child from Indonesia. She was three when earthquakes leveled her house and killed her grandfather. She speaks little English and has never been in a preschool before.
- 9. Marcelo, six years old, is in kindergarten and spends each summer with extended family outside of the United States. The community where his extended family lives is overrun with violent gang activity. There have been kidnappings, shootings, and people hurt going to the park and grocery store.

For children, stress is never about a single stressor (hearing an unexpected loud noise, feeling the pain of being spanked, responding to someone else's



anger and anxiety about being late to school); it is always a multisensory event. 10. Simon, three years old, is just about to turn four. He was watching out the window of his apartment when he saw and heard the lady across the street hit and killed by a car. Her body was in the street for a long time; the police and medical people were there and lots of other people were talking, crying, and yelling.

Situation	Stressor Event	Level of Stress or Trauma	Domain(s) Impacted
1. Nancy			
2. Sanji			
3. Gerald			
4. Nathan			
5. Remy			
6. Kate			
7. Mason			
8. Mari			
9. Marcelo			
10. Simon			



From family instability and poverty to maltreatment to rapid social and technological changes, children endure more stressors than ever before. A young child's brain is uniquely sensitive to the effects of stress and trauma, which can have detrimental, long-term developmental impact:

- Difficulty learning
- Problems with regulating behaviors
- Difficulty with solving problems
- Struggles in recognizing and dealing with emotions
- Difficulty managing social interactions
- Long-term physical and mental health consequences

The power of stress and trauma on children's lives must not be underestimated.

Helping Them Heal: How Teachers Can Support Young Children Who Experience Stress and Trauma can help. You will find answers, ideas, and specific classroom strategies to move children in positive directions. You will learn ways to help children build resilience, self-regulation, and self-competence. **Helping Them Heal:** How Teachers Can Support Young Children Who Experience Stress and Trauma is a sensitive, supportive, and practical guide for early childhood professionals working with young children who are burdened by stress and trauma.



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