Protective Factors Framework & The Pyramid Model:

Implications for Early Childhood Caregivers and Systems

- Focuses on strengthening parental resilience, social connections, and health of parenting and child development, concrete support in times of need and social emotional competence of children in present to you.
- Community wide setting
- Self-reflection, self-awareness and empathy training
- Not a structured program, but a conceptual frame shift for providers

Pyramid Model:

- Focuses on strengthening Social Emotional Competence of children
- Used in classroom/child care setting
- Provides organizational structure and treatment framework
- Responds to the effects of trauma
- Is a tiered intervention
Protective Factors Framework and the Pyramid Model:
Implications for Early Childhood Caregivers and Systems

A Joint Initiative of
Prevent Child Abuse New York
Early Care and Learning Council
NYS Pyramid Model Leadership Team

This white paper was made possible through the generous support of
The Health Foundation of Western and Central New York

Special Thanks to Contributors:
Jenn O’Connor, Director of Policy and Advocacy, Prevent Child Abuse New York
Brittany Enekes, Prevention Development Coordinator, Prevent Child Abuse New York
Tamaé Memole, Director of Program Development, Prevent Child Abuse New York
Rose Shufelt, Infant Toddler Specialist and Master Cadre Pyramid Trainer, Child Care Council, Inc.
Jeannie Thomma, MST, Infant Toddler Coordinator, Early Care and Learning Council
Tim Hathaway, Executive Director, Prevent Child Abuse New York
Executive Summary

Childhood trauma impacts more than thirty-five million children each year in the United States (Stevens, 2013). These experiences include psychological, physical, or sexual abuse; neglect; or household dysfunction (divorce or separation, violent treatment of parent, substance abuse, mental illness, or parental incarceration) and are often referred to as Adverse Childhood Experiences or ACEs. The implications of exposure to severe traumatic experiences such as these can lead to changes in brain chemistry (overproduction of hormones), architecture (reduction in size and an underdeveloped cortex), and function (irritability, excitability, impulsiveness, and cognition). This weakening of brain structure can permanently set the body’s stress response on high alert. Or as Victor Carrion, MD, Child Psychiatrist states it, “These kids feel like they’re stuck in the middle of a street with a truck barreling down at them.” This over-activation of the stress response system can lead to numerous short- and long-term health problems, as well as learning difficulties and behavioral issues.

Ultimately, the health impacts for adults later in life will have numerous functional and chronic effects (e.g.; heart disease, respiratory disease, and diabetes and a wide range of mental health, substance use problems).

When a community of early childhood caregivers is ACEs or trauma-informed, these providers are empowered to help build resilience in children who have been affected by toxic or traumatic stress. Early childhood providers who receive education about, and training in, the Pyramid Model (which promotes and protects young children’s social emotional competence), ACEs and Protective Factors Framework training (which help fortify children against ACEs) are well positioned to recognize toxic and traumatic stress in the children in their care and to take the necessary steps to intervene by utilizing healing strategies that foster resilience. This white paper will demonstrate how the Protective Factors Framework serves as the perfect training to pair with the Pyramid Model; it is the foundation on which the Pyramid Model sits. Systematic expansion of Pyramid Model implementation and Protective Factors Framework trainings for early childhood professionals across New York State will
yield significant impact by enhancing the overall quality of services for young children and their families. Implemented together, these trainings and implementation practices will increase the child care provider’s awareness, understanding, and compassion while providing scientifically-based information and strategies that will strengthen the child care provider’s ability to build resilience in children. Too often children who present with challenging behaviors are retraumatized by harsh punishment that is intended to ‘help’ them behave. But informed providers and parents can help the child by using their newly learned skills.

The Early Childhood Education (ECE) Landscape: A Continuum of Care

The ECE landscape in New York State is complex and, unfortunately, often fractured and underfunded. While the State has made investments in programs like Pre-K, there is a lack of coordination along the continuum that must be addressed if the system is to succeed. This continuum spans-prenatal care to maternal, infant, and early childhood home visiting programs, Early Intervention and Preschool Special Education services, Head Start/Early Head Start to child care, Pre-K, and afterschool programs. This means combining funding streams, coordinating training opportunities, and collecting and sharing data across child serving systems to increase the benefits of these services for children while more effectively utilizing resources.

There are so many opportunities to positively impact the lives of children during the earliest years (for the purpose of this document, from the prenatal period through age eight). If children are not supported during these crucial years, opportunities to enhance social and emotional health of children and promote school readiness melt away. Return on investment data shows that later intervention and remediation are costlier and often have less impact. New York State can continue to spend millions of dollars on special education and juvenile justice services, or it can commit to a true prevention agenda.

Therefore, the Early Care and Learning Council, Prevent Child Abuse New York and the NY Pyramid Model State Leadership Team urge a comprehensive and holistic approach to ECE and trauma-
informed practice. Again, for the purposes of this paper, the focus is on child care however, we recognize that all ECE programs and services should play a larger role in providing these supports and that service providers in all ECE disciplines should receive appropriate trauma-informed education and training.

It is important to remember that child care relies on a mixed delivery system. Of licensed and regulated programs in NY State, over 4,700 are center-based, nearly 12,000 are family child care homes, and over 2,800 are for school-age children (afterschool) (Child Care Aware, 2018). These programs employ more than 40,000 staff, all of whom could be implementing trauma-informed practices on a daily basis.

Research has demonstrated that children under 5 are suspended and expelled at rates 3 times that of school age children (Gilliam, 2005) and that these expulsions are often linked to behaviors rooted in the effects of adverse experiences. Who better to reach children experiencing trauma than the caregivers and educators who spend up to eight hours a day with them? Who better to refer to appropriate mental health services? And who better to engage parents, who may be experiencing trauma themselves?

We in no way support adding extra burden to an already underpaid workforce. In fact, our experience demonstrates the opposite: increased understanding of the impact of trauma on parents and children and offering interventions and approaches that help ameliorate these impacts over time actually contributes to decreasing the burden on child care staff. Many providers are mindful of child and family needs but are not intentional about this work as they have not had the resources or training to support them. Instead, we see implementing trauma-informed practice as a way to A) increase program quality; B) make providers’ jobs less stressful and more satisfying, since they will have a deeper understanding of the needs of the children in their programs; and C) decrease child care/Pre-K expulsions, thereby promoting school readiness.

We recommend that New York State agencies:
• Embed trauma-informed practice into training requirements (degree programs and Child Development Associate (CDA) credentials) for certain disciplines, including for early childhood professionals. In addition, colleges and universities should share trauma information in classes for education, nursing, medical, psychology, social work, law enforcement, and public health programs;
• Systematically coordinate trauma training and the Pyramid Model module training and coaching practices;
• Expand the amount of blended training and technical assistance opportunities available to providers;
• Include education for parents on the Pyramid Model, ACEs and Protective Factors Framework in early childhood settings;
• Align training requirements between and among state agencies and programs serving young children to include basic requirements about trauma and Protective Factors Framework linked with the Pyramid Model content;
• Expand collect of data on the dissemination of Protective Factors Framework and Pyramid Model content into the ECE workforce;
• Conduct evaluation on quality factors impacted by the co-delivery of the Frameworks.

What the Science is Telling Us: Background Research

The Stress Response

Humans experience stress early, even before they are born. A certain amount of stress is normal and is needed for survival. Exposure to stress allows children to develop necessary skills to cope with and adapt to new and potentially threatening situations throughout life. With support from parents and caregivers, children can learn to respond to stress in a healthy way, both physically and emotionally. However, the benefits of stress are reduced when it is severe enough to overcome the child’s ability to cope. Intensive and prolonged stress can have an impact on short- and long-term health effects, including disruption in early brain development and health problems in later life (Middlebrooks & Audage, 2008).
The National Scientific Council on the Developing Child has identified three types of stress: positive, tolerable, and toxic. The basis for these differences is their potential to produce physiologic disruptions caused by the intensity and disruption of the response.

**Positive Stress**
Positive stress in young children results from adverse experiences that are short-lived and often serve a biological purpose (such as jumping away from a speeding car). Children may experience positive stress while getting an immunization, entering child care for the first time, meeting new people, or dealing with a frustrating event such as having a toy taken away. Minor physiological changes such as increased heart rate and changes in hormone levels can result from this type of stress. Support from caring adults makes this manageable for the child. Positive stress is a normal part of development and the coping skills acquired through exposure are important to the developmental process (Middlebrooks & Audage, 2008).

**Tolerable Stress**
Tolerable stress is defined as a reaction to adverse experiences that are more intense than positive stress but are still relatively short-lived. Included are the death of a loved one, a natural disaster, a frightening accident, or a family disruption. Generally, with the help of a caring adult, tolerable stress can be overcome and can help the child mature developmentally. If the child does not have support, tolerable stress can turn toxic and lead to negative long-term health effects (Middlebrooks & Audage, 2008).

**Toxic Stress**
Toxic stress is defined as a condition that results from strong, frequent, prolonged exposure to adverse experiences with an absence of protective, emotionally supportive relationships. This type of stress includes experiences such as abuse (physical, emotional, sexual), neglect (emotional, physical), and household function disruptions (parental separation or divorce, substance abuse, mental illness, parent treated violently (domestic violence), or an incarcerated household member. Without a caring adult,
toxic stress can lead to permanent changes in brain development. It can also be a precursor for impairments in later learning and behavior (Shonkoff, Garner, Committee on Psychosocial Aspects of Child and Family Health et al, 2012).

**Adverse Childhood Experiences**

There are many terms used for traumatic experiences in childhood. These terms include “early life adversity, early life stress, early life trauma, or Adverse Childhood Experiences (ACEs)” (Bucci, et al., 2016). In the mental and behavioral health world, there have been many studies conducted to link negative early life experiences and mental and behavioral health outcomes. The ACEs Study is among the first conducted that links early life adversity with long-term physical health outcomes using a large sample.

Kaiser Permanente and the Centers for Disease Control and Prevention (CDC) conducted the ACEs Study between 1995 and 1997 and continues research today. Bucci, et al. (2016), states, “The study assessed the associations between ACEs and physical, behavioral, and mental health outcomes” (p. 404). Two waves of the ACEs Study were conducted including 18,175 patients. In the first wave, patients were assessed on two categories of adversity-- abuse and household dysfunction. The second wave included an additional adversity-- neglect. Each participant completed a questionnaire that asked for detailed information about past adverse experiences and current behavior and health status.

The results of the study indicated that more than 63.5% of adults had at least one ACE and 12% had four or more ACEs. Significant impact on long-term health outcomes were identified. The more ACEs an individual experienced, the greater the impact on their health (Bucci et al., 2016).

It is clear that there is a link between early childhood traumatic experiences and long-term health outcomes in adulthood. With that said, there are several implications or limitations in retrospective reporting of childhood experiences and self-reporting of outcome measures. The recollection of certain events may be difficult and the disclosure of traumatic experiences or personal behaviors may be left out. A longitudinal follow-up of adults who reported childhood abuse identified that the actual events
were likely to be underestimated. Interestingly, changes in brain architecture due to early childhood adversity, specifically in relation to the hippocampus, may provide an explanation for this and are detailed later in this paper (Anda, Felitti, Bremmer, Walker, Whitefield, Perry, Dube & Giles, 2006).

**Trauma and the Developing Brain**

Brain development is particularly sensitive during the fetal, infant, and early childhood stages. Chemical influences related to the stress response system during this critical time can have significant impact on brain development (Shonkoff et al., 2012). For example, abundant glucocorticoid receptors are found in the amygdala, hippocampus, and prefrontal cortex, and exposure to stressful experiences has been shown to alter the size and neuronal architecture of these areas as well as lead to functional differences in learning, memory, and aspects of executive functioning (Shonkoff, et al., 2012).

According to Shonkoff et al., (2012), there is growing evidence that shows multiple changes in brain circuits and systems caused by early stressors, specifically in the amygdala, hippocampus, and prefrontal cortex that creates a weak foundation for later learning.

During stressful situations, the amygdala becomes activated and triggers an individual’s fight or flight response (Rinne-Albers, van der Wee, Lamers-Winkel, & Vermieren, 2013; Painter & Scannapieco, 2013). According to Shonkoff et al., (2012), “Significant stress in early childhood can trigger amygdala hypertrophy and result in hyper-responsive or chronically activated physiological stress response, along with increased potential for fear and anxiety” (p. 236). According to Middlebrooks and Audage (2008), “Sustained high levels of cortisol can damage the hippocampus, an area of the brain responsible for learning and memory. These cognitive deficits can continue into adulthood” (p. 4). In addition, the prefrontal cortex, the “structure that plays an essential role in shifting attention and forming stimuli-response associations,” (Carrion & Wong, 2012), can be impacted by prolonged activation of the stress response system. For children with extended exposure to trauma, the implications on learning include difficulties in sustaining attention, suppression of intrusive memories of the trauma (flashbacks, nightmares), and easy distraction (Carrion & Wong, 2012).
Implications

Stress-induced changes in brain architecture as identified in the amygdala, hippocampus, and prefrontal cortex can have a potentially permanent effect on a range of behaviors in adulthood. According to Shonkoff, et al., (2012), these include such things as “regulating stress physiology, learning new skills, and the capacity to make healthy adaptations to future adversity” (p. 237). As adults, there are higher rates of risk-taking behaviors, trouble maintaining social relationships, higher risk of school failure, unemployment, poverty, homelessness, violent crime, incarceration, and single parenthood. Unfortunately, this process can be cyclical if the adults are unable to provide the necessary supportive relationships needed to make sure their children do not fall victim to toxic stress themselves. “This intergenerational cycle of significant adversity, with its predictable achievement and poor health is mediated at least in part, by the social inequalities and disrupted social networks that contribute to fragile families and parenting difficulties” (Shonkoff, et al., 2012).

Trauma & Brain Development

Adapted from Holt & Jordan, Ohio Dept. of Education


**Trauma & Caregiving**

A child learns to adapt to their chaotic environment when growing up by becoming hypersensitive, hypervigilant, and in a persistent state of stress-response. This can trigger survival strategies that enable the child to sense, perceive, and act on a threat. This can also hinder that same child when the environment changes, such as in school or in peer relationships. The changes in brain architecture of this child can persist into adult life through anxiety, being in a constant state of alert, and cognitive impairment (Perry, 2006; Bower and Silvers, 1998).

It may be difficult for the adult caregiver to determine whether a child in their care has experienced or is living with a traumatic event. The challenge is to identify what the symptoms look like and respond appropriately. Following is an overview of the signs and symptoms most frequently exhibited by infants and toddlers experiencing trauma:

- Eating and sleeping disturbance
- Clingy/separation anxiety
- Irritable/difficult to soothe
- Repetitive/post-traumatic play
- Developmental regression
- Language delay
- General fearfulness/new fears
- Easily startled
- Reacting to reminders/trauma triggers
- Difficulty engaging in social interactions through gestures, smiling, cooing
- Persistent self-soothing behaviors such as head banging
- Aggression (toddlers)

To meet the needs of traumatized children, the adult provider has to help those children regain a sense of control, connection, and meaning. This can be done through adopting a multifaceted approach.
According to Kerka (2002), this includes: “a holistic perspective, creation of a safe learning environment, storytelling, collaboration with appropriate agencies, educator self-care and professional development, and policy and advocacy” (p.3).

Building Resilience: Protective Factors Framework and Pyramid Model

Resilience, defined as the ability to recover from, or adjust to misfortune or change, can be built and strengthened. Below, we highlight how resilience can be supported in early care settings and the role of both the Protective Factors Framework and Pyramid Model in that effort. Of particular promise is the pairing of these two frameworks to prepare caregivers (parent and professional) to support both the behavioral and family/community context in which children exist.

Developing Resilience in Children

According to The Center on the Developing Child at Harvard University: “The single most common factor for children who develop resilience is at least one stable and committed relationship with a supportive parent, caregiver, or other adult. These relationships provide the personalized responsiveness, scaffolding, and protection that buffer children from developmental disruption. They also build key capacities—such as the ability to plan, monitor, and regulate behavior—that enable children to respond adaptively to adversity and thrive. This combination of supportive relationships, adaptive skill-building, and positive experiences is the foundation of resilience.”

Resilience is exhibited in children by their ability to bounce back or overcome the odds created by trauma. According to The Center on the Developing Child:

“Research has identified a common set of factors that predispose children to positive outcomes in the face of significant adversity. Individuals who demonstrate resilience in response to one form of adversity may not necessarily do so in response to another. Yet when these positive influences are
operating effectively, they ‘stack the scale’ with positive weight and optimize resilience across multiple contexts.”

Children who experience consistent, responsive caregiving are more likely to develop resilience. Adults can intentionally seek to build resilience through active attention to the building blocks of resilience. In their comprehensive review of the scientific literature on resilience commissioned by the Canadian government in 2017, Liebenberg, Joubert, and Foucault identify multiple factors that constitute resilient behaviors and attitudes. Central elements are identified as:

- Self esteem
- Learning from mistakes
- Understanding and accepting their own strengths and weaknesses
- Self-control
- Willingness to overcome difficulties rather than avoid difficulties
- Optimistic thinking patterns
- Social skills and ability to seek assistance from others
- Ability to recognize their own emotions and those of others
- Problem solving skills
- Goal setting with realistic expectations

Mastery of these skills are life-course and developmental in nature. Everyone is challenged to accomplish these throughout a lifetime.
Protective Factors Framework

“The Strengthening Families approach and Protective Factors Framework was introduced in 2003 by the Center for the Study of Social Policy (CSSP). It is a research-informed, strengths-based approach that prevents child abuse and neglect by focusing on the well-being of all families and helping families identify and build on their own Protective Factors. Each of the Protective Factors is essential, but most important is what they do together to build strength and stability in families.”
(ctfalliance.org/protective-factors/)

Central to this Framework is the foundation of a nurturing relationship. A secure relationship between the care provider and child is essential to bind the various Protective Factors together and produce the supportive environment. The five core Protective Factors that contribute to improved outcomes for children and families are:

- **Parental Resilience**: The ability to recover from difficult life experiences, and often to be strengthened by and even transformed by those experiences.
- **Social Connections**: The ability and opportunity to develop positive relationships that lessen stress and isolation and help to build a supportive network.
- **Knowledge of Parenting and Child Development**: The ability to exercise effective parenting strategies to guide and know what to expect as children develop in multiple domains (physical, cognitive, language and social and emotional).
- **Concrete Support in Times of Need**: Access to supports and services that reduces stress and helps to make families stronger.
- **Social and Emotional Competence of Children**: Family and child interactions that help children develop the ability to communicate clearly, recognize and regulate their emotion and establish and maintain relationships.

“Children are more likely to thrive when their families have the support they need. By focusing on the five universal family strengths identified in the Strengthening Families Protective Factors Framework,
community leaders and service providers can better engage, support, and partner with parents in order to achieve the best outcomes for kids.” (cssp.org)

The Protective Factors Framework is a curriculum developed by the National Alliance of Children’s Trust and Prevention Funds in cooperation with CSSP. This curriculum is not a program; it is a framework that provides detailed information about the Protective Factors, provides tangible actions that participants can engage in that will help make families stronger and safer, and is grounded in strength-based theory, trauma-informed care approaches, self-reflection, and empathy training. This framework provides participants with a strong foundation for all subsequent trainings in their work with families, which unlocks the ability to more easily operationalize new learnings.

The Pyramid Model

The Center on the Social and Emotional Foundations for Early Learning (CSEFEL) created the Pyramid Model more than 15 years ago as a “conceptual model of evidence-based practices for promoting young children's social emotional competence and preventing and addressing challenging behavior.” (CSEFEL.vanderbilt.edu)

The Pyramid Model strongly supports Trauma-Informed Care. It provides caregivers with an organizational structure and treatment framework that involves understanding, recognizing, and responding to the effects of all types of trauma. It does this by emphasizing physical, psychological, and emotional safety for both children and providers. Most importantly, it provides the tools necessary to help providers rebuild a sense of control and empowerment in the children in their care who are trauma survivors. The Pyramid Model combines training + coaching + leadership team to generate program policy changes and a philosophical shift in the staff’s overall approach. It uses implementation science to make lasting changes, even if a director or other key staff leaves the program, the implementation will continue.
The Pyramid Model describes three tiers of intervention practice: universal promotion for all children; secondary prevention to address the needs of children at-risk of social-emotional delays; and tertiary interventions necessary for children with ongoing and more pervasive challenges. Each tier builds on the previous tier(s). The Model is designed for implementation in natural environments, such as child care programs, with parents/caregivers as essential partners. It is also reliant on administrative support—training, coaching, collection and use of data, sustained commitment from all parties, and the development of an infrastructure that includes internal policies/procedures “aligned with high fidelity implementation” (Mincic, Smith & Strain, 2009).

Consistent with the public health/mental health model of promotion, prevention, and intervention, the Pyramid Model framework is a Response to Intervention (RtI) for early childhood. Program-wide implementation of the Pyramid Model is the model for implementing Positive Behavioral Interventions and Supports (PBIS) in programs for young children. (Wisconsin Early Childhood, 2018)

New York State is implementing the Pyramid Model to child care programs and schools with prekindergarten with the following outputs (as of April 2018):

- Verified 37 Master Cadre trainers
- Trained 11,462 people statewide
- Conducted 545 module trainings (by Master Cadre)

  Implemented three Cohorts (Cohort 1 has 17 programs implementing, Cohort 2 has 23 programs implementing, ; and Cohort 3 has 12 programs implementing); as of June 2018, 375 classrooms in Cohorts 1 and 2 were implementing the Model to fidelity.
Bridging the Protective Factors Framework and the Pyramid Model

The Pyramid Model promotes social emotional development and school readiness of young children; effectively addresses challenging behavior through intentionally teaching social emotional skills; and guides the implementation process using an experienced leadership team. The Protective Factors Framework is an approach to understanding and supporting the larger family and community context in which the child’s development is occurring. While the two approaches have been utilized across New York State and sometimes by the same programs, an intentional joining of the two approaches has not been accomplished.

Current Initiatives

PCANY has had the opportunity to conduct four trainings that link the Protective Factors Framework and the Pyramid Model. The Protective Factors Framework includes a module on strengthening the social emotional competence (SEC) of children. This module provides a seamless way to connect the two curriculums. The importance of supporting the SEC of children is a concept that has already been embraced by early learning professionals. The Protective Factors Framework provides an understanding of the value of strengthening the SEC in children not just as a strategy to improve behaviors in the classroom setting, but also to show how strengthening SEC in children strengthens families and keeps children safer at home. The Protective Factors Framework connects the SEC of children with the other four Protective Factors, accompanied by self-reflective exercises that increase empathy and build skills to enable participants to interact with families using a strengths-based approach. This enables participants to build stronger relationships with families, which increases parent engagement. Parent engagement is an important aspect of the Pyramid Model; the authors have designed specific tools like “Positive Solutions for Families” to support the work. However, the early learning professionals we worked with reported that meaningful parent engagement strategies were still difficult to implement in their settings. They struggled with how to engage parents successfully. Throughout the Protective Factors Framework trainings, participants are shown the positive effects of intentional actions that strengthen families. Participants often report that they are already engaged in many of those actions, but primarily with the parents with whom engagement is
easy (the parents they easily/effortlessly connect with). Once they have a deeper understanding of the positive impact on families, participants can be more intentional about engaging in these actions with all families.

The Protective Factors Framework serves as the perfect paired training to the Pyramid Model and is a solid foundation on which the Pyramid Model can nest.

### Advantages of Formalizing this Pairing

Utilizing the Protective Factors Framework in tandem with the Pyramid Model offers specific benefits for children, families, practitioners, state agencies, and statewide systems.

Meaningfully engaging parents in the care setting as a means of bridging home and school experience for children has demonstrated a host of positive results. Izzo et al., 1999; McWayne et al,
2004; Reynolds, 1989; Rimm-Kaufman, Pianta, Cox, & Bradley, 2003; Supplee, Shaw, Hailstones, & Hartman, 2004 all found connections between a parent’s level of engagement with the staff and positive impact on the child’s behavior and social adaptation. Both the Pyramid Model and the Protective Factors Framework have built-in parent engagement designs aimed at teaching parents skills for applying the content directly with their child. While the Protective Factors Framework material provides the macro context for parents, the Pyramid Model focuses on helping the adults see what children’s behavior is trying to communicate and then creating a plan that helps the child satisfy their needs by using behaviors that are more socially acceptable. Linking the two for parents provides a comprehensive approach to understanding their role in supporting children.

Likewise, the expansion of providers’ knowledge, and equipping providers with specific, complementary skills from both frameworks, will have positive impact across the ECE ecosystem. The Protective Factors Framework focuses on a conceptual “frame-shift” for providers. Shifting providers to this strength-based approach is essential for their deeper understanding and application of the Pyramid Model’s approach to understanding behavior.

Co-application of these frameworks benefits administrators of early care programs. A major challenge facing ECE as a field is the high level of staff turnover. Many causes are linked to this issue but certainly the level of stress and high expectations on staff are a contributing factor. Training and application of these paired concepts strengthens administrators’ efforts to build workplaces that support staff’s trauma-informed efforts. It also incorporates what we know about the parallel process in trauma-informed work. Administrators can create an environment that examines and respects cultural humility, where there is intentional reflection about the work, self-awareness, and flexibility. Work environments that successfully address these issues have shown real success in reducing turnover.

A clearer understanding gained through the pairing of these two models also affords programs a better decision-making lens when it comes to the issue of expulsion. An understanding of trauma and how to better respond to the related behaviors while also utilizing a two-generation and family systems approach has been clearly linked to reduction of suspensions and expulsions of children.
Finally, we believe additional benefit will be gained for communities and the broader ECE system as programs implementing these two models make connections with a wider variety of partners. Both the Pyramid Model and the Protective Factors Framework require a cross-discipline approach to working with children. Providers who have traditionally seen their work as separate and distinct will recognize the essential nature of collaboration for the mutual benefit of their program and the families they serve. This expanded openness to collaboration can be realized on many levels including joint services, information sharing, referral, and systems improvement.

Creating a system
Critical to realizing the benefits anticipated from bridging the Pyramid Model and Protective Factors Framework is the establishment and maintenance of a system that supports the following elements:

- Coordination between training systems and agency initiatives
- Cross-training/imbedded training for providers on both frameworks
- Cross-training among disciplines; Pre-K, EI, child care, home visiting, afterschool
- Enhance technical assistance for providers
- Structural support for providers – expanding the Child Care Resource and Referral (CCR&R) role in linking providers to community agencies and resources
- Authentic engagement of families and systematic information sharing with families
- Enhance tracking and evaluating progress and results relating to the various anticipated results identified in the previous section.

Each of these elements require specific attention and coordination across multiple state agencies as well as provider associations and related groups. Creating a comprehensive plan to implement these system enhancements will shorten the time required to realize system wide gains.

Conclusion and Recommendations
The effects of trauma are real. Over half of all adults have experienced some sort of traumatic event in childhood (ACEs). Starting in early childhood, the effects of trauma can be seen through changes in brain architecture and functioning. The amygdala, which controls our emotions (especially fear), leads to a heightened state of arousal. The hippocampus, which controls new memory formation and memory retrieval (important for cognitive functioning), can be impaired by changes in its volume and levels of cortisol that are produced. The prefrontal cortex, which plays a role in the ability to pay attention and in stimulus response, can actually be reduced in size and symmetry. These changes in brain architecture have implications that last a lifetime.

There is a need for change in the education and training of child care providers to meet the individual needs of the children in their care. The effects of trauma may not be readily seen so the adult caregiver needs to stay closely attuned in observing children’s behaviors to meet those needs. By connecting and offering parallel trainings in the Pyramid Model, ACEs, and the Protective Factors Framework for all child care providers, we can strengthen the child care provider’s ability to build resilience in children. This will be accomplished through the provider’s deepened awareness, understanding, and compassion, and by using a strategy that is founded on scientific research. It has been our intention with this paper to point the reader toward resources and innovative approaches to meet the needs of children who have experienced toxic or traumatic stress.

**Recommendations**

- Embed trauma-informed practice into training requirements (degree programs and Child Development Associate (CDA) credentials) for certain disciplines, including for early childhood professionals. In addition, colleges and universities should share trauma information in classes for education, nursing, medical, psychology, social work, law enforcement, and public health programs;
- Systematically coordinate trauma training and the Pyramid Model module training and coaching practices;
- Expand the amount of blended training and technical assistance opportunities available to providers;
• Include education for parents on the Pyramid Model, ACEs and Protective Factors Framework in early childhood settings;
• Align training requirements between and among state agencies and programs serving young children to include basic requirements about trauma and Protective Factors Framework linked with the Pyramid Model content;
• Collect data on the dissemination of Protective Factors Framework and Pyramid Model content into the ECE workforce;
• Conduct evaluation on quality factors impacted by the co-delivery of the Frameworks.

With the knowledge of what traumatic stress is, and how to intervene to build resilience, we have an obligation and an opportunity to implement the strategies that will improve the lives of children in our child care settings. When a community of early childhood caregivers is trauma-informed, they are empowered to build resilience in children who have been affected by toxic or traumatic stress. Early childhood providers who receive education, training and coaching in the co-linked Pyramid and Protective Factors Framework are well positioned to recognize toxic and traumatic stress in the children in their care and to then take the necessary steps to intervene utilizing healing strategies that foster resilience.

We have an opportunity to decrease and mitigate trauma in the earliest years, laying the groundwork for healthy, productive adulthoods. To do this, New York State must implement trauma-informed practice in ECE settings, including providing adequate funding to do so. This white paper presents a thoughtful, research-based, and attainable start to this effort.
References


doi:10.1016/j.jadohealth.2012.04.010


Gillium, W. S. (2005) https://news.yale.edu/2005/05/17/pre-k-students-expelled-more-three-times-rate-k-12-students-0


Kerka, S., (2002). Trauma and Adult Learning. ERIC Clearinghouse on Adult Career and Vocational Education Columbus OH. ERIC Digest. ED472601.


Middlebrooks JS, Audage NC. The Effects of Childhood Stress on Health Across the Lifespan. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2008.


