Network *of* infant/toddler Researchers

Services for Families of Infants and Toddlers Experiencing Trauma

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Infancy is a time of extreme opportunity, but it is also a time of extreme vulnerability, particularly for those reared in high-risk environments.[1–2] Although infant exposure to any risk is important to understand, in this brief, we focus on the experience and impact of *trauma*, defined as witnessing or experiencing an event that poses a real or perceived threat.[3]

Despite their young age, infants and toddlers are exposed to trauma at high rates. A recent study of young children documented that one quarter of children under the age of 4 years have experienced or witnessed a traumatic event.[4] There is evidence that young children living in high-poverty communities are even more susceptible to trauma exposure.[5–6]

Beginning life in the context of trauma places infants and toddlers on a compromised developmental path.[7–9] Because of this, the impact of trauma on infants and toddlers can be particularly harmful.[5,10] On the other hand, the developmental plasticity (i.e., the potential for developmental change in response to the environment) during this early period of life may allow infants and toddlers to rebound from these traumatic experiences, particularly if they experience *stable*, *nurturing caregiving*.[8,11]

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We briefly summarize what is known about the impact of trauma on infants and toddlers, and the intervention strategies that could potentially protect them from the adverse consequences of traumatic experiences. We focus on interventions that support parents in providing the stable and nurturing caregiving that is responsive to the child's general developmental needs and that promotes children's sense of safety and security. Such interventions may reduce or provide a buffer against infants' traumatic experiences. Finally, we consider how child care, Early Head Start, home visitation, and child welfare can become trauma-informed infant/toddler service delivery systems.

Infants and Toddlers Experiencing Trauma

Infants and toddlers can be exposed to a wide range of traumatic experiences, including trauma that is acute (i.e., a single event), chronic (i.e., multiple or enduring or recurring events), and complex (i.e., multiple traumatic events, often of an invasive, interpersonal nature).[3] Events that may be traumatic include serious illness (e.g., hospitalization, painful treatments), accidents (e.g., car accidents, dog bites, near drownings), separation from caregivers (e.g., foster care placement, death of a parent), natural or human-caused disasters (e.g., hurricanes, droughts, famine, war), and poverty-related factors that compromise safety and security (e.g., lack of resources to fulfill basic needs such as satisfying hunger). Sexual abuse, physical abuse, and other violent events that are internal and external to the family (e.g., intimate partner violence, community violence) are experiences that are also traumatic for very young children. Further, neglect, which affects a large proportion of maltreated infants (i.e., 62% of maltreated infants have experienced medical and/or physical neglect),[12] can be considered traumatic for infants given its profound consequences for infant development. Infants and toddlers in high-risk families are often exposed to chronic and complex trauma because one traumatic experience may be related to and heightened by another (e.g., the co-occurrence of intimate partner violence and child abuse).

About 60% of children 0–17 years old have been exposed to violence in their communities and in their homes within the past year.[13] Infants and toddlers are far less likely than older children to witness community violence, but they have similar rates of exposure to family violence as their older counterparts.[13] Very young children who are raised in urban, low-income, high-crime areas tend to experience high rates of exposure to violence.[6,14] Furthermore, the very youngest children are more likely to be the direct victims of violence and trauma than older children. For example, children under age 3 are more likely to be maltreated (the definition of which includes abuse and neglect), to experience a recurrence of maltreatment, and to die from maltreatment than older children, particularly if they are under 1 year of age.[12,15]

Research suggests that trauma disrupts development in significant ways, which may be expressed differently, depending on the child's phase of development. Infants and toddlers who experience trauma may be affected across many aspects of development, with particular problems with social-emotional development.[4,10,16–18] (See Table 1 for a delineation of these outcomes.) The range and severity of infant/toddler developmental outcomes related to trauma depend on many factors, including the severity, chronicity, and context of the traumatic events that the child has experienced. More severe trauma and more chronic trauma lead to more damaging outcomes for young children.[5,9]

Table 1. Potential Impact of Trauma on Infants and Toddlers[10]

BRAIN DEVELOPMENT	PHYSICAL HEALTH/PHYSIOLOGY	SOCIAL/EMOTIONAL FUNCTION/ INFANT MENTAL HEALTH	COGNITION AND LANGUAGE
▸ Size reduction and deficits/ dysfunction in specific brain regions: ▪ Hippocampus (related to memory, learning, emotion expression) ▪ Amygdala (related to emotion regulation, fear, decision-making) ▪ Hypothalamus (related to stress reactivity [cortisol production]) ▪ Prefrontal cortex (related to executive functioning, impulse control, emotion regulation, conscious thought) ▸ Generalized brain impacts: ▪ Smaller brain volume, larger fluid-filled cavities, less connective matter, overall dampening of response	▸ Changes in eating patterns, eating difficulties, early obesity ▸ Changes in sleeping patterns, sleep difficulty, night terrors ▸ Upper respiratory illness, asthma ▸ Altered cortisol production (i.e., changes in the release of stress hormones) ▸ Changes in activity level ▸ Death and physical injury ▸ Shaken Baby Syndrome (i.e., neurological and ocular damage or injury to the eye and nervous systems as a result of being shaken) ▸ Vision loss/blindness ▸ Compromised motor skills ▸ Bedwetting ▸ Toileting problems ▸ Sleep disruption ▸ Failure to meet developmental milestones ▸ Failure to thrive	▸ Post-Traumatic Stress Disorder symptoms ▸ Re-experiencing events ▸ Avoiding the location of events ▸ Increased arousal (i.e., heightened physical and emotional response to the environment) ▸ Anxiety ▸ Depression ▸ Clingy/Fearful behaviors ▸ Tantrums ▸ Strong startle reactions ▸ High levels of emotionality ▸ Aggression ▸ Irritability ▸ Emotional distress ▸ Mistrust of adults ▸ Dysregulation of stress systems ▸ Insecure attachment, especially disorganized attachment ▸ Post-traumatic play, reduced play ▸ Hypervigilance (i.e., extreme alertness and wariness) ▸ Regression (i.e., return to an earlier level of functioning)	▸ Cognitive difficulties ▸ Executive functioning challenges ▸ Verbal/Language deficit ▸ Concentration problems ▸ Developmental delay ▸ Later academic problems

Trauma in the immediate environments in which children are situated (e.g., children's homes) is more challenging for them due to its direct impact on children and the adults on whom they depend for nurturance, safety, and security. For example, witnessing intra-familial violence may be more damaging than witnessing community violence for infants and toddlers.[20] Adverse outcomes for young children experiencing trauma are worsened by challenges within the family environment (e.g., maternal depression[14]). Finally, as with older children, direct victimization with regard to trauma (e.g., child maltreatment) may be the most damaging for infants and toddlers.[5,16,20] This is particularly true if the perpetrator of the violence or maltreatment is the child's primary caregiver because, traditionally, the availability of stable, nurturing caregiving can potentially protect very young children against the experience of trauma. Young children may live with two perpetrators of trauma, or one perpetrator and one parent who fails to protect the child from victimization. These complexities must be addressed in research and intervention efforts for young children who are exposed to trauma.

Interventions to Buffer Infants/ Toddlers Against Trauma

Given the damage that exposure to trauma can cause in the development of infants and toddlers, it is critical to create policies and strategies to buffer young children against such adverse experiences. Consistent with the U.S. Department of Justice's Defending Childhood Initiative,[21] we propose to address trauma during infancy/ toddlerhood through three potential pathways: (1) directly reducing interpersonal violence; (2) decreasing the environmental risks (e.g., poverty) that place families at risk for experiencing trauma; and (3) developing and increasing the availability of interventions that can buffer young children against the consequences of trauma. Interventions addressing these pathways should be incorporated into interventions for the parents of infants and toddlers exposed to trauma. Such features may improve the individual functioning of parents, thus facilitating their appropriate parenting for their infants and toddlers who have experienced trauma.

Experts in trauma-focused treatment suggest that several core components should be included in interventions for older children and adults in order to reduce the effects of trauma exposure, including (1) a strong therapeutic relationship (i.e., an emotional connection between the trauma victim and the interventionist); (2) psycho-education about normal response to trauma (i.e., psychologically based training about trauma); (3) parental support, conjoint therapy, or parental training (i.e., education and therapy for parents); (4) emotion expression and regulation skills (i.e., a how to appropriately express and adjust feelings); (5) anxiety management and relaxation skills (i.e., strategies for managing worry and feeling relaxed); (6) trauma processing and integration (i.e., how to understand trauma and manage its effect on functioning); (7) personal safety training; and (8) resilience and closure (i.e., overcoming the effects of trauma).[3]

For infants and toddlers, the parent support component is a key to the effectiveness of trauma interventions. Thus, practitioners must engage parents in supporting their infants and toddlers in specific ways that enhance the child's feeling of physical and psychological safety. In situations where the parent is the perpetrator of the trauma, children may have to be removed from their parents in order to preserve their safety. If traumatized children remain with their parents, interventions need to address parental functioning, as well as improving parenting behaviors, especially in relation to maltreatment and other aspects of trauma. Because many maltreating

parents were victims of child maltreatment themselves,[16,22] it is also critical to address this intergenerational aspect in the context of parenting interventions. Practitioners should address how parents can avoid repeating familial patterns of inappropriate child-rearing strategies.

Evidence-based interventions for infants and toddlers exposed to trauma:

Overall, parent-child relationships and interactions must be at the core of interventions to address the needs of infants and toddlers exposed to trauma.[10,23–24] This approach is at the foundation of two evidence-based interventions for trauma-exposed infants and toddlers and their families: Attachment and Biobehavioral Catch-up and Child-Parent Psychotherapy.

Attachment and Biobehavioral Catch-up (ABC) is an intervention for children ages 0–24 months and their parents, which is strongly grounded in theory and research on attachment and stress neurobiology (i.e., the study of the impact of stress on the body and nervous system). ABC is an intervention with standardized manuals and methods that was originally designed for young children in the child welfare system. Thus, it targets infants and toddlers who experience neglect, abuse, intimate partner violence, and placement instability. ABC is delivered to mothers and infants in their homes over the course of 10 sessions. Although brief, the ABC program is intensive, addressing four themes: (1) the importance of parental nurturance; (2) following the child's lead; (3) the importance of non-threatening, non-frightening caregiving behavior; and (4) "overriding" one's own history and/or non-nurturing instincts.[25] ABC has been implemented with a variety of cultural groups, including African American and Latino families.

ABC's effectiveness with infants, toddlers, and their parents has been documented through randomized controlled trials conducted with foster families and birth families. The findings regarding foster families include (1) ABC infants are more likely to be securely attached to their foster mothers,[26–27] and (2) ABC infants exhibit more normal patterns of cortisol (stress hormone) production, a key index of stress regulation that has shown atypical patterns in traumatized children.[25,28] A study of 6- to 18-month-old infants living with their birth families who were receiving child protective services as a result of alleged or substantiated infant neglect[27,29] revealed that ABC mothers showed more sensitivity toward their infants. In addition, ABC infants displayed more secure attachment behaviors (e.g., allowing their mothers to console them, being able to explore in the presence of their mothers) and were less likely to have disorganized attachment (i.e., these children displayed fewer attachment behaviors that were not typical for young children, such as confusion about whether and how to approach their mothers).

Child-Parent Psychotherapy (CPP) is a dyadic attachment-based treatment (i.e., an intervention centering on the relationship between adult and child) that targets young children, ages birth to 6, who are exposed to interpersonal violence, in particular, intimate partner violence and child maltreatment. Families typically participate for one year in weekly sessions that focus on restoring safety, promoting emotion regulation, improving the child-caregiver relationship, normalizing the trauma-related response, and creating the joint construction of a trauma narrative (i.e., parents and children together devise a way of conveying the story of the traumatic event).[24,31] The goal of CPP is to facilitate the child's return to a normal developmental trajectory. This intervention can be delivered in the clinician's office or in the family home. Like ABC, CPP has been implemented with diverse populations, including African American and Latino families.

CPP's effectiveness with young children exposed to interpersonal violence and/or child maltreatment has been examined through randomized controlled trials, comparing children whose families received CPP to those who did not. The findings of these studies include (1) preschoolers who witnessed interpersonal violence and their mothers showed reductions in Post-Traumatic Stress Disorder and related symptoms following CPP[32,51]; (2) maltreated preschoolers showed better relationship expectations and improved internal representations of themselves and their parents following CPP[33]; (3) maltreated infants

showed more secure attachments following CPP[34]; and (4) traumatized toddlers and their mothers showed relationship improvement, less anxiety and stress, and fewer behavioral problems following CPP.[32,35]

Promising interventions for infants and toddlers exposed to trauma:

Although ABC and CPP are the only rigorously tested interventions specifically designed for infants and toddlers, there are multiple, promising interventions and strategies across a larger age group that may be suitable for infants and toddlers exposed to trauma. These approaches range from child-level, to family-level, to community-level interventions, all with the ultimate goal of reducing children's exposure to traumatic events and experiences or buffering them against the adverse outcomes of exposure to trauma. The following are examples of promising interventions that may be suitable for infants, toddlers, and their families. Each are also listed in Table 2.

Parent-Child Interaction Therapy (PCIT) is a theoretically and evidence-based intervention for families with children from age 2 to 12.[36–39] Although PCIT was designed to address childhood behavioral problems, it has been used for families of children who have experienced interpersonal complex trauma. Originally delivered in an office utilizing a one-way mirror and the practioner providing advice through a two way radio system, PCIT can be delivered in a standard clinic/agency or in the family home. PCIT targets improved quality of the parent-child relationship, reduced child behavioral problems, enhanced parenting skills, and decreased parental stress. These goals are achieved through educational sessions in which parents learn skills to enhance their relationships with their children and then participate in live coaching sessions focusing on positive discipline and responsiveness to children. PCIT has been carried out with many different populations, including African American, Latino, and Native American groups.

PCIT has a long history of research, including several randomized controlled trials. A particularly relevant study was conducted in which physically abusive parents of

children ages 4 to 12 years were randomly assigned to PCIT, PCIT-enhanced, and a standard community-based parenting group.[42] Parents who received PCIT were less likely to have a re-report for physical abuse when compared to those who did not receive PCIT, and demonstrated fewer negative parent-child interactions. PCAT is currently undergoing a rigorous evaluation conducted by the University of California, Davis.

Parent-Child Attunement Therapy (PCAT) is a modification of PCIT for children ages 12–24 months. Based on the goals and strategies of PCIT, this intervention is designed to enhance the caregiver-child relationship, decrease parent and child psychological symptoms, reduce caregiver distress, and increase caregiver understanding of child development. PCAT can be delivered in the office or home, and has a duration of approximately 8 to 12 weeks.[40]

Another modification of PCIT is the ***Child-Adult Relationship Enhancement (CARE)*** intervention, which targets children ages 2 to 12 years. The CARE intervention can be implemented by adults who do not have clinical backgrounds, such as child care providers, foster parents, and child welfare workers.[41] It is designed to address interpersonal acute and complex trauma, including physical, sexual, and emotional abuse and neglect. The intervention utilizes the 3 "P" skills, namely praise, paraphrase, and point out behavior, to improve parents' child management skills. There is a trauma education component to this intervention that allows parents to address a child's problem behaviors in the context of their awareness of the impact of trauma on children.

Table 2. Interventions for Families of Infants/Toddlers Experiencing Trauma*

NAME	DESCRIPTION
Evidence Based Interventions Targeted to Very Young Children and Families	
Attachment and Biobehavioral Catch-up (ABC)[25-30]	Theoretically driven and evidence-based brief intervention for children ages 0–2 and their families; 10 sessions focused on four target behaviors (i.e., providing nurturance, following the lead, avoiding frightening behavior, overriding voices from the past); use of video clips throughout and in-the-moment commenting to promote positive parental behavior.
Child-Parent Psychotherapy (CPP)[24,31–33,51]	Theoretically driven and evidence-based treatment for children ages 0–6 and their families; one year of sessions focused on safety, affect regulation, improving the child-caregiver relationship, normalization of trauma-related response, and joint construction of a trauma narrative.
Promising Interventions: Designed for Broader Age Range	
Parent-Child Interaction Therapy (PCIT),[36–39,42] ***Parent-Child Attunement Therapy (PCAT)***[40]	Theoretically and evidence-based intervention for children ages 2–12 years and their families; didactic and live coaching sessions on parental responsivity and positive discipline; randomized control trial with physically abusive families – PCIT families are less likely to have re-report of abuse and have fewer negative parent-child interactions. An adaptation of PCIT for 12–24 month olds (PCAT) is currently being evaluated.
Child-Adult Relationship Enhancement (CARE)[41]	Modification of PCIT that can be used by adults who do not have clinical backgrounds to address interpersonal acute and complex trauma; utilizes cognitive-behavioral strategies to improve parents' child management skills; includes a trauma education component.
Trauma Smart® [43]	Multi-pronged intervention for preschool children in Head Start who are affected by trauma; provides training for staff, parents, and providers using a trauma framework; delivers trauma-focused cognitive-behavioral therapy to referred children; offers early childhood mental health consultation to classroom staff regarding the promotion of social-emotional competence and the reduction of behavior problems.
Trauma Adapted Family Connections (TAFC)[44]	Adaptation of the evidence-based Family Connections intervention that targets families at risk of neglect to incorporate knowledge and strategies relative to trauma; delivered in the home via one session per week for 6 months.
Child Development – Community Policing (CDCP)[45]	Collaborative model between law enforcement and child mental health professionals that is designed for children who experience community and/or domestic violence; response is available 24 hours a day, 7 days a week; children and families may receive one to six mental health sessions focused on trauma; training is available for police and providers.
Psychological First Aid (PFA)[41,46]	Community-level response system for individuals immediately following disasters, terrorism, and emergencies; one session is provided to address a variety of post-disaster issues, including replacement and connection with social, concrete, and mental health supports.

* Although each of these interventions is grounded in research on child trauma, they have varying levels of evidence to support their effectiveness. Some have been tested through randomized controlled trials (e.g., ABC, CPP, PCIT), whereas others are based in the empirical literature but have not been rigorously evaluated. See references for additional information on each intervention's level of evidence.

Promising Interventions for Infants and Toddlers (continued)

Trauma Smart® is a multi-pronged, early childhood mental health approach originally designed for intervention with Head Start preschool children (ages 3–5) affected by trauma.[43] Head Start staff, parents, and other providers receive training on supporting traumatized children using the Attachment, Self-Regulation, and Competency (ARC) framework.
In addition, trauma-focused cognitive-behavioral therapy is provided for children who demonstrate adverse psychological and behavioral consequences from trauma exposure. Finally, early childhood mental health consultation is provided to Head Start programs, particularly to classroom teachers, with the goals of promoting children's social-emotional competence and reducing their behavioral problems.

Trauma-Adapted Family Connections (TAFC) is an adaptation of the evidence-based Family Connections intervention.[44] This intervention targets families of children from birth to 18 years of age who are at risk of neglect and typically have histories of complex developmental trauma. TAFC is delivered in the home, usually via one session per week for 6 months. The intervention uses family therapy; cognitive-behavioral strategies; and case management to address trauma, family stressors and crises, and environmental risk factors. Given that TAFC includes children of all ages in the family who experience trauma, it would be important to ensure that practitioners using this model serve infants and toddlers using developmentally appropriate strategies.

The **Child Development – Community Policing Program (CDCP)** is a collaborative model between law enforcement and child mental health professionals, which is designed for children of all ages who experience community and/or domestic violence.[45] The intervention is available 24 hours a day, 7 days a week to respond to children and families immediately in the aftermath of a traumatic event. Children and families may receive one to six mental health sessions. The model has an array of services for families, including a home visit that

addresses domestic violence, a three-session post-event model to help parents support traumatized children, and crisis intervention and follow-up clinical and collaborative interventions for trauma-exposed children. The program also conducts training for police officers, training for clinicians, program conferences, a trauma treatment clinic, and consultation services. As with the previous intervention, traumatized infants and toddlers may need a different set of services than older children.

Psychological First Aid (PFA) is a community-level response system for individuals immediately following disasters, terrorism, and other emergencies.[41,46] Thus, PFA would be available to parents of children of all ages. Typically, one session is provided to trauma-exposed individuals, which uses information gathering and case management to address a variety of post-disaster issues, such as displacement, safety and comfort, stabilization, and connection with social and service supports. Importantly, PFA workers use supportive and therapeutic strategies to support a family's sense of psychological safety and stability, and connect them with mental health services if needed. The second version of the PFA field manual contains a special section on tips for parents of infants and toddlers who have experienced a traumatic event.

How to Create Trauma-Informed Service Delivery Systems for Infants and Toddlers

Building on the work of the National Child Traumatic Stress Network,[3] programs such as child care, Early Head Start, home visiting, and child welfare can collaborate to create a trauma-informed service delivery system for infants and toddlers. Text Box 1 provides a definition for trauma informed service systems.

To meet the objectives outlined in Text Box 1, programs serving infants and toddlers must prioritize the following strategies and activities, which are aimed at reducing child trauma exposure and buffering them against the impact of trauma. Plans should include details for addressing each of these areas and for standard, universal follow-through.

Screening and Assessment. As part of enrollment and ongoing assessment strategies, programs should screen families for parent and child experience of trauma. Because young children and families experiencing trauma have unique service needs, it is important to utilize tools that address trauma specifically. Clinical and research experts on trauma in young children argue for a parent-child relationship approach for assessing infants and toddlers experiencing trauma.[56]

The screening measures regarding trauma exposure should include questions that are appropriate for infants and toddlers, such as separations from caregivers, infant crying, and physical shaking of the babies. For example, Family Partnership Agreements established with Early Head Start families could incorporate questions related to child and parent trauma exposure. With the recent child well-being mandate for child welfare entities,[48] it is important to gather information about young children's and parents' traumatic experiences and deliver services that address the consequences of these for both children's and parents' outcomes. Furthermore, given that trauma exposure can substantially derail young children's development, the ongoing developmental assessment of children that occurs in many child-serving programs (e.g., Early Head Start, child care, home visiting) should look carefully for the potential consequences of trauma. Screening and assessment tools in such programmatic contexts should focus on the outcomes of trauma specific to infants and toddlers (see Text Box 1) and specific to possible inter-generational trauma.

TEXT BOX 1

Trauma Informed Systems

Trauma-informed systems instill, into their organizational cultures, policies, and practices, knowledge about the impact of traumatic stress on children, parents, caregivers, and service providers.[47] A trauma-informed infant and toddler service delivery system would aim to achieve the following objectives: (1) maximize physical and psychological safety for children and families; (2) identify the trauma-related needs of children and families; (3) enhance the well-being and resilience of children, families, and providers; and (4) partner with children, families, agencies, and systems that interact with children and families.[3]

Trauma history screening. Although there are multiple measures that examine trauma exposure in older children,49 tools that specifically address infants and toddlers are limited. Two parental report measures that can be used to obtain information on trauma exposure for very young children, which can be used by practitioners and paraprofessionals, are the Child Trust Events Survey (CTES)[50–51] and the Trauma Events Screening Inventory (TESI).[52–53] CTES is a screening instrument that is used with caregivers of children under age 8. It contains 26 items about traumatic events, including accidents, abuse, violence, medical situations, and loss of caregivers. This instrument has been used in the Trauma Smart® program. TESI is a parental report instrument that captures the history of exposure to traumatic events for children under age 7, including injuries, hospitalization, domestic violence, community violence, and maltreatment. There are also questions regarding whether

the event involved a real or perceived threat to the child's or another person's physical integrity, as well as the level of the child's stress reaction to the event. This instrument contains 24 items and takes approximately 20–30 minutes to complete.

Trauma outcomes screening. There are many tools for assessing the emotional, behavioral, and other outcomes of trauma exposure for older children.[54] In contrast, almost no tools exist for examining the outcomes of trauma exposure for infants and toddlers. The frequently used Infant-Toddler Social-Emotional Assessment (ITSEA) and its shortened version (i.e., the Brief Infant-Toddler Social-Emotional Assessment [BITSEA]) tap into a variety of social-emotional outcomes for very young children, but they do not include items specific to trauma.[55]

Assessment Staff. Programs can establish a plan for universal screening for trauma exposure and/or symptoms. Screenings can be conducted by a variety of program staff, but for those children who screen positive for a trauma history, a more comprehensive assessment should be completed by professional staff with knowledge and skill related to child trauma. Thus, children and parents could be referred to mental health or trauma programs for more comprehensive evaluations of trauma exposure and its consequences, and for related service planning. For example, child sexual abuse evaluations, permanency evaluations (i.e., to inform decisions about whether parental rights should be terminated), and evaluations for Post-Traumatic Stress Disorder symptomatology or trauma-related developmental delays should be conducted by professionals who are licensed to do so and who have experience with young children.

Child Interventions. Child interventions typically focus directly and individually on the child to address the presenting concerns. Although there is a growing evidence base on effects of interventions for older children who experience trauma (e.g., trauma-focused cognitive-behavioral therapy), there is virtually no evidence regarding the effectiveness of child-directed interventions for infants and toddlers. Child-directed interventions (e.g., play or talk therapies) may require a level of cognitive and linguistic maturity that infants do not have. However, toddlers may naturally engage in play as a way of processing their traumatic experiences, so they may benefit from such approaches. It is important for programs to ascertain what child-directed interventions may be developmentally appropriate for toddlers, and whether there is evidence of intervention effectiveness with this age group. As stated in the previous review of evidence-based and promising interventions, targeting parent-child interaction may be most appropriate for infants and toddlers who have experienced trauma.

Parent Interventions. There are many intervention strategies for adults who experience trauma. Given that parental mental health affects parenting, it is critical to provide services that facilitate adults' coping with the trauma they have experienced. For example, some interventions for parents may address emotion regulation and impulse control, whereas other interventions support parents in reflecting on their own experiences with early trauma. However, it is equally important to improve these adults' parenting behaviors, which serve to buffer their infants and toddlers against the impact of trauma and/or reduce their experience of trauma. The few evidence-based interventions that exist (see the previous section) that include evidence specific to parents of infants and toddlers, emphasize relationship-based approaches that improve parental skill at responding to their infants

and toddlers. The newly formed Buffering Toxic Stress Consortium may produce some evidence about effective parent-child interventions delivered in the context of Early Head Start.[58]

Child care, Early Head Start, home visiting, and child welfare programs would benefit from integrating the available evidence-based programs into their ongoing service delivery. These interventions should address parents' own experience of trauma and promote parental support of infants/toddlers who have experienced trauma, as well as enhance parent-infant relationships and interactions. It is critical to consider how to implement these interventions in culturally appropriate ways for the families who participate. In programs that do not have the resources to provide these supplemental services to their participants, collaboration with early childhood mental health and parenting services in the community could potentiallysupport delivery of these services. These community-based collaborators should be selected based on their experience with the provision of trauma-informed treatment and intervention, as well as their awareness and provision of evidence-based models to address trauma in the families of infants and toddlers.

Staff Support. Providers and caregivers should receive training on strategies, assessments and latest evidence regarding trauma's impact on infant and toddler development.. A trauma informed system establishes an ongoing professional development plan to establish and maintain this information.. Beyond content knowledge, however, providers who serve children and families who experience trauma may be traumatized themselves from the stress of their work, which is often referred to as *secondary trauma*. To prevent secondary trauma, staff should receive training, supervision, and consultation that improves their capacity to provide trauma-informed intervention, which could be integrated into most child-serving programs.[47] Specifically, staff should be encouraged to reflect on their own traumatic experiences and feelings about their work with traumatized families. Staff self-care strategies, such as meditation and wellness activities, can also be helpful in reducing secondary trauma.[59] Foster and adoptive families, who care for young children who have experienced trauma, would also benefit from the strategies used for staff, including training, consultation, and support regarding the effects of trauma exposure on children's development and behavior.

Mental Health Collaboration. The broad range of children's needs requires that child-serving agencies collaborate with each other to ensure the development of the whole child. For infants and toddlers, pediatric, early care and education, early intervention, and mental health settings should work with one another to specifically address the needs of very young children who have been exposed to trauma. Early Head Start, home visiting and child care programs can have formal collaborations with health and mental health services to assess and intervene regarding the health and mental health difficulties found in infants and toddlers who have experience trauma. Child welfare programs can contract with other service systems, which have trauma-informed approaches, to provide services to their population of children, the overwhelming majority of whom are traumatized. One example of a collaboration between child welfare services and a trauma-specific intervention exists in San Francisco, CA, where clinicians at the University of California, San Francisco, and San Francisco General Hospital support the local child welfare system through early childhood mental health consultation, assessment, and treatment regarding infants and toddlers who have been exposed to trauma.[60] Overall, the complexity of the needs of these children and families requires cross-system collaboration, across child-serving agencies and trauma-specific programs, which could foster case coordination such as sharing resources, exchanging family data, and joint decision-making about service delivery (e.g., a calendar of contacts, the role of each interventionist).

Conclusions and Recommendations

Infants and toddlers are disproportionately exposed to trauma, and show severe and long-lasting consequences of this exposure on their development. Unfortunately, few interventions targeting infants and toddlers have been subjected to rigorous evaluation regarding their effectiveness in reducing the impact of trauma exposure on these very young children and their parents. Based on the extant data, a common element of effective interventions for this population is an *approach focused on enhancing parent-child relationships and interactions*. Programs serving infants and toddlers exposed to trauma should try to integrate such interventions into their services available to families with very young children. In addition, it is important that they engage in the following strategies to reduce child trauma exposure and buffer children against the impact of trauma[3]:*

- Routinely screen for trauma exposure and related symptoms.
- Use culturally appropriate evidence-based screening, assessment, and treatment for traumatic stress and associated mental health symptoms.
- Make available resources on trauma exposure, its impact, and treatment.
- Engage in efforts to strengthen the resilience and protective factors of children and families impacted by and vulnerable to trauma.
- Address parent and caregiver trauma and its impact on the family system.
- Emphasize continuity of care and collaboration across child service systems.
- Maintain an environment of care for staff that addresses, minimizes, and treats secondary traumatic stress, and that increases staff resilience.

Early care and education programs, home visit interventions, and child welfare services are important venues for the identification of infants and toddlers who have been exposed to trauma. Moreover, these child-serving programs could serve as sources of trauma-informed services, including evidence-based parenting interventions that are designed to reduce trauma exposure and buffer very young children against the effects of trauma. In this way, infants and toddlers at risk for trauma exposure increase their opportunity to experience contexts that promote their optimal short- and long-term development. ■

* The National Child Traumatic Stress Network has identified a number of resources that can facilitate the development of a trauma-informed service delivery system for programs serving young children. Their website is www.nctsn.org/resources/topics/creating-trauma-informed-systems, and they provide a range of additional recommendations for serving children who have seen or experienced traumatic events.

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