OTA The Koomar Center White Paper

A Sensory Integration-Based Perspective to Trauma-Informed Care for Children

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Background

The importance of early parent-child interactions in the social, emotional and communicative development of children is well understood. These experiences between parent and child build the sense of safety and security needed for the development of secure attachment, trust, and understanding of the world. Children who experience events which overwhelm their ability to understand or cope, and who perceive threats they are not able to respond to, experience trauma (Levine & Levine, 2010). Early childhood traumatic experiences are increasingly common. In 2005, 71% of a national sample of children and youth from 2 to 17 years of age were found to have been exposed to one or more victimization incidents in the past year. Add to this, children who are adopted domestically and internationally, infants in NICUs, infants and toddlers undergoing early medical procedures, as well as those exposed to natural disasters, and the stunning prevalence of infant and child exposure to traumatic events becomes evident (Spinazzo, et al. 2013). Chronic, multiple, and prolonged traumatic experiences, especially those that occur early in life and are interpersonal in nature have particularly adverse effects on a child's development. These "complex traumas" not only can interfere with development of secure attachments but also are highly related to later depression, suicide, alcoholism, drug abuse, domestic violence, and health problems such as heart disease, cancer and stroke (Van der Kolk, et al., 2005). These problems result in significant public health concerns for our developing children.

The Problem

Childhood trauma and its resulting developmental impact is just beginning to be understood. Further, interventions for this problem are in their infancy and rapidly developing. Recent advances in trauma care and neurobiological research have suggested that complex traumatic experiences are associated with neuroanatomical differences in numerous brain structures particularly those related to self-regulation and arousal. Current practices in the fields of psychology, child development, education and occupational therapy are challenged by how to best address both the behavioral outcomes of complex trauma as well as the neurobiological underpinnings. Occupational therapists working with children with problems processing and integrating sensory information are treating increasing numbers of these children with self-regulation problems who also present with trauma and related attachment concerns. This increased clinical need for occupational therapists with expertise in treating and managing both sensory integration problems and the mental health needs of these children with sensory integration and complex trauma has resulted in a need for therapeutic programming that provides more collaboration between occupational therapists and mental health personnel.

Current Perspectives

When dysfunction in attachment exists, there are many overlapping diagnostic symptoms with children who experience trauma and those with sensory integration dysfunction. This may include difficulties such as problems with arousal regulation; sensory defensiveness; frequent flight, fright or fight responses; aggression; and affect or behavioral dysregulation. Traditionally, however, a child's difficulties with trauma processing, attachment concerns and self-regulation concerns have been addressed separately and by different professionals resulting in care that was not well coordinated or integrated. As there has been increased awareness of the relation between self-regulation and sensory processing in children who have trauma and attachment concerns, there has been interest in incorporating sensory strategies into psychotherapy practices (Warner, Cook, Westcott & Koomar, 2011). Use of sensory strategies with adults with mental health needs by occupational therapists has been common practice in the field of occupational therapy for over 30 years with programs such as the *Sensory Connections Program*. However, integration of sensory-based treatment practices into children's psychotherapy is relatively new and intervention programs involving

input of both psychotherapists and occupational therapists are just emerging.

A New Perspective

Dr. Jane Koomar, an occupational therapist, in conjunction with psychologist Dr. Daniel Hughes, proposed a transdisciplinary model of collaboration among psychotherapist, occupational therapist, parent or caregiver and child to maximally meet the needs of children with sensory integration problems and complex trauma concerns including disrupted attachment. This model provides care across and within disciplines that is focused on the child-parent relationship. It is particularly concerned with the influence of the sensory, physical and emotional environment on that relationship. This ecological framework involves cross training of professionals, through consultation, co-treatments, and education to provide each member with resources to facilitate sensory processing and self-regulation, trauma-healing and promote attachment within the boundaries of their skills and profession. The role of the mental health professional, occupational therapist or parent, level of collaboration and team coordination varies depending on the needs of the individual child.

This transdisciplinary model of care has been explicated in the SAFE PLACE intervention program. This intervention encompasses concepts and philosophies from three core theoretical knowledge areas –– sensory integration theory, attachment theory, and complex developmental trauma. Literature, research and intervention strategies from these core areas provide a foundational framework for engaging and interacting with children who have Sensory Processing Disorder in conjunction with complex trauma-attachment disorders and their families.

The term "SAFE" in this model of care reflects the sensory component of the model and means *Sensory Attunement-Focused Environment*, representing the use of safe, supportive, developmentally appropriate, sensorimotor activities and environments that promote play and fun in children's physical and emotional development. The attachment component is represented by the term "PLACE", meaning *Playfulness, Love, Acceptance, Curiosity and Empathy*, qualities of mindful engagement utilized by collaborating therapists to facilitate secure attachment and trauma healing in the child and family. The terms "SAFE" and "PLACE" together as *"safe place"* represent the trauma component, highlighting the important process of establishing and maintaining an environment and experience of safety and stability for the child, both within the child him/herself and between the child and others which promotes processing of traumatic reactions. Within such a "safe place" in the presence of kind and trustworthy relationships, children can reclaim their innate capacity to play, look at and process their trauma experiences (Streeck-Fischer, & Van der Kolk, 2000; Van Der Kolk, et al., 2005).

In practice, this model espouses 1) facilitation of co-regulation between child and parent through sensory integration intervention techniques; 2) facilitation of secure attachment bonds between child and parent by provision of sensory-based intervention and trauma processing in an emotionally and physically safe environment; 3) promotion of healthy and adaptive child development across all domains through child-led developmentally appropriate activities; and 4) healing of traumatic reactions through guided psychotherapy experiences.

Further, The SAFE PLACE model proposes that intervention using these tenets will result in 1) regulation of the nervous system to decrease hyperarousal; 2) development of necessary foundations for postural, motor, social/emotional and cognitive skills to increase resiliency and adaptive behavior; and 3) co-regulation and attachment bonding with parents, and ultimately, 4) traumatic healing for child and parent.

A variety of current or emerging treatment models and programs combining sensory and psychotherapy approaches exist to address the trauma experiences of children and their families. These include sensory-based programs such as the *SMART: Sensory Motor Arousal Regulation Treatment* program (Warner, Cook, Westcott & Koomar, 2012), and *Sensorimotor Psychotherapy* (Ogden & Minton, 2000) as well as psychotherapy models such as the *Neurosequential Model* (Barfield, Codson, Gaskill, & Perry, 2012), and *Dyadic Developmental Psychotherapy* (Becker-Weidman & Hughes, 2008). The SAFE PLACE model and intervention program differs from these mental health psychotherapies and sensory-based programs in the sensory-rich environment used for the SAFE PLACE

intervention, the full inclusion of parents in the treatment session, and the simultaneous and collaborative treatment provided by the occupational therapist and mental health practitioner to both the child and their caregiver.

SAFE PLACE principles have been used clinically at OTA The Koomar Center for nearly 10 years. Initial steps have been made to manualize the SAFE PLACE program and articulate core concepts of the intervention along with development of a preliminary intervention fidelity measure. Qualitative examination of existing clinical videos of intervention, consultation and assessment sessions utilizing SAFE PLACE principles has been conducted. Results support the core concepts of the SAFE PLACE model of care.

Barriers to Progress and Next Steps

The SAFE PLACE sensory integration-based trauma-informed intervention model and program, however, faces several barriers to further development. First, the model must be systematically examined in clinical practice. Funding and practical strategies for reimbursement of personnel costs for simultaneous treatment by multiple professionals must be addressed to make this model affordable for families. Both occupational therapy and mental health professionals must be trained in the SAFE PLACE model of care and related areas, e.g. occupational therapists must have additional training in trauma treatment and management and mental health professionals must be trained in sensory integration. Outcomes of the program and sensitive and reliable measures must be identified. The dosage of treatment, e.g. length and frequency of therapy, needed for optimal therapeutic benefit must also be determined.

The following action steps need to be taken:

- A series of case studies must be conducted with systematic examination of the SAFE PLACE intervention principles and identification of appropriate outcomes and measures.
- Funding for services must be secured to make the intervention affordable for families.
- Intervention efficacy of the SAFE PLACE program must be examined to determine its ultimate value as a viable alternative intervention for children with sensory processing problems and complex trauma attachment disorders
- A SAFE PLACE training program for occupational therapists and psychotherapists must be developed.
- A pilot study is needed to identify reliable and valid outcome measures for the intervention as well as provide additional efficacy evidence and inform practitioners about treatment frequency and duration.

The SAFE PLACE model and program shows considerable promise as an intervention that can provide these complex children with greater self-efficacy, better self-regulation, secure attachment bonds and improved mastery over their world.

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