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A Guide for Occupational Therapists: Utilizing Trauma-Informed Care to Guide Intervention for Children in Foster Care

by

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A Scholarly Project

Submitted to the Occupational Therapy Department

of the

University of North Dakota

In partial fulfillment of the requirements

for the degree of

Master of Occupational Therapy

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2018

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This Scholarly Project Paper, submitted by Courtney Crabill and Katie Hanson, in partial fulfillment of the requirement for the Degree of Master of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

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Care to Guide Intervention for Children in Foster Care

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Courtney Crabill Date

Katie Hanson Date

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ABSTRACT

The purpose of this scholarly project was to create a guide for trauma-informed interventions for occupational therapists specifically to use with foster care children. Currently, there are approximately 600,000 children living in foster care in the United States (Child Welfare League of America, 2015). Children in the foster system who have experienced or witnessed violent actions often demonstrate post-traumatic stress like symptoms and diagnoses. Often times these experiences affect their development, coping skills, emotional regulation, and relationships and attachments (Lynch et al., 2017; Deutsch et al., 2015; Heim et al., 2010). It is estimated that between 40% and 60% of children in the foster care system have been diagnosed with at least one psychiatric disorder and approximately 33% of foster care children have three or more psychiatric diagnoses (Paul-Ward & Lambdin-Pattavina, 2016). Due to their traumatic experiences and subsequent diagnoses, children in foster care often have complex mental health needs (Simms, Dubowitz, & Szilagyi, 2000; Deutsch et al., 2015).

A literature review was conducted in order to identify the need to address trauma's effects and its impact on occupational performance and engagement in various environments. The authors utilized research articles, textbooks, and resources from the American Occupational Therapy Association and other reliable databases. The Ecology of Human Performance model (EHP) was used as the framework in guiding the development of this guide.

Our guide, A Guide for Occupational Therapists: Utilizing Trauma-Informed Care to Guide Intervention for Children in Foster Care, was organized by the various aspects of the EHP model. The guide begins with operational definitions, followed by background information, assessments for occupational therapists to use, and trauma-informed interventions that can be utilized by occupational therapists based off of the EHP model.

Chapter I: Introduction

Currently, there are approximately 600,000 children living in foster care in the United States (Child Welfare League of America, 2015). Children in this setting were placed into alternative housing options because their original home was deemed unsafe for the child's well-being. Environments considered unsafe frequently include abuse (sexual, physical, or mental), neglect, or illicit substance use by parents (Precin, Timque, Walsh, 2010; D'Andrea et al., 2012; Racusin et al., 2005). Children in the foster system, who have experienced or witnessed these violent actions, often demonstrate posttraumatic stress like symptoms and other mental health diagnoses. Often times their development, coping skills, emotional regulation, and relationships and attachments are impacted (Lynch et al., 2017; Deutsch et al., 2015; Heim et al., 2010). It is estimated that between 40% and 60% of children in the foster care system have been diagnosed with at least one psychiatric disorder and about 33% of foster care children have three or more psychiatric diagnoses (Paul-Ward & Lambdin-Pattavina, 2016). Due to their experiences and subsequent diagnoses, children have complex mental health needs but have not been referred to the skilled services they need (Simms, Dubowitz, & Szilagyi, 2000; Deutsch et al., 2015). By utilizing a trauma-informed care system, children in this setting will be able to receive the services they need from professionals that can recognize and treat aspects associated with trauma in order to provide best possible care.

This product has been developed as a guide for occupational therapists who work with children in the foster system between the ages three to twelve, as this is an age group often overlooked in this context. Various programs and research exist regarding older foster children as they are about to age out of the system (Lynch et al., 2017; Precin et al., 2010; Paul-Ward, Lambdin-Pattavina, & Haskell, 2016). However, there is a need to address the aspect of trauma often experienced by younger children in the foster system. Trauma affects various aspects of a child's development along with hindering their ability to participate in meaningful life roles and activities.

The purpose of this product was to create a guide for trauma-informed interventions for occupational therapists, specifically to use with foster care children. Our product, *A Guide for Occupational Therapists: Utilizing Trauma-Informed Care to Guide Intervention for Children in Foster Care* is based on the Ecology of Human Performance (EHP) model to guide the creation of the product using the various contexts and intervention strategies suggested by this model. This guide was developed to increase the range of occupational performance and engagement in their environment for foster care children who have experienced trauma. The literature suggests there are several barriers that decrease optimal performance in a child's daily activities. There are several interventions in this product that offer a holistic approach in the treatment of a child who has experienced trauma. These interventions take into consideration the trauma aspect that a child has experienced and utilize various approaches to change negative thoughts and actions into positive ones.

The Ecology of Human Performance model outlines five intervention approaches that will influence the application of this product. These intervention approaches include

establish/restore, adapt/modify, alter, prevent and create (Dunn, 2017). The establish/restore intervention focuses on person factors and what that person is able to accomplish in order to establish a new skill or restore a skill that was lost due to illness (Dunn, 2017). Alter intervention focuses on making a planned change to a specific context where a person can perform a task. The context is unchanged in the alter intervention so the goal of the therapist is to find the best match for the context options and a person's abilities (Dunn, 2017). While alter interventions do not make changes to the context, the adapt/modify intervention works to revise a context or task in order to facilitate optimal performance for an individual. The prevent intervention is utilized to influence a person, context, or task variable to prevent a negative outcome. The last intervention strategy is the create intervention, which focuses on creating circumstances that facilitate optimal performance for multiple populations in multiple contexts (Dunn, 2017).

Context in which the EHP model offers for guiding intervention is a person's physical, temporal, social, and cultural context (Dunn, 2017). The physical context includes the natural and contrived environments along with the objects within those environments. Social context includes the people or clubs that a person interacts with. Cultural context includes ethnic, religious, organization, and other groups that contribute to a person's sense of identity. The contexts provide both supports and barriers to performance as the access to materials and objects are needed to engage in tasks, availability of other people to perform certain activities to support a person's performance, and expectations and norms that guide performance (Dunn, 2017).

Chapter II contains the findings from the literature review that was utilized in the development of this product. The literature that was reviewed came from library databases, textbooks, federal associations, and other materials to gather information in the establishment of an occupational therapy role in the foster care system to treat children who have been involved in traumatic experiences. Contexts in which the product will be used were established through research as well as different intervention strategies to best utilize trauma-informed care for foster care children. The Ecology of Human Performance Model has been used as a guideline in the development of the product and has been known to take in consideration of context and interdisciplinary care.

Chapter III describes the methodology used in the creation of this product. Chapter IV contains the product from the extensive literature review, a guide for interventions using trauma-informed care, specifically for the use of occupational therapists in the foster care system. Information is also included to help establish an interdisciplinary approach between professionals and other clinicians to increase the use of trauma-informed care across treatments. Chapter V contains the conclusion of this product with a summary of the product, limitations of the project, proposal for how the product could be implemented, and recommendations for future action, development, and research.

CHAPTER II

LITERATURE REVIEW

The foster care system is a government run program that provides supervision and care to children that are no longer able to live with their biological parents. Many of the children in the foster care system are separated from their parents for their own safety and well-being (Precin, Timque, & Walsh, 2010). These children in the foster care system have often been exposed to violence, illicit substances, and neglect (Child Welfare League of America, 2015; Larkin, Felitti, & Anda, 2014; Henderson, Batten, & Richmond, 2015). These negative experiences often affect the child's mental health and development immediately and later in adulthood (Garcia, et al., 2015).

Along with the impacts of mental health and development, children in the foster care system often have experienced trauma, which can lead to impairments with emotional and behavioral skills that affect their adaptive functioning (Precin et al., 2010). Trauma is defined as an individual experiencing mood, anxiety, or other disruptive behaviors due to a severe, negative experience (D'Andrea et al., 2012). Children in the foster care system often experience some form of trauma, and studies have shown negative impacts in the future caused by these traumatic experiences (Child Welfare League of America, 2015; Precin et al., 2010).

Based on the identified concerns, there was an identified need to promote traumainformed care amongst foster children to increase occupational performance and engagement in their environment. Factors considered included the role of occupational therapy in the foster care system, trauma-informed care, diagnoses associated with trauma, occupational therapy interventions, and the development of an evidenced-based product for occupational therapists on how to best utilize trauma-informed care in the foster system across various contexts. Although, occupational therapy does work with children in the foster care system, there is a need for occupational therapists to incorporate aspects related to trauma in their intervention in this context.

Foster Care System

Prevalence of Children in the Foster Care System

The foster care system is a government run program designed to provide children with a substitute housing arrangement when their original home is no longer a safe or stable option (Child Welfare Information Gateway, 2017). During 2015, 427,910 children were documented to be in foster care (Child Welfare Information Gateway, 2017). However, this number may not be an accurate portrayal of the current children in the program's care. Many children enter and exit the foster system within a 12-month timespan. According to statistics collected by the United States Department of Health and Human Services (2015), 48 percent of children spend less than a year in foster care. Taking the length of time spent under foster care into consideration, the Child Welfare Information Gateway (2017) estimated that approximately 640,000 children lived with a foster family at some point in the year 2015.

When children are admitted into the foster system, a case plan is initially established. The case plan is designed to keep the team focused on the overall goals for the child regarding placement at the end of their time with the foster system. Over half of

the cases presented, begin with the goal to reunite the child to their birth parents or primary caregivers (Child Welfare Information Gateway, 2017). However, many of the children in the foster system lived with caregivers who inflicted violence, used illicit substances, or were neglectful which often makes returning home difficult (Precin et al., 2010; D'Andrea et al., 2012; Gronski et al., 2013; Lynch et al., 2017; Racusin, Maerlender, Sengupta, Isquith, & Straus, 2005). Because of the complex home environments of foster children, over one-third of their cases involve permanent alternative housing during initial goal planning (Child Welfare Information Gateway, 2017).

As the case plan goals range from reunification to adoption, the track the child is on is also variable. The length of stay in the foster system, number of placements, and end goal are commonly varying factors. These factors are often affected by the child's original home environment, family's history, and the child's personality and behaviors (Child Welfare Information Gateway, 2017; Cross, Koh, Rolock, Eblen-Manning, 2015). On average, a child will spend a little over one year in the foster system (Child Welfare Information Gateway, 2017). However, during that year, the average child in the foster system will be transferred between three to four homes (Cross et al., 2015). Children are frequently transferred from one foster home to another because the caregivers are unable or unprepared to care for the problem behaviors demonstrated by the children (Chamberlain et al., 2008). These changes in environment are often difficult for children, and due to the frequent moves, the need to address trauma-related symptoms is often forgotten and left untreated.

Previous Trauma

Children in the foster care system have often been exposed to traumatic experiences such as violence, illicit substance, and neglect (Child Welfare League of America, 2015; Larkin et al., 2014; Henderson et al., 2015; Precin et al., 2010). These negative experiences can often affect the child's mental health and development immediately or later in adulthood (Garcia et al., 2015; D'Andrea et al., 2012). Along with the impacts in mental health and development, children in the foster system often have experienced trauma that leads to impairments with emotional and behavioral skills that affect their adaptive functioning (Precin et al., 2010).

Children that continue to encounter this trauma, experienced or witnessed, are at a high risk for undergoing toxic stress syndrome (Gronski et al., 2013). Toxic stress syndrome is the term given to children that have recurring stress in their lives (Gronski et al. 2013). Many of the children in the foster care system are separated from their parents due to this recurring stress. These stressors can have a negative impact on a child's development potential. Research has shown that children who have experienced toxic stress syndrome are at greater risk for impairments with their developing nervous system along with deficiencies in physical, emotional, and mental health (Gronski et al. 2013; Larkin et al., 2014). Many children in the foster system show difficulties in these areas; however, most services offered to them do not address the aspect of trauma or the diagnoses commonly associated with these experiences.

Early-life trauma can predispose children to develop multiple different psychiatric syndromes, most commonly mood and anxiety disorders (Racusin et al. 2005; Heim et al., 2010). Along with toxic stress syndrome, there are several other diagnoses such as

posttraumatic stress disorder, oppositional defiant disorder, reactive attachment disorder, anxiety, depression, and placement instability that frequently occur, which can affect a child's mental health and overall wellbeing (Heim et al., 2010). When a child is predisposed to traumatic experiences, they can experience personal and social difficulties throughout multiple environments whether it be at school, home, or in the community.

Current Treatments Offered

Children in the foster system can receive a wide variety of services during their time in care. These services can include physical, occupational, or speech therapies and various psychiatric care along with regular visits from social work. Upon initial admission into the foster care system, many states require a child to have a comprehensive medical assessment completed in order to evaluate any physical needs (Simms, Dubowitz, & Szilagyi, 2000). However, an assessment on psychosocial factors is not required. Many caseworkers rely on the foster parents to recognize and determine if the child is in need of mental health care; however, if the foster parents were to identify a need for psych-based treatment, they would not have the power to provide legal consent for the child to get the help they need (Simms et al., 2000).

Children in the foster system often have difficulty getting referred to the services they need despite the large number of adults sharing responsibility for them. Research has shown that despite the standards and procedures set up for the foster system, one-third of children in their care do not receive the immunizations they need, one-third reported needing further health care that they did not receive, and approximately 12 percent of children did not have any routine health care services (Simms et al., 2000). Along with the difficulty connecting foster children to health care providers,

many medical professionals are untrained or unwilling to work with this population. Children in the foster care system often have complex presentations and needs, and most healthcare providers are not trained to recognize, treat, or refer foster children to the appropriate services (Simms et al., 2000; Deutsch et al., 2015). Among the healthcare professionals, it is often difficult to recruit pediatricians to get involved with treating children in foster care. A child in the foster system's complex social history, poor reimbursement, and lack of professional communication all influence the need for more pediatric doctors to be trained and willing to treat this vulnerable population (Simms et al., 2000).

Along with foster children having difficulty utilizing mental health care they need, various other barriers exist for this population in regards to services. Children in the foster system often receive inaccurate diagnoses which can impact which services they are referred to (Deutsch et al., 2015). The incorrect diagnosis may be attributed to professionals in contact with the child being untrained to properly identify common diagnoses' signs and symptoms (Deutsch et al., 2015; Simms et al., 2000). Another barrier to children receiving the appropriate diagnosis and services is that children in the foster system are often being moved amongst foster families and their birth family (Deutsch et al., 2015). When a child is frequently moved, it becomes even more difficult for the caregivers and professionals to recognize psychological deficits and refer a child to the service delivery they need (Deutsch et al., 2015).

In addition to children in the foster system being moved without comprehensive therapies or assessments, they are also prescribed various psychotropic medications in order to manage their behaviors (Deutsch et al., 2015). However, most of these drugs

have not been tested for their efficacy and safety for a pediatric population (Deutsch et al., 2015). These medications are often times designed to treat more severe disorders such as schizophrenia and bipolar, but instead, they are being prescribed to foster youth in order to manage disruptive behaviors and attention deficit disorders (Deutsch et al., 2015). Sometimes there is little time to treat the mental health problems and behaviors of children in the foster system with non-pharmacologic options, and instead of receiving the behavior therapy they need, they are being prescribed antipsychotics (Deutsch et al., 2015).

Treatment and professionals are not always consistent for children in the foster system. However, social work is a constant service involved in the foster system (Larkin et al., 2014). Services offered by social work can vary by case and need, but in most instances, the focus is to provide the foster parents with resources and training in order to assist them in caring for their foster child (Larkin et al., 2014; Racusin et al., 2005).

Treatment Foster Care (TFC) is a program sometimes offered to foster parents through social work. This program offers foster parents specialized training along with extra resources and agency support in order to ease burden of care (Racusin et al., 2005). If a foster family registers for TFC, there are limits set to the number of foster children housed with each family to better focus care on individual children (Racusin et al., 2005). The family and child is then enrolled in family and individual child therapy sessions, school intervention, support groups, and are coordinated by a case manager with a smaller caseload (Racusin et al., 2005). Participation in TFC has been proven to have better outcomes with children having fewer mental disorders, better behaviors, and an increase in positive adjustments (Racusin et al., 2005).

Social workers have utilized prevention practices that work to address trauma with children in their care (Larkin et al., 2014). One of the fundamental ideas practiced by social work is the emphasis on family supports (Larkin et al., 2014). Family therapies are often used with both biological and foster families in order to prevent further damage from toxic stress caused by trauma (Larkin et al., 2014). These therapy sessions often involve educational aspects that inform both the child and the family about the negative impacts that toxic stress can have on an individual (Larkin et al., 2014). In order to stop the cycle of trauma, social workers focus on addressing childhood trauma in the foster care system by increasing awareness of children's needs, and offering resources to families (Larkin et al., 2014).

Trauma

Trauma is defined as an individual experiencing mood, anxiety, or other disruptive behaviors due to a severe, negative experience (D'Andrea et al., 2012). Children in the foster care system often experience some form of trauma, and studies have shown negative impacts in the future caused by these negative experiences (Child Welfare League of America, 2015; Precin et al., 2010).

Types of Trauma

Many studies have shown that exposure to traumatic experiences can alter a child's social, psychological, cognitive, and biological development (D'Andrea et al., 2012; Larkin et al., 2014; Henderson et al., 2015). These experiences are caused by exposure to any of the multiple types of traumatic stressors. Traumatic experiences can include witnessing family violence, physical abuse, sexual abuse, natural disasters, vehicular accidents, assault, neglect, severe bullying, and many others. (D'Andrea et al.,

2012). Children who are exposed to physical or sexual abuse may exhibit higher rates of psychological symptoms compared to children who have experienced trauma related to accidents or natural disasters (Heim et al., 2010). Different psychological effects can occur with different types of trauma however, all types of trauma will most likely have some sort of negative effect on a child whether it be in their childhood or later adulthood (Heim et al., 2010).

Neurological Effects of Trauma

Traumatic experiences can cause developmental changes in the brain. Early-life stress produces effects on the brain that can lead to vulnerability to stress, depression, and anxiety (Heim et al., 2010; Gronski et al., 2013; Zilberstein, 2014). The hypothalamicpituitary-adrenocortical (HPA) system serves two distinct functions. These two functions are maintaining the diurnal rhythmicity of hormone production and mounting responses to stressors. The HPA system is sensitive to physically aversive and psychological stressful situations (Bruce, Fisher, Pears, & Levine, 2009). Early-life stressors can cause a decrease in the volume of the hippocampus and amygdala (Zilberstein, 2014). When someone is exposed to a traumatic event, the body's biological stress response systems are activated (Bruce et al., 2009). When the stress response systems are activated, the body's attention goes towards protecting the individual against environmental life threats, and the body reacts accordingly to that threat (Bremner, 2006). The amygdala is involved with responses related to fear. When the amygdala is smaller than average, it is hyperactive and sends more response signals than normal (Heim et al., 2010; Gronski et al., 2013). These signals increase anxiety, panic, and fear in an individual. The hippocampus plays a role in memory functions, and it helps make new memories and

keeps past memories in storage (Bremner, 2006). When the hippocampus is reduced in size, it loses the ability to discriminate between past and present experiences or interpret environmental contexts accurately (Heim et al., 2010; Gronski et al., 2013). In most cases, an individual can have issues with relating environmental context to the traumatic event, which triggers an emotional response to that event (Bremner, 2006).

Exposure to trauma has led to an increase in affect and behavioral dysregulation, alterations in attention and consciousness, disturbance of attribution and schema, and interpersonal difficulties in children (D'Andrea et al., 2012; Racusin et al., 2005). Affective symptoms found in children who have experienced trauma include anhedonia, flat or numbed affect, explosive or sudden anger, or inappropriate affect (Gronski et al., 2013). Behavioral dysregulations could include withdrawal, self-injury, aggression, oppositional behavior, substance use, or other compulsive behavior (Gronski et al., 2013). Trauma can also affect a child's attention because of all the competing thoughts, which occur in the child's head. The child can be worried about when their next meal could be or when the next terrible thing will happen to them. This trauma may cause dissociation, depersonalization, memory disturbance, inability to concentrate, and disrupt executive functioning (Gronski et al., 2013). Children often experience distorted perceptions about themselves like shame and guilt because this is the way that they were told to perceive the world through a traumatic event. Interpersonal difficulties can include disrupted attachment styles, difficulties with trust, low interpersonal effectiveness, diminished social skills, inability to understand social interactions, poor perspective-taking abilities, expectations of harm from others, and poor boundaries (D'Andrea et al., 2012; Garcia et al., 2015). The symptoms described offer a clear need

for skilled services to address trauma-related disorders often impacting a child's overall health and well-being.

Diagnoses Associated with Trauma

It is estimated that between 40% and 60% of children in the foster care system have been diagnosed with at least one psychiatric disorder and about 33% of foster care children have three or more psychiatric diagnoses (Paul-Ward & Lambdin-Pattavina, 2016). There are high prevalence rates of children in the foster care system who display mental health diagnoses. In a recent study, it was found that in a sample of 347 foster children, the population fell under the DSM-III-R and DSM-IV-TR classifications for oppositional defiant disorder with a prevalence at 45%, depression had a prevalence of 36%, post-traumatic stress disorder had a prevalence of 50% in children in the foster care system, and 26% of children in this setting were diagnosed with generalized anxiety disorder (Tarren-Sweeney, 2013). Although several psychiatric diagnoses have co-occurring symptoms, each diagnosis generally has their own unique set of signs and symptoms.

Post-Traumatic Stress Disorder

Foster children in the United States are at higher risk for psychosocial problems than the general population (Stein et al., 2001). Being a victim of violence is a strong predictor of developing stress symptoms. In addition to early separation from parents and poor family support experienced by many foster children, this could increase the risk of developing post-traumatic stress disorder (Stein et al., 2001). Cognitive theorists have made assumptions that post-traumatic stress disorder (PTSD) symptoms develop when individuals perceive their traumatic experiences to have broad implications about

themselves, others, and the world (Ready et al., 2015). Children can develop PTSD after an exposure to a number of different traumatic events such as physical abuse, sexual abuse, motor vehicle accidents, witness to domestic violence, and other interpersonal events. Many of which are commonly experienced by children in the foster system.

Post-traumatic stress disorder is associated with impairments in social and academic functioning, and if left untreated can become a chronic issue for at least five years for more than one third of children who develop the disorder (Smith et al., 2007). Children who are exposed to psychological trauma can experience post-traumatic stress symptoms like intrusive memories or nightmares, avoidance of trauma reminders, emotional blunting, behavioral regression or acting out, anxious or ambivalent attachment, extreme fearfulness and hypervigilance, as well as somatic complaints related to autonomic hyperactivity (Ford et al., 2000). Clinicians working with children in foster care should always seek information about any violence exposure that may have occurred in the home before the child was moved into the foster system. This is encouraged because the clinician will be able to gain an overall understanding of the child and their traumatic history as well as incorporate trauma based care into their treatment process (Stein et al., 2001).

Oppositional Defiant Disorder

Oppositional defiant disorder (ODD) is distinguished by high rates of oppositional, defiant, aggressive, and noncompliant behaviors. Children who are untreated have a higher risk factor for adolescent delinquency (Reid, Webster-Stratton, & Hammond, 2003). Oppositional defiant disorder behaviors have repeatedly been found to predict the development of drug use in adolescence, violence, and school dropout (Reid

et al., 2003). When a child is placed into a foster home, foster parents often do not receive relevant education on how to care for a child who has experienced traumatic situations, where children could display maladaptive behaviors and mental health problems. A primary reason foster parents are unable to provide care for foster care children is due to a difficulty in understanding and managing child problem behaviors (Chamberlain et al., 2008). More than 40% of school-aged children in foster placement require special education due to severe attention difficulties, poor impulse control, and aggressive behaviors that are unable to be functional in the regular classroom. Emotional dysregulation can manifest, as stronger behavioral responses increase the difficulty for parenting (Deutsch et al., 2015).

Behavioral issues are the main reason why foster parents choose to quit and the child has to be removed from that foster home (Simms et al., 2000). Children that have been exposed to violence in the home decline in their overall executive functioning skills due to their inability to emotionally regulate (D'Andrea et al., 2012). Children who display symptoms of ODD are often aggressive, oppositional, defiant, externalize blame, isolated, spiteful, and have increased tempers (Ford et al., 2000; Reid et al., 2003). Early intervention targeted at reducing these behavioral symptoms can increase their social competence and academic competence. Taking the early intervention step is an important step in preventing academic failure, substance abuse, and delinquency in later years (Reid et al., 2003).

Anxiety

Children in the foster system are often exposed to neglectful, abusive care, and/or repeated caregiver disruptions. Therefore, these children are at risk for anxiety disorders,

affective disorders, and disruptive behavior disorders (Bruce et al., 2009). Early adverse experiences have been found to alter the development and subsequent functioning of the HPA system. When a child experiences acute stress, the HPA system is activated and cortisol levels elevate. Dysregulation of the HPA system has been an indicator of anxiety disorders, affective disorders, and disruptive behavior disorders (Bruce et al., 2009).

Generalized anxiety disorder can be described as an excessive and inappropriate worrying that is persistent and not restricted to any one particular circumstance (Lader, 2015). Anxiety symptoms can significantly interfere with a child's interpersonal and academic functioning. These symptoms can include restlessness, fatigue, difficulty concentrating, irritability, and disturbance in sleep (Lader, 2015). Anxiety can stem towards more severe disorders such as social phobia, separation anxiety, disordered eating, enuresis, encopresis, mood disorders (major depression and mania), and disruptive behavioral symptoms (Deutsch et al., 2015).

Depression

Depression is a diagnosis frequently seen in children who live in the foster care system; however, it is not typically present by itself. Children in the foster system that are diagnosed with PTSD have extremely high rates of comorbid depression (Racusin, et al., 2005). Although, it is a common diagnosis in the system, depression often goes untreated for children in foster care (Perry, Pollard, Blaicley, Baker, Vigilante, 1995). As Perry et al. (1995) explained in their research (1995), a combative and behaviorally impulsive child would be referred to mental health services before a compliant and depressed child would be. As these children are not often connected to the care they need, depression symptoms and its effects are generally left untreated.

In order to better assess and treat depression in this setting, there are signs and symptoms that caregivers should look out for. Childhood depression presents itself differently than the diagnosis would in adults. In children, mood will often appear depressed or irritable (Bhatia & Bhatia, 2007). Younger children often have difficulties explaining their feelings in a clear way, and therefore, they will frequently report vague physical complaints such as stomach or headaches (Bhatia & Bhatia, 2007). Negative behaviors are another sign to look for in depressed children. As they are unable to regulate their emotions effectively, children may act out, demonstrate reckless behavior, or potentially become hostile in their interactions (Bhatia & Bhatia, 2007). In a school setting, teachers should monitor if a child is not participating in peer play or activities. Children with depression may show difficulty with paying attention or concentrating in a classroom setting as well, and they will often participate in self-depreciation, "I'm stupid" etc. (Bhatia & Bhatia, 2007).

Reactive Attachment Disorder (RAD)

In the foster system, children, on average, will be transferred between three to four homes during their stay (Cross et al., 2015). Because of this unpredictability and frequent changing of caregivers, children in foster care will often develop disorders relating to attachment, with the most frequent diagnosis being reactive attachment disorder (RAD) (Tarren-Sweeney, 2013; Deutsch et al., 2015). RAD is explained as when a child is unable to respond to social interactions in a developmentally appropriate manner (Racusin et al., 2005; D'Andrea et al., 2012). Along with being unable to interact appropriately, this disorder must appear before the age of five and be caused by pathological parenting behavior (Racusin et al., 2005).

There are two subtypes of RAD that are often seen in children in foster care: inhibited and disinhibited types (Racusin et al., 2005). Inhibited type of RAD is recognized when children are typically avoidant or hypervigilant in their interactions, whereas disinhibited type is when children form relationships with adults figures much more quickly than what is appropriate or, in some cases, safe (Racusin et al., 2005; D'Andrea et al., 2012). The varying types of RAD make forming healthy relationships with adults and caregivers difficult for children, and will often impact their ability to connect with others as they age.

Precin, Timque, and Walsh (2010) explained why it is important for caregivers and service providers to address aspects of RAD when working with children in the foster system. Insecure attachment styles are often associated with aggressive behaviors, dissociation, social anxiety, inability to trust others, paranoia, difficulty with giving and accepting love, and problems with intimacy across the lifespan. When RAD is left untreated in children, they will often carry their insecure attachments into adulthood. In most cases, the children of these individuals will also grow to have RAD or other attachment difficulties as well. However, this cycle can be prevented through proper intervention with these children and their caregivers. Children that are adopted or find stable placements will take on the attachment style of their new parents typically within a three to six month timespan. By creating safe and healthy attachments, children are better able to form relationships and prevents the cycle from continuing (Precin et al., 2010).

Placement Instability

The concept of placement instability is used to describe children in foster care that are frequently being moved between caregivers or foster families throughout their stay in the system. Although, it is not a specific diagnosis, it can lead to severe impacts on children that are unable to find stability. Children that are moved more frequently have higher risks of having severe behavioral, emotional, and development problems (Racusin et al., 2005). As having a stable environment is crucial for young children, the constant moving can greatly impact healthy development.

In a recent study, it was found that one in three foster children will fail to achieve long-lasting placement stability in their lifetime, and with the increased number of placement changes, the children were at higher risk of having negative outcomes into adulthood (Rubin, O'Reily, Luan, & Localio, 2007). Children who are moved more frequently typically have health or mental health diagnoses, participate in delinquent behavior, or have other behavioral problems (Carnochan, Moore, & Austin, 2013; Reid et al., 2003). Because these children already have mental health or behavioral problems, the increased number of placements will hinder the foster child from settling into a stable environment. Children are typically not referred to mental health and other services until the signs or symptoms are noticed by their caregivers, and if a child is frequently being moved, there will not be enough time for these symptoms to arise and be recognized in order to refer the child to the care they need (Deutsch et al., 2015). The symptoms described across these diagnoses offer a clear need for occupational therapists to address trauma-related illnesses to increase optimal occupational performance in a child.

Role of Occupational Therapy

Current Role of Occupational Therapy in the Foster Care Setting

Occupational therapy practitioners use meaningful activities to aid children and adolescents to partake in tasks that they need and/or would like to do in order to achieve physical and mental health along with working towards overall well-being (Lynch et al., 2017). Occupational therapy is involved in treating children in the foster care system in a variety of settings, such as schools, outpatient clinics, inpatient psychiatric settings, and partial hospitalization programs. Currently, most occupational therapy services are focused around addressing the performance skills or patterns that are impacting occupational performance (Precin et al., 2010). These interventions will typically address physical, cognitive, or social skills (Precin et al., 2010; Gronski et al. 2013). Other occupational therapy interventions work to help adolescents in the foster care system develop living skills that they will need if they age out of the system (Precin et al., 2010). Although, these areas are beneficial to a child's well-being, the aspects experienced with trauma are often overlooked, and this mental health aspect should be addressed in order to prevent future deficits.

Proposed Role of Occupational Therapy in the Foster Care Setting

Occupational therapists use meaningful activities to increase participation in children while promoting physical and mental health (Lynch et al., 2017). Living in a home that has been deemed unsafe can create a stressful transition for children and can affect multiple areas of occupation and developmental milestones such as social participation, activities of daily living, education, play/leisure, and sleep/rest. In respect to social participation, children can display difficulties in expressing emotions in a

healthy way, exhibit problems in self-regulation, have inappropriate boundaries such as personal space, and difficulty forming healthy attachments with family, teachers, and peers (Lynch et al., 2017). Children who have been placed in the foster care system often have limited independence in activities of daily living such as delayed hygiene awareness, sensory processing impairments that impact engagement, and may have difficulty following daily routines with unfamiliar caregivers and environments (Lynch et al., 2017). There can be an increased risk of absenteeism from school from different family meetings, counseling, and biological family visits along with children needing various environmental modifications in order to facilitate participation. Children can experience a lack of play modeling and engagement due to placement instability and lack of time and opportunity to participate in age appropriate activities due to constraints in their environment. Challenges with sleep can also occur because of sensory problems, fear, and anxiety (Lynch et al., 2017).

Occupational therapy can offer a variety of interventions to address trauma while increasing performance in everyday activities. Some of these interventions could include thought stopping, stress management, environmental modifications, emotional regulation, and facilitating healthy parent-child interactions. Occupational therapists are skilled at providing changes to a child's physical, social, cultural, and temporal contexts to facilitate optimal performance. As a member of an interdisciplinary team, the occupational therapist can also incorporate trauma informed care across settings in order to encourage communication amongst team members to increase the awareness of trauma while working with children in the foster system.

Interventions for Trauma

Consensus on the first priority of treatment for children in the foster system has been made amongst many researchers. Treatment for children in the foster system needs to start with ensuring that the child has a safe and stable environment (Zilberstein, 2014). Children are unable to focus on the therapeutic objective if their basic need for safety has not been met (Zilberstein, 2014). Once the first priority has been met in therapy, a child is better able to participate and benefit from therapeutic tasks and activities.

Adams (2006) stated that treatment for trauma should include several components. These components include safety, self-regulation of behavior, emotion, cognition and physiology, focusing attentional processes on creating narratives, reflecting on the past or present and decision making, integrating traumatic memories into a meaningful and productive self-narrative, creating working models of attachment, repairing relationships and self-enhancement (Adams, 2006). These components are meant to address trauma, and it could be applied to children that have gone through negative life events prior to entering the foster care system.

Cognitive Behavioral Therapy

Cognitive behavioral interventions are the most common and have received the most empirical evidence in their use with children who have experienced trauma (Cohen, Mannarino, Berliner, Deblinger, 2000). These cognitive behavioral interventions are able to incorporate some of Adams' (2006) components into the trauma treatment. Different approaches for cognitive behavioral therapy (CBT) include cognitive processing, cognitive coping, stress management, muscle relaxation, and thought stopping techniques

(Cohen, et al., 2000). Cognitive and behavioral treatments aim to reduce overgeneralization of fears by increasing the ability to discriminate, as well as increase attention and awareness toward their maladaptive beliefs, and generating more realistic beliefs about themselves, others, and the world (Ready et al., 2015).

Shame and guilt are common symptoms that children may have after a traumatic event. The use of cognitive interventions can help change those distorted thoughts and regain a sense of control in their lives. Children may think that they were the cause of the trauma, or they may prepare for future traumatic events (Cohen, et al., 2000). Cognitive processing therapy and cognitive coping can help challenge cognitive distortions and dysfunctional automatic thoughts by addressing the self-blame, guilt, and evaluating why these feelings are occurring. Then, the therapist and child can work together to replace these cognitive distortions with the accurate cognition (Cohen, et al. 2000).

Stress Management

Stress management techniques provide children a tool-kit of strategies to do when a child feels stressed, anxious, or depressed. Muscle relaxation and breathing techniques can be used to control the child's breathing and feel more relaxed (Cohen, et al., 2000). Meditation, relaxation, and deep-breathing interventions have been designed to help reduce adverse reactions to stress by bringing about a physical or mental state that is the physiological opposite of stress (Richardson & Rothstein, 2008). In meditation intervention, a child could be taught to focus on a single object or idea and to keep all other thoughts from his or her mind (Richardson & Rothstein, 2008).

Relaxation training through breathing exercises can be used to help a child reach relaxation by achieving a conscious focus in their mind on the inhale and exhale of their

breath (Richardson & Rothstein, 2008). This breathing technique also helps the child relax their body gently so that the tension in their body reduces with each breath (Catani et al., 2009; Richardson & Rothstein, 2008). Exercise programs can also be an effect way to relieve stress. As these programs focus on providing physical release from the tension that is built up from stressful situations and increasing endorphin production (Richardson & Rothstein, 2008). These different interventions can be beneficial to a child who has experienced trauma when they are feeling stressed as it is a way for them to relax their body and their mind, as well as have a physical release from built up tension.

Thought Stopping

Self-talk is a mental skill in which it can be positive or negative. Negative self-talk can be correlated with a person's performance and negative emotions. When a child is experiencing negative self-talk, thought stopping and thought replacement can be taught to enhance the child's control over negative thoughts, which could lead to increased performance in daily activities (Cohen, et al., 2000; Hardy, Roberts, & Hardy, 2009). Thought stopping can be taught by having the child interrupt the negative thought, by either physically interrupting it by snapping a rubber band around their wrist or verbally saying something like "snap out of it" (Cohen, et al., 2000).

In a study by Hardy, Roberts, and Hardy (2009), examined the effectiveness of a logbook and paper clip technique on the awareness of the use and content of negative self-talk. The logbook technique involved detailed answering of questions about the type of self-talk the participants were experiencing (Hardy et al., 2009). The participants in the logbook group were given a diary to record any negative self-statements used. These

participants were to identify the frequency of these statements, provide examples of these statements, as well as identify in what situations these statements would occur (Hardy et al., 2009). The paper clip technique focused on the frequency of negative self-talk. The participants in the paper clip groups were given a bag containing 50 paper clips. Throughout the day, they were asked to remove a paper clip from their right pocket to their left whenever they had a negative self-statement. Then, the participants would record the number of paperclips they had in their left pocket (Hardy et al., 2009).

The researchers found that the logbook group reported significantly better awareness of their use and content of negative self-talk. However, both groups had some benefit in providing awareness to the participants on the negative self-talk they were experiencing (Hardy et al., 2009). Thought stopping can be used as a way to reverse a negative thought with a positive one by counteracting negative statements about oneself. Utilizing thought stopping can create an immediate response to undesired thoughts, which can lead to an immediate way for a child to recognize their negative self-talk. These techniques allow the child to feel more in control of their body and their thoughts (Cohen, et al., 2000).

Environmental Modifications

When children are living in a stable, nurturing family environment, it is more likely that the child will be able to grow and develop typically (Herrenkohl et al., 2003). However, abused and neglected children often lack this type of environment. When the decision is made to move a child into foster care, the goal is for the child to gain more positive parenting (Herrenkohl et al., 2003). Occupational therapy can be a resource for children in the foster care system that can collaborate with teachers,

care providers, and foster parents to meet the environmental needs of the child such as daily living opportunities of childhood (Lynch et al., 2017).

Children may experience a lack of time and opportunity to play due to the constraints of different family meetings, counseling, or biological family visits. Children can also experience a fear of being outside or in play environments due to past traumatic experiences or even have had such little exposure to play that they may have hesitancy to participate in these types of environments. Occupational therapy can provide a child with a nurturing environment to facilitate a child in participation in their daily living opportunities of childhood and increase their performance in multiple areas of occupation (Lynch et al., 2017).

Zones of Regulation

The Zones of Regulation curriculum provides therapists with knowledge on self-regulation and strategies for improving self-regulation and emotional control in individuals of all ages (Katz, 2012). The Zones of Regulation consists of four different zones that can help someone describe what their state of arousal and their emotional control is. The red zone is where emotions are so intense that a person may feel out of control. The yellow zone is where emotions aren't as intense as the red zone and the individual still has some control of their body and emotions. The green zone is where an individual will feel focused, alert, in control of their emotions, and ready to learn. The blue zone is a low state of alertness, where a person may feel drowsy or shy (Katz, 2012).

This curriculum is beneficial for children who struggle to explain how they are feeling or how to self-regulate themselves when they are in the red zone. The Zones of Regulation program provides strategies to help individuals to reach the appropriate zone

for the appropriate environment. There are lessons in the Zones of Regulation program that help children recognize personal triggers that typically send them into those higher zones (Katz, 2012). These personal triggers could relate to a number of different traumatic experiences that a child may have encountered. Once the child is able to identify these triggers, he or she can practice different strategies to regain control of their body and emotions to reach the green zone (Katz, 2012).

Parent-Child Interaction Therapy

Children, who have experienced traumatic experiences, may display increased levels of aggression, anger, defiance toward parents, and social skill impairment. These traumatic experiences can impact the quality of the parent-child relationship (Borrego, Gutow, Reicher, Barker, 2008). Parent-child interaction therapy is an evidence-based, parent-focused, behavioral intervention for disruptive behavior problems in children. The focus of this therapy is to provide education to the parent in order to improve the parent-child relationship (Borrego et al., 2008). An improved parent-child relationship can help a child feel more comfort and support when participating and engaging in their everyday occupations.

Through coaching and hands-on exercises, the parents are taught several skills such as praising the child, reflecting the child's verbalizations, imitating the child's play, describing what the child is doing during play, and using enthusiasm while interacting (Borrego et al., 2008). These skills are used when a child is behaving appropriately in order to reinforce positive behavior. The parent is also taught how to ignore minor behavior problems such as whining and provide positive attention when the child is

behaving positively. Through this process, negative parent-child interactions are replaced with more positive and nurturing interactions (Borrego et al., 2008).

Sensory Based Strategies

In a study completed by Wilbarger, Gunnar, Schneider, and Pollak (2008), children that had been part of the foster system were recognized as having more sensory processing disruptions than other children at their developmental level. The length of time spent in the system was also found to be a factor in the child's sensory processing abilities as children that were institutionalized longer had more severe deficits than those that were adopted early. The researchers concluded children in the foster system were found to have more sensory aversions along with sensory-seeking behaviors. These behaviors were more negative in their pattern with increased oversensitivity, avoidance, and under-responsiveness being noted. The findings of inability to regulate sensory input was also parallel to the child having poor regulation with other types of behaviors including social skills, stress management, and emotional regulation (Wilbarger, Gunnar, Schneider, & Pollak, 2008).

Occupational therapists can provide a wide variety of sensory based interventions. In the context of the foster system, various occupational therapy programs have been created to facilitate health sensory regulation along with attachment to foster better caregiver relationships (Sanders, Sears, & Apodaca, 2016). One such program involved foster children exploring a variety of sensory based activities with their caregiver. The child would participate in sensory based activities involving the mouth, movement, touch, sight, and listening with their foster parent (Sanders et al., 2016). During the sessions, the occupational therapist facilitated healthy interactions

between the child and parent along with providing the "just right challenge" for sensory input (Sanders et al., 2016). The foster parents reported the child demonstrated more attachment behaviors to them as well as used better sensory strategies to regulate themselves with more difficult stimuli (Sanders et al., 2016).

Along with family programs, occupational therapists also work as consultants in order to address specific sensory needs of children in foster care (Sanders et al., 2016; Lynch et al., 2017). Common suggestions or strategies used to help children regulate sensory input include heavy work activity, oral stimulation using crunchy or chewy snacks, and keeping a consistent and calming bedtime routine (Sanders et al., 2016). Although these are common suggestions, a more thorough assessment would need to be completed in order to meet the needs of each individual child.

Trauma-Informed Care

The concept of trauma-informed care (TIC) is a framework in which service and care providers understand the complex, multi-dimensional impacts of trauma, and they then work to incorporate that knowledge while providing treatment (Huckshorn & LeBel, 2013). Through an analysis of current literature, Huckshorn and LeBel (2013), were able to conclude four main principles for the practice of TIC: trauma-awareness, focus on safety, creating opportunities to regain control, and using individual's strengths in approaches to intervention. By services choosing to use TIC, they are building an environment that is safe and provides clients with some control over their lives. TIC focuses on care providers recognizing the impact that trauma can have on all aspects of life (Huckshorn & LeBel, 2013). By incorporating the aspects of TIC with children in the foster system, the aspect of trauma can be incorporated while addressing the other

barriers, deficits, and mental health concerns that are often associated with this population.

The National Child Traumatic Stress Network (2013) provided nine principles of TIC that they advise to be incorporated with children in the foster care system. The principles included: increasing the child's sense of safety in their environment, helping the child to manage or cope with overwhelming emotions, assisting the child to find new meaning of their trauma and experiences, addressing the impact of trauma and its changes on the child's development, behavior, and relationships, coordinating services across agencies, assessing the child's trauma and its impact on their development and behavior to guide services, support and promote positive and stable relationships in the life of the child, provide support and resources to the child's family and caregivers, and manage overall stress across the interdisciplinary team. These principles are used to help the child along with their caregivers while also managing communication across the team in order to ensure best possible care and outcomes for foster children that have experienced trauma (National Child Traumatic Stress Network, 2013).

Caseworkers and other child welfare professionals are often times aware of the trauma that children in their care have experienced; however, they may be less aware of the complete trauma history of the child along with the connection between this trauma and the child's behaviors and response to stress and change (Ko et al., 2008). Often times, children in the system are referred to general mental health services to address these behaviors when, in reality, these providers are not trained in the evidence-based trauma treatment care that the child needs (Ko et al., 2008). Children in the foster care need health care providers, therapists, social workers, teachers, and foster parents that

understand the complex and varying impacts of trauma on their daily lives. By having a TIC approach across disciplines, the child is more likely to have the comprehensive care that they need.

Ecology of Human Performance

The Ecology of Human Performance (EHP) model is based on the relationships between a person, their context, the task and the person's performance (Dunn, 2017). This model includes different terminology such as task instead of occupation, which makes this model useful for interdisciplinary teams to support collaboration. It is beneficial to have this universal terminology in order for social workers, psychologists, and other various services involved on a child's case to effectively communicate.

The emphasis of the four constructs (person, context, task, and performance) is how they can relate to one another. EHP is a person-centered framework where the person brings their own unique set of variables including past experiences, interests, and sensorimotor, cognitive, and psychosocial skills. These personal factors are going to influence the task that is chosen by the person as well as influence the quality of the task performance (Dunn, 2017).

Dunn (2017) described task as an objective set of observable behaviors that allow a person to accomplish a goal. Tasks can vary from person to person depending on their roles, occupations, and interests, with the meaning and performance of those tasks being influenced by their cultural context. There are multiple different contexts that are involved in the EHP model including, temporal context which includes the aspects of chronological age, developmental stage, life cycle, and health status (Dunn, 2017). The physical context includes the natural and contrived environments along with the objects

within those environments (Dunn, 2017). Social context includes the people or clubs that a person interacts with (Dunn, 2017). Cultural context includes ethnic, religious, organization, and other groups that contribute to a person's sense of identity (Dunn, 2017). Context can provide both supports and barriers to the performance of the task a person is engaging in. The last construct of this model is the range of performance, which can be described as when a person engages in a task within a specific context (Dunn, 2017). The performance of a person can differ by the task in which that person is engaging in. The performance range of a person is the number and types of tasks that are available to that person in relation to the context and the person's skills and abilities (Dunn, 2017).

Dunn (2017) described this model as having five intervention strategies which include establish/restore, alter, adapt/modify, prevent, and create. The establish/restore intervention focuses on person factors and what that person is able to accomplish in order to establish a new skill or restore a skill that was lost due to illness (Dunn, 2017). The alter intervention focuses on making a planned change to a specific context where a person can perform a task. The context is unchanged in the alter intervention so the goal of the therapist is to find the best match for the context options and a person's abilities (Dunn, 2017). While alter interventions do not make changes to the context, the adapt/modify intervention works to revise a context or task in order to facilitate optimal performance for an individual. The prevent intervention is utilized to influence a person, context, or task variable to prevent a negative outcome. The last intervention strategy is the create intervention which focuses on creating circumstances that facilitate optimal performance for multiple populations in multiple contexts (Dunn, 2017).

The Ecology of Human Performance model was appropriate in the development of this product as interdisciplinary collaboration within the foster care system is facilitated through the use of occupational therapists, teachers, caregivers, and foster care parents. The EHP model has also provided a guideline for specific intervention strategies that are used in creating interventions for specific diagnoses that are affected by trauma. The foster care system may be considered a limited context for an individual's skills and abilities, which could make a child's performance range limited as well. This model will be utilized to help create a protocol that will increase the performance range in children who have experienced trauma and take in consideration the context of the foster care system.

Conclusion

Due to an increase in foster care children who have experienced neglect, abuse, or witnessed violence there is a need for occupational therapists to address multiple areas of mental and physical health that are impacted by trauma in order to increase their performance in everyday childhood activities. As occupational therapists work to address both mental and physical health, they are qualified to work within the foster care system in order to facilitate the best care and performance for a child who has experienced trauma. Currently, there is a gap of research in providing interventions to foster care children that have been through trauma that can improve their psychosocial implications along with overall well-being.

Through utilization of the EHP model as well as trauma-informed care, intervention strategies can be created to increase collaboration between an interdisciplinary team to provide quality care for foster care children who have

experienced trauma. It is important that clinicians and other care providers to understand the implications of children in care who have complex symptomatology or diagnosis in order to modify their clinical reasoning to account for this (Tarren-Sweeney, 2013).

The product addressed a gap in occupational therapy literature and practice, as there are a limited amount of resources available to occupational therapists to promote collaboration between care providers and foster parents across various contexts. Based on these findings, it was evident that there is a need for occupational therapists to work in the foster care setting in order to meet the complex needs of children who have been exposed to traumatic experiences. Occupational therapists would benefit greatly from this product as it provides specific strategies and application to better collaborate with care providers and foster parents while providing direct intervention to maximize occupational performance and engagement in the environment for a child who has experienced trauma.

Chapter III: Methodology

The purpose of this product was to create a guide for trauma-informed interventions for occupational therapists specifically to use with foster care children. Our product, A Guide for Occupational Therapists: Utilizing Trauma-Informed Care to Guide Intervention for Children in Foster Care was framed around the Ecology of Human Performance (EHP) model. This model was used to guide the creation of the product using the various contexts and intervention strategies suggested by this model. This guide was developed to increase occupational performance and engagement in their environment for foster care children who have experienced trauma as the literature suggests there are several barriers that decrease optimal performance in a child's daily activities. Several interventions in this product have a holistic approach in the treatment of a child who has experienced trauma. These interventions take into consideration the trauma aspect that a child has experienced and utilize various approaches to change negative thoughts and actions into positive ones.

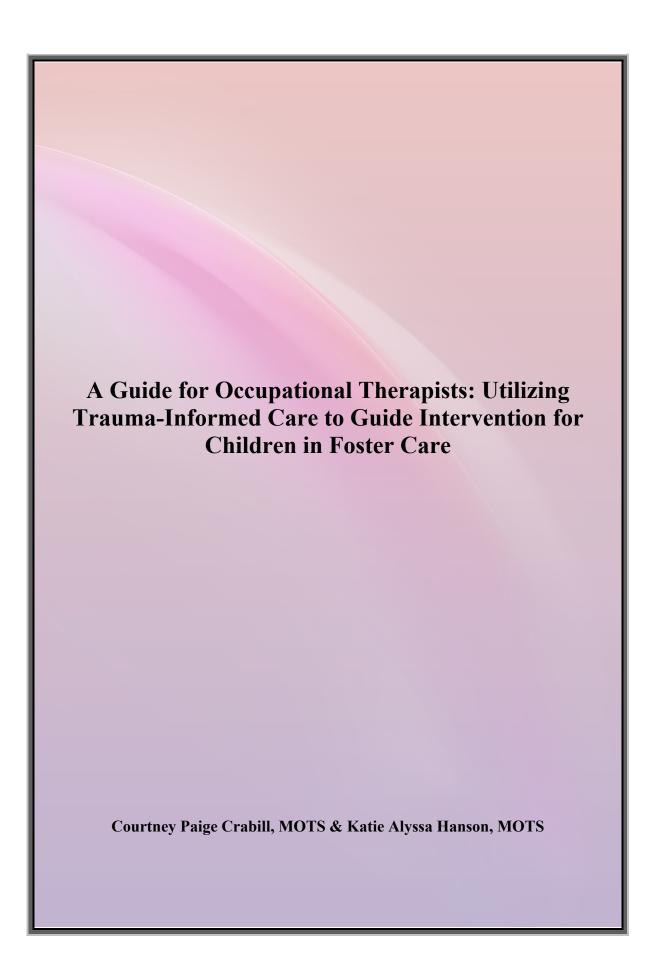
In the development of this guide, a literature review was conducted using the Harley E. French Library and Chester Fritz Library databases, including CINAHL, OT Search, PubMed, Google Scholar, and the American Occupational Therapy Association (AOTA). Key terms that were included in this search were trauma, foster care, occupational therapist, Ecology of Human Performance (EHP) model, trauma-informed care, intervention, child development, types of trauma, and diagnoses associated with

trauma. Textbooks, research articles and other peer-reviewed materials were examined in the methodology of this product in order to synthesize the overall need for trauma-informed care and intervention in the foster care system. Based on the findings of the literature review, the authors developed a guide in order to address the identified need of decreasing the adverse effects of trauma for children in this setting with the guidance of the EHP model.

The review of literature concluded that there was a need to address trauma's effects and its impact on occupational performance and engagement in various environments. The findings suggest that children can display symptomatology related to several diagnoses that can occur with traumatic experiences such as post-traumatic stress disorder, anxiety, depression, reactive attachment disorder, oppositional defiant disorder, and/or placement instability. Trauma-informed care was found to be beneficial in guiding treatments to address aspects of trauma. These interventions include: cognitive behavioral interventions, stress management, thought stopping, environmental modifications, zones of regulation, family therapies/collaboration, and sensory based strategies.

This guide was developed for occupational therapists to implement traumainformed interventions for children in the foster care system that utilized evidence-based
interventions to promote occupational performance and engagement in
environments. The interventions provided within the guide were developed based on the
structure of the EHP model according to the contexts and intervention strategies. The
contents of this guide include definitions, steps to trauma-informed care, evaluation tools

and assessments, interventions for treating trauma, and other resources to be utilized by caregivers in this context.



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Introduction

A Guide for Occupational Therapists: Utilizing Trauma-Informed Care to Guide Intervention for Children in Foster Care was developed to be used by occupational therapists working with children in the foster care system to promote occupational engagement and participation for children who have experienced traumatic experiences prior to entering this context. This guide utilizes intervention strategies identified from evidence-based occupational literature and from the Ecology of Human Performance (EHP) model. The interventions are designed to be utilized with children in the foster care system between the ages of three to twelve years old. This age group was selected as there was a gap in literature particularly in this population. The interventions provided are designed to incorporate Trauma-Informed Care and occupation-based interventions to guide occupational therapists in addressing psychosocial and physical barriers commonly seen in this setting.

This guide includes operational definitions to ensure the understanding of aspects of EHP, trauma, occupational therapy, foster care system, and several common diagnoses. There is general information provided about the foster care system, signs of potential diagnoses, and the impact of trauma on the child's brain and development. There are several assessments provided based on contexts that can be utilized for children in this setting as well as trauma-based interventions. The trauma-based interventions are then divided by areas of occupation to create ease of use while following the guidelines of the EHP model. Other resources are also provided for therapists use.

Operational Definitions

- Adoption: A common goal for children in the foster system. This process
 involves an adult, other than a child's birth parents, receiving legal custody of a
 child (Child Welfare League of America, 2015).
- Anxiety: Excessive anxiety and worry (apprehensive expectation), occurring
 more days than not for at least 6 months, about a number of events or activities
 (American Psychiatric Association, 2013)
- Context Variables: Set of interrelated conditions that surround the person which include temporal, cultural, physical, and social context (Dunn, 2017).
- Depression: Depressed mood or loss of interest or pleasure most of the day,
 nearly every day, as indicated by either subjective report or observation made by
 others (American Psychiatric Association, 2013)
- Occupational Therapy: The therapeutic use of occupations, including everyday life activities with individuals, groups, populations, or organizations to support participation, performance, and function in roles and situations in home, school, workplace, community, and other settings (AOTA, 2004).
- Oppositional Defiant Disorder: A pattern of angry/irritable mood,
 argumentative/defiant behavior, or vindictiveness lasting at least 6 months that is
 exhibited during interaction with at least one individual who is not a sibling
 (American Psychiatric Association, 2013)
- **Performance:** Occurs when a person engages in tasks within a context (Dunn, 2017).

- **Person Variables:** The person brings a unique set of variables, including past experiences; personal values and interests; and sensorimotor, cognitive, and psychosocial skills (Dunn, 2017).
- Placement Instability: Children in foster care that are frequently being moved between caregivers or foster families throughout their stay in the system. Although, it is not a specific diagnosis, it can lead to severe impacts on children that are unable to find stability. Children that are moved more frequently have higher risks of having severe behavioral, emotional, and development problems (Racusin et al., 2005).
 - The child rarely or minimally responds to comfort when distressed
 (American Psychiatric Association, 2013)
 - o The child rarely or minimally seeks comfort when distressed
- **Post-Traumatic Stress Disorder:** history of exposure to a traumatic event either experiencing or witnessing (American Psychiatric Association, 2013)
- Reactive Attachment Disorder: A consistent pattern of inhibited, emotionally
 withdrawn behavior toward adult caregivers, manifested by both of the following:
 the child rarely or minimally seeks comfort when distressed, and the child rarely
 or minimally responds to comfort when distressed.
- **Reunification:** The most common goal for children in the foster system. It is the process of reuniting children with the birth parents after placement in foster care (Child Welfare League of America, 2015).
- Task Variables: Objective sets of observable behaviors that allow an individual to accomplish a goal (Dunn, 2017).

Trauma: Trauma is defined as an individual experiencing mood, anxiety, or other
11 auma. Trauma is defined as an individual experiencing mood, anxiety, of othe
disruptive behaviors due to a severe, negative experience (D'Andrea et al.,
2012).
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Background

The Foster System

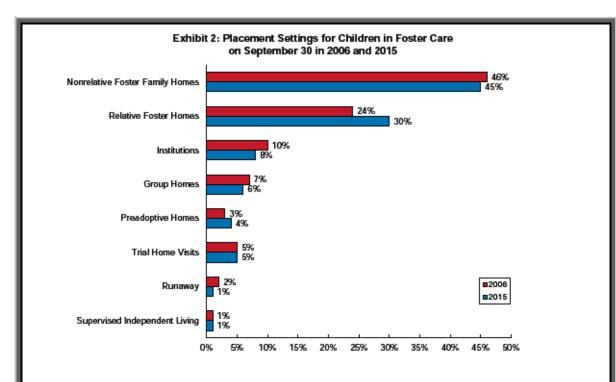
The foster care system is a government run program that provides supervision and care to children that are no longer able to live with their biological parents. Many of the children in the foster care system are separated from their parents for their own safety and well-being (Precin et al., 2010). Children in the foster care system have often been exposed to violence, illicit substances, and neglect (Child Welfare League of America, 2015; Larkin et al., 2014; Henderson et al., 2015). These negative experiences often affect the child's mental health and development immediately and later in adulthood (Garcia et al., 2015).

General Population & Trends (Child Welfare League of America, 2015)

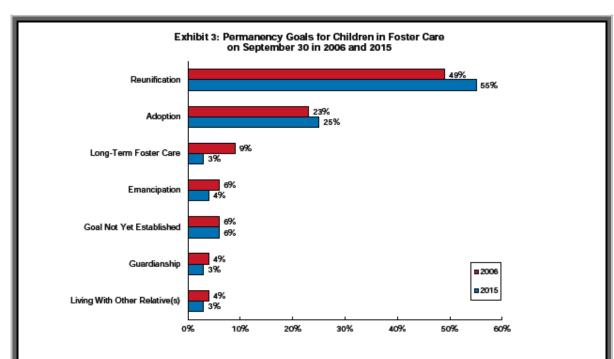
Exhibit 1: Numbers of Children In, Entering, and Exiting Foster Care FY 2006 and FY 2015 510,000 Point in Time 427,910 303,000 Entries 269,509 **2006** 289,000 **2015** Extts 243,060 100,000 200,000 300,000 400,000 500,000 600,000

This chart is reproduced with permission from the Child Welfare League of America, 2015.

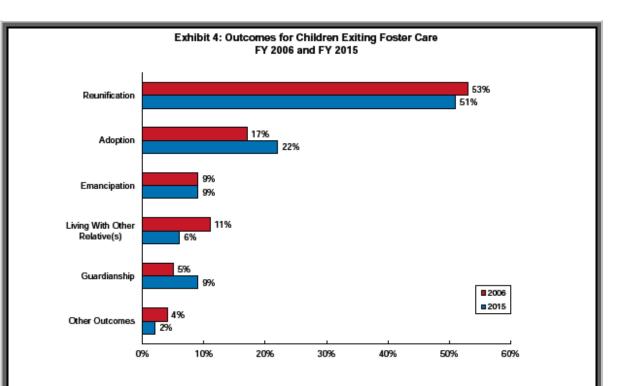
Overall numbers of children in the foster care system has declined over the 2006-2015 timespan. However, trends have shown an increase in the population from 2014-2015, and it has the potential to continue to increase as the number of entries into the system exceeds its exits (Child Welfare League of America, 2015).



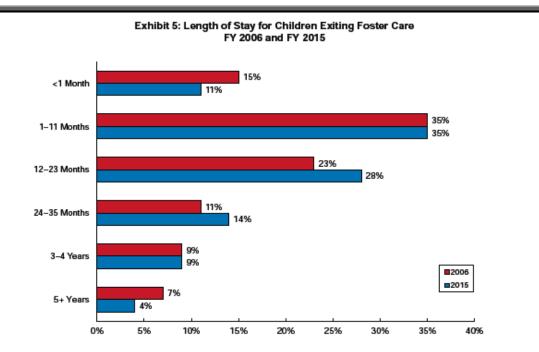
Placement has maintained a consistent pattern with the majority of children being placed in nonrelative foster family homes. However, a significant increase has emerged for children placed in relative foster homes in 2015 compared to 2006 (Child Welfare League of America, 2015).



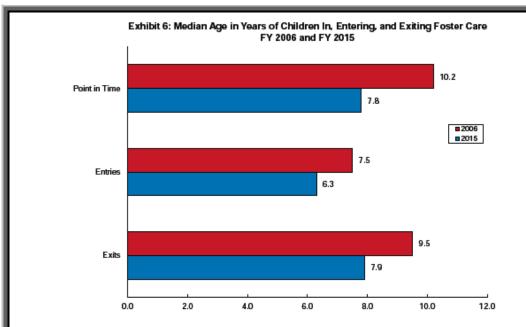
The most common goal in the foster care system, is reunification. This means that the case team was trying to reunite the child to their original home. However, due to unpredictable home environments, there had been an increase in adoption being the long-term goal. Changes in policies have also encouraged more case teams to avoid long-term stays in the foster care system (Child Welfare League of America, 2015).



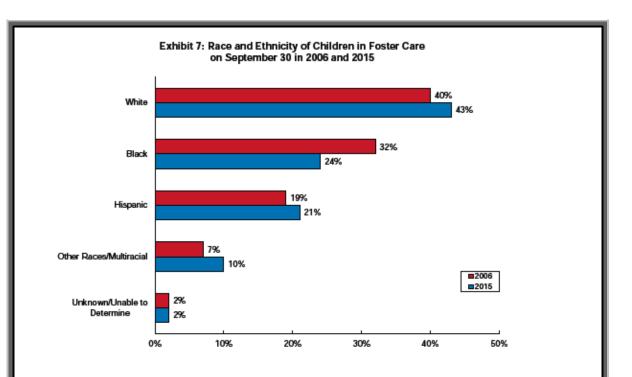
In addition to being the most common goal, reunification is the most common outcome for children in the foster system. However, there has been an increase in adoption being the final outcome over the last ten years. Although a high percentage of children are reunited with their parents, approximately 20% of children reunited with their parents are returned to foster care within a twelve-month time period (Shaw & Webster, 2011; Child Welfare League of America, 2015).



Trends have shown an overall increase in time being spent in the foster system with average time increased from 12.2 months to 13.5 from 2006 to 2015. Additionally, fewer children are leaving the foster system in a 30-day time period, and a significant amount of the population is no spending between one and two years in out of home care (Child Welfare League of America, 2015).



Overall, children entering and exiting the foster system are typically between the ages of six and ten years-old. Thus, this guide is designed to aid occupational therapists in treating children in this age group. Also, data has shown a trend of children entering the system younger than before, making the average age of this population younger than before (Child Welfare League of America, 2015).



When looking at the foster care system through a cultural lens, the majority of children in the foster system are white in ethnicity. However, a significant percentage of the population also identify as either Black or Hispanic ethnicities. Along with race and ethnicity, 52 percent of foster children in 2015 were male, and 48 percent were female (Child Welfare League of America, 2015).

Common Experiences/Diagnoses

Due to the extreme experiences of children in the foster system (abuse, neglect, or witnessing illicit substances), these children will often times have mental health issues caused elicited by trauma. It is estimated that between 40% and 60% of children in the foster care system have been diagnosed with at least one psychiatric disorder and about 33% of foster care children have three or more psychiatric diagnoses (Paul-Ward & Lambdin-Pattavina, 2016). There are high prevalence rates of children in the foster care system who display several common diagnoses. In a recent study, it was found that in a sample of 347 foster children, the population fell under the DSM-III-R and DSM-IV-TR classifications for a variety of mental health diagnoses. Of the sample, 45% were diagnosed with oppositional defiant disorder, depression had a prevalence of 36%, posttraumatic stress disorder had a prevalence of 50% in children in the foster care system, and 26% of children in this setting were diagnosed with generalized anxiety disorder (Tarren-Sweeney, 2013). As children in the foster system have a higher probability of demonstrating mental health symptoms, this guide has been designed to assist occupational therapists working with children exhibiting symptoms of the following six diagnoses:

- Post-Traumatic Stress Disorder
- Oppositional Defiant Disorder
- Anxiety
- Depression
- Reactive Attachment Disorder
- Placement Instability

Children in foster care are often impacted or affected by their diagnosis into adulthood. In a study completed by Casey Family Programs (2003), the researchers evaluated the lasting impact of mental illnesses on foster children as they aged. They compared foster care alumni with the average adult population and discovered the following information:

Mental Health Disparities				
Mental Illness	% of Foster Care Alumni	% of General Adult Population		
Post-Traumatic Stress Disorder	21.5	4.5		
Depression	15.3	10.6		
Modified Social Phobia	11.9	8.9		
Panic Disorder	11.4	3.6		
Anxiety	9.4	5.1		
Alcohol Dependence	3.7	2.0		
Drug Dependence	3.6	0.5		

Due to the high prevalence of mental health diagnoses in this population, many individuals demonstrate deficiencies in a variety of client factors, performance skills, and performance patterns.

Signs of Potential Diagnosis: When to make a Referral

Children in the foster care system often go undiagnosed (Simms et al., 2000).

Below is a list of potential signs and symptoms that occupational therapists should be aware of in order to refer for further psychiatric services if needed.

Diagnosis	Signs/How to Recognize		
Post-Traumatic Stress Disorder	 Flashbacks in which the child appears to feeling or acting as if the event is reoccurring. Typically taking place during play. Avoidance of certain activities (child associating task with traumatic experience). Hypervigilant Overreacting to stimuli Negative cognitions and mood from a distorted sense of blame of self or others Reckless or self-destructive behavior Sleep disturbances 		
Oppositional Defiant Disorder	 Angry/Irritable Mood Often loses temper Is often touchy or easily annoyed Is often angry and resentful Argumentative/Defiant Behavior Often argues with authority figures or, for children and adolescents, with adults Often actively defies or refuses to comply with requests from authority figures or with rules Often deliberately annoys others Often blames others for his or her mistakes or misbehavior Vindictiveness Has been spiteful or vindictive at least twice within the past 6 months 		

Diagnosis	Signs/How to Recognize
Anxiety	 Restlessness, feeling keyed up or on edge Being easily fatigued Difficulty concentrating or mind going blank Irritability Muscle tension Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)
Depression	 Persistent sad or irritable mood Frequent vague, nonspecific physical complaints Frequent absences from school or poor performance in school Being bored Alcohol or substance abuse Increased irritability, anger, or hostility Reckless behavior
Reactive Attachment Disorder	 Persistent failure to initiate or respond in a developmentally appropriate way to most social interactions Inability to exhibit appropriate selective attachments Excessive familiarity with strangers Withdrawn or clingy/friendly with unfamiliar people than expected of a child Does not seek comfort when distressed Does not respond to comfort when distressed Limited positive affect
Placement Instability	 Child having excessive number of placements while in foster care Changes in temperament or personality Appearing emotionally distant Difficulty connecting with others, especially new caregivers Increased amount of problem behaviors
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When to Make a Referral

Occupational therapists working with children placed in the foster care system will often see them demonstrating a variety of these symptoms. Although, it is not appropriate for an occupational therapist to diagnose, it is crucial to recognize these signs and symptoms refer the child to the necessary services and care they need. As children in this setting are often transitioned between caregivers, symptoms may go undiagnosed due to lack of knowledge or understanding of their complex mental health needs (Simms et al., 2000).

Common Services Received

Caseworker: Often times a social worker, this individual is responsible for handling the child in the foster system's case. With this, they are responsible for connecting the child to services along with providing them with other resources or advocacy they need.

General Counseling: This individual is responsible for addressing a child's general mental health needs when in the foster system. They will often times treat the birth parents as well in order to facilitate reunification. These individuals will typically conduct family and group therapies when possible.

Occupational Therapy: This profession works to promote everyday function and participation in meaningful occupations. They are skilled at evaluating and treating both physical and mental health needs along with addressing environmental factors of children in this context.

Physical Therapy: Physical therapists work with children on mobility and other physical pain or deficits. They provide a more specific service and are less likely to work with the majority of this population.

Play Therapy: Play therapists guide children through play experiences in order to cope with or resolve psychologically based problems. By using play, play therapists can help children in the foster system to better interact with others, regulate emotions in a healthy way, and resolve traumatic experiences.

Psychiatrist: This profession is skilled in assess whether a child's behaviors or symptoms are caused by either a physical or purely psychological based source. Also, psychiatrists are able to prescribe medication in order to treat mental illness symptomatology.

Psychologist: This profession is responsible for evaluating and studying a child's mental behavior in order to best diagnose and treat them. They provide a variety of counseling and behavioral strategies to both children and parents in this setting. They are skilled at recognizing diagnoses in this context, and they will often work alongside other mental health care providers.

Social Work: This individual is responsible for providing aid and resources to the foster child, foster parents, and birth parents in order to create best possible outcomes. These individuals may also work to address a child's behavioral or emotional needs while in their care.

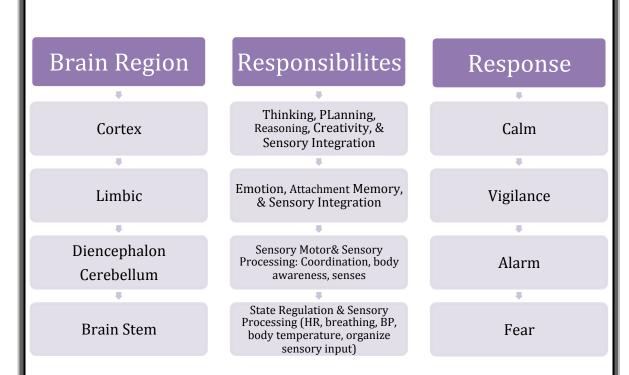
Speech Therapy: These professionals will often work with children on communication skills, language issues, or other cognitive deficits. They are skilled at assessing feeding and swallowing as well, along with helping children to better express themselves.

Trauma's Impact on the Brain

During these developmental stages, trauma may negatively impact certain regions of the brain. This decreased development may impact future brain development as each stage builds off the previous stages. In order for proper development of higher brain regions, the prior regions' needs must to be fulfilled. For example, if a three-month-old child does not experience engaged parenting meet their needs, their brain stem will be at risk for underdeveloped. This may lead to difficulty regulating emotions and sensory input, and they will be unable to begin proper development of the diencephalon.

	Activity Across Brain Regions			
Brain Regions	Functions	Critical Period	Experiences Needed	Functional Maturity
Cortex	ThinkingPlanningReasoningCreativitySensory Integration	3 -6 Years	 Complex conversations Social interactions Exploration Safe Fed Secure 	Adult
Limbic	EmotionAttachmentMemorySensory Integration	1 – 4 Years	Complex movementSocial experienceNarrative	Puberty
Diencephalon	Sensory MotorSensory Processing	6 Months – 2 Years	 Complex rhythmic movement Simple narrative Affection 	Childhood
Brain Stem	State RegulationSensory Processing	In Utero – 9 Months	Rhythmic patterned inputEngaged caregiving	Infancy
63				

Fight, Flight, or Freeze



If a child's needs are not met, they may be stuck in a lower functioning response stage. Also, if they have not met the necessary needs of the lower brain regions (brain stem and diencephalon) due to their traumatic experiences, a child's response to stimuli may be exaggerated in the form of fear or alarm. In order for a child to better regulate higher with a state of calm or vigilance, the needs of the lower brain must be achieved to facilitate higher brain (limbic and cortex) development.

Images "Fight, Flight, or Freeze" & "Activity Across Brain Regions" are used and adapted with permission from Dr. Tami De Coteau, Licensed Clinical Psychologist. Letter of permission can be found in Appendix.

Areas of Occupation Impacted

Both the commonly experienced trauma and the transitioning to new environments can lead to a variety of impacts on occupational performance for children in the foster care system. The following charts have a list of potential deficits to be aware of when working with children in this setting. These deficits are then divided into occupations and client factors (Lynch et el., 2017; Petrenchik & Weiss, 2015).

Occupation	Areas Impacted
Social Participation	 Deficits in social skills and communication Difficulty expressing feelings and emotions in a healthy and developmentally appropriate way Limitations in recognizing others' perspectives along with analyzing and responding to a variety social situations Problems with self-regulating and controlling emotions Inappropriate boundaries in regards to others' space Trouble forming healthy attachments with parent figures, teachers, and peers Increased likelihood of depression, anxiety, and emotional numbing Over activated stress response Fear of failure with hyperawareness of potential failure, leading to decreased desire to participate in activities ADL deficits that often lead to difficulty interacting and relating with peers History of isolation and fewer opportunities to interact with others due to constant moving or increased number of appointments/meetings
Activities of Daily Living (ADLs)	 Limited independence in ADLs with skills are often not appropriate with the child's age Delayed hygiene awareness Deficits in sensory processing that impact engagement in a variety of ADLs Difficulty attending to ADL training from "new" caregivers Decreased motivation to participate in daily routines Difficulty controlling bladder and bowel for toileting Changes in eating patterns and preferences Fear of ADLs; abuse and neglect are often connected with locations where ADLs are completed (e.g., bedroom, shower/bathroom)

Occupation	Areas Impacted
Education	 High likelihood of missing school Birth family visits impacting on attendance in academics Increased rates of grade retention and high school dropout Deficits in executive function Difficulty planning for the future Problems with attention and emotional regulation Negative attention seeking Staff or teacher not understanding the reason for negative behaviors ("What is wrong with him?" versus "What happened to him?")
Instrumental ADLs (IADLs)	 Age-inappropriate IADLs (e.g., children becoming the primary caregiver for younger siblings) Lack of role models and mentoring in higher-level household management activities Decreased knowledge and skills for independent living concepts of money and money management, healthcare management and maintenance, and proper safety procedures and emergency management
Play/Leisure	 Lack of opportunity for play modeling and engagement prior to the child entering foster care Lack of time to play due to constraints of meetings, therapies, and birth-family visits Fear of going outside or in play environments because of past negative experiences Less opportunity to participate in extracurricular activities Little exposure to, and often increased hesitancy to engage in, healthy leisure activities Decreased initiation in play and participate in leisure activities Increased aggression used in play and bullying Frequent fear of failure causing decrease motivation to participate in play and leisure
Sleep/Rest	 Bedwetting and incontinence Challenges with sleep due to sensory problems, fears, and anxiety and overnight sleep disruption caused by nightmares and/or night terrors Sensory processing deficits limiting their ability to self-regulate and to tolerate the sensory aspects relating to sleep Difficulty falling and staying asleep due to frequent environmental changes
	66

Client Factors Impacted		
	Client Factors Commonly Affected	
Values, Beliefs, and Spirituality	 Negative beliefs in oneself Decreased sense of belonging Honesty with self and others Feeling powerless Fear of failure Reduced self-esteem Feeling no sense of purpose 	
Body Functions	 Hypersensitive to environmental stimuli Impaired judgment Deficits in attention/hyperactivity Poor sense of identity Decreased awareness of personal boundaries Less control over content of thought Lack of awareness of self Discrimination of sensations Introversion Lack of alertness due to emotional numbing Loss of appetite Pain Decreased emotional regulation 	
Body Structures	 Hallucinations Flashbacks Bed wetting Sleep disturbances Physical abuse affecting body structures Caregiver abuse causing broken bones etc. 	
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Trauma-Informed Care

The concept of trauma-informed care (TIC) is a framework in which service and care providers understand the complex, multi-dimensional impacts of trauma, and they then work to incorporate that knowledge while providing treatment (Huckshorn & LeBel, 2013). Through an analysis of current literature, Huckshorn and LeBel (2013), concluded four main principles for the practice of TIC: trauma-awareness, focus on safety, creating opportunities to regain control, and using individual's strengths in approaches to intervention. When services have chosen to use TIC, they have built an environment that is safe and provides clients with some control over their lives. TIC focuses on care providers recognizing the impact that trauma can have on daily life (Huckshorn & LeBel, 2013). By incorporating the aspects of TIC with children in the foster system, acknowledging trauma can be incorporated while addressing the other barriers, deficits, and mental health concerns that are often associated with this population.

The National Child Traumatic Stress Network (2013) provided nine principles of TIC that they advise to be incorporated with children in the foster care system. The principles included:

- Routinely screen for trauma exposure and the related symptoms
- Use culturally appropriate evidence-based assessment and treatment
- Make resources available to children, families, and providers on trauma exposures, 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 systems
- Maintain an environment of care for staff that addresses, minimizes, and treats secondary traumatic stress
- Increasing the child's sense of safety in their environment
- Helping the child to manage or cope with overwhelming emotions
- Assisting the child to find new meaning of their trauma and experiences
- Addressing the impact of trauma and its changes on the child's development,
 behavior, and relationships
- Coordinating services across agencies
- Assessing the child's trauma and its impact on their development and behavior to guide services
- Support and promote positive and stable relationships in the life of the child
- Provide support and resources to the child's family and caregivers

These principles are used to help the child along with their caregivers while also managing communication across the team in order to ensure best possible care and outcomes for foster children that have experienced trauma (National Child Traumatic Stress Network, 2013).

The Ecology of Human Performance Model Application

Introduction to Ecology of Human Performance

The Ecology of Human Performance (EHP) is a model based on the relationships between a person, their context, the task, and the person's performance (Dunn, 2017). EHP is a person-centered framework where the person brings their own unique set of variables including past experiences, interests, and sensorimotor, cognitive, and psychosocial skills. Terminology used in EHP differs from other models by using terms such as task instead of occupation, which makes this model useful for interdisciplinary teams to support collaboration. It is beneficial to have this universal terminology in order for social workers, psychologists, and other various services involved on a child's case to effectively communicate (Dunn, 2017). The use of EHP is appropriate for this guide in order to incorporate an interdisciplinary collaboration within the foster care system. EHP has also provided a guideline for specific intervention strategies that are used in creating interventions for specific diagnoses that are affected by trauma.

Interactions and Relationship Between Constructs

The four constructs involved in the EHP model include person, task, context, and performance. EHP is a person-centered framework as the person exhibits a unique set of variables such as past experiences, personal values and interests, and sensorimotor, cognitive, and psychosocial skills (Dunn, 2017). There are an infinite amount of tasks available to the person as tasks are objective sets of observable behaviors that allow an individual to accomplish a goal (Dunn, 2017). Contexts include a person's temporal, cultural, physical, and social environments (Dunn, 2017) and performance is related to the engagement that a person has within a context (Dunn, 2017).

In the EHP framework, a person is embedded in their context, an endless variety of tasks exists around every person, and performance occurs as a result of the person interacting in the context and their engagement in the task (Dunn, Brown, & McGuigan, 1994). As the person is embedded in their context, there are some contexts that offer more opportunities to perform tasks than others. The foster care system may be considered a limited context for an individual's skills and abilities, which could make a child's performance range limited. The child may have the adequate skills and abilities to perform the necessary tasks, however the context does not provide the resources needed to perform (Winn et al., 1994).

Increasing Performance Range

An occupational therapist will best utilize the EHP model when considering all the variables that are impacting performance. The performance range has been defined as the number and types of tasks that are available to a person based on the interaction between the person's factors and context variables. These factors include their skills, abilities, and motivations as well as considering context variables that support or inhibit the performance (Dunn, 2017). To increase the performance range, the person, context, and tasks features must be considered equally. The occupational therapist working with the foster child and foster parent/caregiver will be able to identify supports and barriers in any particular context to emphasize the child's abilities and increase their performance range. Increased performance range for a child could result in escalation of self-esteem, positive behaviors, social skills, and motivation. In order to increase performance range, the EHP model encourages using an interdisciplinary approach. The EHP model can be understood by many professions and provide a non-discipline specific language so that many disciplines can work together towards a common goal.

Context and Performance

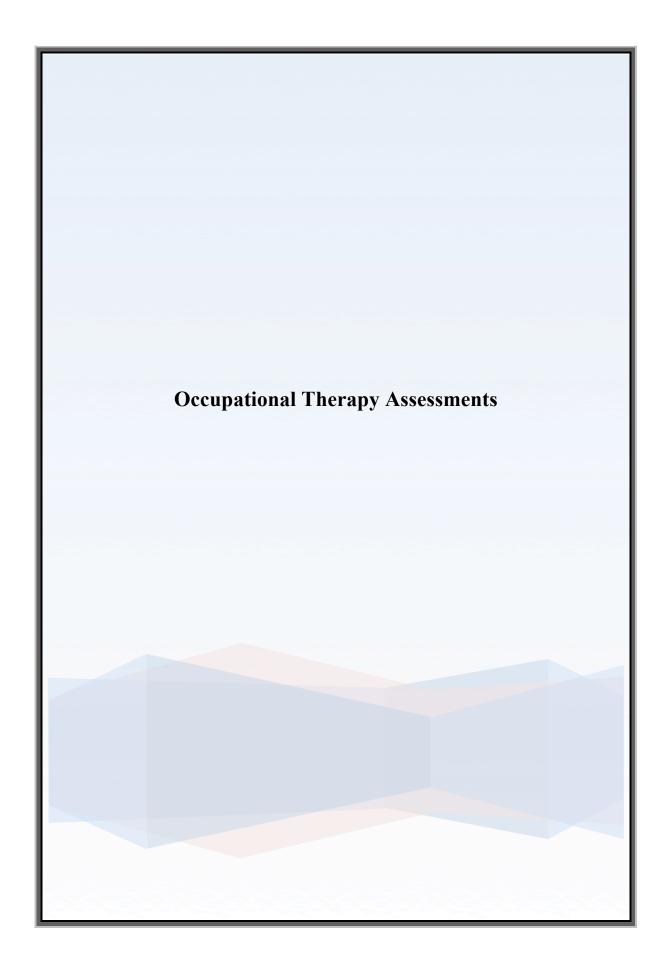
A person's context must be understood in order to understand the person. The context was going to influence how a person was going to be able to perform tasks (Dunn, 2017). The person-context relationship was dynamic in which, the person is influenced by and influences their context. When an occupational therapist utilizes a contrived environment versus a natural environment, there may be different performance outcomes. A child's performance may be enhanced in a contrived environment due to the limited amount of distractions and the provided social support (Dunn, 2017). However, the contrived environment may also inhibit performance because of the unfamiliar environment or reduce the ability to generalize a skill. When a natural environment is used for evaluation and interventions then the occupational therapist is able to see the true performance of the child (Dunn, 2017).

The four contexts that are identified in the EHP model include physical, social, cultural, and temporal context. The physical context can relate to a child's new foster home or the objects in that foster home. The social context referred to the foster family, social workers, teachers, clinical professionals or identified caregivers that the child has interactions with. The cultural context included the foster system rules and expectations that a child is expected to follow while in the foster system. The temporal context could be comprised by the routine of the foster system, duration of a child being in a certain foster home, and the sequence and timing of a child's daily occupations.

Intervention Approaches

The five types of intervention approaches according to the EHP model include establish/restore, alter, adapt/modify, prevent, and create (Dunn, 2017).

- Establish/Restore: focuses on a person's factors and aims to improve the person's skills in order to increase their performance range in multiple tasks.
- Alter: focuses on the context in which a person is performing a task. The context could be changed in order to find the best match between the person's current abilities and the context that is available.
- Adapt/Modify: The context or tasks are adjusted to support the person's current skills and abilities.
- **Prevent:** Influences the course of events by changing the person, context, or task variable to prevent negative outcomes.
- Create: focuses on creating interventions that support optimal performance for any person and many populations.



The occupational therapy process begins with creating an occupational profile. In order to accomplish this, a variety of assessments should be utilized to create a thorough understanding of the client. The charts on the following pages contain assessments selected with guidance from the EHP model's focus on contexts. Physical, social, cultural, and temporal contexts along with person variables are addressed and assessed through the following occupational therapy assessments. The American Occupational Therapy Association provides a template for creating an occupational profile. This can be accessed at:

 $https://www.aota.org/{\sim}/media/Corporate/Files/Practice/Manage/Documentation/AOTA-Occupational-Profile-Template.pdf$

Physical Assessments		
School Setting Interview	Purpose: Determine the need for adjustments in the school context for students with disabilities Administration: Therapists Format: Semi-structured interview and rating scale Setting: School Population: Students with disabilities Time to Administer: 40 minutes	
School Function Assessment (SFA)	Purpose: Designed to measure functional performance in social and academic tasks in the school context. Administration: Teachers or other school personnel and Therapists Format: Questionnaire and rating scales Setting: Not specified Population: Children with a variety of disabilities in kindergarten through Grade 6 Time to Administer: 1.5 - 2 hours (5-10 minutes for individual scales)	
The Environment Rating Scales	Purpose: Measures quality of infant, early childhood, family daycare, and school settings Administration: Therapists Format: Observation-based rating scale Setting: Classroom or daycare setting Population: Birth - school age children Time to Administer: 2 - 3 hours	
Test of Environmental Supportiveness	Purpose: Rates elements of the environment, including physical aspects, along with social, that help or hinder play. Administration: Therapists Format: Observation of child playing in playground Setting: Playground Population: 6 months - 14 years old children and adolescents Time to Administer: 15 - 20 minute observation	
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Social Assessments		
Play History	Purpose: Identifies a child's play experiences and play opportunities. Administration: Self-report (student, parents, and teachers) Format: Semi-structured interview Setting: Home or clinical setting Population: Child and adolescents Time to Administer: Not specified; 3-day sampling required	
Aggression Questionnaire	Purpose: Designed to assess anger and aggression to identify aggressive responses Administration: Self-report (student, parents, and teachers) Format: Self-report questionnaire and rating scale Setting: School or clinical setting Population: Children with third-grade reading ability or higher Time to Administer: 10 minutes	
Child Behavior Checklist	Purpose: Assess the behavioral problems and social competencies of children per parent report. Administration: Therapists Format: Parent questionnaire including probes to assess for Autism Spectrum Disorder Setting: Unrestricted Population: 1.5 - 5 years old & 6 - 18 years old Time to Administer: Variable	
Assessment Checklist for Children	Purpose: Psychiatric rating scale that measures behavioral, emotional states, traits, and manners of relating to others in children that are in foster care, adopted out of foster care, or maltreated. Administration: Therapist Format: Caregiver report Setting: Unrestricted Population: 4 - 11 year old children in care Time to Administer: Variable	
	78	

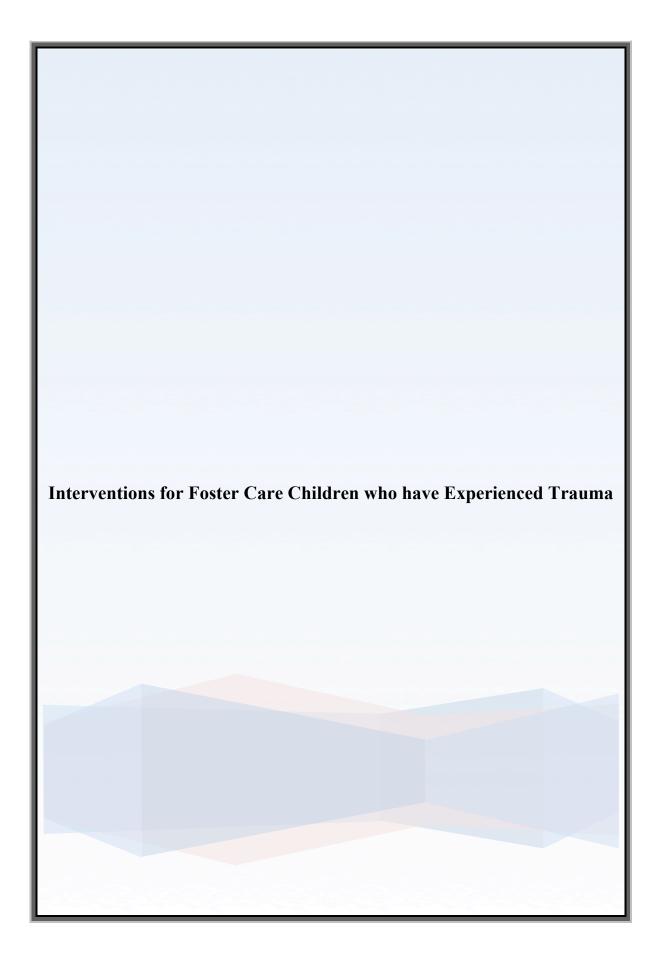
Strengths and Difficulties Questionnaire	Purpose: Behavioral screening tool that assesses emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviors. Administration: Therapists, researchers, and educationalists Format: Parent or teacher behavioral report on child Setting: Unrestricted Population: 3 - 16 year old children and adolescents Time to Administer: Variable
Reactive Attachment Disorder Questionnaire	Purpose: A screening tool designed to identify symptoms relating to Reactive Attachment Disorder in order to distinguish diagnoses from conduct disorder and other mental health diagnoses. Administration: Therapists and school personnel Format: Parent questionnaire Setting: Unrestricted Population: 5 - 18 year old children and adolescents Time to Administer: Variable
	79

	Cultural Assessments
Children's Assessment of Participation and Enjoyment (CAPE)	Purpose: Designed to measure child's participation in, enjoyment of, and preferences for formal and informal activities other than school activities. Administration: Therapists Format: Picture-based questionnaire and rating scale Setting: Unrestricted Population: Children aged 6 - 21 years, with or without disabilities Time to Administer: 30 - 45 minutes
Brief Measure of Religious Coping	Purpose: Used to measure of religious coping with major life stressors Administration: Self-report; health care personnel Format: Rating scale Setting: Unrestricted Population: Adults, adolescents, and middle school children Time to Administer: 15 - 20 minutes

Temporal Assessments	
Behavioral and Emotional Rating Scale (BERS-2)	Purpose: Measures several aspects of a child's strength: interpersonal strength, involvement with family, intrapersonal strength, school functioning, affective strength, and career strength. Administration: Self-report (child, parent/caregiver) Format: Self-report questionnaire and rating scale Setting: Unrestricted Population: birth - 18 years Time to Administer: 10 minutes
	81

Person Variable Assessments	
Bruininks-Oseretsky Test of Motor Proficiency (BOT-2)	Purpose: Provides a comprehensive index of motor proficiency as well as separate measures of gross and fine motor skills Administration: Therapists, educators, and researchers Format: Battery of motor performance tasks Setting: Test area 60 feet x 20 feet, free of noise and distractions; table and 2 chairs Population: Children and youth aged 4 - 21 years Time to Administer: 50 - 70 minutes
Peabody Developmental Motor Scales (PDMS-2)	Purpose: Provides in-depth assessment as well as training and remediation of gross and fine motor skills Administration: Therapists Format: Task performance-based rating scale Setting: Variety of indoor and outdoor spaces, distraction-free, with stairs and object from which to jump; each position is described Population: Children aged birth - 6 years Time to Administer: 45 - 60 minutes
Sensory Processing Measure (SPM)	Purpose: Use observations of behaviors at home and at school to measure function in sensory processing, praxis, and social participation in elementary school children to help determine why children function as they do across different environments. Administration: Therapists Format: Observer-rated behavior scale Setting: Home and school settings Population: Elementary school-aged children Time to Administer: 15 - 20 minutes per form
Adverse Childhood Experience (ACE) Study	Purpose: screening tool to evaluate the traumatic experiences such as abuse, neglect, or witnessing household dysfunction in order to predict potential health concerns caused by trauma Administration: Self-report (individual, parent/caregiver) Format: Self-report questionnaire Setting: Unrestricted Population: Unrestricted Time to Administer: Unrestricted
82	

Person Variable Assessments (Continued)		
House-Tree-Person	Purpose: Reveals general psychopathology or current psychological state, conflicts, and concerns, and specific aspects of the environment perceived as troublesome Administration: Therapists Format: Self-administered Setting: Home and clinic settings Population: Most suitable for children aged 8 years or older Time to Administer: 30 minutes	
Sensory Profile 2	Purpose: Designed to measure sensory processing patterns in everyday life that support or interfere with function Administration: Therapists, teachers, and parents/caregivers Format: Observation-based or self-report questionnaires and rating scale Setting: Home, clinic, day care, preschool or school environment Population: Birth through age 14 Time to Administer: 5 - 10 minutes (Infant, Short); 10 - 15 minutes (Toddler; Adolescent/Adult); 15 minutes (School Companion); 15-20 minutes (Child)	



Cognitive Behavioral Interventions

Cognitive behavioral interventions are the most common and have received the most empirical evidence in their use with children who have experienced trauma (Cohen, et al., 2000). Different approaches for cognitive behavioral therapy (CBT) include cognitive processing, cognitive coping, stress management, muscle relaxation, and thought stopping techniques (Cohen, et al., 2000). Cognitive and behavioral treatments aim to reduce overgeneralization of fears by increasing the ability to discriminate, as well as increase attention and awareness toward their maladaptive beliefs, and generating more realistic beliefs about themselves, others, and the world (Ready et al., 2015).

Shame and guilt are common symptoms that children may have after a traumatic event. The use of cognitive interventions can help change those distorted thoughts and regain a sense of control in their lives. Children may think that they were the cause of the trauma or they may prepare for future traumatic events (Cohen, et al., 2000). Cognitive processing therapy and cognitive coping can help challenge cognitive distortions and dysfunctional automatic thoughts by addressing the self-blame, guilt, and evaluating why these feelings are occurring. Then, the therapist and child can work together to replace these cognitive distortions with the accurate cognition (Cohen, et al. 2000).

Stress Management

Stress management techniques can provide children a tool-kit of strategies to do when a child feels stressed, anxious, or depressed. Muscle relaxation and breathing techniques can be used to control the child's breathing and feel more relaxed (Cohen, et al., 2000). Meditation, relaxation, and deep-breathing interventions have been designed to help reduce adverse reactions to stress by bringing about a physical or mental state that is the physiological opposite of stress (Richardson & Rothstein, 2008). In meditation intervention, a child could be taught to focus on a single object or idea and to keep all other thoughts from his or her mind (Richardson & Rothstein, 2008).

Relaxation training through breathing exercises can be used to help a child reach relaxation by achieving a conscious focus in their mind on the inhale and exhale of their breath (Richardson & Rothstein, 2008). This breathing technique also helps the child relax their body gently so that the tension in their body reduces with each breath (Catani, Kohiladevy, Ruf, Schauer, Elbert, & Neuner, 2009; Richardson & Rothstein, 2008). Exercise programs could also be an effect way to relieve stress. As these programs focus on providing physical release from the tension that is built up from stressful situations and increasing endorphin production (Richardson & Rothstein, 2008). These different interventions could be beneficial to a child who has experienced trauma when they are feeling stressed as it is a way for them to relax their body and their mind, as well as have a physical release from built up tension.

Thought Stopping

Self-talk is a mental skill in which it can be positive or negative. Negative self-talk can be correlated with a person's performance and negative emotions. When a child is experiencing negative self-talk, thought stopping and thought replacement can be taught to enhance the child's control over negative thoughts, which could lead to increased performance in daily activities (Cohen, et al., 2000; Hardy, Roberts, & Hardy, 2009). Thought stopping can be taught by having the child interrupt the negative thought, by either physically interrupting it by snapping a rubber band around their wrist or verbally saying something like "snap out of it" (Cohen, et al., 2000).

A recent study by Hardy, Roberts, and Hardy (2009), examined the effectiveness of a logbook and paper clip technique on the awareness of the use and content of negative self-talk. The logbook technique involved detailed answering of questions about the type of self-talk the participants were experiencing (Hardy et al., 2009). The participants in the logbook group were given a diary to record any negative self-statements used. Participants were to identify the frequency, provide examples, as well as identify in what situations these negative self-statements would occur (Hardy et al., 2009). The paper clip technique focused on the frequency of negative self-talk. The participants in the paper clip groups were given a bag containing 50 paper clips. Throughout the day, they were asked to remove a paper clip from their right pocket to their left whenever they had a negative self-statement. Then, the participants would record the number of paperclips they had in their left pocket (Hardy et al., 2009).

Researchers found that the logbook group reported significantly better awareness of their use and content of negative self-talk. However, both groups had some benefit in

providing awareness to the participants on the negative self-talk they experienced (Hardy et al., 2009). Thought stopping can be used as a way to reverse a negative thought with a positive one by counteracting negative statements about oneself. Utilizing thought stopping can create an immediate response to undesired thoughts, which can lead to an immediate way for a child to recognize their negative self-talk. These techniques allow the child to feel more in control of their body and their thoughts (Cohen, et al., 2000). 88

Environmental Modifications

When children were living in a stable, nurturing family environment it is more likely that the child will be able to grow and develop typically (Herrenkohl et al. 2003). However, abused and neglected children often lack this type of environment. When the decision is made to move a child into foster care, one goal is for the child to gain more positive parenting (Herrenkohl et al., 2003). Occupational therapy practitioners can be a resource for children in the foster care system who can collaborate with teachers, care providers, and foster parents to meet the environmental needs of the child such as daily living opportunities of childhood (Lynch et al., 2017).

Children may experience a lack of time and opportunity to play due to the constraints of different family meetings, counseling, or biological family visits. Children can also experience a fear of being outside or in play environments due to past traumatic experiences or even have had such little exposure to play that they may have hesitancy to participate in these types of environments. Occupational therapy can provide a child with a nurturing environment to facilitate a child in participation in their daily living opportunities of childhood and increase their performance in multiple areas of occupation (Lynch et al., 2017).

Zones of Regulation

The Zones of Regulation curriculum provides therapists with knowledge on self-regulation and strategies to assist with development of self-regulation and emotional control in individuals of all ages (Katz, 2012). The Zones of Regulation consists of four different zones that can help someone describe what their state of arousal and their emotional control is. The red zone emotions are so intense that a person may feel out of control. The yellow zone emotions aren't as intense as the red zone and the individual still has some control of their body and emotions. The green zone an individual will feel focused, alert, in control of their emotions, and ready to learn. The blue zone is a low state of alertness, where a person may feel drowsy or shy (Katz, 2012).

This curriculum is beneficial for children who struggle to explain how they are feeling or how to self-regulate themselves when they are in the red zone. The Zones of Regulation program provides strategies to help individuals to reach the appropriate zone for the appropriate environment. Included with the Zones of Regulation program are lessons to help children recognize personal triggers that typically send them into those higher zones (Katz, 2012). These personal triggers could relate to a number of different traumatic experiences that a child may have encountered. Once the child is able to identify these triggers, he or she can practice different strategies to regain control of their body and emotions to reach the green zone (Katz, 2012).

Parent-Child Interaction Therapy

Children who have experienced traumatic experiences, may display increased levels of aggression, anger, defiance toward parents, and social skill impairment. These traumatic experiences can impact the quality of the parent-child relationship (Borrego et al., 2008). Parent-child interaction therapy is an evidence-based, parent-focused, behavioral intervention for disruptive behavior problems in children. The focus of this therapy is to provide education to the parent in order to improve the parent-child relationship (Borrego et al., 2008).

Through coaching and hands-on exercises, the parents are taught several skills such as praising the child, reflecting the child's verbalizations, imitating the child's play, describing what the child is doing during play, and using enthusiasm while interacting (Borrego et al., 2008). These skills are used when a child is behaving appropriately in order to reinforce positive behavior. The occupational therapist works with the parent to learn these strategies on how to ignore minor behavior problems such as whining and provide positive attention when the child is behaving positively. Through this process, negative parent-child interactions are replaced with more positive and nurturing interactions (Borrego et al., 2008).

Sensory Based Strategies

In a study completed by Wilbarger, Gunnar, Schneider, and Pollak (2008), children had been part of the foster system were recognized as having more sensory processing disruptions than other children at their developmental level. The length of time spent in the system was also found to be a factor in the child's sensory processing abilities. Children who were institutionalized longer had more severe deficits than those that were adopted early. The researchers also concluded children in the foster system were found to have more sensory aversions along with sensory-seeking behaviors. These behaviors were much more negative in their pattern with increased oversensitivity, avoidance, and under-responsiveness being noted. The findings of inability to regulate sensory input was also parallel to the child having poor regulation with other types of behaviors including social skills, stress management, and emotional regulation (Wilbarger et al., 2008).

Occupational therapists can provide a wide variety of sensory based interventions. In the context of the foster system, various occupational therapy programs have been created to facilitate health sensory regulation along with attachment to foster better caregiver relationships (Sanders et al., 2016). One such program involved foster children exploring a variety of sensory based activities with their caregiver. The child would participate in sensory based activities involving the mouth, movement, touch, sight, and listening with their foster parent (Sanders et al., 2016). During the sessions, the occupational therapist would facilitate healthy interactions between the child and parent along with providing the "just right challenge" for sensory input (Sanders et al., 2016). The foster parents reported the child demonstrating more attachment behaviors to

them as well as using better sensory strategies to regulate themselves with more difficult stimuli (Sanders et al., 2016).

Along with family programs, occupational therapists also work as consultants in order to address specific sensory needs of children in foster care (Sanders et al., 2016; Lynch et al., 2017). Common suggestions or strategies used to help children regulate sensory input include heavy work activity, oral stimulation using crunchy or chewy snacks, and keeping a consistent and calming bedtime routine (Sanders et al., 2016). Although these are common suggestions, a more thorough assessment would need to be completed in order to meet the needs of each individual child.

Just-Right Challenge

When a child is provided a safe, structured environment, the child is able to elicit active participation and successful efforts to perform a task that is at the just right level of complexity (Case-Smith, 2015). The just-right challenge has four elements that make it unique for a child to successfully engage and participate in a task. The four elements are as follows:

- 1. Matches the child's developmental skills and interests
- 2. Provides a reasonable challenge to current performance level
- 3. Engages and motivates the child
- 4. Can be mastered with the child's focused effort

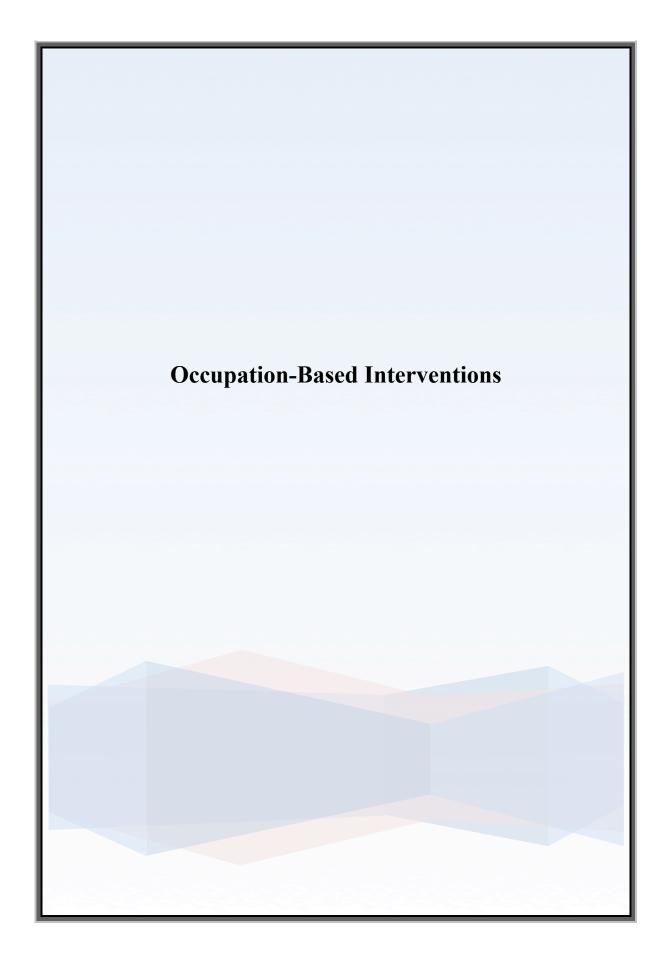
To promote a change in the child's performance there must be some challenging aspect to create a degree of stress. The stress is used to create a higher level of response to the task (Case-Smith, 2015). The occupational therapist can choose activities that are easily modified to increase or decrease difficulty level. Children in the foster care system may experience trust issues so it is important that the therapist provides a task that the child is comfortable completing to build trust and rapport. Then, the therapist is able to facilitate the just-right challenge to move slowly with the child in order to maintain trust and rapport. The just-right challenge creates and comfortable and nonthreatening environment while also incorporating some challenge for the child (Case-Smith, 2015).

Social Skills Group

Children with mental health or behavioral disorders often exhibit limited social participation. Foster care children often display symptoms of mental health and behavior disorders and can have a direct impact on their social participation (Hilton, 2015).

Children who demonstrate anxiety symptoms have been reported to have lower levels of social acceptance and global self-esteem and more negative peer interactions. Social skills groups can support social participation by teaching children specific social behaviors, awareness of social rules, self-management and problem solving skills (Hilton, 2015).

Specific social behavior goals can include appropriately greeting others, asking someone to play, asking for help, initiating and terminating conversations, and demonstrating cooperative interactions during activities with peers (Hilton, 2015). Awareness of social rules can provide a child with the sense of belonging in their peer groups as the child will be able to use good manners, stand up for themselves in an appropriate manner, use respectful words when disagreeing with others, and demonstrate awareness of unwritten social rules (Hilton, 2015). Self-management skills includes keeping hands and feet to self, taking turns, reducing interfering behaviors, and using appropriate voice volume. Problem-solving skills include negotiating with peers, dealing with bullies appropriately, and compromising when the child disagrees (Hilton, 2015). All of the previously mentioned skills can be taught and practiced with the use of social skills groups. Social skills groups provide the child a structured, safe environment to practice skills to integrate into their natural environments.



Social Participation

Establish/Restore

- Social Skills Group
 - Establish/Restore appropriate social skills to incorporate in the child's daily life such as school, community, and home
 - Instructions for following activities on pages 97-99
 - Simon Says
 - Follow the Leader
 - Freeze Dance
 - Musical Chairs
 - Red Light, Green Light
 - Board Games (Checkers, Candy Land, Guess Who? etc.)
 - Four Corners
- Teaching Boundaries
 - o Handout on page 100

Social Skills Groups

The following activities can be used to encourage healthy relationships and appropriate social interactions and responses. These games can be completed with the child and therapist or in a small group.

Simon Says

Number of Participants: 2+

Directions:

One participant will be assigned the role of "Simon." This person will then stand in front of the other player(s) while providing them various instructions. These instructions must begin with the phrase "Simon says..." followed by various actions (touch your nose, jump three times, etc.). The other players must follow Simon's instructions. However, if Simon gives a command without beginning it by saying "Simon says," than the group does not need to listen. The goal as the leader is to trick a player into performing an unneeded task. The role of Simon can be rotated as needed.

Skills Addressed:

- Listening
- Rule following
- Appropriate reactions
- Coping with potential disagreements



Follow the Leader

Number of Participants: 2+

Directions:

This activity should be completed in a space with enough room for the players to walk around freely. One participant will be given the role of the "leader." The other participants will stand in a single-file line behind the leader. The leader will then begin to move around the room/space with the other participants following behind them. The leader will choose how they would like to move around the play space (skipping, crawling, running, etc.), and the other players must mimic the leader while following behind them. The role of "leader" is rotated as needed.

Skills Addressed:

- Rule following
- Observation of others
- Impulse control
- Turn taking

Freeze Dance

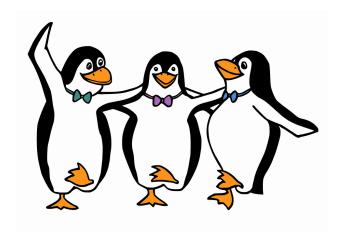
Number of Participants: 2+

Directions:

This activity requires a space big enough for participants to dance around in without hurting themselves or others. Some form of a music player is also needed. The therapist will begin to play music from their selected device while the participants dance to the music. The therapist will randomly select to pause the music, and when the music pauses, all participants must "freeze" and stop dancing. Participants will hold their frozen pose until the music begins to play again.

Skills Addressed:

- Impulse control
- Attention
- Listening skills
- Appropriate reactions



Musical Chairs

Number of Participants: 4+

Directions:

This activity requires a room with enough space for chairs to be set up and players to walk around them. For this game, a circle of chairs will be set up in the middle of the room. There will be one less chair set up each round than there are players. Music will be played, and the participants will begin to walk around the chairs. When the music stops, each player must hurry to try and sit on a chair before all of the chairs are taken. The player that does not get a chair is eliminated, and a chair is removed for the following round. The last player to get the final chair wins.

Skills Addressed:

- Appropriate reactions
- Frustration tolerance
- Rule following
- Listening skills

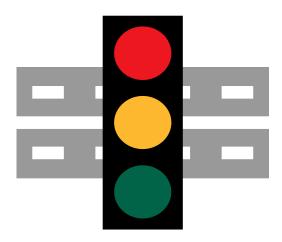
Red Light, Green Light

Number of participants: 3+

Directions:

This activity will require a space with enough room for participants to run. One player will be assigned to be the leader. This individual will stand at one end of the room with the remaining player standing at the opposite side. The leader will then turn their back to the other players while saying "green light." At this time, the other players will begin to cross the room while heading towards the leader. When the leader chooses to, they will quickly turn to face the other players yelling, "red light!" The other players must freeze where they are at, and if the leader sees anyone move, they will instruct that player to return to the starting spot. The leader will continue to turn back and forth saying red or green light until one player successfully reaches them. This player is the new leader. Skills Addressed:

- Frustration tolerance
- Impulse control
- Rule following
- Appropriate responses



Four Corners

Number of participants: 5+ (More suitable for larger groups/classes)

Directions:

This game requires a room with four distinct corners. Each corner will be assigned a number 1-4. One player is assigned the role as the leader. This person will put their head down and close their eyes while the other players move around the room to select a corner to stand in. Once players have selected a corner to stand in, the leader will select a number from 1-4 while their eyes are still closed. All players standing in the selected corner are eliminated. This process will continue until there are four or less players. Once there are four players, each player must select their own corner that no other player is in. The leader will select one of the corners, while their eyes are closed, and this corner will be the winner. The winner is the leader for the next round.

- Skills Addressed:
 - Patience Rule following
 - Impulse control
 - Frustration tolerance

Teaching Boundaries

Sometimes children have a hard time setting appropriate boundaries with others. Some children may feel uncomfortable with adults or peers coming near them, and others may not be aware of other people's personal space. One strategy to teach children about appropriate space is by using hula-hoops. Have the child put a small hula-hoop around them while having one edge of the hoop against their back. Educate them that this is their personal space. If other people enter this space that they do not want to, they should inform someone they trust or tell that person that they are too close. Likewise, they should make sure there is a hula-hoop space between themselves and others so that they do not make other people feel unsafe as well. This activity can be completed individually or in groups. Therapists can also have the child complete various games or activities while using the hula-hoop to practice keeping personal space.



	Social Participation
Alter	
Aitti	
•	Parenting Strategies
	o Instead of sending child to time-out, having child sit with caregiver after
	bad behavior to increase sense of security while providing punishment
	 Handout in on page 102

Time-Out to Time-In

Bad behaviors happen with kids, and it can be hard to select the right punishment to match the child. One common disciplinary action is giving a child a time-out. However, there is another option, a time-in.

What is a Time-In?

A time-in can be used in replacement of a time-out. Instead of having a child sit in a corner or in their room alone, have the child sit next to the caregiver for a designated amount of time.

Tips

- Have the child sit on a designated time-in blanket placed next to the caregiver
- If not placed next to caregiver, make sure eye contact is possible at all times
- Make sure to educate child on why time-in is taking place. Focus on behavior, not discouraging the child

Benefits

- Caregiver is able to help child regulate difficult emotions
- o Child does not feel abandoned due to a mistake
- Facilitates healthy attachment and relationships with caregiver

Social Participation

Adapt/Modify

- Parent-Child Interaction Therapy
 - Create home program for parent and child to participate in together to increase relationship between parent and child
 - Instructions for following activities on page 104
 - Ring Around the Rosie
 - This Little Piggy...
 - Hot Potato
 - Patty Cake
 - Mirror Game

Parent-Child Interaction Therapy

Sometimes it can be difficult to form a relationship with a foster child. They can appear distant or uninterested in interacting with their caregiver or host family. Extra time is often needed to start building a relationship. Some strategies that have been found to be effective in this process include eye contact, physical contact (both at an appropriate level and within the child's comfort zone), and encouragement. Below are some activities that can be helpful in incorporating the previously mentioned strategies.

- Ring Around the Rosie
- This Little Piggy...
- Hot Potato
- Patty Cake
- Head, Shoulders, Knees, and Toes
- Reading Books Together
- Board Games
 - o Twister
 - o Guess Who?
 - Battle Ship
 - o Checkers
- Mirror Game
 - o Child imitates caregiver's facial expression or vice versa



Social Participation

Prevent

- Sensory Processing and Adaptations
 - Provide the child with a sensory tool to use before a potentially overwhelming task
 - List of sensory tools provided on page 106-107
 - o Provide the child with heavy work activities prior to stressful activities
 - Carry heavy toys
 - Pushing against large objects
 - Climbing up a ladder or slide
 - Animal walks
 - Push-ups
 - Kneading theraputty

Sensory Tools

Sensory Tool	Description	Where it can be Purchased	
Weighted stuffed animals	These stuffed animals weight around 2-5 lbs, and they can be placed on a child's shoulders or lap. They provide calming, vestibular input in a discrete way for young children.	Therapy Shoppe Website \$30.99	
Under Desk Sensory Strip	These sensory strips are made of unique materials that are placed on the underside or inside of a child's desk. When nervous or stressed, the child can pet the material in order to self soothe.	Children's Therapy Store Website \$22.00	
Fidgets: Tangle Jr.	Tangle Fidgets are small toys that can be manipulated with either one or two hands. It can be used below the desk or in a child's lap. It does not make noise, and it can be used in a classroom or quiet setting.	Amazon \$8.90	
Sparkling Spiral Glitter Wand	These small wands are filled with glitter and muticolored liquids. A child can shake or flip the glitter wand to cause the materials inside to displace. As the mixture settles, the child can watch it and receive a calming effect.	Children's Therapy Store Website \$6.25	

Sensory Tool	Description	Where it can be Purchased
Furry Animal Hand Weights	These weighted stuffed animals are small devices that can be placed on the back of a child's hand during writing tasks. The animal connects to the pencil as well so that it stays in place while the child is writing. It provides a calming effect by placing proprioceptive input onto the child's hand.	Therapy Shoppe Website \$10.99
Fidgeting Foot Band	These bands can be placed around a child's chair or desk legs. Once placed, the child is able to push, kick, or pull on the band with their feet below their desk. It is a fidget that helps children to regulate and calm themselves without being a distraction in the classroom.	Therapy Shoppe Website \$4.99
Stress Cats	These little cat fidgets feel similar to a small stress ball. They can either be attached to a child's desk or work space, or they can be held in a child's hand. When nervous or stressed, a child can either squeeze or manipulate the fidget to soothe.	Amazon \$3.99
Plush Lion Hot & Cold Gel Cuddle Toy	These stuffed animals are avaiable in a variety of designs in order to fit the child's preferences. The material inside the animal can either be frozen or warmed up to provide the child with sensory input in difficult situations.	Children's Therapy Store Website \$19.95

Social Participation
Create
Sensory Processing and Adaptations
 Create sensory spaces for children to utilize vestibular input in order to
calm a child when they are over stimulated
109

Activities of Daily Living

Establish/Restore

- Establish Routine
 - Establish a scheduled routine at home in order to increase predictability
 and a sense of security in the child's environment
 - See Handout on page 110-111

The Benefits of A Routine

Clearly laying out the tasks that will make up the morning and evening routine has several benefits such as:

- Reassure the child
- Allow the child to know how things are going
- Visualize them to encourage the implementation of small habits
- Help them feel confident

Build the Routine

Make the routine together!

- Start by listing all the tasks and small moments that make up the morning and evening
- Then choose together in what order these small tasks will be accomplished
- Add a bonus activity to keep up the child's motivation

Example

AM	PM
 Bathroom Potty Wash hands & Face Brush Teeth Comb Hair Make Bed Get Dressed Put dirty PJs in Hamper Eat Breakfast Take Vitamins Goodbye Hugs 	 Pick up toys & Clean room Pack Backpack Put on PJs Put dity clothes in hamper Bathroom Tub Time Potty Wash hands & Face Brush teeth Read for 15 minutes Lights out

A template is provided on the next page for you to fill out with your own schedule!

AM	PM
00	
	Schoolbe

	Activities of Daily Living
Alter	
	Altering Environment
	o Have child complete activities of daily living tasks in non-threatening
	spaces
	113

Activities of Daily Living

Adapt/Modify

- Environment Modifications
 - Collaborating with child to make modifications to typical ADL spaces
 (bathroom, bedroom, kitchen, etc.) in order to provide child with sense of
 control in space often associated with trauma
- Visual Schedule
 - o Creating a Visual Schedule to utilize in their current context

Activities of Daily Living

Prevent

- Stress Management
 - Relaxation Training
 - See Handout on page 115
- Routine Meal Times
 - Encouraging regular meal times as a family in order to prevent insecure attachments or placements for child.
- Parent Strategies
 - Educating parents on certain environments that may trigger a child in their home

Breathing Techniques

Effective breathing encourages the brain and body to receive calming effects. If the child practices these breathing strategies regularly or in times of stress, it can have a positive affect on blood pressure, the digestive system, cognition, and emotional stability.

Belly Breathing

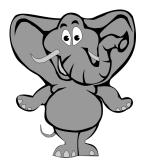
- 1. Have the child lie on their back and have them put one hand on their belly and one hand on their chest to help them follow their breathing.
- 2. Have the child inhale until their abdomen begins to lift the hand on their belly. Tell the child to let their belly rise like a balloon filling with air



3. Have the child exhale very slowly and completely. Tell the child to let their belly deflate like a balloon losing air.

Elephant Breathing

- 1. Have the child stand with their feet wide apart and their arms dangling in front of their body like an elephant trunk.
- 2. As you instruct the child to breathe deeply through their nose, have them raise their arms up high above their head.
- 3. Then, have the child slowly swing their arms down again as you have them breathe out of their mouth.



Bubble Breathing

- 1. Have the child sit comfortably with their eyes closed and have them imagine that they are holding a bubble wand.
- 2. Instruct the child to breathe in deeply and then, as they breathe out slowly and gently, imagine they are blowing bubbles into the room.
- 3. Have the child imagine the bubbles are filled with happiness and their favorite things and that they are filling the whole room with those things.

	A (* */* ET) *I T * *
	Activities of Daily Living
Create	
• Senso	ory Processing and Adaptations
0	Create sensory spaces for children to utilize vestibular input in order to
	calm a child when they are over stimulated

Establish Restore

- Increasing Attention
 - Playing music in background during therapy sessions in order to improve child's ability to block out extraneous stimuli
 - Visual Attention
 - Color Memory Game (Simon)

	Education
Alter	
Aiter	
	Sensory Processing and Adaptations
	o Have child complete task in a sensory room in order to increase
	occupational performance
	119

Adapt/Modify

- Thought Stopping
 - Snap rubber band on wrist to change child's negative internal thoughts to
 positive ones when faced with overwhelming school task
- Sensory Strategies
 - Have child hold weighted stuffed animal or wear weight vest during high stress school tasks
- Heavy Work
 - o Have child complete heavy work tasks prior to or during class activities
 - Foot fidgets
 - Carry heavy books
 - Playing with higher resistance theraputty

Prevent

- Just-Right Challenge
 - Prevent negative behaviors by providing a challenge where the child will find success
- Sensory Processing and Adaptations
 - Provide the child with a sensory tool to use before a potentially overwhelming task
- Stress Management
 - o Create a stress management class for a child's classroom
 - See handout on pages 121-123
- Plan Development
 - Create plan with teacher and child of the potential schedule conflicts with family meetings and appointments

Stress Management Class Outline

Purpose: To educate students about stress and stress management

Time: 45 minutes - 1 hour

- What is Stress?
 - o Ask students what they think stress is.
 - o Ask students if they know of a situation that may be stressful.
 - Stress is your body's reaction to situations that can be challenging.
 It is your body's way of preparing to deal with those challenges at home and at school. There are two different kinds of stress, good and bad stress.
- Types of Stress
 - Good: Good stress can help keep you focused and motivated. For example, if a student is stressed about an assignment, the stress could motivate them to do their best work to get the assignment done.
 - o Bad: Bad stress is what you feel when you cannot stop worrying about something challenging and you start to feel overwhelmed.
- How can we manage this stress?
 - Ask students in what ways we can calm our bodies down to relieve the stress
 - o Provide coping skills that are not mentioned
 - Take 10 deep breaths
 - Slowly count to 10
 - Squeeze hands closed
 - Imagine a happy place
 - Push hands together
 - Think of a happy memory
 - Pull hands apart
- Provide Worksheet to students
 - o There are a few examples of stressful situations but then encourage them to think about what other situations could be stressful
 - o If this was a good stress or bad stress situation
 - o Coping strategies that the student can use to relieve the stress
- Make a Stress Ball
 - o Provide instructions and materials to each student
- Final Discussion
 - Ask students if all stress is bad stress?
 - No, some stress helps motivate and encourage students to complete tasks
 - Ask students if they feel like they have some strategies to help relieve their stress
 - o Thank the students for their hard work and for their participation

That STRESSES Me Out!

Situation	I experienced this within the last year:	Good Stress: The situation motivated you to prepare and do your best!	Bad Stress: The situation made you feel overwhelmed and nervous	Coping Skills to use in this situation
Meeting new people	Yes:	Yes:	Yes:	
	No:	No:	No:	
Trying a new activity or	Yes:	Yes:	Yes:	
game	No:	No:	No:	
Being teased	Yes:	Yes:	Yes:	
	No:	No:	No:	
	Yes:	Yes:	Yes:	
	No:	No:	No:	
	Yes:	Yes:	Yes:	
	No:	No:	No:	
	Yes:	Yes:	Yes:	
	No:	No:	No:	

Make Your Own Stress Ball!

Materials

- ❖ ¾ Cup Flour
- ❖ Wide Neck Funnel
- ❖ Empty, Dry Water Bottle
- ❖ 2 Balloons

Directions

- ❖ Pour the flour into the water bottle using the funnel
- Blow up one of the balloons to the size of your stress ball
- ❖ Do not tie the balloon!
- ❖ Fit the mouth of the water bottle over the balloon
- Empty the flour into the balloon
- ❖ Tie balloon
- ❖ Fit 2nd balloon over the 1st balloon
- ❖ Tie 2nd balloon so your stress ball doesn't leak!



Create

- Sensory Processing and Adaptations
 - Create sensory spaces for children to utilize vestibular and proprioceptive
 input in order to calm a child when they are over stimulated
- Zones of Regulation
 - Incorporating Zones of Regulation as a classroom program to facilitate emotion identification and strategies
- Inservice
 - Educating staff and teachers on trauma-informed care

Play/Leisure

Establish/Restore

- · Social Skills Group
 - Facilitating play skills in order to increase confidence in play and improve appropriate behaviors during social interactions
- Interest Exploration
 - Have child identify activities of interest in order to incorporate them in therapy process

	Play/Leisure
Alter	
.	Altering Environment
'	
	 Have child complete play activities in non-threatening spaces to facilitate
	opportunity for play
	127

Play/Leisure		
Adapt/Modify		
Sensory Strategies		
 Provide ear plugs to child when they are required to focus 		
Increase Time		
 Allow extra time for child to perform play tasks 		
128		

Play/Leisure

Prevent

- Just-Right Challenge
 - Prevent negative behaviors by providing a challenge where the child will find success
- Social Scenarios
 - Provide child with scenarios to prevent negative behaviors in potential future situations and educate them on the proper ways to respond
 - See handout on page 129

Social Scenarios

Social scenarios help children discuss and identify how they would solve each provided situation. Social scenarios are great for children who have social difficulties and for those students who find themselves getting stuck when faced with a situation. Social scenarios allow children to discuss a variety of situations and brainstorm the best problems before they occur. These scenarios encourage positive choice making by thinking through problems, considering the options, and then making the best choice.

Provided are several scenarios that you can discuss with the child:

- Your best friend has a new toy that you really like. You ask to see it and they say no. What do you do?
- You see your friend whispering to someone else and looking at you. When you come over, they stop talking. What do you do?
- The person next to you in class keeps trying to look at your paper during a test. What do you do?
- The person next to you keeps poking you with a pencil during silent reading time. It is distracting your reading. What do you do?
- You have a big project due today but forgot it at home. What do you do?
- Your friend just beat you in a game. What do you do?
- Someone in class cut in front of you in line. What do you do?
- You want to go to your friend's birthday party, but you are nervous about the large crowd. What do you do?

Therapists can create their own scenarios that pertain to the child's life and experiences at home, school, and in the community.

Play/Leisure
Create
Structured Play Sessions
 Organize games or play activities for classroom or peer group in order to
encourage play in a structured environment
131

Rest and Sleep

Establish Restore

- Establish Routine
 - Establish a scheduled bedtime routine to increase predictability and a sense of security in the child's environment
 - See Handout on page 132
- Incontinency
 - Angels in the Snow
 - See Handout on page 133



Angels in the Snow

Trauma can have a negative impact on development such as primitive reflexes. The spinal galant reflex, if not integrated, can result in bedwetting. As bed sheets can act as stimulation on the lower back, they may activate the urination reflex causing bedwetting.

A spinal galant reflex activity that may help integrate the reflex is called:

Angels in the Snow

- 1. Have the child lie face up with their arms at their side
- 2. Have their arms and legs slowly move outwards and upwards against the floor
- 3. Their hands should touch as their legs are moved fully outwards.
- 4. Have the child breathe in with outward movements and breathe out with inward movements



Rest and Sleep

Alter

- Adjust Bedtime Routine
 - Have child begin bedtime routine 30 minutes earlier in order to create
 calm environment for the child to fall asleep easier and help the child feel
 more relaxed
 - Give the child the option to participate in a quiet activity when the child cannot fall asleep

Rest and Sleep

Adapt/Modify

- Sensory Strategies
 - Incorporate weight stuffed animals or blankets in order to increase proprioceptive input to calm child
- Coping Strategies
 - o Create calming strategies for child to use if they wake up from nightmares
 - See Handout on page 136
- Environmental Strategies
 - Collaborate with child and caregivers in order to personalize sleeping
 space to increase sense of control and belonging in environment

Coping Strategies for Nightmares

Trauma can have an influence on a child's thoughts and feelings. A response to those thoughts and feelings can be nightmares. A parent or caregiver should focus on stopping the nightmare cycle early otherwise, anxiety could occur for the child. This anxiety could lead children to have anxiety about going to sleep in fear that they will have another nightmare. Anxiety can also trigger nightmares; so the more anxious a child is the more likely they are going to have another nightmare.

Some tips to help children handle nightmares include:

- 1. Do not dismiss the child's nightmares
- 2. Explain to the child that the nightmares are in their head
- 3. Encourage the child to imagine scary dream characters doing funny things such as doing a funny dance or wearing ridiculous clothing
- 4. Make up funny songs that can be sung in the middle of the night to help make the images disappear
- 5. Write a story for the child in which they are the heroes defeating the particular creature that they are scared of
- 6. Provide a night light in their room
- 7. Encourage the child to do breathing exercises such as belly breathing
- 8. Let the child make up an alternative ending to their nightmare in which the nightmare creature is defeated
- 9. Put an old remote by their bed so that they can "change the channel" when they wake up from a nightmare
- 10. Encourage them to stay in their bed if possible. This will help them learn how to feel calm in their own bed rather than associating the parent or caregiver's bed with the escape from the nightmare



Rest and Sleep			
Prevent			
Environmental Modifications			
 Creating a calming environment using nightlights, stuffed animals, 			
blankets, etc. to prevent potential nightmares or fear associated with sleep			
138			

Rest	and	Sleep	p
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Create

- Parent Education
 - Create a handout for caregivers to better understand how trauma can impact the sleep process
 - See Handout on page 139

Trauma's Impact on Sleep

Trauma can have a variety of impacts on a child. Sleep is oftentimes an area that is affected. As experiencing trauma can cause a child to be hypervigilant, it can be difficult for them to calm their bodies in order to prepare for and maintain sleep.

Common behaviors noted include the following:

- Difficulty falling asleep
- Frequent nightmares or night terrors
- Anxiety increasing around bedtime
- Child not wanting to sleep alone

Some strategies to help a child adjust to fear associated with bedtime and help to them calm down include:

- · Reinforcing structured bedtime to increase predictability at bedtime
- Coping skills to help child cope with fear
- Minimizing conflict in home prior to sleeping hours
- Avoiding sugary drinks or foods nears bedtimes
- Limiting media use in the evening
- Talking through nightmares and fears
- Provide child with nightlight or other comforting objects



Chapter V

Summary

The purpose of scholarly project, A Guide for Occupational Therapists: Utilizing Trauma-Informed Care to Guide Intervention for Children in Foster Care, was to create a guide for trauma-informed interventions for occupational therapists specifically to use with foster care children. The literature review in Chapter II indicated the need for trauma-informed interventions in the foster care system as trauma can have a negative impact on occupational performance and engagement in various environments. The literature suggests that there are several barriers that decrease optimal performance in a child's daily activities when they experience trauma. As occupational therapists are skilled at addressing psychosocial needs along with environmental factors of children; therefore, they would be a beneficial skilled service in this context. This guide was developed in order to promote occupational performance and engagement utilizing trauma-informed and evidence-based interventions. Based on the findings of the literature, it was evident that there are few resources for occupational therapists working with this population. Therefore, a guide would be beneficial to guide and address the complex needs of foster care children who have experienced trauma.

The authors' intent for this guide was to provide trauma-informed and evidencebased interventions to occupational therapists who work with children in the foster care system. The authors focused on identifying symptoms that can occur with trauma found in the literature, and provide interventions that can address these complex symptoms. The contents of this guide provided an easy to follow outline of definitions, background information, assessments for occupational therapists to use, and traumainformed interventions that can be utilized based off of the EHP model.

A limitation to this guide is that occupational therapists do not have a recognized place in the foster care system to address trauma. Occupational therapists are incorporated when children are aging out of the foster care system; however, they are not commonly referred when trauma is impacting the child's occupational performance and engagement. Another limitation is that some of the interventions in this guide may not be entry level, thus the occupational therapist should have experience with this population, mentoring, or additional training. Occupational therapists have not had the opportunity to utilize these trauma-informed interventions; therefore, the effectiveness of this guide is unknown. In order for the guide to be used as an asset to foster care, occupational therapists need to advocate for their position to address the psychosocial needs and environmental factors of these children.

Implementation of this guide may be done by providing occupational therapists who work with children in the foster care system with this guide and advocating for the need to increase the utilization of occupational therapy's skilled service in addressing the traumatic experiences of children. Occupational therapists may need to provide inservices to foster care systems in order to increase the awareness of providing trauma-informed care to children who have experienced trauma. This will provide occupational therapists with the opportunity to be implemented into the foster care system to address

children's complex needs instead of being limited to the transitional needs of the older foster care children.

It is anticipated that the use of this guide will provide occupational therapists with trauma-informed and evidence-based interventions to increase occupational performance and engagement for foster care children who have experienced trauma. The interventions provided within the guide were developed based on the structure of the EHP model according to the contexts and intervention strategies. To measure the effectiveness of this guide, outcome measures such pre/post-test surveys can be provided to occupational therapists that utilize the guide to identify the effectiveness, ease of use, and satisfaction of the guide. Pre/post-test surveys could also be distributed to parents or caregivers on the children to identify their overall satisfaction and effectiveness of their children's occupational therapy trauma-informed treatments.

Overall, the authors expect positive outcomes in providing trauma-informed interventions to increase occupational performance and engagement for foster care children who have experienced trauma. By utilizing the guide, occupational therapists are provided several assessments and trauma-informed interventions to incorporate into their treatment to better treat children in the foster care system. Recommendations for future research includes implementing case studies utilizing the guide and determining effectiveness by implementation of this guide in the foster care setting.

APPENDIX

Appendix A

NDOTA Presentation

4 messages

Courtney Crabill <cocrabill@gmail.com> To: lanie.semchenko@gmail.com Mon, Oct 30, 2017 at 10:40 AM

Good morning!

My name is Courtney Crabill, and I am an occupational therapy student from the University of North Dakota. I had the opportunity to attend both Dr. DeCoteau and your presentations at the NDOTA conference, and I was hoping to get a copy of your powerpoint.

I am currently working on an intervention guide for occupational therapists to use when treating children that have experienced trauma in the foster system, and I was wondering if I could possibly use two of the charts Dr. DeCoteau used in her presentation in the guide. I was hoping to possibly use the "Fight, Flight, or Freeze" and "Activity Across Brain Regions." Do you know if this would be possible? If you could provide me with her email so I could ask, I would appreciate it.

I truly enjoyed both of your presentations, and thank you for your help!

Courtney Crabill

Alana Semchenko <lanie.semchenko@gmail.com>
To: Courtney Crabill <cocrabill@gmail.com>

Mon, Oct 30, 2017 at 11:11 AM

Hi Courtney thanks for you amail I will forward this anto Dr. Decetory so she can re

Hi Courtney, thanks for you email. I will forward this onto Dr. Decoteau so she can respond. I have attached the slides as well. Thank you for your participation in the conference!

Alana Semchenko [Quoted text hidden]

NDOTA Semchenko Slides.pptx

Courtney Crabill < cocrabill@gmail.com>
To: Alana Semchenko < lanie.semchenko@gmail.com>

Mon, Oct 30, 2017 at 11:57 AM

Thank you for all your help!

Courtney Crabill [Quoted text hidden]

tami decoteau <tamidecoteau@yahoo.com>
Reply-To: tami decoteau <tamidecoteau@yahoo.com>
To: "cocrabill@gmail.com" <cocrabill@gmail.com>

Fri, Nov 3, 2017 at 1:47 PM

Courtney - You may use the two slides. Just know that they are a simple summary and certainly not comprehensive. Thanks for asking. Tami

On Monday, October 30, 2017 12:12 PM, Alana Semchenko <lanie.semchenko@gmail.com> wrote:

REFERENCES

- Adams, C. (2006). The consequences of witnessing family violence on children and implications for family counselors. *The Family Journal: Counseling and Therapy for Couples and Families*, *14*(4), 334-341. doi: 10.1177/1066480706290342.
- American Occupational Therapy Association. (2004). Definition of occupational therapy practice for the AOTA Model Practice Act. (Available from the State Affairs Group, AOTA, Bethesda, MD.) Retrieved from:

 https://www.aota.org/~/media/Corporate/Files/Advocacy/State/Resources/Practice Act/Model%20Definition%20of%20OT%20Practice%20%20Adopted%2041411.

 pdf
- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders: DSM-5 (5th ed.). Arlington, VA: American Psychiatric Association.
- Bhatia, S. K. & Bhatia, S. C. (2007). Childhood and adolescent depression. *American Family Physician*, 75(1), 73-80. Retrieved from:

 mcgill.ca/familymed/files/familymed/childhood and adolescent depression.pdf
- Borrego, J., Gutow, M., Reicher, S., Barker, C. (2008). Parent-child interaction therapy with domestic violence populations. *Journal of Family Violence*, *23*(6), 495-505. doi:10.1007/s10896-008-9177-4.
- Bremner, J.D. (2006). Traumatic stress: Effects on the brain. *Dialogues in Clinical Neuroscience*, 8(4), 445-461. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3181836/

- Bruce, J., Fisher, P. A., Pears, K. C., & Levine, S. (2009). Morning cortisol levels in preschool-aged foster children: Differential effects of maltreatment type.

 *Developmental psychobiology, 51(1), 14-23. doi: 10.1002/dev.20333.
- Carnochan, S., Moore, M., & Austin, M. J. (2013). Achieving placement stability. *Journal of Evidence-Based Social Work, 10*(3), 235-253. doi: 10.1080/15433714.2013.788953.
- Case-Smith, J. (2015). An overview of occupational therapy for children. In. J. Case-Smith & J. C. O'Brien (Eds.), Occupational therapy for children and adolescents (7th ed.) 1-26. St. Louis: Mosby.
- Casey Family Programs (2003). Assessing the effects of foster care: Mental health outcomes from the Casey National Alumni Study. *The foster care alumni studies*. Retrieved from: http://research.casey.org
- Catani, C., Kohiladevy, M., Ruf, M., Schauer, E., Elbert, T., & Neuner, F. (2009).

 Treating children traumatized by war and Tsunami: a comparison between exposure therapy and meditation-relaxation in North-East Sri Lanka. *BMC psychiatry*, *9*(1), 22. doi: 10.1186/1471-244X-9-22.
- Chamberlain, P., Price, J., Leve, L. D., Laurent, H., Landsverk, J. A., & Reid, J. B. (2008). Prevention of behavior problems for children in foster care: Outcomes and mediation effects. *Prevention Science*, *9*, 17-27. doi: 10.1007/s11121-007-0080-7.
- Child Welfare Information Gateway (2017). Foster care statistics: 2015. Washington,

 DC: U.S. Department of Health and Human Services, Children's

 Bureau. Retrieved from: https://www.childwelfare.gov/pubs/factsheets/foster/

- Cohen, J., Mannarino, A., Berliner, L., Deblinger, E. (2000). Trauma-focused cognitive behavioral therapy for children and adolescents: An empirical update. *Journal of Interpersonal Violence*, *15*(11), 1202-1223. doi: 10.1177/088626000015011007.
- Cross, T. P., Koh, E., Rolock, N., & Eblen-Manning, J. (2015). Why do children experience multiple placement changes in foster care? Content analysis on reasons for instability. *Journal of Public Child Welfare*, 7, 39-58. Doi: 10.1080/135.i87.32.2012.751300.
- D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J., van der Kolk, B. (2012).

 Understanding interpersonal trauma in children: Why we need a developmentally appropriate trauma diagnosis. *American Journal of Orthopsychiatry*, 82(2), 187-200. doi: 10.1111/j.1939-0025.2012.01154.x.
- Deutsch, S. A., Lynch, A., Zlotnik, S., Matone, M., Kreider, A., & Noonan, K. (2015).

 Mental health, behavioral and developmental issues for youth in foster care.

 Current Problems in Pediatric & Adolescent Health Care, 45, 292-297. doi: 10.1016/j.cppeds.2015.08.003.
- Dunn, W. (2017). The ecological model of occupation. In J. Hinojosa, P. Kramer, C. Brasic Royeen, *Perspectives on Human Occupation* (207-235). Philadelphia: FA Davis Company.
- Dunn, W., Brown, C., McGuigan, A. (1994). The ecology of human performance: A framework for considering the effect of context. *American Journal of Occupational Therapy*, 48(7), 599. doi: 10.5014/ajot.48.7.595.
- Ford, J. D., Racusin, R., Ellis, C. G., Daviss, W. B., Reiser, J., Fleischer, A., & Thomas, J. (2000). Child maltreatment, other trauma exposure, and posttraumatic

- symptomatology among children with oppositional defiant and attention deficit hyperactivity disorders. Child Maltreatment, 5, 205–217. doi: 10.1177/1077559500005003001.
- Garcia, A. R., O'Brien, K., Kim, M., Pecora, P. J., Harachi, T., & Aisenberg, E. (2015).

 Adverse childhood experiences and poor mental health outcomes among racially diverse foster care alumni: Impact of perceived agency helpfulness. *Journal of Child & Family Studies*, 24, 3293-3305. doi: 10.1007/s10826-015-0132-8.
- Gronski, M. P., Bogan, K. E., Kloeckner, J., Russell-Thomas, D., Taff, S. D., Walker, K. A., & Berg, C. (2013). Childhood toxic stress: A community role in health promotion for occupational therapists. *American Journal of Occupational Therapy*, 67, e148-e153. doi: 10.5014/ajot.2013.008755.
- Hardy, J., Roberts, R., & Hardy, L. (2009). Awareness and motivation to change negative self-talk. *The Sport Psychologist*, *23*(4), 435-450. doi: 10.1123/tsp.23.4.435.
- Heim, C., Shugart, M., Craighead, W.E., Nemeroff, C. (2010). Neurobiological and psychiatric consequences of child abuse and neglect. *Developmental Psychobiology*, *52*, 671-690. doi: 10.1002/dev.20494.
- Hemmingsson, H., Kottorop, A., & Bernspang, B. (2004). Validity of the School Setting Interview: An assessment of the student-environment fit. *Scandinavian Journal of Occupational Therapy*, 11(4), 171-178. doi: 10.1080/1103812410020683.
- Henderson, P., Batten, R., & Richmond, J. (2015). Perceptions of the role of occupational therapy in community child and adolescent mental health services. *Occupational Therapy in Mental Health*, *31*(2), 155-167. doi: 10.1080/0164212X.2015.1034475.

- Herrenkohl, E. C., Herrenkohl, R. C., & Egolf, B. P. (2003). The psychosocial consequences of living environment instability on maltreated children. *American Journal of Orthopsychiatry*, 73(4), 367-380. doi: 10.1037/0002-9432.73.4.367.
- Hilton, C. L. (2015). Intervention to promote social participation for children with mental health and behavioral disorders. In J. Case-Smith & J. C. O'Brien (Eds.),Occupational therapy for children and adolescents (7th ed.) 321-345. St. Louis: Mosby.
- Huckshorn, K. & LeBel, J. (2013). Trauma-informed care. In Yeager, K., Cutler, D.,Svendsen, D., & Sills, G. (Eds.). *Modern Community Mental Health: AnInterdisciplinary Approach*, 62-83. Oxford University Press: Oxford.
- Katz, M. (2012). The Zones of Regulation: A curriculum designed to foster self-regulation and emotional control. *Attention*. 7-8. Retrieved from: http://www.chadd.org/AttentionPdfs/ATTN 10 12 Zones.pdf.
- Ko, S. J., Kassam-Adams, N., Wilson, C., Ford, J. D., Berkowitz, S. J., & Wong, M. (2008). Creating trauma informed systems: Child welfare, education, first responders, health care, juvenile justice. *Professional Psychology: Research and Practice*, 39(4), 396-404. doi: 10.1037/0735-7028.39.4-396
- Lader, M. (2015). Generalized anxiety disorder. In *Encyclopedia of Psychopharmacology* (pp. 699-702). Springer Berlin Heidelberg.
- Larkin, H., Felitti, V. J., & Anda, R. F. (2014). Social work and adverse childhood experiences research: Implications for practice and health policy. *Social Work in Public Health*, *29*, 1-16. doi: 10.1080/19371918.2011.619433.

- Lynch, A., Ashcraft, R., Paul-Ward, A., Tekell, L., Salamat, A., & Schefkind, S. (2017).

 Occupational therapy's role in mental health promotion, prevention, & intervention with children & youth: Foster care. *School Mental Health Toolkit*.

 Retrieved from: http://www.aota.org/Practice/Children-Youth/Mental%20Health/School-Mental-Health.aspx.
- Paul-Ward, A. & Lambdin-Pattavina, C. A. (2016). The issue is: New roles for occupational therapy to promote independence among youth aging out of foster care. *American Journal of Occupational Therapy, 70,* 7003360010. doi: 10.5014/ajot.2016.017426.
- Perry, B. D., Pollard, R. A., Blaicley, T. L., Baker, W. L., & Vigilante, D. (1995).

 Childhood trauma, the neurobiology of adaptation, and "use dependent" development of the brain: How "states" become "traits". *Infant Mental Health Journal*, *16*(4), 271-291. Retrieved from: http://www.trauma-pages.com/a/perry96.php
- Precin, P., Timque, J., & Walsh, A. (2010). A role for occupational therapy in foster care.

 **Occupational Therapy in Mental Health, 26(2), 151-175. doi: 10.1080/01642121003736085.
- Racusin, R., Maelender, A. C., Sengupta, A., Isquith, P. K., & Straus, M. B. (2005).

 Psychosocial treatment of children in foster care: A review. *Community Mental Health Journal*, 41(2), 199-221. doi: 10.1007/s10597-005-2656-7.
- Ready, C. B., Hayes, A. M., Yasinski, C. W., Webb, C., Gallop, R., Deblinger, E., & Laurenceau, J. P. (2015). Overgeneralized beliefs, accommodation, and treatment outcome in youth receiving trauma-focused cognitive behavioral therapy for

- childhood trauma. *Behavior therapy*, 46(5), 671-688. doi: 10.1016/j.beth.2015.03.004.
- Reid, M. J., Webster-Stratton, C., & Hammond, M. (2003). Follow-up of children who received the Incredible Years intervention for oppositional-defiant disorder:
 Maintenance and prediction of 2-year outcome. *Behavior Therapy*, *34*(4), 471-491. doi: 10.1016/S0005-7894(03)80031-X.
- Richardson, K & Rothstein, H. (2008). Effects of occupational stress management intervention programs: A meta-analysis. *Journal of Occupational Health Psychology*, *13*, 69-93. doi: 10.1037/1076-8998.13.1.69.
- Rubin, D. M., O'Reilly, A. L. R., Luan, X., Localio, A.R. (2007). The impact of placement stability on behavioral and well-being for children in foster care. *Pediatrics*, 119(2), 336-344. doi: 10.1542/peds.2006-1995.
- Sanders, H., Sears, A., & Apodaca, J. (2016). Sensory-focused play and attachment:

 Interdisciplinary collaboration in treatment foster care. SIS Quarterly Practice

 Connections, 1(1), 2-4. Retrieved from: https://www.aota.org/Publications
 News/SISQuarterly/Early-Intervention-and-School/2-16-Innovation.aspx
- Shaw, T. V., & Webster, D. (2011). A matter of time: The importance of tracking reentry into foster care beyond one year after reunification. *Journal of Public Child Welfare*, 5, 501–520. doi: 10.1080/15548732.2011.617262.
- Simms, M. D., Dubowitz, H., & Szilagyi, M. A. (2000). Health care needs of children in the foster care system. *Pediatrics*, *106*(4), 909-918. Retrieved from: http://pediatrics.aappublications.org/content/106/Supplement 3/909.long

- Smith, P., Yule, W., Perrin, S., Tranah, T., Dalgleish, T., & Clark, D. M. (2007).
 Cognitive-behavioral therapy for PTSD in children and adolescents: a preliminary randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46(8), 1051-1061. doi: 10.1097/CHI.0b013e318067e288.
- Stein, B. D., Zima, B. T., Elliott, M. N., Burnam, M. A., Shahinfar, A., Fox, N. A., & Leavitt, L. A. (2001). Violence exposure among school-age children in foster care: relationship to distress symptoms. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(5), 588-594. doi: 10.1097/00004583-200105000-00019.
- Tarren-Sweeney, M. (2013). An investigation of complex attachment- and trauma-related symptomatology among children in foster and kinship care. *Child Psychiatry & Human Development*, 44, 727-741. doi: 10.1007/s10578-013-0366-x.
- The National Child Traumatic Stress Network (2013). *Child welfare trauma training toolkit*. Los Angeles: National Center for Child Traumatic Stress. Retrieved from: http://www.nctsn.org/products/child-welfare-trauma-training-toolkit-2008.
- The United States Department of Health and Human Services (2015). The AFCARS report. Retrieved from: http://www.acf.hhs.gov/programs/cb.
- Wilbarger, J., Gunnar, M., Schneider, M., & Pollak, S. (2010). Sensory processing in internationally adopted, post-institutionalized children. *The Journal of Child Psychology and Psychiatry*, *51*(10), 1105-1114. doi: 10.1111/j.1469-7610.2010.0255.x.

Zilberstein, K. (2014). Neurocognitive considerations in the treatment of attachment and complex trauma in children. *Clinical Child Psychology*, *19*(3), 336-354. doi: 10.1177/1359104513486998.