Developmental Trauma and Adlerian Play Therapy

A Literature Review

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Abstract

In secure attachment relationships, children learn to regulate themselves cognitively, affectively, behaviorally, physiologically, and relationally. When this attachment relationship is compromised due to developmental trauma, the child’s brain development and social, emotional, and behavioral functioning becomes impaired. By understanding the impact of developmental trauma on the developing brain, an Adlerian play therapist will be better equipped to tailor treatment plans, conduct parent consultations, and create a holistic view of the child.

*Keywords:* attachment, brain development, integration, developmental trauma, Adlerian play therapy
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Dedication

I would like to dedicate this project to my partner, Kyle Case. Thank you for believing in me, even when I did not believe in myself. You have helped me find the courage to pursue my dreams and pushed me to better myself every day. Thank you for patience, love, and support over the last decade.
Table of Contents

Attachment Theory ...................................................................................................................... 9
  Attachment Definitions ............................................................................................................. 9
Key Concepts .............................................................................................................................. 10
  Attachment behavioral system ............................................................................................... 10
  Attachment styles .................................................................................................................. 11
Modern Attachment Theory ..................................................................................................... 15
Brain Development .................................................................................................................. 15
  Brain Evolution ..................................................................................................................... 16
    The downstairs brain ........................................................................................................... 16
    The upstairs brain ............................................................................................................... 18
Brain Hemispheres ................................................................................................................... 18
  Left brain ............................................................................................................................... 18
  Right brain ............................................................................................................................ 19
Stress Response ........................................................................................................................ 19
  Hypothalamic-pituitary-adrenal axis ..................................................................................... 19
  Sympathetic-adrenal-medullary system ................................................................................. 20
Mirror Neurons ........................................................................................................................ 20
Memory ..................................................................................................................................... 21
  Explicit .................................................................................................................................. 21
  Implicit ................................................................................................................................. 21
Traumatic Memory ................................................................................................................... 22
Interpersonal Neurobiology ..................................................................................................... 23
  Integration of Consciousness ............................................................................................... 24
  Horizontal Integration .......................................................................................................... 24
  Vertical Integration .............................................................................................................. 25
Memory Integration .................................................................................................................. 25
Narrative Integration ................................................................................................................ 26
State Integration ....................................................................................................................... 26
Interpersonal Integration ......................................................................................................... 26
Temporal Integration ................................................................................................................ 27
Transpirational Integration ........................................................................................................ 27
Developmental Trauma ............................................................................................................. 27
Developmental Trauma and Adlerian Play Therapy

*Children are the world’s most valuable resource and its best hope for the future*

—John F. Kennedy

Children grow to become law makers, politicians, activists, and presidents. They shape the future for the next generations by the values they hold and the courage to fight for what they believe in. Children are also one of the world’s most vulnerable resources.

One comes into the world wired to connect to others (Ansbacher & Ansbacher, 1956). If that connection is not fostered in a secure way, developmental trauma can occur. Developmental trauma has severe implications for a child’s healthy brain development and ability to form healthy attachments in relationships (van der Kolk, 2014). According to the Children’s Bureau (2016), 3.5 million child abuse and neglect incidents had been reported to Child Protective Services. The Department of Health and Humans Services (HHS; 2016) estimated 1,750 children died from abuse and neglect, which is a 7.4% increase from the 2012 national estimated number at 1,630. Young children were at the highest risk with 74.8% of child fatalities under the age of three (HHS, 2016). In 78.1% of the reported incidents, the perpetrators of maltreatment were the victim’s parents (HHS, 2016).

In any given year, 1 in 5 children experience a mental disorder and an estimated $247 billion is spent on childhood mental disorders (Perou et al., 2013). The National Alliance on Mental Illness (NAMI; 2016) reported that 50% of all lifetime cases of mental illness begin by age 14 and 75% by age 24. Suicide is the 3rd leading cause of death in youth ages 10-24, and 90% of those who died by suicide had an underlying mental illness (NAMI, 2016). The average delay between onset of symptoms and intervention is 8-10 years (NAMI, 2016). This delay
shows that many people do not receive services and early interventions for mental health symptoms, which is key to later healthy development.

According to the American Society for the Protective Care of Children (2018), abused children are 25% more likely to experience teen pregnancy and engage in sexual risk taking, putting them at greater risk for sexually transmitted diseases (STDs). Children who experience child abuse and neglect are approximately 9 times more likely to become involved in criminal activity, and 70% of youth in state and local juvenile justice systems have at least one mental illness (NAMI, 2016), and approximately 30% of abused and neglected children will later abuse their children. With an increased understanding of developmental trauma (e.g., abuse and neglect) on the developing brain, an Adlerian play therapist will be better equipped to tailor treatment plans, conduct parent consultations, and facilitate a holistic view of the child.

**Attachment Theory**

John Bowlby and Mary Ainsworth have been credited for the development of attachment theory (Ainsworth & Bowlby, 1991; Bretherton, 1994). **Attachment theory** refers to the importance of attachment in personal development and stems from concepts of ethology, cybernetics, information processing, developmental psychology, and psychoanalysis (Ainsworth & Bowlby, 1991; Bretherton, 1994). Bowlby and Ainsworth created a framework to better understand human development and the importance of relationships. Attachment theory helped researchers and mental health professionals recognize links between childhood experiences and the impact of those experiences later in life.

**Attachment Definitions**

Bowlby (1982) defined attachment as, “a strong disposition to seek proximity to and contact with a specific figure and to do so in certain situations, notably when frightened, tired, or
ill” (p. 317). Gil (2010) described attachment as a relationship with a specific person that allows for a sense of safety, pleasure, and comfort. Gil stated attachment involves feelings of distress when faced with a loss of this specific relationship. Siegel (2012) stated attachment is an innate brain function that evolves with respect to the primary caregiver, and Perry and Szalavitz (2017) described attachment as a memory template that creates an individual’s world view of human relationships and guides the way they interact with others. These definitions highlight the importance of the infant’s early life experiences and the significance of the relationship between the child and the primary caregiver.

**Key Concepts**

Blakely and Dziadosz (2015) stated there are two central concepts in attachment theory, the *attachment behavioral system* and *attachment styles*. Attachment behavioral system and attachment styles set the foundation for understanding attachment theory. These concepts allow one to consider how a child’s behavior becomes organized around expectations of the self and others (Blakely & Dziadosz, 2015).

**Attachment behavioral system.** According to Mikulincer and Shaver (2003), Bowlby stated the attachment behavioral system (ABS) is an innate motivating regulatory system that is triggered when an infant perceives threat or danger. When the ABS is activated, an infant seeks proximity with the primary caregiver for safety and security (Crain, 2011). Crying, clinging, and smiling are attachment behaviors some infants display to ensure survival and keep the caregiver close (Crain, 2011). If the caregiver is consistently responsive and attentive to these behaviors, the infant will develop a secure internal working model with the ability to explore the world from the secure base of the caregiver (Siegel, 2012). In contrast, if the caregiver is unresponsive or
inconsistent in the attachment behaviors, then the child will develop an insecure internal working model with a limited sense of exploration (Siegel, 2012).

In infancy, the child begins to form internal working models, or schemas, through the repeated interactions between the infant and caregiver (Siegel, 2012). These interactions, or mental representations, form in the first year of life and allow the child to evaluate and predict interactions with the caregiver (Hill, 2015). Internal working models of attachment lay the groundwork for self-understanding and influence attachment relationships throughout adulthood. If the caregiver has been neglectful, then the infant will come to expect this interaction and activate coping skills to manage the lack of nurturing care (Hill, 2015). “Children do the best they can with the organized attachment experiences they are offered” (Siegel, 2012, p. 97).

**Attachment styles.** Attachment styles are adaptive patterns of expectations, needs, emotions, and social behaviors that result from attachment experiences (Blakely & Dziadosz, 2015). Ainsworth expanded on Bowlby’s theory by researching these attachment styles and is well-known for the infant Strange Situation Experiment (Crain, 2011). During the Strange Situation Experiment, Ainsworth observed the interactions between infants and their mothers and conducted in-home visits every three weeks for the first 12 months of the infant’s life. When the infants were 12 months of age, Ainsworth observed the infant and mother pair in a playroom at Johns Hopkins University. Of particular interest to Ainsworth was the reunion between the mother and child after two brief separations lasting three minutes each (Crain, 2011). After observing the child’s behaviors in the reunification process, Ainsworth and her colleagues observed three styles of attachment: secure, avoidant, and ambivalent (Crain, 2011). A fourth
attachment style, *disorganized*, was discovered later by Mary Main and Judith Solomon (Main & Solomon, 1990).

**Secure attachment.** During the Strange Situation Experiment, secure infants played and freely explored from the secure base of the mother (Siegel, 2012). The infants became distressed when the mother left, sought proximity upon her return, were soothed quickly, and easily returned to play. When the ABS is activated, securely attached children move toward the attachment figure with positive expectations and are flexible between play and comfort (Hill, 2015). For example, when securely attached children are afraid, they move from hyperarousal to normal affect when comforted through auto- and dyadic affect regulation (Hill, 2015). In the United States, 55% to 65% of children have secure attachments (Zeanah, Berlin, & Boris, 2011).

Caregivers who are emotionally available and sensitive to a child’s needs raise securely-attached infants (Bretherton, 2013). Ainsworth attributed secure attachment to *maternal sensitivity*. That is, the caregiver perceives and understands the signals from an infant and responds in a prompt and appropriate manner (Bretherton, 2013). Maternal sensitivity allows for the infant to “feel felt” and develop an understanding that the caregiver is reliable. Siegel (2012) described this interaction as *healthy attunement* (i.e., a harmonious internal world of the infant). Through consistent and repeated interactions of healthy attunement, the child develops the capacity to self-regulate and communicate emotions (Ludy-Dobson & Perry, 2010). Securely attached infants believe they are worthy of being seen and have a sense of safety and security.

**Ambivalent attachment.** Crain (2011) stated *ambivalent attachment* refers to infants who are unable to explore freely because they are clingy and concerned with the mother. In the Strange Situation Experiment, these infants would become extremely upset when the mother left the room and became hesitant upon her return (Crain, 2011). In the Strange Situation
Experiment, it was difficult to soothe these children after the mother returned. In addition, children with ambivalent attachment did not quickly return to play (Siegel, 2012). Crain (2011) stated children with ambivalent attachment appear to have mixed feelings (e.g., they reach out for the caregiver and then angrily push them away), and Hill (2015) found that children with ambivalent attachment appear to be in extended states of hyperarousal and rely only on dyadic regulation. Ambivalent attachment appears in 10% of the U.S. child population (Zeanah et al., 2011).

Children who develop ambivalent attachment styles have inconsistent parental sensitivity (Crain, 2011). For example, parents (or caregivers) may appear to be kind and responsive in some instances but not in others. These caregivers are preoccupied with personal needs and intrude on the child’s space (Siegel, 2012). Caregivers of ambivalent children may interrupt a child’s play to hug and overstimulate with loud, often long, sentences (Siegel, 2012). Additionally, these caregivers are unable to attune to the child’s need for connection and when the child needs to be left alone.

**Avoidant attachment.** Avoidant attachment was observed in Ainsworth’s lab when infants independently explored the room and did not use the mother as a secure base (Crain, 2011). In the avoidant attachment style, the infants did not get upset when the mother left the room and did not seek proximity when she returned to the room (Crain, 2011). The internal working model of a child with avoidant attachment is the belief that the parent is unable to meet emotional needs, so there is no need to go to the parent for comfort (Siegel, 2012). Avoidant infants rely only on autoregulation because they have learned not to ask for help when distressed and turn inward, instead of toward, the caregiver (Hill, 2015). Hill stated this autoregulation
promotes a state of prolonged hypoarousal. In the U.S. population, approximately 20% of all infants have an avoidant attachment style (Zeanah et al., 2011).

Children with an avoidant attachment style have caregivers that appear to be emotionally unavailable, rejecting, and relatively insensitive to the child’s needs (Siegel, 2012). Caregivers are unable to connect and join with the child and have little ability to attune to the child’s needs. This misattunement within the mother and child relationship creates a defensive reaction in the child who has learned to block the caregiver to avoid further disappointment (Crain, 2011).

**Disorganized attachment.** Throughout the Strange Situation Experiment, Ainsworth observed children who displayed behaviors that did not fit into the three attachment styles. Main and Solomon (1990) proposed *disorganized attachment* after observing these irregular behaviors. After the caregiver left, children with disorganized attachment styles appeared chaotic upon the caregiver’s return. When observed, these children turned in circles, would approach and then avoid the parent, or enter a trance-like state (Hesse & Main, 2006). The disorganized child appeared to fluctuate through states of hyperarousal, hypoarousal, and deactivated states with the inability to effectively use auto- or dyadic regulation (Hill, 2015). In the United States, an estimated 15% of children have a disorganized attachment style (Zeanah et al., 2011).

Disorganized attachment is developed when the caregiver has frightened, frightening, or disoriented communication with the infant in the first year of life (Siegel, 2012). Some caregivers become frightened when the infant is upset, they are unable to self-regulate, and consequently, they are unable to regulate the child (Hill, 2015). Abusive and neglectful parenting styles have correlated with disorganized attachment styles. “Whether encountering a frightening or frightened attachment figure, the infant is faced with an irresolvable dilemma: the source of safety is the source of fear” (Hill, 2015, p. 23). The child has no sense of safety and
the caregiver is unable to organize the child’s thoughts and behaviors; therefore, the child becomes disorganized inside and out.

Modern Attachment Theory

Schore (2017) expanded on the work of Bowlby and Ainsworth and has been a leader in a neurobiological perspective of development. *Modern attachment theory* refers to how the brain aligns neural activities with other brains through social interactions and emotional relationships (Schore, 2017). Schore suggested modern attachment theory is a regulation theory regarding how attachment experiences shape an infant’s early brain development. For instance, attachment relationships form in the infant’s first few years of life. These first few years of life are also the time when the brain grows and develops faster than any other stage of the life cycle. Schore (2017) suggested that because the brain grows and develops at a rapid rate during infancy, the attachment relationship can shape the development of the infant’s brain, specifically, the infant’s right brain. Children learn to regulate behaviors in the context of attachment relationships (Schore, 2017). Schore believed that if attachment relationships shape early brain development, it is important to understand the impact of trauma on brain development and how the brain functions and develops in those early years.

Brain Development

Over the past three decades, researchers have advanced brain research and the understanding of how the brain influences behavior. For example, the brain is considered an open and dynamic system that is continually changing within the context of its environment (Siegel, 2012). Siegel and Bryson (2018) stated the brain is a very complex system made up of multiple parts, such as the bottom and top parts of the brain, the left and right hemispheres, sensory neurons, memory centers, and various others. Siegel (2012) stated researchers have
increased the understanding of how the brain develops, how it is divided and regulated, and how it remembers experiences.

**Brain Evolution**

The human brain develops from the bottom up. That is, the lower parts of the brain develop first, and the upper parts of the brain develop later (Siegel & Bryson, 2011, 2018). Siegel and Bryson referred to a child’s brain as a house that is under construction where the lower parts of the brain are the *downstairs brain*, and the upper parts of the brain are the *upstairs brain*. The downstairs brain includes the brainstem and the limbic region that ranges from the top of the neck to the bridge of the nose (Siegel & Bryson, 2011, 2018). The upstairs brain is made up of the *cerebral cortex* which is located behind the forehead and the outermost layer of the brain (Siegel & Bryson, 2011, 2018). Understanding each part of the brain, its development, and its function may help mental health care providers create a more holistic picture of a client’s functioning.

**The downstairs brain.** The downstairs part of the brain is considered primitive and referred to as the *reptilian brain* (Heller & LaPierre, 2012). The brainstem is the first part of the brain to develop in utero. The brainstem regulates basic functions such as breathing, heartbeat, body temperature, and states of wakefulness and sleep (Heller & LaPierre, 2012). The limbic system is the second part of the brain development. Heller and LaPierre (2012) referred to the limbic system as the emotional brain where infants learn behaviors (e.g., how to eat and play). The primary structures of the limbic system include the amygdala, hippocampus, thalamus, hypothalamus, and the basal ganglia (Montgomery, 2013).

**Amygdala.** The amygdala is an almond shaped structure in the brain and can be considered the alarm system of the brain. The amygdala is constantly scanning the environment
for threat and danger (Hill, 2015). The amygdala reacts unconsciously and is responsible for the
fight, flight, or freeze response (Montgomery, 2013). When a threatening event occurs, the
amygdala stores that memory in the brain. That memory is then used as a reference point for
future interactions with the environment and indications of danger (Hill, 2015). If that memory
is triggered, a hyperarousal state may develop. The amygdala is also responsible for the ability
to feel certain emotions and to perceive the emotions of other people (Montgomery, 2013).

**Hippocampus.** The hippocampus is involved in several functions of the body including:
consolidation of new memories, spatial orientation, navigation, and emotional responses (Hill,
2015). The hippocampus is not fully developed until approximately 16 – 18 months of age. The
hippocampus works closely with the amygdala to merge emotions, long-term memories, and
explicit memories (Siegel, 2012).

**Thalamus and hypothalamus.** The thalamus and hypothalamus are associated with
changes in emotional reactivity (Siegel, 2012). The thalamus is responsible for sensory input and
motor output. Siegel (2012), referred to the thalamus as the gate keeper that regulates what
comes into the brain and what leaves the brain and goes to the body. The hypothalamus is
involved in physiological homeostasis, emotion, and control of the autonomic nervous system
(Siegel, 2012).

**Basal ganglia.** The basal ganglia are a group of neurons that organize motor behaviors
(Heller & LaPierre, 2012). Repeated movements become automatic (e.g., walking, riding a bike,
or driving a car). When the basal ganglia do not function properly, the dysfunction is associated
with disorders that involve movement (e.g., Parkinson’s or Huntington disease; Lanciego,
Luquin, & Obeso, 2012).
The upstairs brain. The upstairs brain is made up of the cerebral cortex and its various parts. The cerebral cortex is the last part of the brain to develop and is not fully developed until early adulthood (Hill, 2015). The cerebral cortex is considered the control and information-processing center of the brain (Siegel, 2012). The cerebral cortex controls higher-order, complex analytical thinking, long-term planning, and emotion regulation (Heller & LaPierre, 2012). Due to the complexity of the cerebral cortex, it is slower than the limbic system to respond to incoming information (Heller & LaPierre, 2012).

Brain Hemispheres

The brain is divided into two hemispheres, the left and the right. Each side has specialized functions that allow an individual to achieve complex tasks (Montgomery, 2013). Montgomery stated that the evolution of specialized functions of both hemispheres increased the potential for survival. Even though each hemisphere has specialized functions, it is important for both sides to work as a whole to optimize overall functioning (Siegel, 2012). The two hemispheres of the brain are connected by the corpus callosum, which is a bundle of fibers that runs along the center of the brain (Siegel & Bryson, 2011). The corpus callosum allows both sides of the brain to communicate to each other.

Left brain. The left hemisphere of the brain controls the right side of the body (Siegel & Bryson, 2011). Siegel and Bryson described the left brain using words that start with the letter L: logic, linguistic, and linear. Siegel and Bryson stated the left brain is considered the logical part of the brain. The left brain helps with academic thinking (e.g., science and math), linguistics (i.e., organizes thoughts into sentences), and places events in a sequence. Siegel (2012) suggested the left brain is more involved in selecting where an individual will focus his or her attention.
Right brain. The right hemisphere of the brain controls the left side of the body (Siegel & Bryson, 2011). The right brain is generally considered the artistic and creative side of the brain and is more influenced by the body and lower areas of the brain (Siegel & Bryson, 2011). The right brain helps with sending and receiving nonverbal communication (e.g., eye contact, tone of voice, facial expressions, and posture; Siegel & Bryson, 2011), processes automatic unconscious emotions (Hill, 2015), and is involved in different aspects of attention (e.g., sustained attention and alertness; Siegel, 2012).

Stress Response

The National Scientific Council on the Developing Child (2005/2014) stated there are three types of stress young children may face. Positive stress is moderate, short-lived stress that is a normal part of life and part of healthy development. For example, changes in child care, immunizations, or overcoming a fear of the dark may be viewed as positive stress. Tolerable stress refers to stress that has the potential for a negative effect on the developing brain but occurs over limited time periods. Death of a loved one, a frightening accident, or parental divorce are examples of tolerable stress. Toxic stress refers to chronic, uncontrollable stressful events that create frequent or prolonged activation of the body’s stress management system. The stress responses include activation of two hormonal systems in the body: the hypothalamic-pituitary-adrenal axis and the sympathetic-adrenal-medullary axis (Hill, 2015).

Hypothalamic-pituitary-adrenal axis. The hypothalamic-pituitary-adrenal axis (HPA) is made up of the hypothalamus, the pituitary gland, and adrenal glands (Hill, 2015). The HPA system is often referred to as the stress response system and manages interactions between the nervous system and endocrine system (Heller & LaPierre, 2012). The HPA axis helps the brain move from a state of arousal back to homeostasis. When the body becomes stressed, the
hypothalamus is activated and sends signals to the pituitary gland, which releases the hormone cortisol. *Cortisol* can help control blood sugar levels and assist with memory formation; however, if cortisol is released for long periods of time due to toxic stress, it can have a negative impact on the developing brain (National Scientific Council on the Developing Brain, 2005/2014).

**Sympathetic-adrenal-medullary system.** The sympathetic-adrenal-medullary system (SAM) is part of the autonomic nervous system (Hill, 2015). When stress is detected, usually without conscious awareness, the SAM secretes the hormones adrenaline and noradrenaline into the bloodstream (Heller & LaPierre, 2012). Adrenaline and noradrenaline prepare the body for a fight or flight response by increasing heart rate, respiration, muscle tension, and blood flow (Heller & LaPierre, 2012). This hormone reaction allows an individual to either flee from danger or prepare to defend oneself.

**Mirror Neurons**

Mirror neurons are a system of neurons that fire when a person completes an action, and when a person watches someone else complete an action (Siegel, 2010). That is, when a person knows the intention behind the behavior, the mirror neuron system is activated. For example, if a person saw another person wave their hands up and down and had not seen that behavior before, mirror neurons would not fire, because the person would not understand the purpose for this behavior. In contrast, an individual’s mirror neurons would fire if he or she picked up a bottle of water and drank from it, and the same mirror neurons would fire if the individual simply watched another person pick up a bottle of water and drink from it. Siegel (2010) stated mirror neurons are important for understanding the actions and intentions of other people and for
learning new skills such as imitation. Mirror neurons are also thought to be an essential aspect of empathy (Siegel, 2010).

**Memory**

Memory is more than just a conscious awareness of what has happened in the past; memory also encompasses what cannot be consciously recollected (Siegel, 2012). Siegel stated memory is the way past experiences affect future functioning. Siegel (2010) suggested the brain is an anticipation machine because it continually analyzes situations based on past experiences. Since the brain anticipates experiences based on memories, one’s current perceptions are filtered and biased through past events (Siegel, 2010). Siegel (2012) stated there are two distinct types of memory, explicit and implicit.

**Explicit.** Explicit memory is referred to as *declarative or semantic memory* (Hill, 2015). Explicit memory is used to remember facts and events, encode events, and understand what things are (Hill, 2015). The hippocampus is used to store explicit memories and assigns a date and time to an event. Explicit memories require conscious attention to encode (Kestly, 2014). Explicit memory allows one to remember their date of birth, who the president is, and the time of an appointment. *Autobiographical memories* are a form of explicit memory that develop around the age of two (Kestly, 2014). Additionally, autobiographical memories allow an individual to recall experiences of the self over time, which helps create a coherent life narrative.

**Implicit.** Implicit memory is referred to as *procedural or early memory* and is fully functional at birth (Hill, 2015). For the first 12-18 months of life, researchers believe humans encode only at an implicit level because the hippocampus is not fully developed (Kestly, 2014). Implicit memories are stored in the amygdala and programmed through repeated experiences (Hill, 2015). These implicit memories lay a template that is used to make sense of any new
incoming information (Perry & Szalavitz, 2017). The repeated interactions in an attachment relationship allow the brain to look for patterns in the experience and expect these types of interactions in the future. These repeated interactions become wired into the brain (Heller & La Pierre, 2012).

When an implicit memory guides behavior, an internal sensation of recall does not exist because there is no time stamp on an implicit memory (Siegel, 2010). In the Strange Situation Experiment, when the child’s ABS was activated due to a fear response, the child’s implicit memory system turned on. The child’s disorganized attachment pattern behavior was due to the implicit memory of repeated interactions developed in infancy (Hill, 2015). For example, the child may be reacting to a caregiver’s voice or the look in the caregiver’s eye associated with earlier, painful experiences. Implicit memories are observed in the form of bodily sensations, emotions, behavioral impulses, and perceptions (Kestly, 2014).

**Traumatic Memory**

Emotional arousal has the ability to enhance the capacity to remember, however, excessively high levels of emotional arousal impairs memory (Heller & LaPierre, 2012). During a highly emotional experience, cortisol is released. If too much cortisol is released, cell damage and hippocampal dysregulation can occur, which impairs the coding of explicit memory. If traumatic memories are encoded at an implicit level, when a person is triggered by something, he or she will respond as if the original trauma is taking place again without conscious awareness. Because of this impairment, traumatic memories manifest implicitly as dissociative behaviors, nightmares, startle responses, and visual or somatic flashbacks (Heller & LaPierre, 2012).
**Interpersonal Neurobiology**

Siegell is a clinical professor of psychiatry at the UCLA School of Medicine, director of the Mindsight Institute, a Harvard trained psychiatrist, and an attachment researcher (Codrington, 2010). Siegell sought to deepen the understanding of the mind and human experience. In 1992, Siegell organized an interdepartmental group at UCLA to study the connection between the brain and the mind (Siegell, 2010). This group consisted of approximately 40 scientists from over a dozen different disciplines including linguistics, computer science, genetics, mathematics, neuroscience, sociology, and developmental psychology (Siegell, 2010). Over the next four years, this group met and developed a definition of the mind and created a new interdisciplinary field of neuroscience called *interpersonal neurobiology*. Interpersonal neurobiology (IPNB) refers to an understanding of how the mind, brain, and interpersonal relationships shape human development.

One key aspect to IPNB is *integration*, which is what happens when differentiated parts work together as an organized whole (Siegell & Bryson, 2018). As stated earlier, the brain is made up of different parts that serve a different purpose: the left hemisphere, the right hemisphere, the upstairs brain, and the downstairs brain (Siegell & Bryson, 2018). When each part of the brain is integrated and working together, the brain can complete more complex tasks. Integration is possible because the brain is plastic and changes with experience; this concept is known as *neuroplasticity*. Siegell and Bryson (2018) stated, “Where attention goes neural firing flows and neural connection grows” (p. 17). That is, neuroplasticity allows the brain to create new neural pathways based on experience and interactions.

The effectiveness of the link between different parts of the brain has been associated with mental well-being (Siegell & Bryson, 2018). The researchers of the Human Connectome Project
examined 1,200 human brains and found that an integrated brain was the number one predictor for positive outcomes such as happiness, bodily and mental health, academic and career success, and relational satisfaction (Siegel & Bryson, 2018). Siegel (2010) stated that an integrated brain is flexible, adaptive, coherent, energized, and stable. Siegel (2012) suggested that when a brain is nonintegrated, it moves toward chaos, rigidity, or a combination of the two. Siegel further postulated that every symptom in the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* can be viewed as an example of chaos or rigidity and complications with nonintegrated states across nine domains of integration. The integration domains include: *consciousness, horizontal, vertical, memory, narrative, state, interpersonal, temporal, and transpiration* (Siegel, 2012).

**Integration of Consciousness**

One aspect of the integration of consciousness is *mindfulness*. Mindfulness is the ability to be consciously aware of the present moment without judgements (Siegel, 2010). This awareness is related to abilities of self-regulation such as balancing emotion, improved stress response, and enhanced social skills. Learning to integrate consciousness with mindful awareness allows new neural pathways to develop due to neuroplasticity. This integration of consciousness allows one to see things as they are instead of how they think they should be (Siegel, 2010). In addition, consciousness facilitates the ability to develop increased self-compassion.

**Horizontal Integration**

The purpose of horizontal, or *bilateral* integration is to integrate and connect the right and left hemispheres of the brain (Siegel & Bryson, 2011). The left hemisphere is the more logical brain, and the right hemisphere is considered the more emotional brain. For instance, if a
person is left hemisphere dominant, he or she will deny emotions, become very literal, fail to consider different perspectives, and be more rigid. On the other hand, if a person is right hemisphere dominant, he or she will be more chaotic and easily be overcome with emotions, images, and bodily sensations. The integration of both hemispheres allows people to value both logic and emotions. That is, problem solving would not be either too rigid or too chaotic in thinking and behavior (Siegel & Bryson, 2011).

**Vertical Integration**

Vertical integration connects nonverbal signals of the body to conscious awareness and links the downstairs brain with the upstairs brain (Siegel & Bryson, 2011). Also, vertical integration allows the brain to consider emotional and physical feelings from the downstairs brain before choosing a behavior from the upstairs brain. For instance, vertical integration slows the brain and an individual can think about how thoughts, feelings, and behaviors are connected.

**Memory Integration**

Memory integration involves bringing implicit memories into explicit consciousness (Siegel, 2012); memory integration helps to distinguish the past from the present. Implicit memories of past experiences can have an impact on present functioning without conscious awareness. Memory integration links this implicit memory into explicit memory enabling a person to have a thoughtful choice about behavior. If this memory is not integrated, then people can easily become flooded with emotions or bodily sensations without conscious awareness of the reason; therefore, they are unable to make choices about their behavior (Siegel, 2012). That is, memory integration brings clarity to intense, past experiences.
Narrative Integration

Narrative integration is the ability to make sense of one’s life (Siegel, 2012). For example, storytelling is a means to create narrative integration. In attachment research, a child’s attachment depends on the caregiver’s ability to narrate the story of their childhood (Siegel, 2010). Telling a coherent story of one’s life involves collaboration of the logical narrator function of the left hemisphere with the autobiographical memory storage of the right hemisphere (Siegel, 2012).

State Integration

People have many different aspects or states of personality, and state integration is the ability to embrace these different aspects of the self (Siegel, 2010). Different aspects of the personality include the need for closeness and solitude, autonomy and dependence, or caregiving and mastery. For example, state disintegration occurs when a person does not honor his or her need for alone time and becomes irritable and exhausted by social situations (Siegel, 2010). Making time to integrate each aspect of the personality allows a person to accept different states, embrace these states, and function more holistically (Siegel, 2010).

Interpersonal Integration

Interpersonal integration is the ability to be differentiated and retain a sense of self while linked to others (Siegel, 2012). Siegel (2010) referred to this as the “we” of well-being and the notion of “feeling felt” by another (p. 74). Interpersonal integration helps individuals connect more intimately in relationships while retaining a personal sense of identity. Interpersonal integration is impaired when an individual’s relationships becomes chaotic (e.g., fighting and emotional outbursts) or rigid with predictability and boredom (Siegel, 2012).
Temporal Integration

Temporal integration is the ability to acknowledge a need for certainty, permanence, and immortality while connecting to the reality of life which is uncertainty, transience, and mortality (Siegel, 2012). The prefrontal cortex allows humans to create a sense of time, comprehend past experiences, and acknowledge they cannot be certain of the future. Humans understand death is a part of life and nothing lasts forever. Integrating both aspects, the need for certainty, and the reality that nothing is certain, allows space for reflection on the purpose of life and what it is to be human (Siegel, 2012).

Transpirational Integration

Transpirational integration refers to a sense of belonging to something bigger than the self. Siegel (2012) referred to this notion as “breathing across” the other eight domains of integration (p. 386). Transpirational integration drives people to join community and planetary efforts to make the world a better place for others (Siegel, 2012). For example, people may volunteer to clean up a local park or donate food to a shelter. “Integration creates health and expands our sense of who we are in life, connecting us to others and a wider sense of ourselves” (Siegel, 2012, p. 387). Siegel stated integration is an important aspect in mental health; however, integration can become impaired. Van der Kolk (2014) posited that one key factor to disintegration may be developmental trauma.

Developmental Trauma

Van der Kolk (2014) stated developmental trauma is a hidden epidemic and is perhaps the single most important health challenge in the United States. According to the National Children’s Alliance (NCA; n.d.), nearly 700,000 children were victims of abuse and neglect in the United States. Younger children were the most vulnerable to maltreatment, and children in
DEVELOPMENTAL TRAUMA

the first year of life had the highest victimization rates (NCA, n.d.). In approximately 78.1% of sustained cases of child maltreatment, a parent was the perpetrator (NCA, n.d.).

Currently, posttraumatic stress disorder (PTSD) is the only DSM – 5 diagnosis that specifically identifies trauma as a precursor for a diagnosis, however; van der Kolk (2014) stated that 82% of traumatized children in the National Child Traumatic Stress Network (NCTSN) did not meet criteria for PTSD. D’Andrea, Ford, Stolbach, Spinazzola, & van der Kolk (2012) stated that PTSD does not fully capture the symptoms and developmental challenges of children who have experienced trauma. Children who experienced developmental trauma presented with a range of emotional and behavioral difficulties that often led to a co-morbid diagnosis (D’Andrea et al., 2012).

D’Andrea et al. (2012) stated that 40% of children with any trauma history have co-morbid diagnoses of mood, anxiety, or disruptive behavior disorders. Spinazzola, Ford, Zucker, van der Kolk, and Blaustein (2005) specified that maltreated children are diagnosed with an average of 3 to 8 comorbid disorders. The NCTSN (2018) reported that children who experience abuse and neglect commonly receive a diagnosis of depression, attention deficit hyperactivity disorder, oppositional defiant disorder, conduct disorder, generalized anxiety disorder, or reactive attachment disorder.

Van der Kolk (2016) suggested it is important that a diagnosis includes the biological, social, and developmental implications trauma has on young children. Van der Kolk (2016) stated, “A mislabeled patient is likely to become a mistreated patient” (p. 268). When a diagnosis does not include a comprehensive account of all the developmental factors of childhood trauma, treatment is focused only on the identified behavior and not underlying cause (Teague, 2013).
Developmental trauma disorder is a provisional diagnosis that describes the developmental effects of complex childhood trauma that disrupt many aspects of a child’s development (van der Kolk, 2014). Developmental trauma includes the primary caregiving system attachment disruption (e.g., impaired caregiver, neglect, prolonged separation, and verbal or emotional abuse) and interpersonal victimization (e.g., physical abuse, sexual abuse, or assault; D’Andrea et al., 2012). Typically, developmental trauma does not refer to a single traumatizing event; developmental trauma is considered cumulative experiences of neglect, abuse, and misattunement in childhood (Heller & LaPierre, 2012). Spinazzola et al. (2003) found that 77.6% of children with a trauma history had experienced multiple traumas. As a result, complex trauma and developmental trauma are used interchangeably throughout the literature.

The NCTSN (2018) defined complex trauma as the dual problem children face with exposure to multiple interpersonal traumatic events and the immediate and long-term impacts of those events. Siegel (2012) stated trauma is an experience that overwhelms one’s capacity to cope, and trauma prevents an individual from integrating cognitive and emotional aspects of the event. When trauma occurs in early childhood, before language is fully developed, the traumatic memory is encoded on an implicit emotional level and cannot be integrated and processed into explicit memory (Zilberstein, 2014). The NCTSN (2018) identified seven domains that are affected by developmental trauma: attachment, cognition, affect regulation, self-concept, behavior regulation, dissociation, and biology.

**Neurobiological Effects of Developmental Trauma**

Hart and Rubia (2012) summarized current evidence of the effects of childhood maltreatment on behavior, cognition, and the brain in adults and children. Hart and Rubia found
that childhood maltreatment was associated with impairments in academic achievement, IQ, attention, and response inhibition. Teicher and Samson (2016) conducted an annual research review to synthesize neuroimaging findings in children who have experienced caregiver neglect and studies where children, adolescents, and adults experienced emotional, physical, and sexual abuse. Teicher and Samson hypothesized that abusive experiences would create stress-mediated effects on hormones and neurotransmitters that would affect the development of vulnerable brain areas.

The hippocampus plays a key role in the formation and retrieval of memories. Teicher and Samson (2016) identified 30 papers where adults with histories of maltreatment had smaller hippocampi than non-maltreated adults. Reduced hippocampal volume was one of the most frequently reported neuroimaging findings in studies comparing patients with major depression to healthy controls (Cole, Costafreda, McGuffin, & Fu, 2011). Teicher and Samson (2016) stated hippocampal abnormalities correlated with several other psychiatric disorders including schizophrenia, posttraumatic stress disorder, bipolar disorder, and borderline personality disorder.

The amygdala is another key brain structure involved in encoding memory and detecting danger in the environment. Teicher and Samson (2016) reported that abnormalities in the amygdala have been associated with psychiatric disorders like social phobias, borderline personality disorder, PTSD, unipolar and bipolar depression, schizophrenia, and drug addictions. Teicher and Samson identified 27 studies reporting on amygdala volume in subjects with maltreatment histories and found four studies that revealed an increased amygdala volume in the subjects that had early exposure to emotional and/or physical neglect.
Rinne-Albers, van der Wee, Lamers-Winkelman, and Vermeiren (2013) conducted a research review on children and adolescents who experienced psychological trauma. Rinne-Albers et al. stated the most consistent finding was abnormalities in the corpus callosum, which is what connects the two hemispheres of the brain. Five of the six reviewed studies showed a reduction in the cross-sectional areas of the brain. Dissociation and symptoms of PTSD have been correlated with reduced corpus callosum volume (Rinne-Albers et al., 2013).

In a longitudinal community study, Herringa et al. (2013) evaluated 64 adolescents and associations between childhood maltreatment, resting-state brain function, and internalizing symptoms. Herringa et al. found that maltreatment in childhood may alter the regulatory capacity of the brain’s fear circuit that leads to increased internalizing symptoms. Herringa et al. reported maltreatment predicted low prefrontal-hippocampal connectivity in both males and females; however, lower prefrontal-amygdala connectivity occurred only in females. Herringa et al. concluded that child maltreatment is a major risk factor for internalizing disorders like anxiety and depression in adolescents due to altered brain connectivity.

**Play Therapy**

Play is essential to the development of cognitive, social, motor, and language skills in children (Carlson, Watts, & Maniacci, 2006). Ginott (1960) noted that play is a child’s language, and toys are the child’s words. In play therapy, a child’s play is viewed as a symbolic representation of the world (Homeyer & Morrison, 2008). Children use play to cope with stressful situations, to make meaning, and to process those situations (Carlson et al., 2006). The Association for Play Therapy (APT; 2016) defined play therapy as, “the systematic use of a theoretical model to establish an interpersonal process wherein trained Play Therapists use the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve
optimal growth and development" (para. 1). Play therapists consider the developmental capabilities of a child and allow children to use toys to express themselves when they do not have the cognitive or communication skills to do so. Children can project their feelings and experiences onto the toys and create a safe distance to process their stories (Morrison, 2009).

**Empirical Support for Play Therapy**

The validity of play therapy has been questioned by many researchers and parents, but studies indicate that play therapy is an effective mental health approach regardless of age, gender, or type of problem (APT, 2016). Research shows that play therapy is an empirically validated and developmentally appropriate intervention for young children. For example, Bratton, Ray, Rhine, and Jones (2005) conducted a meta-analysis of 93 controlled outcome studies published from 1942 to 2000 to assess the overall efficacy of play therapy. Bratton et al. found that after play therapy, the average treated child functioned at .80 standard deviations better than children who did not receive treatment. Bratton et al. reported that parental involvement was correlated with significant positive outcomes, and directive and nondirective play therapy were comparable in overall effectiveness.

Lin and Bratton (2015) explored the overall effectiveness of child-centered play therapy (CCPT) through a meta-analytic review of 52 controlled outcome studies conducted between 1995-2010. Lin and Bratton found that on average, children receiving CCPT interventions performed half a standard deviation better than children who received no treatment (or an alternative intervention). Lin and Bratton reported that CCPT demonstrated more beneficial effects on children younger than 8 years old, non-Caucasian children, and children who had caregiver involvement during the therapy process.
Directive

Cognitive-behavioral play therapy (CBPT) is an example of a directive and structured approach to play therapy (Cavett, 2014). Cognitive-behavioral play therapy is problem-oriented with a focus on specific problems in the child’s life and includes goal development based on reducing symptoms (Cavett, 2014). The therapeutic relationship is not considered a catalyst for change, rather change comes from guiding the child to work on therapy goals in order to have cognitive and behavioral modifications (Cavett, 2014). During CBPT, techniques are utilized to focus on the connections between feelings, thoughts, and behaviors.

One technique that CBPT therapists utilize is the magnetic cognitive triangle, which allows the child to change magnets with thoughts, feelings, and behaviors on a board (Cavett, 2014), and this technique allows children to literally play with the connections between all three. Journaling is another technique often used in CBPT. The CBPT therapist may ask caregivers to chart or journal their perceptions of the child’s thoughts, feelings, and behaviors throughout the week to inform the next session (Cavett, 2014). Relaxation techniques (e.g., deep breathing) are often utilized to help the child modify behaviors. Caregivers learn relaxation techniques and are encouraged to practice the skills with their children outside of therapy.

Non-Directive

Child-centered play therapy is one of the most well-known and most widely used non-directive play therapy approaches in the United States (Lin & Bratton, 2015). In CCPT, the therapeutic relationship is the primary catalyst for change. The play therapist’s ability to provide a safe space for the child to explore is the central focus of therapy (Ray & Landreth, 2014). In CCPT, there are three toy categories: real-life toys, acting-out/aggressive toys, and creative expression toys (Ray & Landreth, 2014). Because each toy in the play room is selected to
promote expression and relationship building, board games or cards are not used in CCPT because they promote competition and limit expression (Ray & Landreth, 2014).

In CCPT the child is the focus of therapy, but it is understood that the caregiver is the most important relationship in the child’s life. Therefore, the therapist consults with the caregiver and considers caregivers systemic partners in the therapeutic process (Ray & Landreth, 2014). Every three to five sessions, a CCPT therapist will consult with the caregiver to provide support, teach parenting skills, and build the relationship between child and caregiver (Ray & Landreth, 2014). Although parental involvement is preferred, it is not necessary for change. Ray and Landreth suggested the therapist’s ability to create a safe environment will foster the child’s innate ability for healing.

**Integrated Play Therapy**

Gil (2016) stated that children who have experienced trauma are in need of integrated treatment because trauma affects many different areas of development and impairs social, emotional, and behavioral functioning. Children who have experienced trauma also present with a wide array of symptoms, and an integrated approach allows the therapist to decide which technique to use for each individual client. An integrated approach allows a therapist to answer the well-known question by Paul (1967), “What treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances?” (p. 111).

*Adlerian play therapy* is an integrative treatment approach that includes both directive and non-directive techniques (Kottman & Ashby, 2014).

**Adlerian Play Therapy**

Adlerian play therapy (AdPT) is an approach to play therapy based on Alfred Adler’s teachings in Individual Psychology (Ansbacher & Ansbacher, 1956). Adler viewed individuals
from a holistic perspective and believed that people were socially embedded, subjective, and creative beings with goal-oriented behavior (as cited in Ansbacher & Ansbacher, 1956). Adlerian play therapy was developed by Terry Kottman in the late 1980’s and utilized Adler’s primary theoretical tenets and concepts to guide the four-step therapy process (Carlson et al., 2006).

Holism

Adlerians believe that people need to be understood holistically (Carlson et al., 2006). Millar (2013) stated it is important to include biological, psychological, and social aspects of a child’s life because they are all systematically connected. “With every individual, we must look below the surface. We must look for the underlying coherence, for the unity [or self-consistency] of the personality” (Ansbacher & Ansbacher, 1956, p. 189). That is, an Adlerian play therapist will not separate a child into parts and focus only on symptoms or behaviors but will strive to look for underlying motivations and the child within the context of his environment.

Social Embeddedness

Adler believed that people are socially embedded, and individuals strive for significance in their social systems (as cited in Ansbacher & Ansbacher, 1956). A person’s first social context is his or her family, and the interactions among family members have an enormous impact on creating one’s personality (Carlson et al., 2006). Because the first experience in a social setting is the family of origin, the sense of belonging significantly depends on how people come to find a place within the family constellation. If the sense of belonging in the family of origin is impaired as a child, adult functioning becomes impaired as well. Adler believed that an impaired sense of belonging and a lack of social interest are the main sources of psychopathology (Shifron, 2010).
Social Interest

*Social interest* is an innate feeling of belonging to others but must be developed in childhood (Oberst & Stewart, 2003). Adler measured mental health in terms of social interest, the ability to participate with others, and contribute to others (Oberst & Stewart, 2003). If a caregiver was unable to foster this social interest in a young child, then this child may seek to belong in an uncooperative way such as acting out to get attention to feel significant within the family. An Adlerian play therapist attempts to understand how a child seeks belonging in the family and helps the child foster his or her social interest (Kottman & Ashby, 2014). An Adlerian play therapist helps children learn socially appropriate ways to feel a sense of belonging and worthiness in the family and other social settings (Kottman & Ashby, 2014).

Inferiority Feelings

*Inferiority feelings* are not abnormal, but innate in all of us (Ansbacher & Ansbacher, 1956). Griffith and Powers (2007) stated inferiority feelings are described as universal human feelings of incompleteness, weakness, and dependency included in first experiences in infancy and early childhood. Inferiority feelings are usually outside of one’s awareness and guide one’s behavior. “It seems to be a trait of human nature that when individuals- both children and adults- feel weak, they cease to be interested socially but strive for [personal] superiority” (Ansbacher & Ansbacher, 1956, p. 260). Children who develop inferiority feelings often give up or try to overcompensate to feel superior (Kottman & Ashby, 2014).

Goal-Directed

Adler believed that people are constantly moving toward unconscious private goals (Carlson et al., 2006). Dreikurs and Soltz (1990) stated there was no such thing as a misbehaving child, only a discouraged child. For instance, discouraged children misbehave in
order to find a sense of belonging and significance in the family, and their goal-directed behavior is misguided. Dreikurs and Soltz outlined four possible goals of a child’s misbehavior: attention, power, revenge, or inadequacy. “If we want to help a child change his direction, we must understand what makes him move” (Dreikurs & Soltz, p. 13). An Adlerian play therapist seeks to understand the child’s goal of misbehavior, then helps caregivers respond more appropriately to the child’s needs (Kottman & Ashby, 2014). A positive lens of a child’s goals of behavior are included in the Crucial Cs (Kottman, 1999).

**Crucial Cs**

Bettner and Lew (1996) developed the Crucial Cs and described aspects of resiliency in children. The Crucial Cs include: *connect, courage, capable, and count*. Children need to connect with others, and children who feel connected feel secure and find it easy to reach out to others. Children who do not feel connected feel insecure and reach out to others in a negative way (Kottman, 1999). Children need courage and the willingness to face challenging situations. Children who have courage feel hopeful and are resilient; however, children who lack courage feel inadequate and avoid taking risks (Kottman, 1999).

Kottman (1999) suggested children need to feel they can care for themselves. Children who feel capable believe they are competent and feel confident in their abilities to meet demands at school and home. Children who do not feel capable feel dependent on others or may try to control others. Lastly, children need to feel they count and are important. Children who feel like they count believe they are valued and can make a positive contribution to others. Children who feel like they do not count, feel inadequate and hurt (Kottman, 1999).

An Adlerian play therapist assesses each of the Crucial Cs to understand a child’s strengths and opportunities for growth (Kottman & Ashby, 2014). If a child needs growth in the
ability to feel capable, an Adlerian play therapist will develop play strategies to enhance the child’s sense of accomplishments and build skills in certain areas. For example, the therapist may encourage a child to play basketball and then reflect on his or her accomplishment of making a basket. The therapist could say, “Wow, you thought you couldn’t make that basket, but you did!” Helping a child find areas where he or she is capable will increase confidence and help strengthen Crucial Cs.

**Creative Self**

Adler believed that there is an innate creative force that increases with activity and enables people to make decisions and develop opinions about what happens to them (as cited in Oberst & Stewart, 2003). Because people do not respond to the same event in the same way, Adler believed there is a creative power that allows for people to shape their experiences (as cited in Ansbacher & Ansbacher, 1956). Adlerian play therapists consider this creative power an encouraging aspect of therapy that may help clients move toward more socially useful choices (Kottman & Ashby, 2014). Strauch (2001) suggested that clients who have experienced trauma find very creative responses to adverse experiences. Strauch gave an example of a client who dissociated during a traumatic event. *Dissociation* can be viewed as a creative means for clients to protect themselves from further harm. This creative response can help the therapist and client appreciate the client’s ability to disconnect and the client may start to see themselves in a more positive light. This reframe can encourage clients to understand their behavior, create self-compassion, and start to make changes in their life (Strauch, 2001).
Private Logic

Kottman and Ashby (2014) stated that children are excellent at making observations about their environment but are poor at drawing accurate conclusions. These poor conclusions lead to one’s private logic or mistaken beliefs about how the child views self, others, and the world (Ansbacher & Ansbacher, 1956). An Adlerian play therapist will make hypotheses about how the child and caregivers would finish these statements: “I am…Others are… The world is…Based on these convictions, I must/should…” (Kottman & Ashby, 2014). Once these mistaken beliefs are understood, an Adlerian play therapist will help the child and caregivers gain insight into self-defeating thinking patterns and help them implement new ways of viewing the self, others, and the world (Kottman & Ashby, 2014).

LifeStyle

According to Ansbacher and Ansbacher (1956), Adler believed early childhood years are an individual’s most formative years. By age 8, people develop lifestyle by observing interactions in the social setting, assessing self-worth, and how they identify ways to gain significance and belonging in the world (Kottman & Ashby, 2014). Carlson et al. (2006) stated lifestyle is described as how one moves through life, and it is one’s attitudes about self, others, and the world, which is built from one’s private logic. Lifestyle shapes an individual’s perceptions and behaviors because every idea accepted by an individual is screened through his or her lifestyle. If one’s views are distorted, thinking becomes faulty, and behaviors become inappropriate (Carlson et al., 2006).

An Adlerian play therapist gains lifestyle information by observing the child’s play themes in session, observing the child’s interactions with caregivers, and asking the caregiver about the child’s developmental history (Taylor & Bratton, 2014). Understanding a child’s
lifestyle allows a therapist to create deeper empathy and compassion and develop a treatment plan to address unique needs and beliefs (Taylor & Bratton, 2014).

**Family Atmosphere**

The *family atmosphere* is the mood, or emotional tone, of the parental relationship in the family of origin (Griffith & Powers, 2007). In the family atmosphere, a child comes to know the family’s values, patterns, and opinions about what is important (Carlson et al., 2006). As a result, if a child matures in a family with regular screaming and fighting, the child may receive the message that arguing, and screaming, is what adults do. The child may choose to fit in with the family by becoming confrontational, argue, and scream when he or she becomes upset.

An Adlerian play therapist seeks to gain an understanding of the family atmosphere and how the child responds to such an environment. Kottman and Ashby (2014) suggested asking the following questions to gain a better understanding of the child’s development: “What is it like to be this particular child in this particular family at this particular moment? How has being this child in this family affected the child’s patterns of thinking, feeling, and behaving?” (p. 37). Understanding the answers to these questions helps create a more holistic view of the child and creates a deeper understanding of their lifestyle.

**Therapeutic Toys**

Toys used in the therapy room are the catalyst for how a child communicates to the therapist and explores inner feelings. Because toys have such an essential role in how a child communicates, an Adlerian play therapist carefully considers the toy selections for the therapy space (Carlson et al., 2006). Mullen and Rickli (2014) recommended asking three questions when assessing which toys and play materials to utilize:

- What therapeutic purpose will this serve for children who use this room?
• How will this help children express themselves?
• How will this help me build a relationship with the children? (p. 65).

Adlerian play therapists select toys from five distinct categories: family/nurturing toys, scary toys, aggressive toys, expressive toys, and pretend/fantasy toys (Carlson et al., 2006).

Family/Nurturing Toys

Dolls, a dollhouse, animal families, kitchenware, puppets, and soft blankets are examples of family/nurturing toys (Carlson et al., 2006). Children use these types of toys to explore their thoughts and feelings around interpersonal relationships (Carlson et al., 2006). For example, a child may play with a dollhouse to communicate an event that happened at home, or use a kitchen set to communicate nurturance and connection with the therapist. Mullen and Rickli (2014) stated it’s essential to have diverse dolls (and doll families) so children and caregivers from multicultural backgrounds can connect with the dolls.

Scary Toys

Children use scary toys to address real or pretend fears and act out worries, protection, or safety (Carlson et al., 2006). Toys such as alligators, snakes, spiders, sharks, and scary puppets (e.g., bear, wolf, or witch) fit into this category. Scary toys allow children to explore fears, act out traumatic events, keep a safe distance, and externalize the fear (Carlson et al., 2006). For example, a child may play out a scene between a scary shark puppet and a baby puppet who need protection. Carlson et al. suggested that if a child has had a certain traumatic event, using a toy that represents that fear or situation may be helpful.

Aggressive Toys

Handcuffs, bop bags, toy soldiers, and various weapons such as play guns or foam swords are considered aggressive toys (Carlson et al., 2006). Aggressive toys allow children to
symbolically act out their aggression and explore issues around power and control (Carlson et al., 2006). For example, a child may handcuff the therapist and repeatedly tell the therapist what to do throughout the session. The child is exploring his or her need for power and control in the therapy session, which may be a need the child does not get to express outside the sessions.

Expressive Toys

Children use *expressive toys* in an imaginative and creative way to understand themselves, others, and the world (Carlson et al., 2006). Clay, play dough, musical instruments, markers, paint, glue, and various other art mediums are considered expressive toys (Carlson et al., 2006). The sensory feelings from expressive toys can be very cathartic for some children (Mullen & Rickli, 2014). A child may choose to create his or her family out of clay to explore family relationships, or a therapist may use a more directive approach and ask the child to color emotions to explore feelings. Expressive toys allow the child and therapist a vast array of opportunities to explore the child’s world (Mullen & Rickli, 2014).

Pretend/Fantasy Toys

Costumes, dress-up clothes, magic wands, building materials, telephones, transportation toys, and zoo and farm animals are considered *pretend/fantasy toys* (Carlson et al., 2006). Pretend/fantasy toys allow children to explore different roles, behaviors, and act out situations they see at home or school (Carlson et al., 2006). For example, children may pretend to call the police on the telephone because they saw someone in the family do the same thing, or a child may dress up as a doctor to act out a frightening surgery he/she experienced.

Carlson et al. (2006), suggested that the toys should be easily accessible for the child and should be arranged according to each category. Having the toys arranged by category keeps the therapeutic space consistent and predictable, which allows a child to feel safe and comfortable
A distinct feature of AdPT is that the child and therapist clean up the playroom together at the end of the session. Cleaning up together builds the relationship, social interest, and responsibility (Kottman & Ashby, 2014).

**Therapy Process**

Similar to Individual Psychology, AdPT progresses through four phases of therapy. Kottman and Ashby (2014) stated the four phases for AdPT include:

1. Building an egalitarian relationship.
2. Exploring the child’s lifestyle.
3. Helping the child gain insight into lifestyle.
4. Providing reorientation/reeducation.

These four phases are not inflexible and do not have clear and identifiable transitions. An Adlerian play therapist will use his or her best clinical judgment when transitioning between each phase (Taylor & Bratton, 2014). Adlerian play therapy incorporates both nondirective and directive approaches depending on the phase of therapy and the client’s needs (Taylor & Bratton, 2014). Throughout the therapy process, an Adlerian play therapist will conduct consultations with the child’s caregiver to gain a deeper understanding of the child’s lifestyle, the caregiver’s lifestyle, and how both influence the family system (Kottman & Ashby, 2014).

Adlerian play therapists seek to help clients move from discouragement to empowerment through increased insight into the client’s lifestyle, changes in mistaken beliefs, movement toward positive goals of behavior, increased social interest, recognition of strengths, and choices that will increase positive attitudes, feelings, and behaviors (Kottman & Ashby, 2014).
Discussion

Many children in the United States experience abuse, neglect, and maltreatment that can lead to developmental trauma (van der Kolk, 2014). Developmental trauma has severe implications on a young child’s developing brain and can lead to impaired social, cognitive, and self-regulation functioning. Research shows that play therapy is the most developmentally appropriate therapy technique for children (APT, 2016), therefore, it is essential for Adlerian play therapists to understand the impact that developmental trauma has on the brain and how to implement this knowledge into the play therapy process.

Implications for Practice

Using the four phases of AdPT and parent consultations, an Adlerian play therapist can provide the necessary environment, coping skills, and psychoeducation to create increased integration in the child’s developing brain. Through AdPT and neurobiology research, an Adlerian play therapist will be able to understand a child’s functioning from a brain-based perspective and utilize interventions and techniques to increase a sense of safety and provide holistic treatment.

**Building an egalitarian relationship (phase one).** The primary task in the first phase of AdPT is to build a democratic relationship with the child (Kottman & Ashby, 2014). Using techniques that are consistent with other forms of play therapy (e.g., tracking behaviors, reflecting feelings, and returning responsibility back to the child) help the child form this democratic relationship with the therapist (Kottman & Ashby, 2014). During this first phase, the Adlerian play therapist is relatively non-direct and viewed as a partner and encourager (Kottman, 2001).
The Adlerian play therapist will also develop an egalitarian relationship with the child’s caregiver and conduct consultations. During the first phase of therapy, the Adlerian play therapist will utilize techniques such as reflecting feelings, paraphrasing, and summarizing to build rapport with the caregiver (Kottman, 2001). Building rapport allows the caregiver to provide open and honest information about family dynamics and presenting problems (Kottman & Ashby, 2014). This equal relationship helps the child and caregiver begin to trust the play therapist and experience a sense of safety (Kottman & Ashby, 2014).

The first phase of therapy can be one session to several months depending on the needs of each child and caregiver (Taylor & Bratton, 2014). Children who have experienced developmental trauma may need to spend more time building trust in the therapeutic relationship. Children may have developed mistaken beliefs about their attachment relationships and believe adults should not be trusted or they cannot help them. Adequate time to build trust and safety in the first phase of therapy is the foundation for each subsequent phase of therapy.

Trust and safety in the therapeutic relationship allows for increased brain integration. The therapeutic relationship provides new relational experiences, and because the brain changes within the context of relationships, the therapeutic relationship enables the child’s brain to develop new neural pathways and connections that allow for optimal development (Taylor & Bratton, 2014; Siegel, 2012). Repeated interactions with an accepting, nonjudgmental play therapist can help children slowly start to rewire their brains and increase integration of consciousness.

When children start to feel a sense of safety with the therapist, they can bring hurtful or scary experiences into the sessions. Sharing these experiences with the play therapist allows for interpersonal integration. That is, the therapist serves as a safe container and holds the
experiences within the relationship. A child who increases their interpersonal integration will begin to feel seen, heard, and understood (Kestly, 2014).

**Investigating the lifestyle (phase two).** Exploring the child’s lifestyle, and the lifestyle of the caregivers, is the second phase in AdPT (Kottman & Ashby, 2014). Exploring the child and caregiver lifestyles (i.e., similarities and differences), can inform decisions regarding future interventions (Meany-Walen & Kottman, 2016). During this second phase, the Adlerian play therapist takes a more active and direct role in the therapeutic relationship by asking questions and gaining lifestyle information from the caregiver (Kottman & Ashby, 2014). For example, the Adlerian play therapist will ask questions about how the child functions in the family system, school system, and the larger community system. The Adlerian play therapist will also ask questions around discipline strategies and the caregivers perceptions of the child’s behaviors.

During this phase, an Adlerian play therapist may ask the child to create a picture of his or her family in order to understand the family atmosphere (Meany-Walen & Kottman, 2016). This activity may help the therapist gain a deeper understanding of how the child perceives belonging in the family. The Adlerian play therapist will consider all of this information and begin to make hypotheses based on the child’s functioning around goals of behavior, Crucial Cs, and mistaken beliefs (Taylor & Bratton, 2014). After all the information is gathered, a treatment plan is created to include goals and interventions for both the child and caregiver (Kottman, 1999).

During parent consultations, exploration of a child’s early attachment experiences may increase therapeutic insight regarding the child’s behavior (Taylor & Bratton, 2014). If the play therapist observes play that fits into the ambivalent attachment category (e.g., hyper-focused on the therapist, and difficulty separating), the therapist may want to ask more questions about early
life experiences and development of the child. The Adlerian play therapist may choose to provide psychoeducation around the different attachment styles and discuss the importance of providing consistent predictable care to negate the disruptions of the child’s early attachment experience (Taylor & Bratton, 2014).

**Gaining insight (phase three).** During phase three, the Adlerian play therapist uses direct and nondirective techniques in the therapy process. One of the primary skills used in this phase is *metacommunication* (i.e., when the Adlerian play therapist directly or indirectly comments about what they see happening with the child), and depending on the child’s developmental age, the therapist can make speculations and interpret meaning behind certain behaviors or indirectly communicate through metaphors and stories (Meany-Walen & Kottman, 2016). Metacommunication is designed to help the child gain insight into patterns of behavior and create a better understanding of self.

During parent consultations, Adlerian play therapists aim to help caregivers gain insight into the underlying purpose of the child’s behavior and increase understanding of how the child seeks to fit within relationship (Taylor & Bratton, 2014). The Adlerian play therapist may choose to provide psychoeducation around the Crucial Cs or the goals of misbehavior (Kottman & Ashby, 2014). Adlerian play therapists discuss how caregivers can foster the Crucial Cs and use encouragement to better engage with the child.

Parent consultations are also a valuable time to provide psychoeducation around brain development. Siegel and Bryson (2011) developed a hand model for the brain that can easily be taught to children and caregivers. An Adlerian play therapist may have the child and caregiver draw their hands and then talk about the function of each part of the brain (i.e., upstairs brain,
downstairs brain. A visual representation and conversation about how the brain is connected to behaviors increases awareness and vertical brain integration (Wheeler & Taylor, 2016).

Therapists can help caregivers understand that, at times, when children become dysregulated, it is because the upstairs brain is not fully developed. This knowledge creates additional empathy regarding the child’s behaviors, and caregivers will be better able to connect to the child’s feelings in times of distress. Connection in times of distress can facilitate horizontal brain integration. Siegel and Bryson (2011) referred to this technique as “connect and redirect” (p. 23).

Caregivers can be encouraged to connect first with the child’s right emotional brain by acknowledging emotions and using nonverbal skills such as a nurturing tone of voice and soft touch (Siegel & Bryson, 2011). The caregiver’s connection of the right brain to the child’s right brain increases integration. Once the caregiver has connected with the child’s right brain, then the caregiver can redirect with the left brain (Siegel & Bryson, 2011). Redirecting with a logical explanation and follow through of consequences increases narrative integration.

**Reorientation (phase four).** In the fourth phase of therapy, the focus is on teaching skills (for child and caregiver) and providing opportunities to practice these new skills (Kottman & Ashby, 2014). Art activities, storytelling, or role-plays can be used to learn new skills such as anger management, friendship skills, and emotion regulation skills (Kottman & Ashby, 2014). The Adlerian play therapist will use encouragement regarding the progress and effort made throughout therapy, which will strengthen learning process.

Helping children make changes in how they perceive themselves, others, and the world occurs within the play therapy session, through homework assignments, and caregiver consultations (Meany-Walen & Kottman, 2016). For example, an Adlerian play therapist may
instruct the caregiver to set up small tasks the child can successfully complete at home in order to increase the child’s ability to feel capable. Encouragement by both the play therapist, and caregiver reinforces the child’s success and offsets the mistaken beliefs (Meany-Walen & Kottman, 2016).

**Recommendations for Future Research**

Researchers have made advances toward understanding the impact of trauma on the developing brain, however, additional research is necessary. Understanding the impact of trauma, and the connection to later development, can facilitate increased treatment focus on the underlying cause of symptoms and not just on surface behaviors. Additional research for the provisional diagnosis of developmental trauma disorder would facilitate an accurate diagnosis for children who have experienced trauma, increase services, and target interventions to provide the best care possible for this vulnerable, frequently misunderstood population.

Many families seek counseling services to help children who are acting out at school or at home. Many educational counseling programs do not require therapists who work with children to complete a play therapy course. Based on current research, play therapy appears to be an empirically and developmentally appropriate intervention for children, so it befits graduate schools to implement courses pertaining to play therapy. Researchers could study the impact of graduate school play therapy courses and how these courses prepare graduate students for work in the counseling field.

Graduate schools do not make it mandatory for students to learn about the developing brain and impact of trauma on the brain, and brain research is changing the counseling field. Interventions like the neurosequential model now exist (Gaskill & Perry, 2014), and graduate schools should incorporate classes and change the counseling curriculum to include learning
about brain basics and trauma work. Then, researchers could study the impact of increased awareness and understanding of the brain/trauma connection as it relates to therapeutic outcomes.

**Conclusion**

Attachment, brain development, and developmental trauma research have the potential to influence the play therapist’s ability to better attune and connect to clients, explain services and techniques to caregivers, and advocate for the profession (Wheeler & Taylor, 2016). This information appears to be essential for all therapists working with children and families who have experienced trauma. Therapists must know and understand the current research and have the ability to implement what they have learned. If children are the future, mental health professionals should strive to help them live to their fullest potential.
References


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