Complex Childhood Trauma, Attachment Styles and Effective Therapeutic Interventions

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Abstract

Complex trauma changes an individual’s ability to form healthy attachment style patterns. Complex trauma that occurs during childhood, when crucial brain structures are developing results in harmful outcomes. The damage done at crucial stages of development greatly impact how the child is able to participate and interpret life experiences both emotionally and behaviorally.
Complex Childhood Trauma, Attachment Styles and Effective Therapeutic Interventions

Instances of perceived loss and trauma as well as sexual, emotional, physical abuse and neglect cause biological and behavioral disturbances for traumatized individuals, resulting in an inability to form secure and healthy attachments at any time throughout the individual’s life. The research presented in this literature review will look at several different ways in which childhood abuse and trauma have biological and behavioral repercussions across the lifespan. Effective therapeutic interventions will also be presented to help reverse both negative attachment styles and the effects of trauma and abuse, and also to attempt to prevent the abuse from occurring in the future (DeRobertis, 2010).

Complex Childhood Trauma

Ana Gomez (2013) describes complex childhood trauma as, “the exposure of early chronic and multiple traumatic events” (Gomez, 2013, p. 1). It is not uncommon for these traumas to be caused by primary-caregivers, or trusted adults (Gomez, 2013, p.1). Whether the complex childhood trauma occurs one time, or is ongoing, the individual may develop symptoms of Post-Traumatic Stress Disorder at any time. These symptoms can severely affect them immediately after the perpetration, and throughout their lives. Complex childhood traumas are heavily rooted in child abuse, which can be complicated to identify and treat, warranting more research on the field of family therapy and counseling of children. Based on the research available, it is evident that early ongoing inconsistencies and maltreatment in a child’s life during critical points in their development cause permanent and lasting changes neurologically (Gomez, 2013). Therefore, mental health professionals working with traumatized children and their families should be well versed in effective therapeutic interventions such as play therapy and EMDR, but also empathy, and encouragement (Gomez, 2013; Shapiro, 2001).
Types of Childhood Abuse and Trauma

Factors contributing to complex childhood trauma are deeply rooted in childhood abuse. The Child Maltreatment guide (2011) outlines four specific kinds of child abuse, physical, sexual, psychological maltreatment and neglect, and defines child abuse at a minimum, as:

Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act, which presents an imminent risk of serious harm. (Children’s Bureau, 2011, p. 14)

Each different form of child abuse differs in terms of prevalence and impact on the victim, both initially, and throughout their life (Children’s Bureau, 2011). Data shows that perceived social support, in instances of physical child abuse, can act as a buffer in terms of the amount and severity of associated symptoms, whereas victims of sexual abuse exhibit a greater amount of post-traumatic stress symptoms than any other type of abuse, regardless of perceived social support. Statistics show that 17.6% of all cases of child abuse are physical abuse, meaning that an increase in social support, family therapeutic interventions, and education could positively influence the victim, as well as decrease the severity of symptoms by up to 20% in documented cases of abuse (Children’s Bureau, 2011, p. 20).

Child abuse in the form of neglect is the most prevalent type of abuse, and accounts for 78.5% of all reported cases of child maltreatment. Neglect of a child can be further defined as a child not getting their basic needs met. The immediate and ongoing result of neglect is a child’s lack of perceived safety, significance and belonging. Eventually the child may form a chronic inability to initiate getting their needs met throughout their life, as they have learned they have no control of the outcome of a situation, and therefore do not try to change the outcome for the better (Children’s Bureau, 2011, p. 21; Gomez, 2013). This is known as learned helplessness,
which also plays a role in a victim’s ability to form secure and positive attachments throughout their life (Children’s Bureau, 2011, p. 21).

There are several risk factors associated with child abuse and maltreatment, with the highest risk factor being a childhood disability. Approximately 20% of abused children were reported as having a disability, medical condition, behavior problem, or an emotional disturbance. It is assumed that this number is higher in actuality as many children do not receive a clinical diagnostic assessment (Children’s Bureau, 2011, p. 26).

**Biological Influences of Childhood Abuse and Trauma:**

There are many biological disturbances associated with childhood abuse and trauma. In James R. Corbin’s 2007 article on Reactive Attachment Disorder, research outlines the effect of early childhood trauma in relation to childhood attachment and neurology. Trauma in the form of neglect disrupts childhood attachment experiences, which in turn alters the overall neurobiology of the brain. The absence or disruption of early caregiving effects a person’s Hypothalamic-Pituitary-Adrenal axis, or HPA axis to the point where the brain is unable to appropriately regulate its chemical response to stress (Corbin, 2007; Atwood, Lyons-Ruth, Melnick & Yellen, 2003).

The HPA axis is not the only biological structure affected. Heim, Matzo, Miller, Nemeroff’s, Newport, and Young’s (2009) article describes the association between early childhood abuse in the form of neglect, and medical disorders in adulthood. Lack of a secure parent-child relationship has been shown to lower concentrations in cerebral spinal fluid, or CSF, which increases the probability of a person developing depression, anxiety and associated mood disorders later in life. Heim et al. (2009) measured neuropeptide oxytocin concentrations, in 22 women ages 18-45 with histories of mild to moderate child abuse. Neuropeptide oxytocin, or OT
plays a critical role in a person’s ability to form healthy social attachments and seek out social support. OT levels may estimate a person’s ability, in this case, a women’s ability to provide maternal affection to her children. Heim et al. (2009) found that the women who had experienced mild to moderate childhood abuse or neglect had lower CSF OT levels, and also presented more symptoms of anxiety (Heim, Miller, Mletzko, Nemeroff, Newport, & Young, 2009).

Jeremy Holmes’ literature on depression and childhood attachment describes how childhood trauma can be the single most significant indicator of adult depression, (Holmes, 2013). Although some children will not develop symptoms of mental illness or mental distress until adolescence or adulthood, many children present symptoms immediately after abuse or distress. In Dr. Bruce Perry and Maia Szalavitz’s book, “The Boy Who Was Raised As A Dog,” Dr. Perry describes the evolution of Post-Traumatic Stress Disorder, or PTSD, and how it has finally become an appropriate diagnosis for children. In this explanation, Perry describes that children who have been traumatized or abused often develop symptoms of depression and ADHD that require medication. However, if the root of the problem is not resolved, (i.e. the traumatic experience itself,) the medication acts as a bandage put on a broken leg. The root of the problem is not addressed, and these children will not fully recover until the traumatic experience itself has received proper attention via therapeutic interventions (Perry & Szalavitz, 2006).

In order to fully understand how traumatic experiences affect the brain neurologically and biologically, it is crucial to outline the basics of how the human brain works in response to stress. The limbic system, located in the diencephalon, controls our emotional responses that guide our behavior, including fear, hatred, love and joy. The cortex is the very top of the brain and its job is to regulate most of the complex human functions such as speech and language, abstract thinking, planning and deliberate decision-making. The norepinephrine and epinephrine system,
also known as the noradrenaline and adrenaline system of the brain contain the neurotransmitters that are involved in stress. This is also where the “fight or flight” response is activated. There are a cluster of norepinephrine neurons, called the locus coeruleus that send stress-induced neurotransmitters throughout the brain to help the individual respond to stressful situations. The problem here, which is what we see in traumatized children who have experienced ongoing abuse, is that the brain is constantly flooded with cortisol and stress induced neurotransmitters. This changes the way a person’s brain is able to react and respond to stressful situations. The same is true for an adults’ brain, however, there is a drastic difference in severity for children because unlike an adult (over the age of 24 or so), a child’s brain is still developing, and it is a very sensitive experience. The over-activity of adrenaline in the child’s brain during crucial points of development causes changes in the amount of stress receptors, as well as the sensitivity and function across many regions of the brain. Ultimately, the brain loses its ability to regulate and process stress. When this occurs in a child’s brain, the effects may be lifelong (Perry & Szalavitz, 2006).

Repeated activation of the stress response from ongoing trauma and abuse causes a myriad of altered receptors, leading to sensitivity, dysfunction and dysregulation throughout the brain. However, what is going on in a child’s brain is not what gets noticed, rather it’s the, behavior, often negative, of the child that draws attention. Children who have been abused appear to be impulsive, insecurely or negatively attached, disruptive, and inattentive, which is simply due to the change in their stress response network. Their neurons do not get stimulated throughout the brain in a way that is effective or organized. Therefore, traumatized children are focused and preoccupied on expecting danger, and noticing people’s facial expressions or their surroundings to fend off an attack. As one can imagine, this leaves little time and energy for the
child to be focusing on schoolwork and learning in the classroom. Traumatized children are in a constant state of “fight or flight,” because their stress hormones are constantly activated. Their hypervigilence leads them to be more prone to fighting and aggression, as well as inappropriate outbursts because they are in constant fear of being attacked. Their hypervigilence causes overreactions at even the smallest signs of aggression from their peers, causing a decreased chance for making friends, building trusting relationships, and getting positive feedback from adults and other children (Perry & Szalavitz, 2006). Ana Gomez further describes this process of traumatized children in her book, *EMDR Therapy and Adjunct Approaches with Children*, as:

…a defining feature of psychopathology is the person’s inability to inhibit defense systems in safe environments and the inability to activate defense systems in the presence of danger, (p. 46).

The bottom line is that traumatized children’s neurobiological deficits quickly become noticed as behavioral deficits. If therapeutic interventions do not occur, and the child is not removed from the traumatic or chaotic situation, they will continue to suffer in their ability to self-regulate, form appropriate attachments, and partake in negative behaviors.

**Behavioral Influences of Childhood Abuse and Trauma**

As highlighted above, the biological effects of trauma in the brain help us begin to understand how abused and traumatized individuals are already at a risk of being unable to develop positive relationships with peers and adults. The results of premature development of the HPA axis has permanent and lasting effects resulting in lifelong difficulties in a person’s inability to self-regulate, self-soothe, self-organize, and proactively engage in, and maintain healthy relationships (Holmes, 2013).
Abused and traumatized children are often seen as disruptive in the classroom, as well as at home. Some children are extremely aggressive and violent, while others seem disconnected, disengaged and distracted. Abraham Maslow’s psychological concept of a hierarchy of needs states that an individual cannot begin to think about getting needs of safety, significance and belonging met, until their basic physiological needs (i.e. food, water, and sleep) are met first. Children suffering from abuse, neglect and poverty are lacking in security of resources, and safety, and therefore, are much more focused on their hunger and fear, than maintaining friendships, relationships, and completing homework on time. This puts them at an obvious disadvantage in terms of moving forward emotionally, socially and academically throughout their lives, putting them at a risk to act out negatively out of desperation (Maslow, 1943).

Trauma has been linked to violent offending and incarceration in adulthood, social maladjustment and a lack of interpersonal connections and attachment, suicidal thoughts, attempts, and self-harm ideation. Because victims of abuse struggle to form attachments throughout life, they are more prone to display inappropriate social functioning and behavior which further decreases their chances of being able to form close relationships (Renn, 2002).

A strong link exists between women who have been sexually abused and Borderline Personality Disorder (Holmes, 2013). Children who experience ongoing trauma and abuse learn to avoid emotionally charged situations, leaving them with an inability to self-regulate their emotions, or to even identify the emotion they are feeling. The result of this is an emotional and physical inability to regulate and understand feelings of sadness, rage, abandonment, and even hunger, which ultimately lead to insecure attachment (Holmes, 2013).

Another repercussion of ongoing childhood abuse and trauma is an increased likelihood of Dissociative disorders. The DSM IV defines dissociation as “a disruption in the usually
integrated functions of consciousness, memory, identity, or perception of the environment" (p. 477). In the field of therapeutic interventions and understanding, dissociation as a symptom of trauma is beginning to receive more attention as professionals in the field are learning the importance of properly assessing and diagnosing Dissociative Identity Disorders (Paulson, 2009). It is becoming more and more evident with proper research on dissociation, that victims of chronic abuse can develop dissociative identities’ to cope with the painful emotions and instances of abuse, especially if the abuser is a close relative, or a person that the victim is regularly exposed to in their life. For example, a child that is chronically sexually abused by her father at night when the rest of her family is sleeping is incapable of both understanding and metabolizing the abuse, and therefore may potentially dissociate to protect herself from the pain and confusion. In situations like these, where extreme, ongoing emotional abuse occurs, by a perpetrator whom the child feels they should love and trust – the outcome is not only an increased likelihood of dissociation to cope, but also an obvious inability to understand healthy affection and interaction in relationships (Paulsen, 2009).

Paulsen further explains dissociation that originates in abused children, as the child gaining the ability to shift ego states in order to protect themselves. The term state-dependent learning refers to the idea that information learned in one state, or frame of mind, is most easily recalled in the same state. Therefore, for a child living in a chaotic household, these household triggers may stimulate one ego state for the child, that is completely different than their ego state in the classroom at school. The child gains the ability to shift fluidly between these ego states as a method of surviving painful triggers and chaos in an abusive household. This allows the child to cope with an extreme variation of conditions. It is also possible for the child to experience amnesia for the conditions that were present before the change in ego states – therefore, a child
sitting in the classroom may actually not remember being molested by her father the previous night, just as the child getting molested may have no recollection of going to the grocery store with her father the previous day. To the child, it is as though these are two different people having two different experiences (Paulsen, 2009).

The following quote from Paulsen’s book, *Looking Through The Eyes of Trauma and Dissociation* further outlines the abused child’s confusion with boundaries, authority, and self-regulation:

> It is developmentally normal for children to introject or internalize their parents as part of the normal process of developing a conscience. The child who is alone in her room might say aloud to herself, “pick up your socks!” in the tone her mother said it yesterday. In doing so, she is beginning to achieve the developmental milestone that will enable her to internalize the functions of self-control, including self-monitoring, self-evaluation, self-reinforcement, self-direction, and more. In a chaotic household, the child must be more concerned with survival than with attaining developmental milestones and normal self-mastery might not be attainable. In pathological introjection, the child unquestioningly takes into herself the behaviors, beliefs and frame of reference of a parent or other frequent perpetrator. This introjection blurs the distinction between the perpetrator and the child… (Paulsen, 2009. p. 38).

Children who develop dissociative states to cope with abuse may continue to dissociate well into adulthood when painful emotions or uncomfortable situations arise. Sandra Paulsen’s research and literature on trauma and dissociation outlines several therapeutic interventions that are effective when dealing with dissociative disorders in adults and children. Understanding dissociative states in traumatized individuals is crucial for anyone working with trauma and
abuse, as traditionally effective methods (i.e. EMDR) are not effective if the individual is in a dissociative state during therapy (Paulsen, 2009; Shapiro, 2012).

The ongoing research done by Jerrod Brown highlights the effects of childhood trauma associated with single parent homes, particularly ones where the father is not present. This research identifies ten adverse outcomes that may be the result of children growing up without an active father figure in their life. Brown’s research on early childhood neglect in the form of single-parent homes with a lack of parental involvement negatively alter the child’s life experience in the following identified ways: (1) Perceived abandonment, (2) Attachment issues, (3) Child abuse, (4) Childhood obesity, (5) Criminal justice involvement, (6) Gang involvement, (7) Mental health issues, (8) Poor school performance, (9) Poverty and homelessness, and (10) Substance use.

With childhood neglect being the most prominent form of childhood abuse, in congruence with single parent households reaching concerning levels in the United States, this research presents concerns to not only the children and families immediately affected, but to our society as a whole (Brown, 2013).

Another problem that greatly influences the occurrence of child abuse is the alarming rate of domestic abuse that occurs in the United States. Although it is hard to estimate the exact number of domestic abuse cases that occur nationwide due to the high number of cases that go unreported, it is estimated that anywhere between 3.3 million to 10 million children witness domestic abuse in their homes yearly. It is also estimated that 50% of these children who are witnessing the abuse have also experienced abuse themselves, either by the perpetrator or the victim of the initial domestic abuse. Whether or not the child is a victim of the domestic abuse, the trauma of witnessing it has ongoing psychological affects (Rodriguez & Tucker, 2011).
It is also crucial to highlight that childhood trauma does not have to be a single event of extreme magnitude, (i.e. an earthquake, school shooting or tragic death of a loved one.) Trauma is based completely on each individual’s perception of how the event that occurred affects them as an individual and more importantly how they *feel* about the event that occurred. For example, a child living in a home with very little food can be traumatized by the generalized inconsistency of not having enough to eat. This is not a single event, it is an ongoing event, but it is still traumatic (Shapiro, 2012). Therefore, whether instances of domestic abuse, childhood abuse, neglect, or maltreatment occur once, or are ongoing the child is at risk of developing symptoms of PSTD, and also at an increased risk of being vulnerable to abuse in the future (Shapiro, 2012).

Because the child’s perspective of the traumatic event is so important, it is also possible for childhood trauma to occur based off of the individuals’ misinterpretation or attribution of a situation, in which the child incorrectly blames themselves for the traumatic event that occurred. Once again, this reiterates that the trauma is rooted not necessarily in the event, but in the way the child attributed the blame of the event that occurred onto themselves (Shapiro, 2012).

Complex childhood trauma and abuse have permanent and lasting effects on the individual both neurobiologically and behaviorally. Because traumatized individuals experience overstimulation of the HPA-axis, the brain becomes unable to control its response to stress in everyday situations causing increased anxiety and hypervigilence. This inevitably leads to behavioral and emotional outbursts, as well as an increased difficulty forming healthy attachments and relationships. It is important to point out that the behavioral outcomes are a direct result of neurological changes in the brain that have occurred due to the trauma and abuse the child has experienced.
Although there is a large amount of empirical information that supports the link between child abuse and negative outcomes, there is a shortage of information known about the link between emotional maltreatment and abuse by the primary parent or caregiver, and negative outcomes. Shelley Riggs’ and Patricia Kaminski’s article on childhood emotional abuse, points out that this is problematic, as most practitioners and professionals in the mental health field working with children report emotional maltreatment by a parent as the most common form of abuse (Riggs, Cusimano & Benson, 2011). The data used by this researcher also highlights the ongoing behavioral and biological outcomes of childhood trauma. If interventions do not occur at the time of, or shortly after the trauma, these negative outcomes could permanently alter the way the brain processes information resulting in adverse behavior, emotional distress, dissociative disorders, personality disorders and mood disorders in adulthood. It is also more likely that the traumatized child will continue to experience more instances of abuse and trauma, as they lack the ability to self-regulate their emotions and impulses, and also lack an appropriate gauge for positive attachment and relationships. Children who have been traumatized by the abuse from an adult or primary care-giver, whom they also rely on for safety or survival, lack the ability to identify and pursue healthy relationships with adults and peers later in life. Although there are therapeutic techniques that can be used later on to combat the effects of trauma, it becomes harder to reverse the damage done if addressed several years later.

There is also a large body of evidence and information linking sexual and physical abuse of women to later negative outcomes and personality disorders, but studies that include both men and women are rare. More literature outlining the negative outcomes of both men and women would be beneficial in determining how early and ongoing child abuse affects all people, and not just men and women separately. On a related note, most of the literature reviewed by this
researcher connected early child abuse of males to later violent offending (Heim, Miller, Mletzko, Nemeroff, Newport, & Young, 2009: Holmes, 2013). Lastly, more evidence and research on Dissociative disorders would greatly impact the field of trauma and abuse in terms of effective therapeutic interventions with both traumatized adults and children (Paulsen, 2009).

**Attachment Styles**

Chronic instances of maltreatment and abuse in childhood increase the individuals’ likelihood of being unable to proactively engage in positive and healthy relationships throughout their life (Holmes, 2013). John Bowlby, a pioneer of attachment theory in the early 1950’s states that mental health and behavioral problems of adulthood can be traced back to insecure attachment in early childhood (Bowlby, 1969). Bowlby and Ainsworth describe attachment as a universal behavior that consists of children using innate behaviors to get their needs met (i.e. crying.) However, attachment also requires an adult or primary caregiver to respond adequately to the infant/ child’s behaviors and needs in order to form this attachment. Bowlby found that there is a critical time frame for this attachment to occur (when the child’s neurons are growing at a rapid rate before the age of 2-3 years). Subsequent research supports Bowlby’s initial theory of attachment, reiterating that children who are either separated from their mother, or poorly cared after by their parent or caregiver at a young age, are more likely to experience extreme distress as well as later social and behavioral maladjustment (Bowlby, 1969: Ainsworth,1969; Corbin, 2007; Foroughe & Muller, 2012).

**Four Types of Attachment in Children**

Developmental psychologist Mary Ainsworth identified four types of attachment that make up attachment theory. When a secure attachment exists between the child and caregiver, a secure atmosphere for exploration is provided. The child shows a healthy/ appropriate level of
distress when the caregiver leaves, and seeks out comfort from caregiver upon their return. After being comforted the child is independently able to return to exploration and play. In secure attachment, the parents adequately respond to the child’s need to be comforted (Ainsworth, 1969).

Children who present with Avoidant Attachment show little to no distress upon the caregiver’s departure, as well as little to no noticeable response to the return. The child makes no initiation to be held or comforted by primary caregiver, and treats strangers similarly to their caregiver. The result of this is low self-esteem for the child, as well as a more rebellious attitude. The caregiver involved in this type of attachment relationship typically discourages crying, and encourages independence of the child (Bowlby, 1969; Ainsworth, 1969).

Children who present with Ambivalent or Resistant attachment are insecure in their attachment with their caregiver resulting in a desire to maintain close proximity to their primary caregiver before separation. Upon separation, the child becomes extremely distraught and becomes ambivalent, angry and reluctant to be comforted by the caregiver upon their return. The caregiver in this situation lacks consistent proximity to the child, making them unable to provide physical and emotional support to the child. The parent is often neglectful, and then makes an effort to overcompensate for their emotional or physical absence causing increased anxiety for the child (Bowlby, 1969; Ainsworth, 1969).

The last form of attachment is referred to as Disorganized attachment where the child appears to be physically and emotionally disorganized both before the caregiver leaves, as well as upon their return. This type of attachment is characterized by noticeable physical traits, such as freezing, or rocking back and forth due to distress. The child is visibly fearful both before and after the caregiver leaves and displays odd attempts to initiate attachment, such as approaching
the caregiver but facing the opposite direction, or failure to make eye-contact. The caregiver in this form of relationships has failed to establish themselves as the primary caregiver in their parental role, leading to role reversal and confusion, as well as frightened behavior in the child. This type of attachment is typically associated with various types of abuse and maltreatment of the child (Bowlby, 1969; Ainsworth, 1969).

Other than secure attachment, the following attachment styles pose varying threats to the child in their ability to make and maintain healthy relationships as a child, and throughout their life if they do not receive an intervention. Attachment styles are important in this research, as they allow us to see the outcome of the parent/care-taker, and child relationship, however, negative attachment styles can be the result of other external factors, and not necessarily parenting. This also relates to the earlier research presented in this literature review on child abuse, neglect and maltreatment. We can see that if a child has been maltreated by a primary caregiver or a trusted adult, or if they have been neglected, it would make sense that they would struggle to form secure attachments. We can also see that children who do not get their basic needs met due to poverty, single parent household or other factors would also be at risk of developing negative attachment styles with others as well. With the rate of domestic abuse and child abuse being as high as it is, (as was previously discussed, between 3.3 and 10 million children witness domestic abuse, and 50% of these children also experience abuse,) we can assume that all of these children are at risk for developing negative attachment styles in relationships as well as continued abusive situations throughout their lives, (Gamble & Watkins, 1983; Rodriguez & Tucker, 2011).
**The Result of Positive Versus Negative Attachment:**

This inability to form positive and healthy attachments puts the person at risk of being unable to fulfill their basic needs of safety, significance, and belonging, causing a continued cycle of abuse and trauma in the family structure based on parenting styles (Gamble & Watkins, 1983).

Securely attached children learn to co-regulate emotions as soon as they are born. Co-regulation refers to the ability to process and understand feelings and emotions both positive and negative. When a child is born, the co-regulation process begins immediately at a physiological level, i.e. holding, cuddling, soothing, and speaking in gentle tones. As the child grows, verbal reassurance takes the place of holding and cradling for the most part, as parents reassure the child that they are “alright,” when they fall. Self-soothing begins shortly after this as the child adapts their parents words of encouragement enough to reassure themselves that they are alright. This is known as an inner monologue, and ultimately allows the child to cope with difficult situations and feelings independent of a parent (Holmes, 2009).

Children who develop insecure attachment due to trauma, neglect or abuse, lack the normal development of co-regulation, as they do not receive an adequate amount of physiological care-giving early on. This results in a disconnect between emotions and conscious thought, and further identification of emotions (Holmes, 2009; Forsythe, Jensen, Romano & Thorn, 2012).

The child has learned that they are ill equipped to deal with negative emotions, so they avoid them, resulting in painful emotions or feelings being withdrawn from consciousness as an attempt at self-preservation. The child has learned that there are certain emotions that are too painful to process on their own so the essentially stuff them away, resulting in an ongoing cycle.
of insecure attachment, as well as a myriad of emotional and personality disorders (Kevin, 2009; Forsythe, Jensen, Romano & Thorn, 2012), and dissociation (Paulsen, 2009).

Insecure attachment is not always a result of poor parenting and care-giving. Children who experience any loss or trauma at a young age are often times unable to cope, as they have not developed coping mechanisms. Also, based on their stage of brain development, they cannot fully comprehend the loss or trauma, leaving them anxious, insecure, and distrusting. Just like children who suffer extreme trauma and abuse, children who experience loss and death are at risk of splitting off from painful emotions or dissociating into different systems of identity so the loss can be stored away where it is not as painful or upsetting. Children that do not have a trusted substitute of healthy attachment after losing a parent or loved one often develop an inhibited or detached way of forming relationships as a means to protect themselves from the intense pain they felt after the loss they experienced (Bowlby, 1973, 1980). These outcomes become magnified if the child is suffering from abuse or neglect in concurrence with a traumatic loss. A child who is maltreated, and also experiencing a traumatic situation or loss is at an extreme disadvantage, as they have not had a chance to develop the positive coping skills that they need, and would learn from having a secure attachment with a caring adult. Loss and trauma can potentially damage any child or person, but when they occur simultaneously, the child is not only just a victim of their circumstance, but they lack the positive platform of a secure relationship to help them cope (Perry & Szalavitz, 2006).

Therefore, children who have suffered loss, abuse or trauma, are more likely to develop dissociative disorders, personality disorders, and/or identity disorders as adults (Bowlby, 1980, Renn, 2002).
Insecure attachment in children has been associated with chronic pain in adulthood, as well as mood disorders, personality disorders, violent offending, domestic abuse, and repeated and ongoing abusive and unhealthy relationships and dynamics (Forough & Muller, 2012; Forsythe, Jensen, Romano, & Thorn, 2012; Freyd, 1994; Holmes, 2013). In regards to treatment, Gebotys, Harper & Stalker’s 2005 study on how insecure attachment affects treatment outcomes for female survivors of child abuse, found that women who are insecurely attached, have a higher likelihood of rejecting treatment providers. Based on the ongoing research that shows that the therapeutic relationship is the highest indicator as to whether or not therapy will be effective, this tendency towards insecure attachment of victims of abuse buts the person at an immediate disadvantage in terms of recovery (Blaustein & Kinniburgh, 2010).

Insecurely attached individuals are also at a disadvantage in terms of seeking out and utilizing social support (Gebotys, Harper & Stalker, 2005). A study done on College students with a history of inter-familial sexual abuse shows that women who have been victims of childhood sexual abuse are both, “preoccupied with attachment,” but also “unresolved in their experience of trauma and loss” (Gebotys, Harper, & Stalker, 2005). This leads us to believe that insecurely attached individuals do not intentionally avoid or attempt to sabotage relationships, there is simply a predisposition (based on instances of previous trauma) that has created extreme self-doubt and anxiety around the idea of relationships and attachment. Insecure attachment and preoccupied attachment are the highest indicators of child abuse potential in the home (Gebotys, Harper, & Stalker, 2005; Rodriguez & Tucker, 2011). Insecurely attached individuals are also much more likely to seek out unhealthy or abusive partners throughout their lives causing a sort of self-fulfilling prophecy as well as an increased risk of re-experiencing abuse and trauma in the home (Rodriguez & Tucker, 2011).
According to attachment theory, a person, (in this case the abused individual,) finds their value in the perceived acceptability of their attached partner, (the abusive spouse). Research on cognitive variables of abuse in relation to attachment styles show that women who blame themselves for the cause of abuse not only have a negative attachment style, they are less likely to leave the abusive relationship, as well as more likely to abuse their own children. This forms a vicious cycle. Children who grow up in abusive households are 50% more likely to be abused themselves. Child abuse is one of the single highest indicators of negative attachment styles, which are formed as children, but attained throughout life. Adults with negative attachment styles are far more likely to not only enter into abusive relationships, but also attribute the reason for abuse onto themselves as their own fault, and therefore, stay in the abusive relationship (Rodriguez & Tucker, 2011). Early attachment sets the stage for how a person is able to interpret and respond in relationships throughout their lives. This is because repetitive interactions with a caregiver or attachment figure develop mental representations of the environment for the child (Bowlby 1973; Schore, 2009; Gomez, 2013). Repetitive healthy interactions with the attachment figure act as an external regulator until the child is capable of self-regulation, which they learned via through the experience of having a consistent positive attachment figure. For the rest of the individual’s life, these internal working models of attachment, relationships and self-regulation will guide the individual through interpersonal situations. Therefore if the child lacks an attachment figure, or the only attachment figure available is abusive, they will have a negative or defective lens through which they see and understand relationships (Bowlby, 1980; Schore, 2009; Gomez, 2013).

Repetitive interactions with the attachment figure are eventually responsible for the child’s development of their concept of self (Bowlby, 1980; Schore, 2009; Gomez, 2013).
Therapy: How to Reverse Negative Attachment Styles with Traumatized Children

Eye Movement, Desensitization and Reprocessing Therapy and the Adaptive Information Processing Model: Ana M. Gomez’s work on complex childhood trauma highlights how EMDR, and the AIP models in particular, can be an effective therapeutic intervention with traumatized children.

Roughly 20 years ago, Dr. Francine Shapiro developed eye movement desensitization and reprocessing therapy, or EMDR. Today, EMDR is an evidence-based approach. EMDR is also included in the Substance Abuse and Mental Health Services Administration’s National Registry of Evidence-based Programs and Practices, and has been validated by more than 20 randomized and controlled clinical trials (Prochaska & Norcross, 2010; Gomez, 2013). These results indicate that EMDR is a successful and operative therapeutic intervention for Post-Traumatic Stress Disorder in Adults. More recent data has also found that EMDR is an effective therapeutic technique for reducing PTSD symptoms in children as well (Ahmad, Larsson, & Sundelin-Wahlsten, 2007; Jaberghaderi, Greenwald, Rubin, Dolatabadim, & Zand, 2004; Kemp, Drummond, & McDermott, 2010; Gomez, 2013). The California Evidence-Based Clearinghouse for Child Welfare has also accepted EMDR therapy as an effective evidence-based approach for children (Gomez, 2013).

To date, there have been approximately seven controlled and randomized studies (e.g. Ahmad, Larsson, & Sundelin-Wahlsten, 2007; Jaberghaderi, Greenwald, Rubin, Dolatabadim, & Zand, 2004; Kemp, Drummond, & McDermott, 2010; Gomez, 2013) and ten non-randomized studies, using EMDR therapy with children that have yielded promising results. These studies found EMDR to be effective in not only reducing PTSD symptoms in children, but also in increasing self-esteem, and decreasing instances of behavioral problems (Fernandez, 2007;
Dr. Ana M. Gomez (2013), in her literature titled, “EMDR Therapy and Adjunct Approached with Children,” outlines the effects of EMDR therapy when used with children who have experienced complex trauma. Gomez highlights that part of the complexity of childhood trauma is rooted in the confusion that comes from the abuse being inflicted by an adult or parent. This causes understandable pain and confusion for the child in that, the same person they are supposed to go to for safety and survival is also their abuser. Gomez reiterates that traumatic experiences of any kind that happen when the child is in crucial stages of neurobiological development have long lasting and ongoing negative effects on the child’s ability to develop properly (Gomez, 2013); However, the AIP model, or adaptive information processing model developed by Dr. Shapiro, is shown to be effective in reversing the neurobiological damage caused by traumatic experiences and abuse (Shapiro, 2001; Gomez; 2013). Gomez also reiterates that the AIP model can help us understand previous findings and principle of dissociation (van der Hart, Nijenhuis, & Steele, 2006), attachment theory (Bowlby, 1973, 1980; Ainsworth, 1978; Main, 1995; Liotti, 1992, 2006), and interpersonal neurobiology (Gomez 2013).

The AIP model helps us understand how trauma affects memory, as memory plays a crucial role in understanding pathology due to Trauma (Shapiro, 1995, 2001; Gomez, 2013). When young children are exposed to adverse experiences, such as, abuse and trauma, these experiences leave permanent marks in the brain, forming neural nets. Since a child’s brain is not fully developed, it is not fully capable of binding and integrating adaptive information from their experience to locate it into present time and space. This means that the information from the traumatic experience is maladaptively stored into nonconscious, nonverbal memory (Shapiro,
While the young brain is still developing, early attachment traumas remain stored in an individual’s subconscious, but still have a large impact on the way the child is able to behave in and interact with their environment (Gomez, 2013). With this information Shapiro (2001) attests that present behavioral and emotional symptoms in the individual are manifestations of past experiences that were maladaptively stored in the brain. To summarize, this improper encoding happened, because the negative experiences happened before the hippocampus was fully developed. The hippocampus is responsible for moving information into autobiographical memory. Traumatic experiences tend to cause dysregulation of neural networks in the brain (Gomez, 2013).

EMDR therapy works by addressing and repairing the dysfunctional neural networks, particularly the memory network, by addressing and reprocessing the traumatic memory (Shapiro, 1995, 2001; Gomez, 2013). The goal is that by pinpointing and reprocessing the negative cognition associated with the traumatic event or events, the individual is able to change their memory system to a more positive or appropriate understanding of the event. This process changes the way they see themselves and also interact with the world. This does not mean that the child should learn to see the trauma or abuse as a positive thing that happened to them, but that they will gain insight that will help them take the shame and guilt out of the situation and help them understand that they are no longer a victim and that they no longer need to be afraid (Shapiro, 1995, 2001; Gomez, 2013).

EMDR Phase One

During EMDR therapy, the therapist guides the child through the following eight stages of therapeutic interventions: history and treatment planning, preparation, assessment, desensitization, installation, body scan, closure, and reevaluation (Shapiro, 1995, 2001; Gomez,
2013). The therapeutic intervention starts by the therapist and child creating a safe environment. This enhances the child’s ability to replace maladaptive neural nets with adaptive and positive material to encourage the development of a healthy perceived self. The child is simultaneously learning that they have the ability to interact with their environment using self-regulation. The child learns adaptive skills to assist them in managing internal psychological states. By reprocessing the traumatic memory, the child is able to assimilate and properly store the memories, facilitating their ability to positively and socially engage within their environment (Shapiro, 1995, 2001; Gomez, 2013).

As previously stated, the first stage of EMDR therapy consists of gathering the client’s history and creating a treatment plan (Shapiro, 1995; Gomez, 2013). This phase relies heavily on developing a trusting working relationship between therapist and client in order to assess whether or not EMDR is appropriate for the client. The DSM-IV defines trauma as,

an event that involves actual or threatened death or serious injury, or other threat to one’s physical integrity; or witnessing an event that involves death, injury, or a threat to personal integrity of another person; or learning about unexpected or violent death, serious harm or threat of death or injury experienced by a family member or other close associate. The person’s response to the event must involve intense fear, helplessness and horror (American Psychiatric Association, 2000, p.1).

This definition can be helpful in assessing some clients; however, there may also be children who do not meet the criteria listed above despite experiencing trauma or abuse. It may be more likely for children, especially young children, to be traumatized by ongoing, negative, parent-child interactions due to the way attachment affects the brain’s neural networks (Shapiro, 2007; Gomez, 2013). Therefore, the therapeutic relationship is paramount when dealing with
traumatized children, as the positive relationships that exists between the therapist and the child may be the only model of healthy attachment the child has. Without the establishment of a healthy example of attachment and a nurturing therapeutic environment, further attempts at therapeutic interventions may be compromised. Besides building the professional relationship and modeling healthy attachment, the first phase of EMDR is also when the therapist gathers a thorough history of the client, identifying the client’s present ing problem, and available resources. Therapeutic interventions will be most effective if the therapist, primary caregivers and are able to communicate with one another, and most importantly after the child is stable (Shapiro, 2007; Gomez, 2013). The therapist should have a good understanding of the important people in the child’s life.

**EMDR Phase Two**

The second phase of EMDR with traumatized children is the Preparation phase. In order to get the child to a point where they can appropriately reprocess their traumatic experiences, the child must be secure in their ability to tolerate and regulate strong emotions (Shapiro, 2007; Gomez, 2013). It is important in this early phase of EMDR, that the child gains a sense of confidence and safety in order to adequately explore their emotions and feelings. This can be done using neural stimulation in the form of activities such as games, art and play. Children who have experienced extremely traumatic events lack appropriate development experiences and therefore may need to spend a significant amount of time in phase two before moving on to reprocessing. This means that it is imperative that the therapist accurately identify the level of severity of trauma the child has experienced. The therapist must also identify whether the child is dissociating, to make sure they are able to stay present when strong emotions are triggered throughout the therapeutic process (Shapiro, 2007; Gomez, 2013).
In order to move forward from the preparation phase, the child must be able to access, (through therapy,) five crucial systems listed below. Often times, due to the nature of the abuse and trauma that occurred, the child has been unable to develop a healthy sense of self. A chaotic childhood threatens normal healthy development, as the lack of healthy and positive fundamental experiences result in an inability to self-regulate, communicate, relate to others and think (Perry & Szalavitz, 2006). Therefore the therapeutic interventions in this stage are used to initiate the development of the child’s attachment system, defense system, play and motivation system, and emotional and affective systems that have not developed normally (Shapiro, 2007; Gomez, 2013).

These children may have no memories of safety or positive emotional connections, which is why taking time in this phase to build positive attachments and connections is necessary. This phase counts on installing a “safe place” within the child’s mind in order to ensure a mental reprieve from painful memories or emotions. This will fail if the child has not had any positive experiences to draw from. If so, more preparation is needed to stimulate experiences of nurturance, safety and positive emotional connection. Creating experiences where the child feels safe and connected creates new neural pathways in the brain (Shapiro, 2007; Gomez, 2013).

The preparation phase relies heavily on metaphors in order to help the child understand their traumatic experiences. Metaphors can help the child access the painful memory in a way that has enough emotional distance from the painful memories. Addressing the traumatic experience through metaphors and analogies sets the stage for the therapist to explain EMDR therapy to the child by connecting the explanation of the reprocessing phase to the previously discussed metaphor of the trauma (Shapiro, 2007; Gomez, 2013).
Before moving on to the reprocessing phase of EMDR, the therapist introduces the different forms of bi-lateral stimulation, or BLS, that can be used, and practices them with the child. One common form of BLS that is effective with children is using a finger puppet as a “helper,” and having the child follow the puppet back and forth during the reprocessing. The last part of the preparation phase consists of ensuring that the child has an emotional plan or stop signal, (raising their hand,) to address painful emotions when they come up, but also to make sure that the child maintains present awareness throughout the session when painful emotions do arise. When explaining this to the child it is important to reiterate that they are simply visiting, or watching the memory, and they are no longer in the memory (Shapiro, 2007; Gomez, 2013).

After the stop signal of raising a hand is in place, the therapist can install the calm safe place protocol. This consists of having the child think of a safe happy place, experience, or feeling, and then using BLS to secure it into their memory. Once the safe place is installed, the therapist gives the child examples of when they can go to their safe place, for example, a child who is mostly triggered at night can practice their safe place before they go to bed (Shapiro, 2007; Gomez, 2013). There are also several activities that can be done to install the safe place during session, such as creating a worry box to “put” painful emotions in, or drawing pictures of what the safe place looks like to put on their wall at home, etc.

The next part of phase two of EMDR therapy with traumatized children, is skill-building. Skill-building, helps the child learn to regulate internal emotional states using games and play. This phase takes the process a step further by encouraging the child to think of how they will regulate and handle painful emotions in future situations that trigger their anxiety or fear. This phase also helps the child explore the painful traumatic memory more in depth than in the previous phase, and attach emotions and sensations to the memory. This is a very emotionally
charged step. As mentioned before, most abused and traumatized children (and adults) are unable to access information in their memory networks due to their development, much less name their emotion or identify physical sensations attached to the information. The most crucial way to conquer this in therapy with children is through play, after the child has built trust, comfort and safety in their therapeutic environment (Shapiro, 2007; Gomez, 2013).

When a child is introduced to an unfamiliar object, whether it be a concrete object like a new toy, or something more abstract, like a new idea or situation, the child engages in exploration, during which their heart rate is elevated as they explore and attempt to understand this novel experience (Gomez, 2013). This concept is crucial to understanding EMDR with children, because only after the therapeutic play has become routine and comfortable, after the exploration phase, are they ready to access, explore and process their traumatic experience effectively (Shapiro, 2007; Gomez, 2013). This part of the phase relies heavily on the use of repetition of similar games and situations in therapy to create a level of comfort and safety during play. The play process also allows the therapist to begin to address the child’s negative cognitions (such as, “I am bad”) in order to replace them with positive cognitions (such as, “I am good”). Using games to both identify positive cognitions and also to reverse negative cognitions helps the child process their experience in a non-threatening way (Shapiro, 2007; Gomez, 2013).

Some examples of games to address negative and positive cognitions, outlines by Ana Gomez and Francine Shapiro, are:

- Using negative/positive cognition cards
- Negative cognition bowling pins with positive cognition bowling balls
- Using a “feeling finder” to identify where negative cognitions are stored in the body physically
Using feelings cards to develop sensory awareness

A crucial part of assisting the child in integrating and processing memories throughout the EMDR process is helping them to locate and identify feelings and emotions in the body, which is done in the preparation phase. This allows them to become aware of situations in the present that trigger their negative cognitions, and also help them identify other past situations that need to be reprocessed (Shapiro, 2007; Gomez, 2013).

Once the child has developed the ability to identify feelings and emotions, and relate them to feelings and places in their body, the therapist can move on to assisting the child in developing a targeting sequence. The therapist uses information gathered from the primary caregiver, as well as information gathered while playing EMDR games with the child to develop the targeting sequence. This step can be complicated and in order to be done properly, the following points should be taken into consideration (Shapiro, 2007; Gomez, 2013):

- The child’s ability to use non-verbal communication if unable to fully access event.
- Using play during the process of identifying and processing specific trauma memories.
- Keeping the child within their appropriate window of tolerance/ affect regulation.

Once the above points have been addressed and sorted through with the child, the therapist can initiate the float back technique to begin to access the traumatic memories. This helps the child link their present trigger to the past, using their new ability to identify physical emotions and feelings in a specific location in the body. It is important to note that once a therapist has begun the float back step of EMDR, the positive and negative cognitions have already been previously identified using EMDR games and play. Further use of games, play and
drawings can be used in this phase to enhance the targeting sequence and float back steps (Shapiro, 2007; Gomez, 2013).

The next step of the preparation phase of EMDR with children is accessing the attachment, self-regulation, and competency treatment framework, or ARC, to ensure the child has appropriate support in the other environments they are engaged in, such as at home and at school. The ARC model is a complimentary tool that can be utilized alongside EMDR therapy, or any other therapeutic approach, but Ana Gomez (2013), highlights the ARC model as an important integral piece in that, if the child is still enmeshed in a chaotic abusive home-life, the positive change in their neural networks that occurs during therapy will be immediately reversed as soon as they are back in the negative environment. This reiterates how ongoing child abuse and neglect continues to impact the child even if they have a therapeutic outlet and support system. The child spends most of their time, and learns to understand themselves in the context of their family system; therefore if the family system cannot change for the better, the child will continue to struggle to form and maintain positive attachments across all contexts of their lives, including therapy. Utilizing the ARC model, however, increases the child and family system’s change of reaching stabilization (Shapiro, 2007; Gomez, 2013; Blaustein & Kinniburgh, 2010).

The final step of the preparation phase of EMDR is assessing and diagnosing dissociation in the child. Despite the fact that most of the research on dissociative states has been done on adults, mental health professionals and clinicians are starting to accurately evaluate dissociation in children as well. One of the main problems with identifying dissociation in children in the high rate of co-morbidity with dissociative disorders and other diagnoses such as attention deficit hyperactivity disorder, bipolar disorder, conduct disorder and more are usually diagnosed instead. In other words, dissociation can be difficult to diagnose or under diagnosed in children.
because it appears to be something else. Without a thorough historical background and understanding of the child’s experience, dissociation as a symptom of trauma can be missed entirely (Gomez, 2013).

It is important for any EMDR therapist to have an understanding of dissociation so they can elicit ongoing awareness and sensitivity to dissociative states throughout the EMDR process (Gomez, 2013). The EMDR therapeutic process relies on the person’s ability to process their traumatic experiences as they gain more information and understanding throughout the phases of EMDR. Each stage requires the client to be able to move forward in their processing based off of the skills accumulated in previous sessions. Therefore, signs and symptoms of dissociation can show up during any time throughout the EMDR process. It is not uncommon for dissociation to become evident only when the client begins BLS to actively reprocess the trauma. If dissociation does occur at any point during EMDR, the therapist must change their approach to accommodate this by slowly assisting the child in recalling their memories by re-creating the scene actively in the present. This can be done using play-dough, or having the child draw what happened, which continues to remind the child where they are and what they are doing at that moment to keep them in the present (Gomez, 2013).

**EMDR Phase 3: Assessment**

The goals of the assessment phase is to access the individuals memory network that contains the traumatic memories, to access the cognitive, affective and somatic aspects of the memory, and then use the validity of cognition, or VoC, and the subjective units of disturbance, or SUD scales, to create a client specific baseline in relation to their traumatic memories. The VoC represents the validity of the desired positive cognition that is linked to the memory, and
the SUD scale represents the felt disturbance associated with the traumatic memory. The goal is to reduce the SUD, and increase the VoC (Gomez, 2013).

Once the child has reached an acceptable level of stability, and the therapist deems them ready to begin processing their traumatic memories, a target memory is selected to be reprocessed. When working with children, it is important that the child, therapist, and parental figure or primary caregiver collaborate to determine the most appropriate target. The child should be reminded to physically or mentally bring their previously installed resources, such as a safe place or a helping box, or container, to store their experiences in between sessions. The therapist and primary caregiver should connect to make sure the child has gotten an appropriate amount of sleep, and other basic needs such as hunger and safety have been addressed and met. All of the child’s EMDR toys and games and tools that have been used throughout the EMDR process should be available to the child to fall back on to describe their experience and also to provide comfort. This phase of the EMDR process also relies on the therapist having a set plan or outline for the way the reprocessing is intended to go. This outline would be catered to the individual based off of the previous knowledge and information the therapist has gained throughout previous sessions. Sometimes it is appropriate for the parent or caregiver to be present during the session, in which case, the therapist should describe the outline of the session to the parent and the child. If no parent is present, simply outline the session for the child in a way that makes sense to them. Finally, reassure the child that there is no way to do EMDR wrong, and they can just trust their brain to do the work. In order to ensure the best treatment outcomes for the child, it is important to address, and process all of the early traumatic memories available. This may take several sessions, but will ensure that all of the improperly stored
memories are reprocessed, allowing the client and therapist to install the positive cognition (Gomez, 2013; Shapiro, 1995).

**EMDR Phase 4: Desensitization**

The desensitization phase is different than the previous assessment phase in that it is marked by more rapid processing of traumatic information. During this phase, the information that is reprocessed can be more intense and uncomfortable as the child becomes able to tolerate negative affect and stay present while negative emotions arise. When working with children who lack an ability to regulate painful emotions and are therefore consistently hyperaroused, this phase is the most intense, and may require several interventions from the clinician as they notice the child becoming agitated, dysregulated or dissociative. In these cases, the clinician will have to move at a much slower pace, reiterating mindfulness skills, as well as emotional resilience.

There are several interventions that exist that can assist the clinician in facilitating the integration and reprocessing of traumatic memories into less threatening memories. In 2001, Francine Shapiro developed the cognitive interweave as a way to re-start or facilitate blocked material during the EMDR process. While the client is reprocessing an event, it is not uncommon for the client to “loop,” or get stuck and therefore be unable to fully process the memory in a way that provides them with closure. In general, during the reprocessing part of EMDR that takes place during desensitization, the therapist or clinician wants to keep the child in charge of the process as much as possible by letting their mind go where it needs to go without prompting or suggesting outcomes. However, if the client becomes stuck in their reprocessing, the cognitive interweave has proven to be effective in allowing them to continue to process the traumatic memory. The cognitive interweave occurs when the therapist interjects insight in an attempt to
change the clients perspective or re-root them to time and place in the present, resulting in an integration of memories that were previously stuck.

The cognitive interweave has now allowed for the memories to be integrated, assimilated and processed along with other information in their memory network, allowing them to see the traumatic experience as an event that occurred at a previous time, and that particular negative event is no longer occurring, and also that the child is safe in this moment. Ana Gomez (2013) further describes the movement in the desensitization phase as,

…the negative affect they hold can be discharged, defense responses can be completed, emotions can be reclaimed, and pent up somatic energy can be released. (p. 200).

After the child has been able to fully process their memories and experiences into adaptive information so they are no longer re-experiencing the trauma, but instead just remembering it as an event, the therapist can move ahead to the installation phase of EMDR therapy. It is important to note here that this phase may take several sessions, especially when working with children who have experienced extreme trauma, and also when the child continues to struggle to self-regulate during sessions (Shapiro, 2001; Gomez, 2013).

**EMDR Phase 5: Installation**

Once the child has gotten to the point of the EMDR therapeutic process where they can report SUDs levels of zero, (i.e. the target memory is no longer disturbing to them,) the clinician can move on to installation of the positive cognition. During this part of EMDR, the therapist continues to use bi-lateral stimulation to access the adaptive network, but instead of reprocessing the trauma, they are instead, strengthening the positive cognition. Therefore – if the child’s negative belief was, “I am not safe,” the therapist would install the positive cognition, “I am safe,” along with giving the child a positive emotion to assimilate to the memory that was
processed and desensitized (Gomez, 2013). Children who have experienced ongoing abuse and trauma may find it extremely difficult to tolerate a positive effect, so the goal of this phase is to install positive affect to assist the child in experiencing, and eventually generating positive emotions towards themselves. The next phase is used to assist the child in checking in with their somatic sense of self and notice if they are feeling any physical disturbances (Gomez, 2013).

EMDR Phase 6: Body Scan

The body scan is used to address any leftover emotional disturbances that are stored in the body. This phase encourages the child to tune into their body and notice if there are any places in their body, i.e. stomach, head, or chest, that feel disturbing. This phase can be modified for children by using a magic wand or tool as a “feelings detector,” in their body. If the child reports any physical disturbances, more reprocessing or cognitive interweaves may be necessary to address the unprocessed material. This phase can conclude only if the child reports no physical or somatic disturbance in their body (Shapiro, 2001; Gomez, 2013).

EMDR Phase 7: Closure

Once the child has reached a point of emotional stability after the reprocessing has been completed, the therapist can move on to closure strategies. Using games and play during the closure phase of EMDR can assist the child in building feelings of trust, safety and regulation. The therapist is encouraged to nurture and connect with the child as a way of enhancing their emotional equilibrium. In order to move on from phase seven, the child should report a SUD level of zero, meaning their negative cognition holds no emotional discomfort, they should also report a VoC of ten, meaning their desired positive cognition should feel completely true. Lastly, they should report a clear body scan. This indicates the child is ready to move onto the final phase of EMDR therapy.
EMDR Phase 8: Reevaluation

The final phase of the EMDR therapeutic process consists of installing a future template with the child to equip them with strategies and tools to tap into, should a future situation trigger their previously disturbing traumas or memories. For example, a child who has been traumatized by his parenting fighting may very well be in a situation in the future where they are fighting and this could trigger their negative cognition and beliefs. The re-evaluation phase strives to build resources with the child to brainstorm how they would cope with a similar situation in the future. This not only leaves the child with a sense of power and control despite what happens in their future, it also decreases the probability of them being traumatized in the future (Shapiro, 2001; Gomez, 2013).

Summary

EMDR is an effective method of addressing childhood adverse experiences due to abuse, neglect or traumatic events. EMDR allows the child to access traumatic events and experiences that have been inadequately stored in their memory network, and reprocess the event in a way that gives them their own insight. Because traumatic memories are stored differently than non-traumatic memories, and the information has not been processed in a way that is adaptable, the child is unable to make sense of the situation resulting in hypervigilence, chronic fear, and overuse of the endocrine system which can permanently affect the way a person is able to experience and manage stressful situations and emotions. EMDR gives the child the ability to reprocess the information so the child can remember the traumatic situation as a past experience without re-experiencing the trauma every time the negative experience is triggered or accessed.

The Attachment, Self-Regulation, and Competency, (ARC) treatment framework:
The Attachment, Self-Regulation, and Competency, (ARC) treatment framework (Blaustein & Kinniburgh, 2010), has been identified as an extremely successful therapeutic tool when working with traumatized children and adolescents. One key feature that makes this tool so successful and useful in the clinical setting is its versatility. The ARC model was developed by mental health professionals, all of whom are seasoned in childhood trauma, and therapeutic interventions. They saw the need to develop a model that could be utilized across clinical settings. Therefore, the ARC model can be used with individual treatment with a child, caregiver-child treatment, psychoeducation and skills building interventions, therapeutic groups, outpatient and inpatient clinics as well as the school setting. Currently, the ARC model has been translated and utilized successfully in several settings, including inpatient and outpatient programs, schools, juvenile justice facilities, foster care, youth drop in centers and homeless shelters (Blaustein & Kinniburgh, 2010).

The ARC framework is described as a components-based model, used to identify three core areas of intervention for children and adolescents who have experienced trauma. These three domains identified are attachment, self-regulation and competency. These domains are then further broken down into nine subsequent areas of intervention. Lastly, there is a tenth target intervention called “trauma experience integration,” which assists the client and therapist in integrating their targets. This tenth target addresses the client’s individual and unique skills while outlining the resources they have available, all in the context of their own intervention framework (Blaustein & Kinniburgh, 2010).

The ARC model stressed the importance of attachment in trauma work, in that, cross-culturally, an infant’s primary caregiving system forms the platform and context for healthy future development. As discussed above when reviewing attachment, we know that a securely
attached family system acts as built in support, and can not only dull the negative effects of trauma, but also allow the traumatized individual to seek out positive relationships in their future despite the trauma. An insecurely attached, or disorganized family system at the time of trauma, however, puts the person at a much more significant risk. Therefore the ARC model targets the entire family system in order to help the individual, as well as the family system, heal. This is a systems approach that uses the term “family system,” very broadly, to include any influential system that the child is part of. Some examples are: parents, relatives, school, residential treatment programs, etc. (Blaustein & Kinniburgh, 2010).

The first step in addressing the attachment piece of the ARC model is getting the individual into a safe environment and system. The next important step in the attachment building blocks of the ARC model, is giving the caregiving system the tools they need to ensure that they will be able to support the child’s future development in the system. The caregiving systems’ ability to support the child during times of stress is a crucial predictor of childhood outcomes (Blaustein & Kinniburgh, 2010).

This illuminates the importance of educating the caregiving system before starting treatment with the traumatized child. This process consists of educating the caregivers about the nature of trauma, and normalizing it; giving the caregivers ways to self-monitor their skills and progress; encouraging the caregiving system, and building the entire system’s support network as well as helping them to identify substitute care-giving systems. This helps the caregivers learn to understand, respond, and adapt to the child’s cues and behaviors. This is extremely important, because as discussed in the above section of behavioral influences of trauma, we know that children who have experienced significant trauma may struggle to communicate feelings, wants and needs in an appropriate manner. Another key aspect to equipping the caregiving system is
reiterating the importance of consistency when dealing with the traumatized child. Traumatized children have almost always experienced considerable chaos. It is common for the child to reject rules and regulations despite their desperate need to have consistency.

![Figure 1. Treating traumatic stress in children and adolescents. (Blaustein & Kinneburght, 2010, p. 36)](image)

After the Attachment building blocks have been put in place, the next step in rehabilitating the traumatized child or adolescent, according to the ARC model, is the self-regulation phase. Childhood trauma has negative effects on the child’s ability to regulate their experience emotionally, behaviorally, socially and cognitively (Blaustein & Kinniburgh, 2010). Lack of early attachment causes children to be extremely dysregulated, and the child’s inevitable stress only increases their symptoms of dysregulation. Therefore, the self-regulation phase of the ARC model addresses the child’s self-awareness and understanding of their emotional
experience. This phase in therapy teaches the child to safely share their experiences with trusted adults and caregivers, but also to pinpoint, understand, and differentiate their feelings and emotions (Blaustein & Kinniburgh, 2010).

After the child has learned to understand and appropriately express and describe their emotions, the next step is to help them learn to tolerate a range of emotional experiences. We know that traumatized children have learned techniques to shut off painful or intense emotions, such as dissociation. This step is about assisting the child in developing strategies to allow them to be in control of their arousal to some degree, instead of being hyper aroused at all times. The goal is to teach the child to expand their comfort zone in the context of experiencing strong emotions. Clinicians are encouraged to assist the child in developing “feelings words,” or a “feelings toolbox,” to help them gain a vocabulary and understanding for strong emotions as well as an idea of what to do with them (Blaustein & Kinniburgh, 2010).

The next step of the ARC self-regulation phase is affect expression. The goal of this step is to help the child learn how to build safe relationships by sharing their emotional experiences with others in a way that is safe and effective. The main skills the child should learn in this step are how to identify resources to assist with safe communication, how to use these resources and initiate a conversation, as well as non-verbal communication skills and interpretation. The child also learns how to exhibit and interpret appropriate physical boundaries, eye-contact, verbal communication and self-expressions (Blaustein & Kinniburgh, 2010).

The next part of the ARC model for traumatized children is the Competency Phase. The goal in this phase of treatment is to get children and their families to be able to utilize internal and external resources. This will allow for further healthy and safe development and functioning across multiple areas of the family system’s daily lives. The competency phase strives to utilize
targeted interventions that are meant to emphasize the importance of the child to learn mastery and success. The idea behind this phase is that children who have suffered abuse and trauma have felt extreme chaos in their lives, and in order for them to really gain a sense of self (which is crucial to them healing and moving forward) they need to feel they are in control of their lives which can be done by developing competency. In traumatized children, building autonomy and competency in their ability to control their own outcomes in their lives is a core component of treatment for early developmental trauma (Blaustein & Kinniburgh, 2010).

In order to build autonomy and competency, it is important to address the role of the individual’s executive functions. As Margaret Blaustein and Katherine Kinniburgh state in their research on childhood trauma,

“Among the most important tasks for a child is the development of a sense of agency: the knowledge that he or she has the ability to make an impact on the world. Agency develops as we try, we do and we choose,” (p. 40).

This sense of agency discussed in the quote above relies, to some extent on a person’s executive functions, which are the cognitions stored in the prefrontal cortex of the brain that control our ability to actively make decisions by controlling one’s ability to delay response, anticipate consequences and evaluate anticipated outcomes, ultimately allowing us to actively make decisions. However, children who have experienced trauma, are therefore stuck in “fight or flight mode,” or constantly aroused. This can lead to an underdevelopment of the prefrontal cortex. This helps us understand why children who are traumatized are often times diagnosed with Attention Deficit Hyperactive Disorder, or Oppositional Defiant Disorder – these are disorders of the prefrontal cortex, and in traumatized children, the symptoms of these disorders may be decreased or eliminated after the child has been treated for the trauma. The Executive
Functions target skill of the ARC model strives to assist the child in developing the ability to problem solve, evaluate situations, and generate an appropriate response to these situations based off of their evaluation of the event. Simply, the child is taught to notice the difference between acting and reacting, as they are empowered through their awareness of their choice in a given situation. This allows the child to stimulate their underdeveloped prefrontal cortex, and executive functions, and problem solve in an effective way (Blaustein & Kinniburgh, 2010).

The Self Development and Identity phase of the ARC model encourages the child’s growth in their own awareness. This step is based off the idea that normally developing children gradually gain a sense of self over the course of time based on external stimuli and feedback from others. Children who have a stable environment to grow in eventually learn to internalize their responses and self soothe, as well as incorporate values, experiences and opinions into their experiences. Based off of what has happened before in similar situations, children learn what to expect from their actions and behaviors as well as how to react and respond appropriately to external behaviors. Children who have experienced trauma and abuse are much more likely to internalize negative experiences and values. They are also more likely to attribute negative situations that occur externally, to themselves, whether or not they had any fault in the matter. This explains why children often identify themselves as “bad,” when they have been a victim of abuse, instead of attributing the fault to the abuser. This stage also helps the child piece together rational outcomes of situations, as they are often unable to imagine the future, and even have trouble predicting what will happen in the very immediate future based off of their actions or behaviors. It is easy to see how these children struggle to understand and make sense of their worlds.
The ARC model helps the child gain a sturdy platform of their identity in the Self Development and Identity Phase by teaching the child four key levels of identity, and then assisting the child in attributing these four parts to themselves. The first part is the Unique Self. This part encourages the child to get in touch with personal attributes and qualities of their identity. This can be as simple as having the child outline “likes,” and “dislikes,” with the intention of gradually helping the child formulate their own opinion. The second part is the Positive Self, which assists the child in generating internal positive resources, and also identifying and owning their own successes and strengths. The third part of self is the Coherent Self, which focuses on getting the child to be able to self-evaluate on several different levels of their experience. This means, the child learns to describe and identify with their self before the trauma occurred, and their self after the trauma occurred. Another example is identifying the self as internal, (i.e. thoughts, feelings and emotions,) and the self as external (i.e. actions and behavior). The fourth and last part is the Future Self, which helps the child learn to anticipate future situations, something that does not come naturally. In this step, the desired outcome is to help the child imagine themselves handling situations in the future, and help them imagine and explore possibly outcomes, all within the context of the child having control over their actions, thoughts, emotions and responses. This is an important tool in empowering the child to gain self-esteem and self-control in future situations (Blaustein & Kinniburgh, 2010).

The last part of the ARC Treatment Framework is the Trauma Experience Integration section. The goal here is to assist the child in functioning in the present without being completely disabled by past traumatic experiences. The desired outcome is that the child is able to fully engage in the present moment without letting the past trauma take over. The difficult part about this is that traumatic memories are stored differently than normal memories (as described above
in the section on EMDR) and painful memories that are not reprocessed effectively, can cause ongoing intrusive memories, flashbacks, negative emotions, cognitions and dissociations that make it very hard for the child to fully engage in the present (Shapiro, 2007; Blaustein & Kinniburgh, 2010). Therefore, the goal in the final phase is to summarize and gather the child’s entire range of gained skills and resources that they have developed and identified throughout the ARC framework. These skills and resources are used as a toolbox for the child to tap into in times of distress. These tools are to be embedded into the child’s everyday life, as well as their supportive and stabilized family system to ensure ongoing support.

One can imagine that even after going through the elaborate and extensive therapeutic approach of the ARC model, that traumatized and abused children will continue to need an abundance of support, encouragement, therapeutic interventions and stabilization in their family system. This brief outline of the ARC model is most effective when all areas of the child’s life are as stable as possible; however, this is not always possible, as even the most stable families have moments of chaos, not to mention families who have experienced excessive trauma and abuse. The silver lining however, is that the ARC model is a versatile, in-depth model that targets the entire caregiving system in the attempt to give the child the absolute best chance and overcoming their past (Blaustein & Kinniburgh, 2010).

Another valuable feature of the ARC Model, is that it allows each professional to maintain their own unique approach and style, while using the ARC framework. It allows mental health care professionals the ability to help the client identify goals and interventions that are appropriate for both the client and the therapist or professional. This makes the ARC model a non-invasive tool for professionals to integrate into the style and approach they are already using (Blaustein & Kinniburgh, 2010).
There are several other different types of therapeutic interventions that can be implemented to both avoid and reverse symptoms of insecure attachment and trauma. Play therapy has proven to be effective in helping children process their emotions and negative experience in the aftermath of abuse and trauma that has resulted from insecure attachment and disorganized home and family life. The child learns through play styles, how to initiate getting their needs met both verbally and behaviorally. The therapist is able to model a healthy relationship, thereby allowing the child to identify the therapist as a trustworthy adult, forming a positive attachment (Norton, Ferriegel & Norton, 2012).

In Norton, Ferriegel and Norton’s (2012) research on the use of play therapy with traumatized children, research found that children who have experienced ongoing trauma and abuse often develop sporadic and habitual motions and movements referred to as somatic expressions. This is characterized by their play in terms of hypervigilence and sensitivity to noise. The child is often times reluctant to engage in fantasy play, which is thought to be associated with a lack of safety and trust. In their research of chronic child abuse and trauma and treatment, they found that EPT, or Experiential Play Therapy was effective in not only allowing the child to access their somatic memories but also to reverse or process them to promote alleviation from painful memories (Norton, Ferriegel & Norton, 2012).

Individual therapy of the caregiver, as well as Family therapy for the entire family system has also yielded positive results in terms of avoiding and repairing negative attachment styles among traumatized family systems. Family therapy allows the entire system to repair and learn new stress responses and communication techniques to implement and utilize when moving forward (Steele & Wallis, 2001).
Art therapy in relation to childhood attachment, trauma and abuse has also shown to have positive effects on the traumatized child, in particular, Shiakou found that having the child draw family portraits was successful at addressing and repairing attachment issues. Shiakou’s study describes the use of family drawings as an outlet for the traumatized child to process their inner emotions and thoughts in a way that they are unable to do verbally due to development.

Family drawings, however, have proven to be an ineffective tool in determining whether or not a child has been abused, they are successful in assisting the traumatized child in working through their particular situation. Family drawings are also beneficial in identifying the child’s attachment pattern to their primary caregiver. Further art therapy techniques such as the Bird Nest Drawing technique, or BND, are also effective in identifying the attachment pattern of the child to their caregiver. Traumatized children asked to participate in the BND technique are far more likely to draw unsafe nests (i.e. nests on brittle branches). Dark, overlapping strokes, and dark colors, are also indicators of insecure or disorganized attachment (Shiakou, 2011). Shiakou’s research has also found that traumatized and insecurely attached children are far less likely to include themselves or their caregivers in their family portrait, and also show a much higher tendency towards drawing distorted images, such as missing or enlarged body parts, and poor sexual identification (Shiakou, 2011).

When domestic abuse is occurring in the child’s home, and the child is either witnessing the abuse, or experiencing secondary or residual abuse by the victimized parent, the child is living in an environment with high child abuse potential (Rodriguez, 2011). Another method of reducing child abuse potential that has yielded promising results is Cognitive Behavioral Therapy, or CBT. The basis of CBT is formed based on the idea that thoughts and emotions are
interchangeable. Therefore if a person can change the way they think about something, they can internally change the way they feel about it (Wanders, Serra, & de Jongh, 2008).

**Summary**

More specific and extensive research needs to be done to address therapeutic interventions associated with childhood abuse, trauma and PTSD. Art therapy does a better job of identifying abuse and trauma than strategies to alleviate symptoms of trauma.

**Final Summary and Conclusion**

The research presented in this literature review reiterates the idea that ongoing childhood trauma and abuse, and inconsistencies in parenting styles can result in both biological and behavioral influences. Abused, neglected, and/or traumatized children may be prone to experience severe persistent mental illnesses, anti-social behavior, and difficulties forming positive attachments throughout life. The brain of a child who has experienced abuse, neglect and maltreatment may result in structural changes, affecting their neurobiology, and subsequent behaviors. Extensive therapeutic interventions, such as art therapy and play therapy are most effective when started immediately after the traumatic event, however, because child abuse and maltreatment is so difficult to identify, instances of abuse and neglect often times goes completely undetected. Many children do not get the help that they need until they are much older, if at all. Therapeutic interventions, such as EMDR, later in life can be used to rewire the damaged neurological pathways, but research on critical periods of brain development in relation to attachment tell us that once the critical period has passed, it may be more difficult for the damage to be repaired (Bowlby, 1969: Ainsworth, 1969: Foroughe & Muller, 2012).
Attachment styles play a large role in determining the outcome of ongoing trauma and abuse. Children who lack structure and secure attachment throughout their childhood tend to display behaviors consistent with children who have been abused or neglected. In addition, uninvolved parenting at an extreme level is no different from child neglect with is the most common form of child maltreatment and abuse. A child who has been neglected, maltreated or who suffers from uninvolved parenting styles will be at a loss in terms of knowing how to build and maintain secure relationships. A lack of strong and consistent relationships may lead to violent offending in adulthood as well as incarceration, mood disorders, deregulation of the HPA axis and CSF oxytocin concentrations, Post traumatic stress disorder, reactive attachment disorder and suicidal ideation (Atwood, Lyons-Ruth, Melnick & Yellen, 2003). Both children and adults who lack healthy attachments are also less likely to seek out professional help when needed. Their insecure attachment may also greatly affect the client’s ability to engage in a therapeutic relationship with their therapist, compromising their ability to recover.

There are many therapeutic interventions available for mental health professionals to utilize when working with traumatized children. EMDR, play therapy, and art therapy in the context of the ARC Model may yield positive results towards reversing negative behaviors and attachment styles that exist among traumatized and abused children. EMDR and the ARC model stress the importance of building a support system around the traumatized child to create a structure of stability and encouragement for the child throughout the therapeutic process. Building a support network in the child’s life, and ensuring that all authority figures can collaborate together as needed (teachers, parents, care-givers, and therapists) is a crucial part to ensuring the child is stable enough to begin the emotional strain of therapy.
Because children are at a unique stage of neurobiological, social and emotional development, it is important to incorporate games, stories, analogies, drawings and play into their therapeutic process to enable their ability to heal in their own way.
References


