Posttraumatic Stress Disorder and Early Childhood Development

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Table of Contents

Abstract

Considerable information has been collected about Posttraumatic Stress Disorder among adults but considerably less knowledge is known about the impacts of trauma on young children and how their caretakers must handle these special cases. Children who have encountered traumatic life events such as physical abuse or neglect or witnessed tragedy face considerable challenges in their social, mental, and cognitive learning patterns that must be addressed with caregivers. Furthermore, those in the field of Human Services who are charged with finding caregivers for these children can circuitously do them more harm than good if the caregivers assigned are not properly educated in the needs of these children. By combining excerpts of various PTSD studies on adults and empirical research on trauma in children much can be understood about these children and their needs. When caregivers are provided this information, it will help ensure that these children are not deprived of the same life experiences their peers enjoy.

Posttraumatic Stress Disorder and Early Childhood Development

The concept of traumatic life events is something that no one ever hopes to face but most if not all people must face at some point in their life. Almost all people must face the loss of a loved one or the loss of something material such as a house burned down in a fire that still leaves smoldering mental scars long after life has moved on. Even still, the recent years of American history have shown a marked increase in traumatic life events including the terrorist attacks of 9/11, the deadliest terror attack ever performed on America soil (Dwyer, 2006, p. 18), the nightmarish Hurricane Katrina and countless other events have all occurred within the most recent decade in US History. These events irrevocably changed the lives of thousands of people and brought the previously vague disorder known as Posttraumatic Stress Disorder (PTSD) into the forefront of modern medical analysis. Unfortunately, the effects of the disorder have mostly been evaluated in adults with little regard to the impact of traumatic events on children and in the world of human services, the disorder is one that looms in almost every case of a child who is taken in to human services custody. PTSD has been studied extensively in many adults but there has been little attention given to the social, cognitive and mental impact it has on children and the challenges their caregivers face while helping them heal and reach their full potential.

Brief History of Posttraumatic Stress Disorder

In order to properly analyze information regarding PTSD, it is important to clearly understand some history about the disorder and what it entails. As anyone who has studied American history even in a light degree would understand, the USA would likely have not expanded as quickly as it did without the proliferation of the railroad in the 19th century. Railroad workers were often portrayed in almost a romanticist sense in the media and stories of the time but few realized the intense amount of stress that these individuals experienced as they battled

the wild to drive those steel nails into the ground. Physicians began noticing an unusual number of railroad workers who suffered intense back pain and often returned from the railroad work with a very unstable, sometimes violent personality ultimately leading to shattered relationships. These individuals were given a vague medical title to indicate their condition: 'Railroad Spine' which forms the basis of the disorder now known as PTSD.

In the throes of prosperity, the US was forced to stand up and take a new direction with the beginning of World War I, the first major international military fight since the Revolutionary War, in the early 20th century. The war was unlike anything ever experienced by the fledgling country and the young fighting men were whisked off to a world away from anything they had ever witnessed before. Their comrades were literally blown to pieces by decimating firepower, the intense amount of time spent in the mud laden pits caused entire limbs to be amputated to avoid 'trench foot' and countless other horrors that fill the pages of our history books but few of us care to consider. When the men returned from the war, it seemed perfectly understandable that they were different, they had seen horrible things and could never view life the same way again. Again, the medical community began to evaluate this phenomenon and dubbed it 'shell shock' which forms the basis of what the modern psychological community knows as PTSD (Teten, et al., 2010). As history progressed, PTSD was dubbed 'battle fatigue' after World War II and finally given its modern name of Posttraumatic Stress Disorder when a large proportion of Vietnam War veterans returned to life in the states. The name is perpetuated currently in medical analysis of veterans returning home from the War against Terror as well (Teten, et al., 2010).

One who suffers from PTSD will witness flashbacks to the moment(s) of trauma and see them as very real even decades later, they will spend their entire life at an overall higher level of mental arousal and often exhibit unpredictable behavior that they may or may not have any conscious knowledge of. Such are the hallmarks of this disorder as exhibited by adults and a great number of mental, social, and psychological resources have been devoted to help these adults cope with the world in which they live and aid their loved ones in understanding what causes their eccentricity (Huemer, Erhart, & Steiner, 2010). Many families find a considerable amount of healing and help when a loved one suffers from PTSD as an adult but the cries of thousands of children who suffer from it go virtually unheard.

Fragile Ties: DHS Custody and its Perpetuation of PTSD in Children

The United States Department of Health and Human Services (DHS) has a noble calling and purpose in that they will step in to protect children when their caregivers cannot or will not do so. Yet the fragile condition of children's minds at young ages being suddenly ripped from their caregivers and placed in protective care is far more traumatic than many people outside of this subculture may realize. Furthermore, the children who are removed and taken into custody of DHS are usually removed when a particular event or chain of events in their home has brought attention from the agency. Many of the children who are taken into the custody of DHS often have already faced a traumatic life event such as physical or sexual abuse before they are taken into custody even if corroborating evidence is found much later – or never – in the child's life.

It follows then, that children taken into custody already suffer from one traumatic event – removal from parents or other caregivers – and often multiple other traumatic events and thusly enter into DHS custody as sufferers of Posttraumatic Stress Disorder.

This impact is further intensified by the DHS agency when they are attempting to do something altruistic for the child, namely keeping the child with a blood relative. Most agencies place priority on placing a child in custody of a blood relative when the parent is still being evaluated even if the relative is found after the child has been placed in a temporary home with a foster parent. When the relative agrees to take the child, the DHS agent will often move the child with little or no warning to the temporary caregiver. The sudden rupture of the relationship the child was attempting to form with their temporary caregiver that is necessary for healing to begin will cause the child to face another traumatic separation in their life, exacerbating the pre-existing condition and further damaging the child's ability to attach to other caregivers (Perry B. , Bonding and Attachment in Maltreated Children: Consequences of Emotional Neglect in Childhood, 2001).

Once a child is placed in 'the system', the possibility of considerable traumatic separations greatly increases unless a stable and permanent home can be found for a child who has suffered from trauma. Even though the deed of an adoptive caregiver taking on a child with PTSD seems like a romanticist perfect end to the story, the reality is often much less picturesque because the caregiver is unprepared for the child's special needs. This can lead to interruption of adoptions and further cycles of loss which continues to propagate the traumatic life events the child is already entrenched in. In a worst case scenario, the child may develop a particularly toxic disorder known as Reactive Attachment Disorder (RAD) which renders the child's capability to attach to caregivers virtually dismantled (Minnis, et al., 2009). Despite the grim outlook presented for children who suffer from PTSD, especially those in the custody of DHS, a well-trained caregiver can help heal the child but they must have a clear understanding of the social, cognitive, and mental impact of their child and it is to these elements that this study now turns.

Social Impact of PTSD on Early Childhood

Developmental psychologists the world over have a wealth of empirical evidence that the beginnings of social development can occur as early as the first few hours of life as the child learns to trust their caregivers and begins to form rudimentary constructs about trust and social behaviors (Feldman, 2008, pp. 110-111). In the case of a child who has suffered traumatic life events, even at an early age, the capability to learn and master these important social constructs can be particularly challenging. Children who suffer from PTSD are much less likely to form trust bonds with those around them, even with a trusted individual such as a teacher or therapist (Kramer, 2009, p. 14). Not only does this impact the child's ability to develop meaningful friendships with peers but also causes a higher incidence of misbehavior due to lack of trust with authority figures such as teachers. Simply, a child who has witnessed caregivers that allowed them to be hurt will fall into a pattern of self preservation which can be challenging to overcome for many caregivers.

In the same fashion as Susanna Kaysen's book *Girl, Interrupted*, children who have faced early trauma in their lives can often be categorized as "child interrupted." People often do not realize how systemic their lives are until there is some sort of unexpected interruption triggering a change. PTSD children will often have their normal social progression altered significantly by the traumatic events in their lives and will be mentally interrupted until some amount of order is restored (Carr, 2004, p. 238). The result of this phenomenon is that a child who suffers from PTSD will often appear socially immature when compared to a child of the same peer group who has followed a normal progression in their lives.

Conversely, the trauma child will often show a marked increase in academic performance when compared to their peers because their capacity to acquire and disseminate information has been directly linked to their personal safety (Perry & Pollard, 1998, pp. 38-39). Because of this social imbalance, it is not uncommon for trauma children to be held back a grade even if their academic behavior is stellar which breeds many social challenges for parents and academic staff. In essence, if a child suffered from trauma at the age of 18 months, there are portions of their mental development that will be 'frozen' at 18 months until significant therapy has been utilized to counteract these setbacks which directly impacts social ability in peer settings. Information such as this must be understood and accounted for by educators and other caregivers when monitoring PTSD children in academic or daycare environments.

Cognitive Challenges Faced by Trauma Children

As outlined in this work, the posttraumatic stress disorder child faces considerable mental variances when compared to peers and cohorts and these variances have a marked impact on the cognitive development of the child throughout early childhood and on into adulthood. In the book *Parenting the Hurt Child* by Gregory Keck and Regina Kupecky, the authors explain the cognitive capabilities of a trauma child with a very concise explanation. From the first moment a child is born well into their childhood years, children will create a mental blueprint or framework through which they interpret all information. A child who is born into a safe and loving environment where they receive positive support and caring reinforcements from adults and the world as a whole is likely to have a positive outlook on life and will view people as genuinely 'good' people.

In the same way, a child who is born into a hostile environment where even the most basic needs of human life are scarce if not nonexistent and receives considerable negative reinforcement from caregivers is likely to view people as dangerous and unable to be trusted (Keck & Kupecky, 2002, pp. 10-18).

As a child encounters new stimuli in their environment, they will subject the stimuli to their own blueprint to determine their response which is intrinsic to human nature. Due to the trauma experienced by PTSD children, their blueprint is considerably skewed by conventional understanding and their entire nature of cognitive development is altered considerably. Caregivers and educators of these children will face a variety of unique challenges in aiding trauma children with their cognitive abilities.

One of the most prominent challenges that caregivers will face with a PTSD child is the manner in which the child interacts with the stimuli presented in various learning situations. As a generality, a trauma patient will do whatever they can conceive to avoid having to address their trauma as this resilient behavior is human nature but the caveat in these cases is that fear of new traumatic situations – even if the possibility of such trauma is completely imagined – will lead trauma children to superfluously avoid new environments and challenges (Grasso, et al., 2009, p. 159). As a result, PTSD children will develop a sense of detachment and estrangement from peers and a universally reduced desire to engage in unfamiliar activities.

If one desires to reach a trauma child and teach them any new information, the results will be fruitless without an intense amount of patience and repetition.

Educators especially will find that although the child appears to be interested and engaged in the learning process, the likelihood of the information being committed to long term memory and sequentially committed to fluid intelligence is highly unlikely without considerable repetition and reassurance (Grasso, et al., 2009, pp. 172-173). Educators will often see a pattern of stimuli engagement followed by stimuli abandonment at what is perceived as an alarming rate in contrast with the child's peers. The common result of this behavior is an educator's frustration and subsequent assumption that the child is 'difficult' or 'impossible to teach' yet when the child finds the subject matter interesting or otherwise valuable to them personally, the process can be reversed.

The question that must be addressed in this circumstance is the strange duality of the children's academic performance. As outlined in the previous section of this work, trauma children usually show marked deficits in social skills with their peers but marked improvement in academic performance overall. If this is true then it is evident that these children can and will excel in academics if it is directly linked to their personal hyper-vigilance (Allen, Pfefferbaum, Cuccio, & Salinas, 2008). Fundamentally speaking, the amount of resistance faced in cognitive performance is correlated with the environment in which the learning occurs and the delivery of the material. If the child perceives the information to be unrelated to their trauma but does not feel threatened by the acquisition of this knowledge, it is far more likely to be retained than information which is too foreign or produces stress in the trauma child.

Mental Impact of Posttraumatic Stress Disorder and Early Childhood Development

Famed physiologist Dr. Walter Bradford Cannon, former chairman of the Department of Physiology at Harvard Medical School in the 1930's is credited with defining the 'fight or flight response' in animals as they were exposed to various stimuli (Cannon, 1932, pp. 218-220).

This methodology was later revised and used in the study of humans as a response to perceived threats in our environment such as the reaction one has were they to hike through a forest path and suddenly see a snake slithering past. The mental process the follows is one in which the mind gauges the perceived threat of the stimuli and prepares the body to stand and face the challenge (i.e. ‘fight’) or to retreat to a safe location until the threat is neutralized (i.e. ‘flight’).

In the mind of a trauma victim, the fight or flight defense mechanism is particularly sensitive in comparison to other individuals and places the child in a constant state of heightened arousal. A trauma victim is consistently more excitable than a normal individual and will transition from a state of rest to a state of alarm considerably quicker than other individuals due to reduced intensity of serotonin neurotransmitters which bring about a calming mental state (Huemer, Erhart, & Steiner, 2010). Due to the fact that the fight or flight response occurs from a very low level of the brain stem and a child’s neuron network is largely underdeveloped in early childhood, the arousal response system generated by early trauma is deeply ingrained in the child’s psyche and likely will remain in some form or another for the remainder of the child’s life.

In addition to heightened arousal, the onset of early trauma generates an extensive number of secondary and tertiary mental abnormalities including sleep disruptions, higher incidents of depression and variable forms of anxiety disorders (Pervanidou, 2008, p. 632). Due to their underdeveloped state, children are more vulnerable to trauma than adults and are at higher risk of developing significant changes to their brain function as a result. The neurological impulses in the brain of a trauma child are very different than those of non traumatized children and even contrast the brains of similar adults who suffered trauma as an adult (Pervanidou, 2008, p. 634).

Research performed by Dr. Panagiota Pervanidou, a Greek neurologist in Athens revealed a few notable differences in the chemical makeup in the brains of trauma victims as well as the implications these may have on the biological aspect of PTSD children's minds. The most notable impact of PTSD and the early childhood brain is the irregular production of corticotrophin-releasing hormones (CRH) including cortisol and catecholamines which cause a string of abnormalities that can produce depression, obsessive-compulsive disorder, and can lead to chronic fatigue syndrome just to name a few (Pervanidou, 2008, p. 633). Moreover, the hormonal abnormalities caused by irregular CRH levels seem to shed some light on the increased incidence of nightmares and night terrors that are often synonymous with sufferers of PTSD (Putman, 2009, p. 81). The binding factor appears to be the tendency for evening cortisol levels to be highly restrained in months following the traumatic incident which, if left untreated, can interrupt the natural circadian rhythms of the child as they sleep (Pervanidou, 2008, p. 634).

The manner in which the brain regulates the body is nothing short of a miracle but the counterpoint of this miracle lies in how easily even minor changes to a natural biorhythm can produce systematic disruptions in overall body performance. As evidenced prior in this work, the impact of PTSD on children and adults can disrupt mental processes used in sleep patterns but the scope of impact does not end there rather it could be argued that this is where the impact begins. Considerable amounts of evidence exist in the medical community about the many benefits of sleep on the human body even if not all the benefits are completely understood at the present time. If the average five to six year old child requires 9-10 hours of sleep for optimal performance of their daily activities and this sleep is challenged by the inclusion of nightmares in trauma children, the subsequent loss of sleep further complicates the child's mental processes which can resonate across virtually all aspects of early childhood development.

Amid the gloomy outlook, there is still a silver lining to mental impact of PTSD in children – the remarkable level of flexibility and capacity for healing that the impressionable child's mind offers (Carr, 2004, p. 236). If the child has proper treatment for the mental setbacks of their trauma, the cognitive and social elements of this multi-faceted disorder will follow suit with only minor adjustments in most cases. The two key factors in successful recovery are the mental health resources they are provided and – most importantly – the parent/caregiver. It is to this end that the final section of this study now turns.

The Vital Link to PTSD Healing: Informed Caregivers

Only a few short years prior the writing of this document the amount of publicly accessible information pertaining to child trauma victims and the attachment cycle was in painfully small supply. There had been few studies in attachment therapy other than the arguably controversial work performed by Dr. Foster Cline in the 1970's (O'Connor & Zeanah, 2003, p. 232). Into this void, stepped Dr. Bruce Perry, an established developmental psychologist with a specialization in child trauma. Dr. Perry created a non-profit organization known as the Center of the Study of Childhood Trauma in 1990, a unique institute without a physical building that focused on research in the child trauma field. Over the next decade, the center formed several strategic alliances with Baylor College of Medicine, CIVITAS ChildTrauma in Chicago, and countless other agencies to form The Child Trauma Academy (CTA) - a university supported but standalone community of practice for the field of child trauma (Perry B. , CTA History, 2001). Due to the efforts of the CTA community and specialized focus on training human service workers and court appointed caregivers, the vitally important link between properly informed caregivers and the children they nurture has been significantly improved.

Although CTA and many agencies just like it have done what they can to improve the resources available to caregivers of trauma children, the caregiver must understand the nature of their child's disorder and be open to a variety of considerations both mundane and exotic. Most importantly, the caregiver must understand their child: where the child comes from, what kind of factors led them to the caregiver, the nature and severity of the trauma and the nature of the child's personal mannerisms. While it is true that a caregiver from a foster or adoptive environment may have little if any information about the child when they first take the child in, the parent must make a concentrated effort to learn these elements with tenacity and patience or risk insecure, perhaps only superficial attachment from the child (Keck & Kupecky, 2002, pp. 40-41).

After a traumatized child has entered a home and the caregiver has begun to comprehend the child's story, they will quickly become a vital source of information for other caregivers in the child's life. The child has no stronger advocate than their caregiver and depends on them for boundaries, security and as a voice among the countless involved parties (birth parents, DHS agency, courts, etc). A trauma child is more common than society might realize but this does not mean that they are widely understood, in fact, the opposite is usually more accurate (Grasso, et al., 2009, p. 172). Educators, daycare workers, even other family members may perceive the child as 'difficult' and treat them accordingly even if the entire process is performed subconsciously. This will lead the child to feel even more alienated when they already suffer from estrangement and avoidant behaviors and will at least hamper healing efforts if not trigger all out regression (Putman, 2009, p. 82). In some circumstances, the caregiver must be willing to go to extreme measures including school transfers, physical security precautions in the home, or even homeschooling if the child's needs require such measures.

An attentive parent to a PTSD child must also be able to think of the ‘big picture’ in regards to their daily interactions with their child or risk longstanding repercussions. Research indicates that children who suffer from PTSD have a pronounced increase in risky behaviors as adolescents including increased incidence of substance abuse and early sexual experimentation (Kingston & Raghavan, 2009, p. 67). Caregivers of sexually abused children must be cognizant of the fact that these children have a higher tendency to abuse others sexually than those who have not suffered sexual abuse and in studies of males who were victimized the incidence of the males victimizing others is almost universally present (Putman, 2009, pp. 86-87). Traumatized children may encounter a trigger from seemingly benign stimuli including smells, pictures, sounds and environments and without proper therapy will repeatedly react negatively to these conditions regardless of the well meaning intentions of their caregivers.

In almost all circumstances, a trauma victim will require a wide array of therapy to learn coping mechanisms and overcome the side effects of their circumstances. Although the many options available would be useful in this context, they are not the purpose of this document nor proper space allotted to give them all notoriety but a few items to consider for caregivers to consider as treatment options should be discussed. The most notable therapy for aiding a caregiver with their child falls under the umbrella of Cognitive Behavior Therapy (CBT), a greatly expanded discipline based on classical conditioning (Kramer, 2009, pp. 9-10). CBT allows the trauma child to combat the symptoms of PTSD in a safe environment by relearning behaviors brought on by the trauma. In the case of children, play therapy is almost universally necessary to diagnose, analyze, and combat psychological issues as children are not mentally capable of expressing their fears and stressors with abstract thoughts in the same manner as adults (Ogawa, 2004, p. 22).

Finally, caregivers who wish to have a strong impact on the lives of the traumatized child should consider engaging in Child-Parent Relationship Therapy (CPRT) which offers the child the undivided attention of their caregiver in a specialized environment to aid in strengthening attachment bonds. Naturally, a caregiver will need to seek out the consultation of a licensed therapist who has experience in the field of child trauma in order to find the best solution to meet their child's needs.

Conclusion

The early childhood stage of lifecycle development is one in which a critical number of constructs are implemented at all levels of the human mind and the natural sequence of events in this stage can have far-reaching implications for the entire lifespan of a child. If a child witnesses a traumatic life event such as sexual abuse, abandonment, or repeated attachment interruptions, they are at a much higher risk to develop posttraumatic stress disorder (Gustaffson, Nilsson, & Svedin, 2009, p. 280) than children who do not experience traumatic life events. The sweeping impact of trauma exerts a profound series of abnormalities on the overall health and wellbeing of its victims which must be fully addressed if healing is to occur.

Despite the maddening scope of challenges, children can learn to overcome their trauma (at least to some extent) and lead lives that are not too dissimilar from their peers provided they are able to attach to stable caregivers who understand their challenges. The field of child trauma is relatively young but has already produced a resounding number of game-changing breakthroughs that can be used by dedicated caregivers and patients to reach a sense of normalcy in life.

If human service workers and their networks of support agencies continue to be careless in the management of trauma children they will inadvertently do more harm than good in the lives they seek to protect. Thankfully more and more of such groups are realizing the error in their altruistic approach and taking on a much more comprehensive outlook in practice. As research on the topic of PTSD and children becomes more and more publicized, it will ultimately bring about a more comprehensive understanding of the social, cognitive, and mental impact of trauma in early childhood and equip caregivers with the tools needed to help these children reach their full potential.

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