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TRANSPIRATION OF TRAUMA AMONG CHILDREN AND ITS RAMIFICATIONS ON THEIR COGNITIVE DEVELOPMENT

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ABSTRACT:

The paper discovers that trauma supervenes in young children and it affects the lives of its victims afterwards. There are several traumatic factors such as rape, public humiliation, police interrogation, racial discrimination, loss of family members, friends and property etc. that can cause trauma. It has been found that due to trauma, children experience innumerable psychic corollaries such as awful perception of death, initiation of sobs, submissiveness, abusive language, loss of sleep, hunger and self-respect, psychical tiredness, numbness, visualization of countless dead bodies in dreams, fright, hysteria, addiction to alcohol, disinterest in music, ennui for liaison, loss of temper, grubby outlook, loss of consciousness, feeling of anxiety, uncertainty, and suicidal tendencies. Furthermore, it is observed that there has been very little critical research on traum
a anent cognitive development to ameliorate the mental and physical condition of the affected children. There have been a lot of interventions that target psychological trauma, but they are not sufficient to meet the developmental needs of children. There is still a paramount need to provide safe environments; support children and caregivers to understand the links between traumatic experiences and cognitive difficulties; develop positive relationships among children, parents, and caregivers; offer the targeted trauma-specific interventions to the affected children; maintain the interventions throughout childhood and adolescence; and to ensure that the developmental issues and difficulties are addressed properly.

INTRODUCTION:

It has been observed that trauma emerges due to a number of harrowing factors such as butchery of humans, trumped-up murder charges, brutal interrogation, conspiracies of the police and other involved authorities, verbal abuse, the scene of burning corpses, the perception of death in childhood, teasing, abductions, rapes, gang rapes, desecration of religious places and scriptures, sadism, killing of one's family members, stillbirths, scene of the execution of lathi charge, exploitation of natives, their cultures and resources, scene of stabbing, scene of shattered corpses, scene of burning property, looting, scene of attacks, scene of the mutilation of human limbs and skeletons, abductions, negligence, illnesses, medical ill-treatment, racial discrimination, gender discrimination, early marriage, elopement, news of the murder of family members, adultery of a parent (s), and conflict between parents. The aforementioned reasons push the victims to undergo trauma and then repetitive trauma (Singh, 2019). The paper provides an overview of what we know from research about cognitive development in children who have experienced trauma and provides principles to support effective practice responses to children's trauma. The exposure to trauma is common among children who have been placed in care (Gabbay et al., 2004), and there is increasing interest in the necessities for such children. Trauma is thought to have significant implications for the development of children's cognition, language and self-identity. The present paper provides an overview of the state of the evidence that links trauma with deferred cognitive development.

The children who are quite vulnerable, are likely to have been exposed to trauma, as they are often exposed to a range of upsetting factors that impact their cognitive development. The early-life adversities for such children include exposure to tearfulness, incommunicability, collective trauma, resentment, exasperation, abrasive language, deep-rooted abhorrence, feeling of defeat, numbness confusion, duality, perennial timidity, uncanniness, restlessness, frightening and demoralizing appearance, mournfulness, sleeplessness, religion conversion, transfixion, despondency, motionlessness, indecisiveness, hesitancy, nostalgia, defencelessness, schizophrenia, loss of thirst, hunger and sleep, homelessness, bleakness, coldness, gloominess, feeling of guilt, pusillanimity, confusion, anxiety, depression, dysfunction of psychological structures, acute fear, fear to see the place of murder of family members, feeling of tearing of flesh from the body, feeling of drain of blood from the body, inability to flicker eyelids, convulsive reaction of muscles, enmity between friends, violent behaviour, revivification of the death of family members, fright of death, hallucination, loneliness, acute pain, tremble, psychic deadness, propensity to kill others, animosity for the parents, utter sickness, alienation from the outer world, ceaseless quest for the loved ones, self-harm, demented frenzy, self-accusation, feeling of bleeding heart, oblivion, restlessness, inertia, loss of the self, emergence of the second self, wails of anguish, suffocation, hesitation to meet the family members after getting raped, hiding of truth, tragic appearance, soulful burden, fear of divine retribution, resuscitation of brutality, violation of laws, anger and threatening behaviour (Singh, 2019).

The potential impact of all the upsetting factors need to be considered for developing a strong support for the children who are being looked after in the care homes and orphanages. This supportive practice outlines what empirical research unearths about cognitive development in line with the adversities encountered by the children placed in out-of home care, and what it might mean for supporting them. It will also detail the limitations to current knowledge about the impacts of trauma on cognitive development while emphasising the significant impact of antenatal alcohol exposure on later cognitive development. The practice summarises current evidence about the likely ramifications of trauma and other common adversities on children's cognitive development. By summarising up the empirical evidence and linking trauma with cognitive difficulties, it is confirmed that

the technique provides a perspective on the current state of evidence while highlighting the need to further develop the evidence for interventions. It also suggests some principles that can be applied to facilitate children's cognitive development in practice. Although the focus of the technique is on children in care, the principles stated in the paper are applicable to other children anent child protection services and other similar services.

Children who are placed in out-of-home care are likely to experience a range of early-life adversities. The range and complexity of these adverse circumstances are well known to practitioners, and they include trauma, abuse, neglect and antenatal substance exposure in the traumatic intricacies. The Adverse Childhood Experiences study (Anda et al., 2006) has shown that this kind of exposure is associated with a range of adverse physical and mental health outcomes in adulthood (Price-Robertson et al., 2013). The current research suggests that the behavioural difficulties of many children in care are underpinned by the cognitive vulnerabilities related to exposure to adverse and traumatic events in childhood. Indeed, children who are placed in out-of-home care experience higher levels of behavioural and mental health issues than children from similar backgrounds who are not placed in care (Ford et al., 2007).

There has been a paramount research on the corollaries of traumatic events (Atkinson, 2013; Cook et al., 2003; Cook et al., 2005; Perry, 2006, 2009; Van der Kolk et al., 2009). Many of the assumptions made in the above mentioned works have not been subjected to critical review despite the influence of these ideas in influencing the service delivery for children in out-of-home care. Similarly, there has not yet been any rigorous evaluation of the interventions that are being developed in line with these assumptions. While the broad symptoms of complex developmental trauma reflect clearly the experiences of many children in care, other difficulties can't be related to trauma but to adversities such as antenatal alcohol exposure, placement instability, poverty, neglect and pervasive developmental issues (De Jong, 2010; Zilberstein & Popper, 2014). In other words, interventions that target complex trauma may be necessary but not sufficient to meet the developmental needs of children in care (Zilberstein & Popper, 2014).

Many policy documents highlight the potential for 'trauma-informed' interventions to affect the change in cognitive functioning and the other areas of development. There has been a confined criticism of this paradigm as a basis for the treatment of children in care. The criticism is based on the three arguments: the way in which brain development is represented in line with trauma; the claims regarding the plasticity of the brain and what it means for therapeutic intervention, are not justified by the available science, and the therapeutic interventions that are based on singing, rhythmic drumming, and spinning have not yet been subjected to the systematic evaluation that other trauma-specific therapies have (Bisson & Andrew, 2007). The next factor that retards the psychic development of children is a complex developmental trauma. Working with developmental trauma requires a different framework of treatment than work with trauma experienced later in life. Unfortunately, not all therapists appear to be up-to-date with current research and practice essential for effective treatment.

The complex trauma refers to the impact of children's exposure to traumatic events on their development and long-term outcomes in the context of interpersonal relationships with caregivers (Cook et al., 2003; Cook et al., 2005). It is thought that in this context, the neurological development of the brain becomes distorted in such a way that the 'survival mechanisms' of the brain and body are more dominant than the 'learning mechanisms' (Atkinson, 2013). It results in wide-ranging impairments in arousal, cognitive, emotional and social functioning. Although the description of complex trauma resonates with many practitioners, the lack of rigorous evidence in support of complex trauma as a construct and paucity of evidence in favour of interventions for complex trauma has meant that it has not yet been accepted as a formal diagnostic category by mental health professionals (APA,

2004). Unfortunately, the published studies demonstrating the impact of complex trauma tend to have included children who meet criteria for discrete Post-traumatic Stress Disorder (PTSD) rather than those children raised in the context of maladaptive care (De Bellis et al., 2009; Gabowitz et al., 2008; Teicher et al., 1997; Teicher et al., 2004). It does not mean that the complex trauma is not a valid construct, but there is a lack of empirical research in the area. Researchers have yet to develop agreed ways to define and measure the complex trauma so that the evidence based for intervention can be established.

One of the popular descriptions of the impact of complex trauma and early adversity in the context of neglect and abuse links the environmental events to chronic disruption of a child victim's stress hormones that lead to chronic hyper-arousal and ongoing sensitivity to stress (Perry, 2006; Perry, 2009). Chronic stress hormone dysregulation is thought to lead to changes in the sequential development of brain structures and brain functioning, through the process of 'use-dependent synaptic pruning' (Perry, 2009). These changes can be addressed though to some extent by regular and intensive intervention that regulates the more 'primitive regions' of the brain through repetitive and rhythmic activities in the context of continuous therapeutic relationships (Perry, 2009; Perry & Dobson, 2013). Though animal studies have supported the basic premise of a link between early stress and hormone dysregulation, there isn't yet a parallel research that demonstrates the impact of early adversity on human brain development (Moffitt, 2013; Shors, 2006; Teicher et al., 2006), nor does the research that demonstrates the impact of interventions target brain development. The collaboration between practitioners and researchers is needed to advance this field and to document the effectiveness of services based on the chronic disruption of child victims. An ample research is needed to establish the relationship between the wide range of early life stressors including changes in brain and hormone functioning and child development (McLaughlin et al., 2014; Moffitt, 2013). There is great potential to focus on practitioner-research partnerships to better document, evaluate and inform emerging models of intervention for children in care. This will be an important step in developing and justifying interventions directed towards children in care (McCrory et al., 2011; Moffitt, 2013).

It has been observed that an inadequate research has explored the link between trauma, cognitive development and the interventions that are effective in helping affected children. Some of the reasons for such a lack are: methodological and conceptual issues in defining and monitoring the impact of trauma; the absence of a suitable measure for assessing outcomes of interventions for children in care; and the need to better integrate neuroimaging and neuropsychological studies into a program of research that tracks cognitive development over time. The research in this area is conceptually under-developed. The attempts to explore the aftermath of different types and subtypes of abuse and trauma on brain development have been inconclusive (McLaughlin et al., 2014; Wall et al., 2016). This is unsurprising, as many children have experienced multiple forms of abuse and neglect, but the research is still universally inadequate. Despite this, the research has typically used the abuse subtypes as selection criteria. Recently a dimensional model based on childhood experience has been proposed. In the model, the children who have predominantly experienced deprivation are distinguished from those whose predominant experience has been of uncontrollable danger. This could help with better understanding children's expected and required needs. It also makes intuitive sense: experiences of deprivation indicate the need for interventions that focus on intensive learning and input whereas experiences of uncontrollable danger may be better addressed through intervention targeting safety and cognitive integration (McLaughlin et al., 2014). Unquestionably, the dimensional model of childhood adversity could lead to new insights in the aforesaid area.

The existing research focused on the transpiration of trauma among children and its ramifications on their cognitive growth is methodologically under-developed. It relies on

categorical, cross sectional and retrospective designs: this makes it difficult to disentangle the relative contribution of trauma and adversity, pre-natal influences, genetics complexities, mental health issues, and normal developmental changes in brain development (Pineau et al., 2014). This means that there is still relatively little empirical information about how the impact of abuse depends on the developmental stage(s) at which it occurs, or about which regions of the brain are vulnerable at different stages of development (McCrory et al., 2011). Such questions can only be answered by developing longitudinal research designs. Further, there is also a lack of rigorous evaluation of interventions for affected children. One reason for this is that there is no single screening tool that can capture the full range of cognitive and behavioural difficulties found among children in care (De Jong, 2010; Oswald et al., 2010; Perry & Dobson, 2013; Schmid et al., 2013; Tarren-Sweeney, 2010; Van der Kolk et al., 2009). This makes it difficult for services to capture the cognitive difficulties that children experience and to evaluate if cognitive interventions lead to an amelioration in children's functionality.

Studies that address the relationship between trauma and cognitive development generally take the form of either neuroimaging studies or neuropsychological studies. Neuroimaging studies focus on the growth of important brain structures, and on how efficiently the brain responds to emotional stimuli. Studies in the field of neuropsychology use performance on well-established tasks to infer brain functioning (McCrory et al., 2010; McCrory et al., 2011). Collectively, the paper suggests that the brain development of children in care is likely to be affected in some way by their early experiences. The neuropsychological impact of adversity can vary widely, however, and not all children that experience adversity go on to develop difficulties related to learning, memory and attention. The impact of adversity on brain development depends whether children primarily have experienced traumatic experiences during their pre-care life. It results in either delayed cognitive development or dis-integration of cognitive skills (McLaughlin et al., 2014). This area of research is not well developed and is conceptually and methodologically underdeveloped. For instance, antenatal alcohol exposure frequently affects later cognitive functioning (McLean & McDougall, 2014; McLean et al., 2014), but studies of children in care rarely report on history of antenatal alcohol exposure.

It has been observed that trauma and adversity usually lead to a hyper-arousal of the hypothalamic-pituitary-adrenal axis that results in the changes in brain development. In reality, this is almost certainly an oversimplification of the relationship between trauma and the stress hormone system (Frodl & O'Keane, 2013; McCrory et al., 2011; McLaughlin et al., 2014). Although there is consensus that early stress leads to an ongoing dysregulation of the body's HPA axis stress response system (McEwan, 2012), the exact nature of this dysregulation is debated (Frodle & O'Keane, 2013; McCrory, De Brito & Viding, 2010; Sapolsky et al., 1996). The research findings suggest that the stress response system can either become chronically over-activated or under-responsive over time (Frodl & O'Keane, 2013; McCrory et al., 2011; McEwan, 2012; McLaughlin et al., 2014) in response to a complex mix of factors that are currently vague. Therefore, while the findings support the idea that childhood trauma is associated with a disruption in the HPA axis response, they do not uniformly support the idea of chronic hyper-activation. Although dysregulation of the stress response system is associated with changes in the development of key brain structures, the association is not as straightforward. At present, the evidence in support of the link comes predominantly from the studies of adults that retrospectively report the history of abuse rather than from the normal studies of children. The precise relationship between timing, nature of adversity and impaired brain development is blurred, and it can only be determined through the ongoing longitudinal research (McCrory et al., 2011).

Most of the trauma studies investigating the relationship between trauma and changes in the development, regulation and responsiveness of a child's brain over time are based on studies of adults who report a history of childhood abuse rather than studies that track children's development over time (McLaughlin et al., 2014; Teicher et al., 2012). Contrarily, neuropsychological studies generally provide solid evidence for the link between trauma and neurological function. Neuropsychological studies are more useful than neuroimaging studies in assessing children's everyday functioning because they provide more direct insight into the difficulties that children experience. On the whole, neuropsychological studies tend to show that children who have experienced or witnessed violence, trauma, abuse or neglect experience more cognitive difficulties as compared to children who haven't experienced these adversities (McCrory et al., 2011; McLaughlin et al., 2014). For instance, children exposed to neglect are more vulnerable to general delays in cognitive and language development (De Bellis et al., 2009; Hart & Rubia, 2012; McLaughlin et al., 2014). Neglected children and poverty afflicted victims are comparatively at higher risk of general cognitive delay than those exposed to abuse (Hilyard & Wolfe, 2002; McLaughlin et al., 2014). Among the abused children, increasing severity of abuse is associated with less intelligence and creativity (Carrey et al., 1995; Hart & Rubia, 2012; Prasad et al., 2005; Pollak et al., 2010). These studies don't generally control other factors that can affect IQ scores such as education level and presence of Post-traumatic Stress Disorder (PTSD) or depression. It means these findings can't necessarily be generalised to all child victims in care. In other words, the evidence suggests that there are multiple factors such as neglect and poverty which affect general intelligence development.

The presence of PTSD affects cognitive execution. Studies show that children with PTSD subsequent to abuse have lower verbal intelligence quotient (IQ) when they are subjected to assessment. It suggests that the presence of PTSD rather than abuse itself is more relevant (Saigh et al., 2006; Hart & Rubia, 2012). One of the trauma studies has examined the relationship between IQ and exposure to domestic violence, using an ample sample of twins to tame genetic influences on IQ (Koenen, et al., 2003). In this study, exposure to domestic violence was observed linked to less IQ. That's the more severe the traumatic exposure, the bigger the repercussion. The IQ scores of tested children exposed to domestic violence were found eight points lower than those of the children who were not exposed to violence after controlling the effects of genetics and other forms of maltreatment (Koenen et al., 2003). This suggests that the history of exposure to violence and PTSD have arcane influences on cognitive development. The next corollary has been observed as the loss of memory. There is reasonable evidence that memory is affected by trauma and adversity. The brain structures that are associated with memory consolidation have been found to differ in adults (but not among children) who report a history of abuse. For example, adults with the history of abuse have been shown to have smaller hippocampal volume – an area of the brain associated with memory consolidation (Hart & Rubia, 2012; McLaughlin et al., 2014; Teicher et al., 2012). As compared with non-abused children, abused children reflect less effective activation of this area of the brain during a memory recall task (Carrion et al., 2010; McLaughlin et al., 2014). Neuropsychological studies of children also support the idea that memory is affected by the exposure to trauma and other adversities. Trauma studies of children who have been diagnosed with PTSD in the context of abuse also suggest that the afflicted experience memory difficulties, but the findings depend on the way memory is measured. Some of the studies have found no difference in memory performance between children with and without abuse (Beers & De Bellis, 2002) whereas the other studies that practised regular tests of memory reveal that children with PTSD have shoddy memory as compared with those without PTSD (Yule & Dalgeish, 1999). It has been observed that children who have

experienced abuse-related PTSD, have difficulty with a wide range of memory tasks (Cicchetti et al., 2010; De Bellis et al., 2002; McLean & Beytell, 2016).

The reverberation of trauma among children is linked with social and emotional information that is processed differently. The area of brain (mygdale) associated with the automatic processing of emotional information, has been shown over-responsive to emotional stimuli in some of the trauma studies (McCrory et al., 2011; McLaughlin et al., 2014; Pollak et al., 2001). Traumatised children make angry faces more quickly than non-traumatised children (McLaughlin et al., 2014; Pollak & Sinha, 2002). The children who have been exposed to traumatic conditions also have less thickness in mygdale responsible for emotional processing of social information (De Brito et al., 2013; Kelly et al., 2013; McLaughlin et al., 2014), and it suggests that mygdale is less developed in affected children as compared to non-abused children. Further, there is also evidence that executive functioning difficulties can develop as a result of early adversity. Executive functioning is a coordinated set of cognitive skills that include two broad domains: metacognitive skills (planning, organisation, and cognitive flexibility) and skills of behaviour regulation including response inhibition and emotional regulation (Goia et al., 2002).

The next affected area is that of metacognitive skills. Neuropsychological research suggests that children who have experienced neglect and physical abuse can experience problems in auditory attention and cognitive flexibility including problem-solving and planning (Nolin & Ethier, 2007). Children with abuse-related PTSD have been found extensively insignificant in attention and executive function as compared to children who were never subjected to maltreatment. The affected kids made more errors in tasks of sustained attention, and they were more easily distracted and more impulsive than their matched peers (De Bellis et al., 2009; Nolin & Ethier, 2007). The study has next found that experiencing PTSD in the context of familial trauma has more severe impact on executive functioning than non-familial trauma (DePrince et al., 2009). As compared to safe children, emotionally neglected children have impecunious psychic functionality during tasks that require inhibitory control which indicates that neglect is associated with poor ability to self-regulate and inhibit responses (Mueller et al., 2010; McLaughlin et al., 2014). This is also resistant to intervention (McLean & Beytell, 2016).

The present research suggests that affected children are more likely to experience cognitive difficulties due to trauma and PTSD. Additionally, an advanced research is required to explore the impact of the timing of abuse; familial or non-familial trauma and to detect whether cognitive difficulties are due to abuse itself or the PTSD that arises due to traumatic experiences. In the research, PTSD is commonly linked with cognitive functioning which necessitates an urgency to address cognitive vulnerabilities among children showing signs of PTSD. In general, the evidence based on abuse and cognitive impairment is not as strong as it is for other factors including the impairment arising from foetal alcohol syndrome (McLean & McDougall, 2014). Taking into consideration the range of factors impacting cognitive development, the broader literature on cognitive functioning among children in care suggests several areas that can be affected by childhood adversity. As a whole, the literature suggests that children in care are likely to experience debatable executive functioning, difficulty regulating arousal levels in response to emotional and sensory stimulation, difficulty with attention and memory, distinct patterns of social information processing, reactivity to sensory stimuli, disruptions to sleep and rest, compromised language development including difficulty in the grasp and social use of language despite apparently adequate verbal abilities (Cook et al., 2005; De Lisi & Vaughn, 2011; Lansdown et al., 2007; Mc Crory et al., 2010; McLean & McDougall, 2014; Noll et al., 2006; Ogilvie et al., 2011; Perry & Dobson, 2013.)

The paper further underlines some suggestions that could be useful in supporting the development of cognitive skills in children who have been exposed to trauma and other

adversities. The suggestions are based on the empirical research methodology implemented in the paper. There is relatively inadequate research on interventions to support the recovery of cognitive skills in children affected by trauma and adversity (McLean & Beytell, 2016). Studies have started to include ameliorations in cognitive skills as a part of outcome measurement (Pears et al., 2013; Tordon et al., 2014). Consequently, the existing knowledge is limited though the field of trauma studies is an emerging one. The National Child Traumatic Stress Network has produced practice guidelines for addressing trauma as it emphasises the importance of providing physical and psychological safety for children, creating and maintaining safe, positive and stable relationships among parents, children, caretakers and concerned authorities, supporting the child to develop emotional regulatory skills, and enlisting coordinated support and self-care for personal and professional stress. It has been observed that the guidelines are useful for supporting recovery of traumatised children, but they do not necessarily address the other needs that children require in out-of-home care. The next guiding principles are aimed to support the cognitive development, to respond to the diverse experiences of children in care. These experiences include neglect, antenatal substance exposure, disrupted relationships, unfamiliar incidents, threatening environments, unexpected invasions and complex mental health issues (DeJong, 2010; Zilberstein & Popper, 2014).

The six principles for supporting the cognitive development of children in out-of-home care are observed to: provide safe environments and rich experiences that stimulate and enrich brain growth, support children and caregivers to understand the link between traumatic events and cognitive difficulties, develop and support positive relationships and connections in children's lives, maintain targeted interventions throughout childhood and adolescence, offer targeted and trauma-specific interventions to all affected children, ensure that specific cognitive difficulties are addressed directly.

The cognitive development will be supported by stable caregiving. An uninterrupted caregiving will support brain development by fostering psychological safety. The experience of psychological safety reduces the need to engage in constant vigilance, enabling children to make the most of learning and developmental opportunities. There are often barriers for children who need psychological safety. It is important not to equate physical safety (resident care) with psychological safety which may take time to get developed. Children may not experience psychological safety when they are placed in care homes due to the belief that adults are dangerous. Out-of-home care environments also inadvertently undermines psychological safety through adjustment with strangers or other abusive children, placement in volatile residential care facilities or placement without sufficient transition planning. Children placed with people whose behaviour is frightening or dangerous may not experience the necessary psychological safety, Thus, their capacity for new learning will be diminished.

The carer takers and the child victims need a full-fledged understanding of the difficulties the sufferers encounter. An explanation for deficits in learning, organisation skills and memory can empower both children and caregivers if it leads to more realistic self-identity and a more optimistic outlook on the possibility of learning new skills. Linking pre-care experiences and poorly developed cognitive skills can help carers to persist in the face of challenging behaviour. The social support for the caregivers is also an important way to support the child victims. The caregivers who raise children with cognitive difficulties can experience significant strain that can impact on their emotional availability and the quality of the care they provide (Octoman & McLean, 2012). The caregiving has been observed vital to recuperate children's cognitive functioning (Dozier et al., 2012; McLean & Beytell, 2016). The foster parents trained in the program focused on responsive caregiving, were able to improve cognitive skills such as perspective-taking in children (Sprang, 2009). The emotional regulation has been linked to children's capacity for cognitive flexibility which is de facto an

ability to rapidly respond and adapt to changing circumstances in children exposed to intimate partner violence (Samuelson et al., 2012). Further, it is also unearthed that positive parenting is linked to children's capacity for organisation and planning which suggests that children's interaction with caregivers can be central to the development of their cognitive skills though they are victims of neurotic trauma.

It has been exposed that any transfer of a traumatised child victim should ensure the child's safety, his/her connect with positive influences and relationships in the home, school, and broader community. The positive family functioning, safe living environments and positive relationships in school and community are likely to facilitate cognitive development. A special attention is required to maximise the positive aspects of family contact or to protect the child from ongoing exposure to trauma due to domestic violence. The proper placement stability will ensure continuity of relationships and a necessary foundation for recovery through facilitating predictability and safety. The certain placement stability will increase the likelihood that there is a person who understands well the impact of trauma on the child. Such a caregiver can help the child, the child's statutory caseworker and other significant players to make sense of how trauma and adversity have affected the child, and what the requirements to move forward the case are. Interventions with young children in care demonstrate that continuous, consistent and responsive caregiving can change brain stress hormone levels (Dozier et al., 2008; Dozier et al., 2009) and improve their capacity for self-regulation (Pears et al., 2013). A positive and stable connection with education services is also important. The child's school can provide an environment in which intensive and continuous interventions can be delivered. A program that has combined 'foster parent training' and 'school-based training' that focussed on literacy and self-regulation skills shows that consistency in approach between the foster parents and the school has resulted in the improved behaviour, inhibitory control and emotional regulation in young children (McLean & Beytell, 2016; Pears et al., 2013). It is suggested that schools should offer the stability and continuity which is needed to address some specific difficulties (McLean & Beytell, 2016; Tordon et al., 2014).

Now-a-days the opportunity for addressing underdeveloped cognitive skills is greater than the previous times. The children aged between 14 to 16 are the most affected victims of abuse (McCrory et al., 2011). It implies that the brain is malleable, and it can be benefitted from the targeted interventions. The executive function skills get matured over a more prolonged period than the other cognitive skills (Hedges & Woon, 2011; Pechtel & Pizzagalli, 2010). It reflects that there is a long period of time during which interventions are possible. There is evidence that trauma-specific interventions can undoubtedly improve the aspects of cognitive functioning (Matulis et al., 2013). It contradicts the often-expressed view that it is difficult to support older children. Longitudinal research is still needed to clarify the exact windows during which targeted interventions may be most effective, but there is every reason to believe that improvement in discrete cognitive skills such as memory and attention is possible for most children throughout adolescence.

It is explored that the children in care experience neglect, trauma and adversity. There is an urgent need to develop tailored interventions for the difficulties faced by the afflicted children. In the meantime, the children in care should be offered interventions based on the best current evidence that target trauma symptoms and cognitive skills. The targeted strategies can include: Trauma-Focused CBT (Cohen et al., 2011); Dialectical Behaviour Therapy (Matulis et al., 2013); and interventions that focus on the development of specific cognitive skills (Rasmussen et al., 2010). At present, Trauma-Focused CBT is the approach that has most empirical support (Cohen et al., 2011). This trauma-specific intervention has also been observed to improve the broad aspects of executive functioning such as cognitive skills and emotional regulation (Cohen et al., 2011; Matulis et al., 2013). Therefore, until

more tailored interventions are developed for the complex needs of children in care, trauma-specific therapy should be offered as part of the support plan for children who have been exposed to traumatic events. Ideally, this input will occur in the context of a trauma-aware organisational framework (Wall et al., 2016).

It has been observed that children in out-of-home care will experience some degree of cognitive difficulty and discrete trauma symptoms depending on their respective experiences. Although safe and consistent caregiving will create the necessary conditions for recovery, it is not sufficient to meet the needs of many children. Studies of children in care and related populations including children with neurodevelopmental issues or acquired head injury (Melby-Lervag & Hulme, 2013), children affected by fetal alcohol spectrum disorders (McLean & McDougall, 2014), and children with PTSD – all suggest that cognitive skills can be improved with specific and targeted interventions delivered in the context of a safe and nurturing relationship. Caregivers also need to provide a structured and predictable environment in order to accommodate children with cognitive vulnerabilities. A recent review (Melby-Lervag & Hulme, 2013) of interventions for children with neurodevelopmental difficulties suggests that it is beneficial to develop specific approaches to address cognitive difficulties such as poor memory, attention, or language skills. In this context, deferred speech and underdeveloped vocabulary mean that affected children struggle with verbally mediated counselling approaches (such as narrative therapies and restorative justice approaches) that rely on oral language competence. Children get benefitted from the use of simple language, the repetition of key concepts, visual strategies such as cartoon social stories and visual prompts to support the comprehension of ideas from therapy or discussions with caregivers.

It is also further unearthed that children often struggle with adapting behaviour to suit different settings, to transition from task to task, and to plan, initiate or complete school work. The children with this kind of difficulty can benefit from highly structured environments where expectations are transparent. They can benefit from prompts to stay on task and the use of pre-arranged strategies to let them know when a transition is pending. These can include advanced warnings, timers, and visual cues (such as paper chain links, a timer to count down to the end of an activity). The difficulty with behavioural regulation and impulsive control can be supported by the use of prompts to remind the child to monitor its behaviour. The visual cues and reminders of the steps between impulse and action can also be accommodating. The children in care can experience a range of difficulties related to the ability to identify, recognise, experience, tolerate and to express emotions. Depending on the difficulty, children can benefit from training in the recognition of emotions and support with learning the names of emotions to increase their emotional literacy. The positive role modelling is also an important method by which children can learn socially acceptable ways to experience emotions. The children who have experienced trauma have difficulty in fully experiencing some emotions. Therefore, providing an environment in which the child can begin to safely experience such emotions will be advantageous. If caregivers can tolerate trauma-related emotions, then children can learn that it is safe to express these emotions over time. The interventions such as Dialectical Behaviour Therapy that support children and adolescents to tolerate strong emotions are helpful. They can lead to improvements in self-control over time (Bohus et al., 2009; Steil et al., 2011; Matulis et al., 2013).

The children having learning difficulties don't comply with instructions. Sometimes, they are wilfully disobedient. Caregivers need assistance in adapting the way that they can give instructions and make requests to children. Caregiver need support with strategies to gain children's attention prior to engage them in conversations. Rehearsal and repetition techniques can improve children's difficulties with attention and short-term memory (Loomes et al., 2008; Manji et al., 2009). Verbal memory can be strengthened by instructing

children and caregivers in the use of written reminders, cue sheets, diaries and electronic reminders. The computerised programs have been detected to ameliorate memory and attention skills in clinical populations. The Amsterdam Memory and Attention Training for Children program (Rasmussen et al., 2010) have shown promising results although they have not yet been evaluated with children in care settings. Children's automatic reaction to social stimuli is likely to get biased towards fear or hostility. Caregivers can support children in re-appraising social situations by teaching and modelling the appropriate reactions to social situations. This way, they will develop trust in other adults and model appropriate social interaction skills. Children can sometimes display poor social discrimination leading to poor choices regarding social interactions. The appropriate social boundaries can be reinforced using visual teaching aids such as circle diagrams that can be used to distinguish family from non-family and friends from strangers. There is also evidence that computerised programs that target social anxiety may be helpful in addressing eye contact aversion in children and adults (Steil et al., 2011).

It has been found that children experience PTSD symptoms after they encounter upsetting incidents in which sensory information and emotions become disconnected. Later reminders of trauma can cause fragments of the memory or sensations associated with the out of context trauma. The child victims will learn to avoid reminders of traumatic events in an attempt to avoid experiencing unpleasant emotions associated with trauma. PTSD symptoms can be minimised by providing the opportunity to children for talking about unpleasant events, thoughts and feelings. During trauma therapies, children are encouraged to learn to recognise and tolerate the strong emotions associated with trauma. This helps minimise avoidance and other symptoms over time. The child victims can find it encouraging to know that an adult can tolerate their strong emotions without becoming overwhelmed. The aforementioned therapies and some more apposite relaxation trainings and mindfulness strategies can also be helpful to calm heightened revivifications and to tolerate strong feelings associated with the past harrowing events. Moreover, the sleeping strategies are also unquestionably significant to normalise heightened flashbacks and disturbed sleep-wake cycles of child victims.

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