Risk of Post Traumatic Stress Disorder (PTSD) in Children Living in Foster Care and Institutionalised Settings

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Abstract

There is a growing body of research on children living in foster care and other institutionalised settings. Impacted by early separation, neglect and abuse, these children often show symptoms of Post Traumatic Stress Disorder (PTSD). Early institutionalisation is known to alter brain development and disrupt patterns of attachment with subsequent decreases in ego-resilience and an inability to cope with trauma. Through a literature search, this article aims to review papers on children living in institutionalised and foster care settings and its association of being at an increased risk of developing PTSD symptoms as compared to those who are raised at home in a family environment. The search was conducted on published literature between the years 1980 to 2013 (present). The databases searched ranged from Science Direct, Pub Med, ERIC, and the University of Edinburgh online library. All papers reviewed reflect a significant relationship between institutionalisation, abuse and neglect. Furthermore, some papers highlight a correlation between the above variables and risk of developing symptoms of PTSD in children. Results in most studies indicated that children raised in institutions were more likely to develop mental disorders as compared to those who were raised at home. However, at the same time most studies did not touch upon the direct association of PTSD and institutionalisation. Post-Traumatic Stress Disorder (PTSD) is associated with functional abnormalities of the hypothalamic-pituitary-adrenocortical (HPA) axis. This system is known to play a role in normal stress reactions. Evidence from the reviewed articles suggests that early abusive and neglectful care may disrupt the HPA axis in young children, thereby increasing stress responses and making them more susceptible to processing information and situations as threatening. This review highlights the need for future research to examine further, the relationship between institutionalisation and symptoms of PTSD in such children.

Keywords: Institutionalisation, children, foster care, institutionalised child care, PTSD, trauma, neglect, abuse and attachment.

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Introduction

Institutionalisation is the placement of children in institutions, such as orphanages and residential child care. On the other hand, foster care is the term that is used for a system where a child is placed into a ward, group home or a private home. Placing children in either one of these systems during early critical development periods for long durations is very often associated with developmental delays due to environmental deprivation, lack of early childhood stimulation and poor staff to child ratios. The detrimental effects of institutionalisation were first highlighted in the 1990s when Romanian orphanages attracted the attention of the media and researchers because of the devastating and impoverished conditions in which the children were placed (Johnson, 2000 as cited by Johnson, Browne and Hamilton, 2006). The effects of this deprivation acted as a natural experiment and provided researchers with an opportunity to investigate whether the effects of such institutionalisation could be reversed if these children were put under family based care. Ever since, the research on the impact that foster care and institutionalisation has on young children has been on the forefront. A systematic review conducted by Johnson et al. (2006) highlights how young children placed in institutions are at risk of harm. A review of 27 studies, this systematic review provided conclusive evidence underlining how exposure to institutional care in the absence of a primary caregiver puts these young children at risk of poor attachment patterns and poor social, behavioural and cognitive development when compared to children under family based care. The review presented a clear and detailed account of the impact of institutional child care on the development of children. However, vulnerability of these children to developing mental disorders like Post Traumatic Stress Disorder (PTSD) wasn't explored in detail. PTSD as described by the American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders (APA, DSM IV, 1994) is a constellation of symptoms that stem from exposure to threatening or frightening

experiences leading to re-experiencing of those traumatic memories, lowering their resilience to cope against future stressors and causing clinical impairment in significant areas of functioning. The association between childhood maltreatment, abuse and neglect and risk of developing PTSD or symptoms of the same has been under significant scrutiny in the recent years. PTSD is known to develop due to functional abnormalities of the Hypothalamic-Pituitary-Adrenocortical (HPA) axis (Gunnar and Vazquez, 2006, cited in Gunnar and Tarullo, 2006). This system is known to play a role in normal stress reactions that may get disrupted during early years of neglect and abuse. Therefore the goal of this article is to provide a review of the literature on the association between institutionalisation and the risk of developing PTSD and its related symptoms in these children.

Review of the Past literature on PTSD and Institutionalised Children

The current review was conducted on published literature between the years 1980 to 2013. The databases searched ranged from Science Direct, Pub Med, ERIC, and the University of Edinburgh online library. The key search terms included: institutionalisation, children, foster care, institutionalized child care, Post Traumatic Stress Disorder (PTSD), trauma, neglect, abuse and attachment. This review studies the difference between institutionalised children and children brought up in a family environment with regard to the development of PTSD symptoms either as children still living in institutions or as adults (post-institutionalised). The propose of this review is to encourage future research to develop interventions and strategies that can focus more on the emotional needs rather than only fulfilling physical needs of a young child to reduce the potential for trauma that arises from this early separation and deprivation (Browne, 2002 as cited by Johnson et al., 2006).

Most children in institutions or children homes are not orphans. They either have one or both parents alive. These children with a history of maltreatment such as neglect, who also endure the trauma of being separated by their caregivers at an early age, are susceptible to mental disorders like PTSD (Racusin, Maerlender, Sengupta, Isquith and Straus, 2005). A few studies have indicated that at least half the children in foster care have a tendency to experience one or more mental disorders and about 63% are victims of neglect (U.S. DHHS, 2007 as cited by Bruskas, 2008). Substantiating the above statistics, a cross sectional study conducted by Leenarts, Verneiren, Van de ven, Lodevijks, Doreliejers and Lindauer (2013), examined (using structural equation modelling) the relationship between exposure to early-onset interpersonal trauma, symptoms of PTSD, symptoms of complex PTSD and other mental health problems. The sample was a population of 92 girls recruited from 3 residential treatment facilities. Twenty-nine percent of the girls reported that they had experienced at least one interpersonal traumatic event before the age of 5, and all girls except one reported an experience of interpersonal trauma after the age of five. To assess the symptoms of PTSD, the posttraumatic test subscale of the Trauma Symptom Checklist for Children (Briere, 1996) was used. The results of Pearson's correlations between the variables modelled in the structural equation model indicated that exposure to early-onset interpersonal trauma was directly related to mental health problems and symptoms of PTSD mediated the relationship between the two. These findings are consistent with current insights on girls in compulsory care, which posits that when these institutionalized girls suffer from symptoms of PTSD, this also involves other substantial mental health problems that may go onto affecting them in the long term (Ford, Chapman, Connor and Cruise, 2012, as cited by Leenarts et al., 2013). However, the study does have a few limitations that should be kept in mind while interpreting the results. Being cross sectional in nature, this study does not allow any inferences to be made. Along with that, the small sample size for interpersonal trauma prior to age of 5 years

(29%) may limit the interpretations as well. Finally, all reports on trauma were self-reports by the participants, making room for social desirability bias (Leenarts et al., 2013).

Effects of institutionalization spill over to later years as well, as seen in post-institutionalized adults. Documenting the adult adjustment of survivors of childhood institutional abuse in Ireland, a study conducted by Carr, Dooley, Fitzopatrick, Flanagan, Howard, Tierney, White, Daly and Egan (2010), interviewed 247 adult survivors of institutional abuse with a mean age of 60 years. The protocol included the Childhood Trauma Questionnaire, modules from the Structured Clinical Interview for Axis I Disorders of DSM IV and the Trauma Symptom Inventory (TSI-I). Results indicated an 80% prevalence of psychological disorders amongst the adult survivors of institutional abuse as compared to another study (Wolfe, Francis and Straatman, 2006) of a group of 76 Canadian adult survivors of institutional abuse, where the prevalence of a DSM IV psychological disorder was 88% (sometime in their lives) and 59% (current disorder). In both the studies, PTSD, Alcohol and Mood Disorders were the most common. These adults also had higher rates of trauma symptoms and disordered patterns of attachment. Child maltreatment i.e. abuse (physical, sexual, emotional) and neglect has been known to have significant long-term effects as validated by the above study. In the systematic narrative reviews by Springer, Sheridan, Kuo and Carnes (2003), the paper has substantiated the same by providing evidence that child abuse and neglect have a profound negative impact on adult physical and mental health and their psychosocial adjustment. Focusing on the study by Carr et al. (2010), its principal limitations mainly related to the non-representativeness of the population, the retrospective nature of the childhood data and the reliance on interviews for interpretation of results that increased the scope of bias in the study.

One of the endeavours of the present article was to review studies investigating the difference in the prevalence of Post Traumatic Stress (PTS) symptoms in children living in

institutions/ foster care as compared to those living at home. A study conducted (Kolko, Hulburt, Zhang, Barth, Leslie and Burns, 2010), aimed to examine the extent and correlates of PTS symptoms in a nationally representative sample of 1,848 American children and adolescents, aged 8 to 14 years. These children were referred to the child welfare for investigation of neglect and abuse based on the National Survey of Child and Adolescent Well-Being. The scale used to measure the severity of the PTS symptoms was the subscale of the Trauma Symptom Checklist for Children. Results highlighted an overall prevalence rate of 11.7%. After comparing the two variables (out of home care and in home care), the prevalence of PTS symptoms was higher in children who were placed in out-of-home care (19.2%) as compared to those maintained at home (10.7%). In the full sample, the four main contributors to the heightened PTS symptoms were younger aged, abused by a non-biological perpetrator, and levels of victimization and childhood depression. The study underlined how younger children were more susceptible to heightened PTS symptoms as compared to adolescents. One such reason that can be attributed to this difference is the Cognitive-Developmental Models of PTSD (Salmon and Byrant, 2002, Kolko et al., 2007) that highlights how younger children have fewer and weaker protective mechanisms to manage and interpret their traumatic experiences, and cognitive-affective regulation and peer support groups do not develop fully well till adolescence. The findings of another study (Stone, 1999) also present reasoning to the above difference by identifying a strong association between exposure to violence and internalizing symptoms in younger children (6^{th} graders) as compared to older children. However, the study (Kolko et al., 2010) is not devoid of limitations and therefore merits consideration. To begin with, the type of maltreatment that resulted in investigation was based on an allegation and was not necessarily confirmed. Also the cross sectional nature of this study precludes any definitive conclusions about the prediction of the heightened post-traumatic symptoms.

The studies reviewed have mostly examined the implications of institutional and foster care maltreatment, abuse and neglect on children and adolescents placed there. Indeed, there are institutions that increase resilience in children by providing them a more secure environment and therefore, prevent the development of mental health problems. However, whether or not these children experience maltreatment in the institution, the children come with undesirable pasts (Racusin et al., 2005 as cited by Bruskas, 2008). To begin with, they are placed in such institutions after separation or neglect, which in itself is a traumatic experience. Early parental separation and neglect and then institutionalization does have a negative impact on these young children. Thus, even witnessing abuse affects them greatly as their resilience (towards stressors) is low from birth. Supporting the above, studies have shown that the rate of maltreatment (physical, emotional, sexual or even witnessing the same) is as high as 49% in institutions and that exposure to such abuse and violence even if it is being witnessed can contribute to heightened PTS symptoms (Stein, Zima, Elliot, Burnam, Shahinfar and Fox, 2001).

The preceding paragraphs in this article reviewed papers that discussed the interplay of institutionalization and mental health outcomes, primarily PTSD. However, it is also important to investigate how PTSD and its related symptoms develop in these young children, adolescents and adults (who were once institutionalized) so that accurate associations can be formed for future research. The age of the child is a highly deterministic factor in observing the effects of institutionalization. As seen above from the results of various studies, the effects of institutionalization are measurable. Reverting to the study on the Romanian Orphanages, the English and Romanian Adoptees (ERA) Study Team compared children adopted from Romania before the age of two years with children adopted before 6 months of age. The researchers found severe developmental impairments in half the sample of children placed into permanent families before the age of 2 years. However

children adopted before the age of 6 months were physically and cognitively similar to a sample of children in the United Kingdom living under family based care (Rutter and The English and Romanian Adoptees Study Team, 1998, cited in Johnson et al., 2006).

Post Traumatic Stress Disorder (PTSD) is associated with the dysregulation of the Hypothalamic- Pituitary- Adrenal (HPA) axis. This dysregulation is known to be an important etiological link between child maltreatment and subsequent psychiatric disorders like PTSD; however, the research available on outcome and exposure is not robust. This may be due to the fact that in PTSD, the timing of the stressful experience and the type of the trauma influences the outcome to a great deal (Shea, Walsh, MacMillan and Steiner, 2004). The HPA axis is one of the three major systems activated as a part of the stress response (Bremner, Vythilingam, Vermetten, Adil, Khan, Nazeer, Afzal, McGlashan, Elzinga, Anderson, Heninger, Sothwick, and Charney, 2003). During acute stress, biochemical responses occur, increasing secretion of hormones, primarily cortisol (Chrousos and Gold, 1992). This helps an individual to cope with stress but can be extremely detrimental during times of extreme stress that occur during early periods in life (child sexual abuse, child physical abuse, emotional abuse and neglect). A number of researchers (Kessler, Davis and Kendler, 1997; Kendler, Bulik, Silberg, Hettema, Myers and Prescott, 2000; Heim, Newport, Bonsall, Miller and Nemeroff, 2001 as cited by Shea et al., 2004) have associated the above traumatic experiences with PTSD. This is one primary reason why institutionalization during the early years of a child is more detrimental as compared to later years. There are a number of animal models that have showed the harmful effect of early separation and prolonged maternal separation in rats and mice (Plotsky and Meany, 1993). Findings suggested that when these species were separated from their mothers for a period of two to three weeks, it produced increased HPA axis responses to stress in adulthood. Another study in Russia and Eastern Europe found that institutionalized toddlers have high cortisol levels during the

morning indicating elevated stress levels (Carlson and Earls, 1995 as cited by Tarullo and Gunnar, 2006). Despite the fact that alterations in HPA function associated with child maltreatment are likely to be detrimental in the long run, they were initially adaptive responses. Therefore for a maltreated child, the elevated cortisol levels may be adaptive in terms of coping with a chronically stressful situation of having a maltreating caregiver or disruptive environment but at birth the same HPA axis is extremely immature and the developing brain circuits are only shaped by early experiences (Gunnar and Vazquez, 2006). This is the reason why infants and toddlers when institutionalized have more long terms negative effects due to stressful and traumatic events, invariably reducing their resilience towards developing mental health problems like PTSD.

Effects of Institutionalization on Children in the Indian Setting

Children and adolescents in child care institutions in India are just as much at risk if not more for developing mental health problems like other institutionalized children are across the world. A study by Suman (1986) examined the mental health status of 300 institutionalized children because of lack of parental care in India. These children were then compared to 150 children from low-income families. Their mental health was evaluated using the scale developed for the assessment of 16 indicators of mental health. Results indicated poor mental health seen more in institutional settings, with 33% of them having behavioural problems and these mainly related to parental deprivation and early life institutionalization. Similarly other studies from India have shown the need for early stimulation of children and infants in institutions in India (Suman, 1986; Sharma, 1989 as cited by Taneja, Sriram, Beri, Sreenivas, Aggarwal, Kaur and Puliyel, 2002). Despite being aware of the concept, little efforts are being made to stimulate children in orphanages. One such reason is that caregivers

of these orphans in institutions are under great pressure to cater to their physical needs that all other social and emotional needs are sidelined.

A study by Taneja et al. (2002) was the first of its kind to develop an intervention programme of structured play, hypothesizing that such an intervention would accelerate psychosocial development. The results of the study did prove the hypothesis. Therefore, the above studies have serious implications for future research and practice. Once established, these interventions can be incorporated into the regime of caregivers, social workers and children. Apart from this, future research specifically in India needs to carry out more studies on mental health outcomes of institutionalization with respect to PTSD and symptoms of PTS, so that interventions can be developed accordingly and are culture specific at the same time.

Implications for future research:

A paper synthesized by Delilah Bruskas (2008) reveals foster care outcomes by reviewing past literature on the same and specifically explored notions of oppression and domination (as defined by Young, 1990). The paper finds that most children in foster care, if not all experience feelings of confusion, fear, apprehension of the unknown, loss, sadness, anxiety and stress. Whether an infant, child or adolescent is placed in foster care through the child welfare system or through a relative, he or she shares many similarities. These may be; absence of parents (biological or primary caregiver), experiencing of pain and confusion, having a social worker, living away from home and so forth. According to Young (1990), these shared characteristics are qualifications for what defines a collective group of people and these children face domination or oppression if they face one of the five conditions; exploitation, marginalization, powerlessness, cultural imperialism and violence. As per

Bruskas (2008), children living in foster care and institutions meet not only one, but all five criteria. “The powerlessness of children in foster care is dramatically increased when information and knowledge about their future is withheld.” (Young, 1990). The above statement calls out for the need for systemic foster care orientation. Interventions that address children’s experiences and feelings associated with institutionalization and foster care are needed (Leslie, Gordon, Lambros, Premji, Peoples and Gist, 2005, as cited by Bruskas, 2008). Research has gone a long way in focussing and identifying socio-demographic factors linked with institutionalization, but at the same time basic known factors associated with the effects of institutionalization are ignored. This refers to orientations for children placed in such institutions. They should be educated about foster care and their relationship to the foster care and institution they are placed in. Such orientations or anticipatory guidance helps children with their questions, legitimizes their traumatic experiences and let them know what they could expect while they are under this particular care. In the absence of such interventions, some children struggle alone to make sense of their surroundings. Bronfenbrenner (1979) defines development as an evolution of change that involves how one interprets their environment. He emphasises on the fact that human development relies more on how the environment is perceived rather than how it exists in reality. Education that helps a child interpret their ‘world’ and adjust to their new environment can decrease factors such as confusion, helplessness, stress, anxiety and fear; associated with institutionalization. Therefore research must promote the need for systemic interventions that propagate the above (Bruskas, 2008).

Over the years there have been interventions that significantly alter the early care experienced by children who would have otherwise received standard institutional rearing. The St. Petersburg Orphanage Intervention Project (Tottenham, 2011) and The Bucharest Early Intervention Project (BEIP, 2000) have been successful in accelerating the development

of institutionalized children in various domains. The former aimed at improving the physical environment, employment practices, and daily procedures for the staff that would care for infants and children. Improvement that took place post intervention included warm, sensitive care giving. Children showed remarkable improvement in their social and personal domains along with improvement in fine and gross motor skills. This intervention aimed at transforming institutional culture into a more *family-like* culture. The latter intervention randomly removed some children from institutional care and placed them into foster families. When compared to the children who continued to be in the institutional setting, children in foster families showed better cognitive development, attachment relationships, and greater resilience to psychiatric symptoms. This research had beneficial implications for various reasons. Firstly, it shows the plasticity of the developing brain, raising hope for better outcomes in younger children. Secondly, it reduces scientific doubt that the institution itself rather than genetic or prenatal factors cause poor outcomes, suggesting that many of the effects of institutionalization are likely to put these children at a higher risk of PTSD and other mental disorders rather than pre-existing conditions of the child. Thus, more interventions need to be developed for optimal development of children living in out of home care. In cultures where it is possible, research must identify good practices for the de-institutionalization of children in residential care that considers the needs of the child and reduces the potential for trauma. Alternate forms of family based care should be evaluated after identifying advantages and disadvantages for the child as well as factors related to successful and unsuccessful placements (Tottenham, 2011).

Critically reviewing all the implications of institutionalization on the development of children and adolescents, it is deemed necessary to develop interventions that focus on systemic orientations and emotional needs thereby creating a more family-like environment for children placed into foster care and institutions so that young children become more

resilient to past trauma and future traumatic experiences that might occur, as well as reduce the long term effects of PTSD and symptoms of PTS in post institutionalized adults.

Conclusion:

Institutionalization represents an atypical rearing environment for infants and children that also increases the risk for atypical development. Thus, interventions and future research must continue to provide significant opportunities for optimal development in these children. Where adoption into stable homes is the most ideal situation, it may not be always possible. Therefore different cultures and countries must develop robust and scientifically backed interventions that work best with the particular environment (Tottenham, 2011). Interventions like the Bucharest Early Intervention Project should be developed in countries where there is a high rate of institutionalization and to implement the same, there is a need for ground breaking research on the effects of institutionalization in specific domains like PTSD. Till now, research has focused only on the developmental impact of institutionalization and foster care in broad domains. The more the specificity in research, there will be greater reliability and efficiency of interventions that will be developed to prevent mental disorders in institutionalized children. Therefore, along with systemic foster care orientations and development of culture specific and efficient interventions, future research should identify specific correlates and factors that lead to the development of Post Traumatic Stress Disorder (PTSD) and PTS symptoms in institutionalized children, adolescents and adults post institutionalized.

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