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Prevalence and Severity of PTSD among Children in Children's Homes in Nyeri County Kenya

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Abstract

A vast majority of children and adults in the world experience PTSD in their surroundings which remains a significant health social problem affecting their mental and physical health, work, and relationship. Traumatic events serve as vulnerability markers for posttraumatic stress disorder (PTSD).The rates of exposure to traumatic events have been shown by various studies across the world although none have been conclusive enough to cover the prevalence and severity of PTSD within specific communities. The purpose of this study was to establish the prevalence and severity of PTSD among children in children's homes in Nyeri County, Kenya. The study adopted a Quasi-experimental research design on a target population of two hundred and thirty five children from the two selected children's homes in Nyeri County. Stratified random sampling procedure was used to arrive at the sample of one hundred and sixty children. The study used semi structured questionnaires and CPSS-SR-V, a PTSD symptom measure based on DSM-5 to collect data from children. The validation of research instrument was done by subjecting the items in the questionnaire to content validity and its reliability determined using Pearson chi-square test. The data analysis was computed with the help of Statistical Package for Social Sciences (SPSS) version 23. Findings from the study showed that male children between 10-13 years of age are the most affected by PTSD. The research is likely to improve practice in PTSD therapy by reviewing and presenting findings on its prevalence and severity among children in Nyeri County, Kenya.

Keywords: *Post Traumatic Stress Disorder, trauma, prevalence of PTSD, severity of PTSD, PTSD in Nyeri, children and PTSD*

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INTRODUCTION

PTSD (Post Traumatic Stress Disorder) is a complex and chronic mental disorder caused by exposure to a traumatic event (Xue, Tang, Liu, Kang & Wang, 2015). According to Tull (2018), the condition develops after some stressful events such as sleep disturbance, recurrent dreams, withdrawal, frightening thoughts and memories or flashbacks associated with the life stressors. Traumatic life events such as: sexual abuse, crime, neglect, rape, civil wars, natural disasters, exposure to domestic or community violence can affect children, adults as well as older persons (Moroz, 2005). Traumatic events commonly present three characteristics that include: a threat to life, a threat to physical integrity and experience of being outside of the normal range of life experiences (Bui, Ohye, Palizt, Olliac, Goutaudier & Raynaud., 2014). Persons experiencing PTSD suffer distressing symptoms that include intrusive and recurring thoughts of the traumatic experience, avoidance of reminders of the trauma, emotional numbing, irritability, trouble sleeping or concentrating, physical and emotional hyper arousal.

Statistics show that Canada has the highest rate of PTSD prevalence among adolescents with 20.2%, followed by Africa at 20.1% (McElvaney, 2014).The incidents of traumatic events experienced by children have become a major social health concern globally. Some of the traumatic events affect up to 25% of children around the world. In the African context children who are born in conflict and war-ravaged countries are likely to become victims of violence and horrors associated with these wars (Kaplan, 2005). Sub-Saharan Africa is home to a substantial number of children who are vulnerable to armed conflicts. In Kenya, several studies have been conducted related to PTSD prevalence among children and adolescents on behavioral and emotional problems among Kenyan youth aged 11 and 18 years, following the 2008 post-election violence (Harder, Mutiso, and Khasakhala, 2011). The study found that 6 months after being exposed to the post-election violence of 2007, 21% were diagnosed with PTSD (Harder, Mutiso, and Khasakhala, 2011). This seems to give the impression that young people can be easily manipulated by politicians to commit violence which in turn affects them making them vulnerable to suffering PTSD. A study Carried out at Kenyatta National Hospital study reported violence and sexual abuse to be more common forms of traumatic events in the young population (Ombok, Obondo, Kang'ethe & Atwoli, 2013). These findings on election violence and sexual abuse are striking. They appear to support link between these traumatizing events and the development of PTSD in children in Kenya.

Trauma has become a common experience for children in Kenya as a consequence of disturbing life events. Kaminder (2005) in reference to Ombok et. al (2013) states that the term was first conceived among adults only. There has been increasing recognition that children also undergo traumatic events the same way adults do. Thus, understanding of the effect of traumas seems to have developed from studies with adults before it was applied to children with trauma exposure. Affected Children need treatment in order to be able to cope better with life beyond the traumas. In Africa, institutionalized care is viewed primarily as a source of psychological stability and recovery from trauma. (Rachel, 2015).However, if traumatic exposure is left untreated, it can lead to a variety of serious psychological health problems. (Dube, Felitti, Dong, Giles, & Anda,

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2003; Finkelhor, Ormrod, Turner, & Harmby, 2009; Ford, Elhai, Connor, & Frueh, 2010). Essentially, they run the risk of developing significant emotional and behavioral difficulties.

Psychological distress in children varies according to age, cultural meanings attached to trauma, coping mechanisms, as well as past life stressors. Children with psychological distress may also show evidence of behavioral changes in their attempt to adapt to and cope with these distressing negative events (Bui et al., 2014). Following a child's exposure to trauma, the experience of PTSD symptoms may persist into adulthood and may have debilitating negative effects on a child's psychological well-being (Warshaw, Massion & Keller, 1993; as cited in Cohen, Deblinger, Mannarino, Perel, & Staron, 2007). As a mental disorder, PTSD can hinder enjoyment of life in children leading to full blown PTSD. Children who have undergone trauma often appear as fearful, anxious, depressed, angry, hostile and aggressive. Additionally, they may also engage in sexually inappropriate behavior, feel isolated and stigmatized, exhibit poor self-esteem, find it difficult trusting others and in extreme cases abuse substances (Hamblen & Barnet, 2013). From this body of literature, it sounds as if exposure to trauma and traumatic life events can put a child's life in disarray hence compromising the quality of their life. Various efforts have been made to address and manage the problems and psychological distress associated with PTSD.

Globally, there seems to be little if any population-based epidemiological study that has examined PTSD prevalence among children and adolescents. The African studies cited so far demonstrate a growing awareness that PTSD is not extraterrestrial to Africans. There is, therefore, a great need to address the problem of PTSD in children and the causal factors that foster its development on the African child. This study sought to establish the prevalence and severity of PTSD among children in children's homes in Nyeri County, Kenya.

METHODOLOGY

The study adopted a mixed research approach to establish the prevalence and severity of PTSD among children in children's homes in Nyeri County, Kenya. A quasi experimental research design was utilized for this study with the various methods of collecting information from a sample of children to establish the prevalence and severity of PTSD.

The target population comprised of 235 children from two selected children's homes in Nyeri County of Kenya, namely, Karatina and Mahiga respectively. These children were between the ages of 10 to 16 years.

The sample size for this study was calculated based on the registered children who had experienced a traumatic life stressor and who met the criteria for PTSD according to DSM 5 criteria as measured by the testing instrument used. The sample size was calculated using the formula by Chow, Shaw and Wang (2003).The sample size consisted of 80 participants whereby; there were two groups hence, a total of 160 participants were recruited for this research study. An attrition rate (loss of assigned participants) of 20% was added to the calculated sample size,

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to avoid bias to validity. To arrive at the sample of children who participated in this study, purposive random sampling was adopted to target respondents with particular demographic characteristics such as age, gender and presence of PTSD symptoms.

In regards to the research instruments of study, semi structured questionnaires were administered to the selected children as well as the CPSS-SR-V, which was a PTSD symptom measure based on DSM-5. The reliability of the questionnaire used was determined using Pearson chi-square test to determine the pre-treatment equivalence variables by drawing up comparison between the study groups while t-tests were used to compare distribution of continuous variables.

After the data had been collected and thoroughly screened for any missing information, it was entered into SPSS version 23 where it was subjected to analysis. Upon entry, the participants' identity was coded using a combination of alphabetical letters and Arabic numbers for each group. The statistical analysis of data was done by subjecting continuous and categorical constructs/variables to descriptive statistics. During the data analysis, distribution of social demographic characteristics of participants were examined besides the research variables by use of bivariate and univariate statistical procedures.

RESULTS

Demographic Characteristics of the Respondents

The social demographic characteristics of participants were sought with the aim of establishing the distribution of children by gender, age, school level, parent's occupation and income, number of siblings and upbringing. Slightly more than half (52.6%) of the respondents who participated in this study were male as compared to the female respondents who were 47.4% This implies that male children who are affected by PTSD are more than the female children. Majority (82%) of the children were between the ages of 10-13 years, while 46.1% were between 14-16 years of age. An overwhelming majority (92.7%) of the respondents were in primary school level while 5.2% were in secondary school level. The smallest numbers of respondents (0.7%) were in college level. In relation to their parents' occupation, the highest number of respondents (53.3%) did not know their parent's occupation. 22.2% had parents who are skilled while 12.6% had parents who are professional. The lowest number of the respondents (11.9%) had unskilled parents. The participants were requested to state their parent's income with a majority (80.5%) indicating that their parents earn above Ksh. 100. 12.7% had parents who earn Ksh. 100 while 6.8% had parents who earn less than Ksh. 100. From the respondents, 72.2% had more than 3 siblings while 27.8% had less than 3 siblings. 52.7% of the respondents were brought up by both parents and 29.1% were brought up by mothers. Another 4.1% were brought up by their fathers.

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Prevalence and Severity of PTSD

The research sought to examine the prevalence and severity of PTSD among children in children's homes in Nyeri County. To analyse this, respondents were asked to indicate the nature of PTSD they suffer from if they do. At the baseline level, they also had to indicate the nature of PTSD affecting them if any.

Prevalence and Severity of PTSD among Children in Children's Homes in Nyeri County

The prevalence and severity of PTSD among children in children homes in Nyeri County was sought to inform the nature of PTSD affecting children in addition to intensity in terms of population numbers. The categories included minimal PTSD, mild PTSD, Moderate, severe and very severe PTSD.

Table 1

Frequency of PTSD among the Children in the Children homes in Nyeri

Variable	Frequency	Percentage
Minimal PTSD	17	11.2
Mild PTSD	35	23.0
Moderate	74	48.7
Severe	24	15.8
Very severe PTSD	2	1.3
Total	152	100

From the categories in table 1, those with moderate PTSD were the highest at 48.7% followed by those with mild PTSD (23%). Another 15.8% had severe PTSD while those who had mild PTSD were 11.2%. Children with very severe PTSD were the fewest at 1.3%. Majority (95%) of the participants had suffered some form of PTSD which clearly indicates that there is high prevalence in the two selected children's homes.

Participants' PTSD Scores at Baseline

The rate of PTSD among respondents was considered in the research in order to establish viability and feasibility of the entire study. The categories included mild PTSD, moderate PTSD, severe PTSD and very severe PTSD.

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Table 2

Participants' PTSD Scores at Baseline

Variables	Frequency	Valid Percentage (%)
Mild PTSD	35	25.9
Moderate PTSD	74	54.8
Severe PTSD	24	17.8
Very Severe PTSD	2	1.5
Total	135	100

As displayed in table 2, PTSD rates among the 135 participants recruited during the baseline for the study indicate that more than half of the respondents suffer from moderate PTSD. Another 25.9% suffer mild PTSD while 17.8% are affected by severe PTSD.

DISCUSSION

From the findings, the difference between male and female respondents who have experienced some PTSD is small. The male were slightly more than half while the female were slightly less than half. This concurs with some epidemiological studies which according to Ditlevsen and Elklit (2012) have frequently established that men are at a higher risk of being exposed to traumatic events during their lifetime in comparison to women. The National Comorbidity Survey (NCS) by Kessler and co-workers (1995) studied the exposure of trauma in a nationwide probability sample of 5877 adult and concluded that 61% of men and 51% of women had experienced at least one traumatic event during their lives.

With regard to the age, the overall PTSD prevalence for participants within the age 10-13 was higher (53.9%) when compared with those between ages 14-16 (46.1%). Hence, the current study findings indicate that PTSD prevalence was high among younger children in comparison to older children. This aligns with studies by Feldman, Vengrober and Ebstein (2014) who stated that exposure to trauma, especially when lengthy, repeated and potentially lethal, contributes to the development of post-traumatic stress disorder (PTSD). The studies further note that repeated exposure to traumatic events during the first years of life, when critical brain structures are maturing, carries an even greater risk for psychopathology (Feldman et. al, 2014).

The study highlights the fact that an overwhelming majority (92.7%) of the respondents were in primary school level while 5.2% were in secondary school level. The smallest numbers of respondents (0.7%) were in college level. Studies by Zhai, Liu, Zhang, Gao, Cheng, Du, Zhang and Guo (2015) support this fact. In the studies, 54.7% of school-aged children have experienced at least one traumatic event in their lifetime, and the prevalence of PTSD is 34.1%. From the

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studies, it was concluded that parenting style and resilience had a significant impact on PTSD among school going children.

Findings on parent's occupation, income level, number of siblings and upbringing align with the family systems approach as put forward by Punamaki, Qouta and Peltonen (2017). From these studies, family types were identified based on attachment, parenting and sibling relations. Family types differed based on these factors and children's mental health differed on those grounds as well. According to Punamaki et. al (2017) childhood traumas of neglect, deprivation, and socioeconomic hardship affect the development of insecure attachments in children and various studies attest to higher levels of insecure attachments among traumatized children and adolescents (Punamaki et. al, 2017). Therefore PTSD is low where children have professional parents, parents with an income of more than Ksh 100, their siblings are more than three and upbringing involves both parents.

Results on prevalence and severity of PTSD among children in children's homes in Nyeri County correspond with the works of Nyagwencha, Munene, James, Mewes and Barke (2018) that refer to a national survey conducted in Kenya by Violence against Children in 2010. From the survey, levels of violence (sexual, emotional or physical) against children and adolescents prior to 18 years of age were found to be 26% among females and 32% among males. The same studies refer to another study conducted in rural Kenya among 13-20 year old students and established that 94.8% of the students had been exposed to potentially traumatic events like rape (9.8%), physical assault (22.5%), sexual abuse (19.8%), physical abuse (27.8%), bullying (32.2%) and childhood neglect (25.3%) (Nyagwencha et. al, 2018).It is evident that many children experience PTSD in Kenya in both urban and rural settings, Nyeri County included.

The findings on PTSD scores at baseline corroborate with studies by Shih, Schell, Hambarsoomian, Marshall and Belzberg (2010) which identified preceding investigations on either PTSD or depression. They noted that there was an exception of one study where injury survivors in a National Study on the Costs and Outcomes of Trauma (NSCOT), that established 20.7% and 6.6% of individuals developed PTSD or depression 12-months post-injury, respectively (Shih et. al, 2010). The primary goal of the national study was to survey practical outcomes related to PTSD and depression and to scrutinize existing predictors of PTSD and depression. Conclusively, the study was feasible since 12 months post injury, the participants were still affected by PTSD.

CONCLUSION

In summary, the study showed that PTSD is common among children, in children's homes in Nyeri County. The fact that children are very tender in terms of maturity, continuous exposure to traumatic events contributes greatly to the high levels of PTSD at later stages in their lives. Like many other parts of Kenya, children in children's homes in Nyeri County are exposed to traumatic situations such as sexual, physical or emotional violence. Levels of PTSD identified in the study range from minimal to very severe and many respondents suffer from one form of

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PTSD that falls within this range. It is important to recognize conditions that reduce levels of PTSD among children such as family settings. The family systems approach defines the ideal setting to raise children in which both parents are involved, they have a stable income and job. The number of siblings is also significant since the support they offer reduces chances of PTSD among children.

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