THE PREVALENCE OF POSTTRAUMATIC STRESS DISORDER AND ASSOCIATED MENTAL HEALTH PROBLEMS AMONG INSTITUTIONALIZED ORPHANS IN DAR ES SALAAM, TANZANIA

By

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A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Clinical Psychology of Muhimbili University of Health and Allied Sciences.

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CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance by Muhimbili University of Health and Allied Sciences a dissertation entitled: ***Prevalence of Posttraumatic Stress Disorder and Associated Mental Health Problems Among Institutionalized Orphans in Dar Es Salaam, Tanzania,*** in partial fulfillment of the requirements for the degree of Master of Clinical Psychology of Muhimbili University of Health and Allied Sciences.

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Date: _____

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I, **Benjamin Myovela**, declare that this **dissertation** entitled: ***Prevalence of Posttraumatic Stress Disorder and Associated Mental Health Problems Among Institutionalized Orphans In Dar Es Salaam, Tanzania,*** is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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DEDICATION

This work is dedicated to my dearest wife Farida Sheshe, and our lovely daughter Mascia Benjamin. They have always been there loving supporting and praying for me.

ABSTRACT

Background: Orphanhood is becoming a more common experience for children in Tanzania, in part as a consequence of the AIDS pandemic, trauma and poverty. The number of orphans and risk of psychopathology has been steadily increasing even in regions where the AIDS epidemic has stabilized. Institutional care for orphaned children is uncommon in sub-Sahara Africa and seen as a last resort primarily as orphanages are often seen as a source of unhealthy psychological development and orphans' ability to survive and thrive as adults is significantly threatened if raised in an orphanage. Research in this area is minimal in Tanzania. The magnitude of PTSD and associated mental health problems among orphans in Dar es Salaam is unknown,

Objectives: The aims of the study was to determine the prevalence of post traumatic stress disorder (PTSD), child abuse, depressive symptoms and suicidal tendency among orphans in Dar es Salaam and the associations between PTSD and social demographic characteristics, child abuse, depression and suicidality among orphans in Dar es Salaam.

Methodology: A cross-sectional study was conducted among orphans aged 7 to 17 years from 15 orphanages in Dar es Salaam. Ethical clearance was sought from MUHAS and convenient sampling applied to reach 350 eligible participants. A self administered structured questionnaire was used for data collection on socio-demographic characteristics and child abuse events. Three standardized scales were used to collect measures for PTSD, depression and suicidality. Data were cleaned and analyzed by SPSS version 15 windows. Univariate and multivariate statistical analysis with significant level set at $p<0.005$ were used.

Results: Eighty four participants (24%) met DSM 1V criteria for PTSD, 65.7% reported child abuse events, 78% depressive symptoms and 25.7% suicidal tendency. Findings also showed a strong association between PTSD symptoms sexual abuse and suicidality. Analysis indicated that being out of school and being a single orphan was significantly associated with risk to develop PTSD ($p < 0.002$) ($p<0.0009$). Multinomial regression analysis revealed the predictors of PTSD among orphans to be sexual child abuse (AOR= 2.5, 95% CI 1.2 - 2.5, p <

0.012) suicidal tendency (AOR= 3.7, 95% CI 1.6 - 5.0, p < 0.001) and marginally physical child abuse (AOR= 1.81, 95% CI 0.8 – 60.8, p < 0.07).

Conclusion: Orphanhood brings a host of mental health vulnerabilities including PTSD. A cultural recognition of PTSD and its long term negative consequences needs to be developed and interventions to address the vulnerabilities and risks for mental health problems among institutionalized orphans.

Recommendation: Caregivers should be trained to recognize PTSD symptoms, child abuse, depressive symptoms and suicidal tendencies among orphans and refer them for early intervention. School enrolment should be considered compulsory for all institutionalized orphans.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
APA	American Psychiatric Association
CBT	Cognitive Behavioral Therapy
CDI 2-SR[S]	Children's Depression Inventory 2 –Self Reporting Short
CI	confidence interval
DSM-IV TR	Diagnostic and Statistical Manual of Mental Disorders version 4 revised Text
HIV	Human Immunodeficiency Virus
ICD-10	International Classification of Disease version 10
MoHSW	Tanzania Ministry of Health and Social Welfare
M.I.N.I	Mini International Neuropsychiatric Interview
MUHAS	Muhimbili University of Health and Allied Sciences.
OVC	Orphans and Vulnerable Children
OR	Odds ratio
$p<0.05$	p-value
PTSD	Posttraumatic Stress Disorder
SPSS	Statistical Package for the Social Sciences (SPSS)
UCLA	University of California at Los Angeles
UNICEF	United Nations Children's Fund
VACS	Violence Against Children Study
WHO	World Health Organization

DEFINITION OF TERMS

Post-traumatic Stress Disorder (PTSD) is a syndrome defined by the intrusive re-experiencing of a trauma, avoidance of traumatic reminders, and persistent physiological arousal a common reaction to traumatic events such as assault, disaster or severe accidents.

Orphan is a child who lost biological parent(s).

Orphanhood is a state of losing biological parent(s) prior to age 18.

Single orphans: children who have lost a father but have a surviving mother or have lost their mother but have a surviving father.

Double orphans: child who has lost both parents.

Orphanage is a residential childcare facility that is intended to care for children from the time of their admission until their age of maturity, and which holds itself out as an acceptable or superior substitute to the children's families.

Institutional Orphan Care is an institution that provides temporary or permanent residential care for orphans where caretakers are not relatives or informal guardians of the children.

Child abuse is causing or permitting any harmful or offensive contact on a child's body; and, any communication or transaction of any kind which humiliates, shames, or frightens the child. For the purpose of this study three types of child abuse are referred to (physical, emotional and sexual).

Physical abuse is the inflicting of physical injury upon a child. The activity which results in actual or potential physical harm from an interaction or lack of an interaction, which is reasonably within the control of a parent or person in a position of responsibility, power or trust

Emotional abuse includes the failure to provide a developmentally appropriate, supportive environment, including the availability of a primary attachment figure, so that the child can develop a stable and full range of emotional and social competencies commensurate with her or his personal potentials and in the context of the society in which the child dwells.

Sexual abuse is inappropriate sexual behavior with a child. It is the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent, or that violate the laws or social taboos of society

Corporal punishment is defined as the use of physical force with the intention of causing a child to experience pain, but not injury, for purposes of correction or control of the child's behavior.

CHAPTER ONE

1.0 INTRODUCTION AND LITERATURE REVIEW

1.1 INTRODUCTION

Today the concept of orphan is creating some degree of confusion with regard to defining who is an orphan; how many are there; what are their characteristics; where are they found; what are the trends in orphanhood; and most importantly, what are the specific needs of orphans as distinct from other children in their communities (7). An orphan in industrialized countries means a child has lost both parents. In the context of the AIDS pandemic orphan is defines an orphans as those who have lost both parents (double orphan) but also those who have lost a father but have a surviving mother or have lost their mother but have a surviving father (single orphan) (67). By this definition there were over 132 million orphans in sub-Saharan Africa, Asia, Latin America and the Caribbean in 2005. Sub-Saharan Africa is home to 12.3 million orphans and the number has increased rapidly in a short few years (64) to a point in which the entire African continent appears to be overwhelmed by the "orphan crisis" (6).

The data also suggest a population rate of double orphans of 2.1% in sub-Saharan Africa. This is five-to10-fold greater than in other regions of the world and Tanzania ranks high among the 38 countries surveyed (7). In Tanzania alone, an estimated 2.6 million children are orphans (64). International organizations' current focus of attention in helping orphans is food, health care, and schooling with very little attention given to the psychosocial impact of the orphanhood (67).

The kin system that exists in traditional African culture means that children without parents are cared for within extended families with grandparents, aunts and uncles becoming or continuing to be caregivers. And many community studies seem to indicate that orphans in the kin system are healthy, receive adequate care and compare well with non orphans (34, 42). However, not all studies have found results supporting this conclusion and several studies

have found orphans to be in poor health (64). Some studies in which Tanzania participated with Kenya, and Zimbabwe found orphans to be nutritionally disadvantaged and to have a decreased nutritional status when compared to their nonorphaned peers (10,72). Yet other studies in rural Kenya and Tanzania comparing the health status of orphaned children living in the/extended family with those in institutions (orphanages) did not detect significant differences (1).

Research on the psychological consequences of childhood adversity in low-income countries is increasing, but limited by the range of mental health outcomes evaluated and populations sampled (8). There are minimal studies on the psychosocial health of children orphaned in sub-Sahara Africa, and even fewer in Tanzania (60).

However, numerous risk factors for poor mental health that have been identified for orphans living in Africa and include the type of relationship with the new caregiver and his family, movement from home to relatives, separation from siblings, poverty, an inability to attend school, HIV/AIDS-related stigma, high mortality risk, poor psychosocial function, economic exploitation, violence loss of peer interaction and increased responsibility on the homestead (14). For example if both parents die, and there is no other significant person to take care, orphaned children often have to stay at home to care for their siblings as well as themselves. Sometimes caregivers have to pull orphans out of school to work, when their financial burdens increase (64).

Institutional care for orphaned children is uncommon in sub-Sahara Africa and culturally viewed as least desirable, primarily because of the potential for unhealthy psychological development. The overall impression that institutional settings can cause unhealthy psychological development when they provide insufficient emotional stimulation (13) and findings pertaining to Tanzania conclude that children enrolled in orphanage centers in Tanzania are exposed to risk of mental health problems (61, 61). Orphanages may cause unhealthy psychological development for a number of reasons and issues related to the mental health and skill level of caregivers is one of the main concerns (33).

Despite the potential risk associated with orphanages research in Eritrea indicates that in situations of limited resourses orphanages can help to stabilize the orphans' personality and psychological related health in the context of care giving that is sensitive to the individuality of the child, and personal ties are established to serve the emotional needs and psychological development of the orphans (75). Others also indicate that it is possible for children and youths to maintain hope and enjoy supportive relationship in institutional settings, if such relationships are available, but place a heavy responsibility on caregivers (2).

In Tanzania there is growing concern about the consequences of the epidemic for orphaned children and adolescents (55). A 2006 study done in Kisesa Mwanza, produced four rounds of demographic surveillance, detailed data on orphanhood. Accordingly, in 1997, it was found that out of 10,015 children, 8.9% of those under the age of 18 and 7.6% of children under 15 were orphans. Of children under 18 years, 5.5% were paternal orphans, 2.5% were maternal orphans and 0.9% had no living parents (69). In comparison, a 2007 study done revealed that in 2004 children under 18 years, 5% were paternal orphans, 9% were maternal orphans and 2% were double orphans, indicating that there had been a substantial rise in adult female mortality (25). In studying the relationship between care giving and health in Tanzania it is posited that losing one or both parents is a profoundly devastating consequence for adolescent children particularly loss of the mother (39).

1.2 LITERATURE REVIEW

1.2.1 Description of PTSD symptomatology

According to Diagnostic and Statistical Manual of Mental Disorders (4) PTSD can develop after experiencing extreme trauma or a life-threatening event. Feeling physically threatened or witnessing violence, even if not physically injured, can lead to PTSD which can be terrifying and even disabling for some. It can cause flashbacks, sleep problems, nightmares, feelings of isolation, guilt, paranoia, and sometimes panic attacks (4). The ICD-10 defines PTSD as a "delayed or protracted response to a stressful event or situation (of either brief or long duration) of an exceptionally threatening or catastrophic nature, which is likely to cause

pervasive distress in almost anyone" (73). Other PTSD symptoms include, anxiety, depression, aggression substance abuse and other forms of externalizing, and internalizing behaviour problems.

In contrast to other anxiety disorders and major depression, there are as yet no "core symptoms" that are essential for a diagnosis of PTSD in the DSM IV TR, with individuals rather having to report one out of five symptoms from cluster B (reexperiencing), three out of seven symptoms from cluster C (avoidance and numbing), and two out of five symptoms from cluster D (hyperarousal). As a result individual clinical presentations may vary widely, creating diagnostic heterogeneity. Faced with this heterogeneity, as well as with the frequently noted high levels of comorbidity, PTSD researchers have suggested that some symptoms are more highly diagnostic of the condition than others. The two groups of symptoms so identified are the avoidance and numbing symptoms and the reexperiencing symptoms of flashbacks and traumatic nightmares (4).

1.2.2 Development of PTSD Symptoms

The extent to which the events are traumatic may be influenced by cultural and family issues and the expectations which can influence a child's and/or caregiver's willingness to acknowledge symptoms of PTSD (23). The first agents of enculturation, in all societies, are the members of the household into which a person is born. This enculturation process primarily begins with the mother and father and in the African society siblings, grandparents and family members are brought into this process, as well as other individuals, as the child matures and therefore loss of a parent(s) often results in a child losing his primary support network and feels hopelessness (63).

The risk factors that determine PTSD development in both children and adults are defined as pre-existing psychopathology, neuroticism, degree of horror, dose frequency, duration, level of exposure, gender, age, intensity suddenness, inflicted damage, perceived threat at time, controllability, early separation from family and availability of support (26). Other anxiety disorders and multiple traumatic experiences are also known to increase the likelihood that a

child would develop PTSD symptoms after a traumatic event. In addition studies of familial or genetic vulnerability to mental illness are in their infancy and that vulnerability to PTSD is hereditary for example for twin pairs exposed to combat in Vietnam, having a monozygotic twin with PTSD was highly associated with an increased risk of the co-twin having, compared to twins that were dizygotic (18). Furthermore because of immaturity of their ego, children are more susceptible to trauma and require greater support from sustaining objects, with whom they identify, in order to recover from traumatic experience (significant others). Although it has been suggested that those who got traumatized at a very young age or even before they were born showed less trauma symptoms than participants who got traumatized at an older age (44).

1.2.3 PTSD among children

Many children experience one or more traumatic experience or event at some point in their lives (43) and global prevalence rates are reported to be 3% to 6% for the normal adolescent populations (29). In a review article on childhood adversities of populations living in low income countries; prevalence, characteristics and mental health consequences indicated that family violence, discrimination, neglect, child abuse and poverty may exacerbate the effects of AIDS orphanhood and war-related trauma upon poor mental health and that children exposed to trauma experience more PTSD and depression than children unexposed to either AIDS orphanhood or war related trauma (8).

A study of the prevalence of potentially traumatic events in childhood and adolescent showed that 25% had experienced a trauma including death of a loved one, serious illness or accident, a natural disaster, being the target of family violence, or being raped (16). Children react differently to trauma, some have difficulties in coping and experience behavioral and emotional problems causing pathological trauma (23) while others cope effectively or even become stronger as a result of a traumatic event which is often termed resilience (38) or in other words, good outcomes inspite of serious threats to adaptation or development.

Child neglect and poor parenting has been consistently linked to an increased risk of developing psychopathology like PTSD, depression and anxiety (49). While neglect appears to be a concern it is important to recognize that a definition of neglect is deeply rooted in varied social economic and cultural practices .WHO suggests that "neglect refers to the failure of a parent to provide for the development of the child where the parent is in the position to do so in one or more of the following areas; health, education, emotional development, nutrition, shelter and safe living conditions" (74). This definition excludes many poor children from being officially defined as neglected because of the inability of their caretaker to provide for them, although the risk of psychopathological development is still possible because of the lack of basic needs they experience (61).

One theory for psychopathological development among neglected children is the 'Parental Acceptance Theory' (PARTheory) constructed looking at how far individuals perceive themselves to be accepted or rejected with interpersonal relationships and relate this to a specific form of psychological maladjustment. As such a child who has been neglected may not develop pathologically therefore if they do not feel rejected and perceive themselves as neglected (28).

1.2.4 Prevalence of PTSD among orphans

The causes and consequences of psychological distress among orphans in eastern Zimbabwe were found to suffer greater psychological distress than non-orphans ($p<0.013$). The effects of their orphanhood contributing to increased levels of distress included trauma, being out of school, being cared for non-parent, inadequate care, child labor, physical abuse, stigma and discrimination (41). Various studies which found that PTSD is one of the strongest psychiatric disorders that correlates with sexual abuse (23).

In the Cameroon it was found that certain mental disorders such as PTSD (28%) and depression (45%) were highly prevalent among orphaned children compared to non orphans. Group comparisons, however, did not show significant differences among the sub-samples of

orphans, children having lost one parent and non-orphans. The statistical analysis revealed that posttraumatic stress disorders were significantly more common among girls than boys ($p \leq 0.01$) (6). A 2007 study reported the rate of PTSD among respondents in northern Uganda as 74%; similarly, a 2004 study investigating rates of PTSD in former Ugandan child soldiers found that 97% of the respondents met the criteria for the diagnosis. The same study found that even children who escaped from the Lord's Resistance Army (LRA), a long time prior to the study, continued to suffer from PTSD-like symptoms several years later (71).

1.2.5 Institutionalized orphans

Children in orphanages and other vulnerable child populations (homeless, exploited, adopted, refugees) as entire populations are increasingly seen to have high rates of mental health problems including PTSD; in Tanzania research has shown living conditions of orphans expose them to more traumatic stressors than non-orphans who have protectors (36; 60; 61).

A study on middle aged adults that had been institutionalized prior to age of five from institutions were underfinanced and understaffed with a few exceptions. They found that negative consequences of institution living especially for those placed at birth or before the age of six (50) are not surprising when viewed in the context of Bowlby's theory of attachment. John Bowlby was the first person to pioneer work in attachment theory, advocating that: What is believed to be essential for mental health is that the infant and young child should experience a warm, intimate and continuous relationship with his/her mother (or a permanent mother-substitute-one, mother who steadily 'mothers' him) in which both find satisfaction and enjoyment' (11).

A study comparing children in institutional care with those in foster care, who experienced fewer changes in carers and more individual care and found that children cared for in foster homes scored significantly lower levels of unsociability, hyperactivity and inattention than those from institutional care homes (49) and offers further evidence that continuity of care and individualized care-giving is important to a child's healthy development. In other works

orphans suffering a loss of a former secure attachment (mother's death) could put them at higher risk of developing mental disorders (35; 59).

A study of orphans in Eritrea investigators compared the mental health and cognitive development of 9- to 12-year-old Eritrean orphans living in two orphanages that differed qualitatively in patterns of staff interaction and styles of child care management (75). The directors and several child care workers at each institution were asked to complete staff organization and child management questionnaires. The psychological state of 40 orphans at each institution was evaluated by comparing their behavioral symptoms and performance on cognitive measures. They found that orphans who lived in a setting where the entire staff participated in decisions affecting the children, and where the children were encouraged to become self-reliant through personal interactions with staff members, showed significantly fewer behavioral symptoms of emotional distress than orphans who lived in a setting where the director made decisions, daily routines were determined by explicit rules and schedules, and interactions between staff members and the children were impersonal.

They concluded that when orphanages are the only means of survival for war orphans (or AIDS orphans), a group setting where the staff shares in the responsibilities of child management, is sensitive to the individuality of the children, and establishes stable personal ties with the children serves the emotional needs and psychological development of the orphans more effectively than a group setting that attempts to create a secure environment through an authoritative style of management with explicit rules and well-defined schedules. It is also suggests that it is possible for children and youths to maintain hope and enjoy supportive relationships in an institutional setting, if such relationships are available, but place a heavy responsibility on caregivers (2).

However, lack of consistent care giving, skill level and mental health of caregivers is an increasing concern. A study on the "Health of adults caring for orphaned children in an HIV-endemic community in South Africa" revealed that carers of orphaned children reported

significantly poorer general health and functioning and higher rates of depression and post-traumatic stress compared with carers of non-orphaned children (33).

In India a study investigating the differences in personality structure and intelligence of 80 boys living in orphanages and 80 matched boys from intact families (58). Results showed that seven of the 14 factors on the Children's Personality Questionnaire CPQ were significantly higher among subjects from intact families. The orphans' IQ range was also lower than that of the IQ range of children from intact families.

1.2.6 Orphanhood and association within PTSD

The extended African family is the main source of social unity, care and nurture and primary support network losing that can often results in a sense of hopelessness. Extended families usually see school fees as a major factor in deciding to take in additional children orphaned by AIDS (37). This may lead to reluctance and abandonment of the children. Such children may then be placed in orphanages either temporarily or permanently. Without valuable life-skills from parents and a basic school education, out-of-school orphans are more likely to face social, psychological, economic and health problems as they grow up (52).

In a study of determining associations between AIDS-orphanhood status, poverty indicators, and psychological problems (depression, anxiety, post-traumatic stress, peer problems, delinquency, and conduct problems) among children and adolescents in townships surrounding Cape Town, they revealed that children orphaned by AIDS had more psychological problems including depression, peer problems, post-traumatic stress, and conduct problems. They were consistently disadvantaged on all poverty indicators, higher school dropout, food insecurity, and lower adult employment in households than other groups. They were less likely to live in a household receiving any state grant, which is likely to reflect limited access to welfare support rather than non-eligibility (14). A study in a Nigerian orphanage found attending school to be positively associated with mental health well being among orphans (3).

A similar comparison study was done in Dar as Salaam on psychological well-being of orphans in Dar es Salaam, Tanzania 41 orphans whose fathers and/or mothers had died from AIDS, and were living in the poor suburbs of Dar Es Salaam, Tanzania, were compared with 41 matched non-orphans from the same neighbourhood (36). The subjects were given an arithmetic test and a semi-structured questionnaire concerning any internalizing problems, their attendance at school and their experiences of punishment, reward and hunger. The scale of internalizing problems comprised 21 items adapted from the Rand Mental Health and Beck Depression Inventories concerning mood, pessimism, somatic symptoms, and sense of failure, anxiety, positive affect and emotional ties.

They found most orphans in the study lived with aunts and uncles. When compared with non-orphans, they were significantly less likely to be in school but those who did attend school had similar arithmetic scores with the comparasion group. Significantly more orphans went to bed hungry. Orphans had markedly increased internalizing problems compared with non-orphans ($p < 0.0001$) and 34% reported they had contemplated suicide in the past year. Multiple regression analysis indicated that the independent predictors of internalizing problem scores were sex (females higher than males), going to bed hungry, no reward for good behavior, not currently attending school, as well as being an orphan. They concluded that orphans not only had unmet basic needs, but also had markedly increased internalizing problems, thus their long-term mental health would be in jeopardy.

1.2.7 The impact of Child Abuse on Mental Health

Orphaned children are at high risk of being abused verbally, physically or sexually. In Tanzania, most of the orphanages receive children who are former street kids, and mostly have experienced various abuses making them at high risk of developing mental health problems (39). Exposure to violence environment may cause PTSD development (21); children from violent homes have more emotional and behavioral problems than those from nonviolent homes (57) and they are more aggressive (15). Violence in schools is often not taken into

account and revealed that vulnerable, poor and orphaned children in Tanzania appear the hardest hit by teachers' harsh behaviour (55).

Child sexual abuse is an all too common event in the lives of children and can produce severe psychological damage to victims both at the time of the abuse and years later (28). Some describe it as the most traumatic event (54) and it may cause impairment in cognitive functioning, negative self-evaluation, difficulty in trusting others, unhealthy relationship, and behavioural difficulties such as substance abuse, suicidality, self-harm, delinquent activity and learning disabilities (16).

There is even evidence from many studies that there is a link between sexual abuse and psychosis. Surveys have indicated that between 34 and 53% of patients with severe mental illness report child sexual abuse or physical abuse (17). Researchers also report that exposure to traumatic events such as sexual abuse in childhood, are associated with a high death rate in adulthood, including heart diseases, cancer, chronic skeletal fraction and live disease (19). Moreover, literature indicates individuals with a history of childhood sexual abuse utilize health services at significantly higher rates compared to non-sexually abused individuals (8).

The first Tanzanian national survey on violence against children (VACS) was conducted in 2011; 3739 females and males with age range 13-24 years participated on three-stage cluster household survey design (70). The findings from the survey indicated the high prevalence of child violence. It reported that nearly 30% of female 14.3% of males in Tanzania have experienced sexual violence prior to the age 18. Additional 75% of both females and males have experienced physical prior to 18 and 25% have experienced emotional violence by adult prior to the age 18. The report concludes that violence against children is serious human rights, social and public health issue and its consequences can be devastating. It erodes the strong foundation that children need for leading healthy and productive lives, and violates the fundamental right of children to a safe childhood.

VACS defined *physical child abuse* as an action of being slapped, pushed, hit with a fist, punched, kicked, or whipped, or threatened with a weapon such as a gun or knife. *Emotional*

abuse is an action of being called bad names, being made to feel unwanted, or being threatened with abandonment. *Sexual child abuse* defined as sexual act that is perpetrated against someone's will and encompasses a range of offenses, including a completed nonconsensual sex act (rape), attempted nonconsensual sex acts, abusive sexual contact (unwanted touching), and non-contact sexual abuse (e.g., threatened sexual violence, exhibitionism, verbal sexual harassment).

Physical abuse v corporal punishment: As compared to physical abuse, by definition, corporal punishment does not produce physical injury. Corporal punishment is not explicitly prohibited at home and school although studies indicate that corporal punishment is highly linked to mental ill-health and aggression in children (36).

In Tanzania violence in the orphanages themselves has also been identified as a risk factor for psychological disturbance (24). The study explored traumatic stress, experiences of violence in the home, school and orphanage, as well as mental ill-health and aggression of 38 children with mean age of 8.64 years. Children living in an orphanage in rural Tanzania were assessed at two time points. They revealed that violence experienced in the orphanage correlated more strongly with all indicators of mental ill-health than violence in the former home, school or neighborhood at the first assessment. Additionally, violence experienced in the orphanage had a positive relationship with the aggressive behavior of the children at the second assessment. They concluded that violence, especially in the orphanage, can severely contribute to mental ill-health in orphans and that mental health can be improved by implementing a new instructional system and psychotherapeutic treatment in an orphanage. Moreover, the results indicate that the experience of violence in an orphanage also plays a crucial role in the aggressive behavior of the orphans.

1.2.8 Child Suicidality and PTSD

Suicide and suicidal behaviors are the serious public health problem among children specifically adolescents (23; 59). Parent displacement has been identified as a significant risk factor for adolescent suicide (parental death, abandonment, or divorce) and being a burden on one's family has also shown a high association with high scores of suicidal ideation and behavior of expendability (76). It has been suggested that failed belonging proposed by the interpersonal theory of suicide as one factor that may link parental displacement with adolescent suicidality (59). This theoretical model seems to capture the experience of many orphans in Tanzania.

Makame and McGregor's study with 41 orphans and 41 non orphans' controls in urban Tanzania revealed a significant difference between orphans and non orphans in reports of contemplating suicide in the past year ($p < .016$). Their figures revealed that 34% of orphaned children had contemplated suicide compared with only 12% of non-orphans. The study also found the independent predictors of internalising problems to be sex (females were found to be higher than males on internalising problems), going to bed hungry, no reward for good behaviour, not currently attending school, as well as being an orphan (36) and as is well established a significant number of people contemplating suicide will suffer from depression.

1.2.9 Childhood Depression

Children who are orphaned may suffer a loss of a former secure attachment, which has been suggested could put them at heightened risk of developing depression (35). A study examining the association of orphan status and depressive symptoms in children and adolescents in Namibia using the standard cut-point of ≥19 on the CDI, 21.9% of single and double orphans and 11.9% of non-orphans exhibited depressive symptoms. They found double orphans were significantly more likely to score ≥ 19 on the CDI than non-orphans ($p = 0.037$). Single orphans were also more likely to score at least 19 on the CDI, although this was not significant. The study provides evidence that orphanhood is associated with significant depressive symptomatology (48). In Tanzania high rates of depression have been found among

orphans in institutions (36; 24; 60). Although in Tyrer's study in Arusha Tanzania among orphans in institutions were significantly less likely to display high levels of depression when compared to a US normative sample using the CDI (61).

Children who are depressed are more often withdrawal from others and so, may learn few social skills; they may have little energy for schoolwork and so may fall behind academically; and they troubled emotions can strain relationships with caregivers, teachers and fellow orphans who fail to recognize that they are depressed.

1.2.10 Different Theories about PTSD

The PTSD theories explain the different concept of PTSD development, progression, maintenance, and treatment in psychological perspectives (12). Authors have proposed models to define key factors of this complex disorder, and to explain how and why PTSD occurs. The theories on PTSD are numerous including biological theories. The following are a few of the more common ones as summarized by Brewin and Holmes 2003.

- ***Cognitive Behavioral Model in PTSD;*** Cognitive models have tended to focus on changes in the victim's memory functioning, automatic and strategic processing of information, challenged core beliefs, unproductive avoidance strategies, lack of social support, and criticism by others and by the self (12). One of the original cognitive models of PTSD, Stress Response Theory, was developed in the late 1970s by Horowitz. This model focused on two key processes; the initial emotional reaction to the trauma, and efforts to "assimilate" the new information from the trauma into the victim's base of knowledge (12). Another basic cognitive theory behind PTSD is the a pre-traumatic experiences that when a person experiences trauma, the previous views about self and the world will be challenged and perhaps disproved. The altering of core beliefs is thought to lead to ineffective cognitive strategies of avoidance, along with increased arousal in persons suffering from PTSD.

- ***Information Processing Theory (IP) in PTSD;*** The IP model for PTSD states that traumatic memories are processed in a separate and distinct method, and that incomplete processing of such memories will lead to the development of PTSD or other psychological disorders (12). The model of Anxious Apprehension, originally developed for Panic Disorder, has also been adapted for use with PTSD.
- ***Behavioral model or learning theory in PTSD;*** The known behavioral model is nearly identical to the learning or conditioning theory behind other anxiety disorders. Stimuli which are cues or reminders of the traumatic event are avoided due to the fear and anxiety which they arouse. This avoidance is reinforcing to a degree, though some research has shown avoidance to be relatively ineffective in reducing these negative emotions (12).

1.3 CONCEPTUAL FRAMEWORK OF PTSD

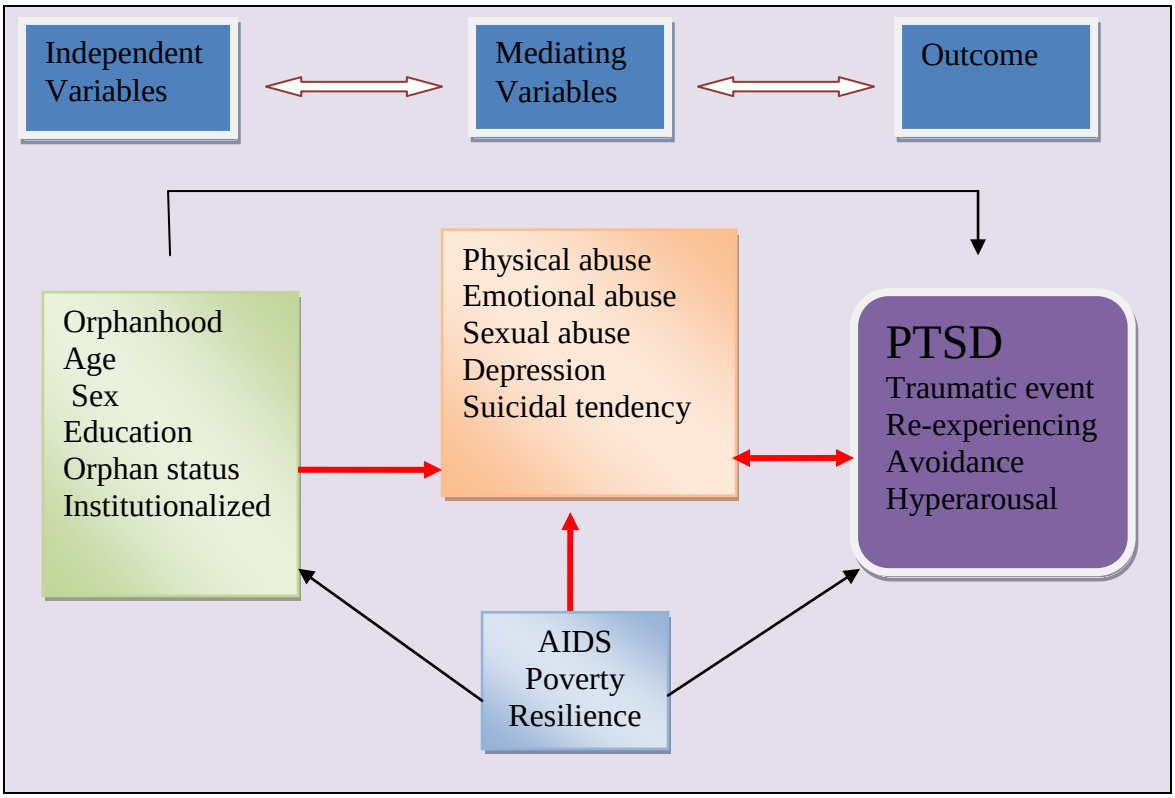


Figure 1: Conceptual Framework PTSD and Orphanhood

1.4 PROBLEM STATEMENT

The proportion of orphans defined as children who have lost one or both parents is greatest in sub-Saharan Africa, with 12.3 million orphans (66). By 2015, the epidemic is expected to peak, and orphans will make up 9% to 12% of the total population in the sub-Saharan Africa, or approximately 3.6 to 4.8 million children (63). The data suggest a population rate of double orphans of 2.1% in sub-Saharan Africa. This is five - to 10- fold greater than in other regions of the world and Tanzania ranks high among the 38 countries surveyed (7). According to estimates Tanzania has as many as 2.6 million orphans (65).

The kin system that existed in traditional African culture meant that children without parents were cared for within extended families. Research increasingly suggests that the extended family in mature epidemics may be more stretched with a larger number of orphans and fewer adults to care for them (62). Orphans in societies where this occurs results in more children been placed in orphanages or just on the streets as is the case in Tanzania (61) particularly in urban areas like Dar es Salaam.

A significant number of the children living in institutions will have come from abusive and neglectful homes, poverty, and life on the streets or have experienced the death of a close family member. Today, unfortunately, the number of orphans exceeds the capacity of not only the extended family and the available orphanages in Tanzania and in addition conditions in the orphanages are seriously inadequate (36).

There are 94 orphanages listed in the MoHSW for the whole country of which 19 are in Dar es Salaam. Only one orphanage listed with the MoHSW runs under full government sponsorship. All others are linked to faith based organizations, non-governmental organizations or private initiatives. An increase in applications for registration of orphanages has been noted over the past three years. Although many orphanages are being established in Tanzania there is no system of monitoring standards of care.

Research on the psychological consequences of childhood adversity in low-income countries is increasing, but limited by the range of mental health outcomes evaluated and populations sampled (8). There are minimal studies on the psychosocial health of children orphaned in sub-Sahara Africa, and even fewer in Tanzania (60).

The literature on the impact of HIV and AIDS on orphanhood focuses primarily on the physical health status of orphans and some studies suggest that orphans are healthy, receive adequate care and compare well with non orphans (34) while other studies have found orphans to be in poor health (67, 72). The findings are similar for Tanzania with some studies showing orphans to be nutritionally disadvantaged (67) while other studies did not detect significant differences in self reported measures of health among orphans in different living arrangements (1).

Research on the psychological consequences of childhood adversity in low-income countries is increasing, but limited by the range of mental health outcomes evaluated and populations sampled (8) and studies have primarily focused on AIDS orphans in the community. Despite the scarcity of research data numerous studies clearly indicate that ‘orphanhood’ could lead to a poor mental health in children through several means. A plethora of risk factors have been identified and include the type of relationship with caregiver and his family, movement from home to relatives, separation from siblings, poverty, an inability to attend school, and HIV/AIDS-related stigma (36); loss of peer interaction and increased responsibility on the homestead (13; 36). In addition research indicates that institutionalized orphans have additional vulnerabilities, increased risk for mental health problems and being placed in an orphanage is a last resort and may cause unhealthy psychological development for a number of reasons (13; 24; 60; 61).

1.5 RATIONALE OF THE STUDY

Globally and more particularly from Sub-Saharan Africa there is evidence that children reared in institutions are more vulnerable to psychopathology (2; 35; 49; 50; 58; 59; 75). From the limited research in Tanzania there is evidence that the living conditions of orphans expose them to more traumatic stressors than non-orphans who have protectors (36; 61).

My clinical practicum (2009-2010) at an orphanage exposed me to something of what it means to be an orphan living in an institution in Dar as Salaam. The orphanage was a simple structure built on a 2 acres piece of land about 3 kilometers off the main road. It accommodates 40 to 50 children ranging in age from 6-18 years. It is designed to provide a more open group structure where children learn to live 'as a family' in the least restrictive kind of environment. It was established in 2006 by two former street and has developed to a stage that it is currently in the process of registration with the MoHSW.

The first step in the clinical practicum was to explore the experiences of the orphans and what their needs were and develop appropriate interventions. My colleague and I interviewed 35 orphans who consented to share their experiences. Some shared individually and others in focus group discussion. The definition of 'orphan' and eligibility for admission to this facility was very broad. Some of the children were single while others were double orphans but many children at the orphanage had both parents alive. They reported they had been brought to the orphanage (or came voluntary) either because of poverty, neglect, or abuse. Other reasons they mentioned were food shortage, deep feeling of loneliness and abandonment and for a few they saw the orphanage as a way of getting to school. For many children the following quotation reflected their experiences: '*ni bora kuwa yatima badala ya kuwa na wazazi waliokutenga*'(it is better to be an orphan than to be with parents who abuse/neglect you).

Many children in the orphanage indicated that they had felt *neglected* and that parents did not feed them or send them to school. Food deprivation was often as a form of punishment. As many as 81.8% of participants reported that at home they suffered from hunger

"for example the reason for me to leave home was because I was not given food for 3 days" because *"I did not go to sell oranges in the streets as I was ordered by father" 'I have both parents alive but they don't care about me. I feel so lonely and abandoned'.*

Child physical abuse: This was a common experience for the children and 84% of orphans at the centre have been punched or kicked on body at some time. One child ran away from home because he has lost a goat. He reported to be beaten much by his father even for small problems/mistakes hence when he lost a goat he knew it is like signing a death warrant and escaped. They reported that caregivers also beat them heavily even for little mistakes. The reasons for the abuse range from minor to major conflicts/mistakes: *"At times, am not even aware as to why I am being beaten, you just find his boots on your stomach"*.

Child sexual abuse: Five (out of 35) orphans reported have been forced by an adult to insert something on parts of their body (sexual act). Nine have been touched in their intimate body parts by someone much older than them. Children were avoiding situations that evoke their trauma. *"I afraid to go beach alone or with men because it reminds me of what I saw happening to a boy being sodomized there"* one child complained. They also shared their powerlessness to do anything about the abuse as culturally it is difficult in this environment for a child to accuse an elder person of any wrong doing. It is also difficult for a young boy who has been abused by being sodomized to tell others, since the shame of being labelled homosexual.

Changing care givers: Changing of caregivers at the orphanage has a huge impact on the children and is expressed in a comment from one orphan *"Once we start to be closer she leaves us"*. The orphanage depended on voluntary care givers who work without any financial support.

Sleeping accommodation: It is known that collective sleeping arrangements which are prelevant in orphanages in Tanzanian care homes, correlates strongly with an increased incidence of insecure attachments (24; 50). In the orphanage there are 2 block houses 1 for male with 6 rooms and another for females with 2 rooms. Male have beds with mattress while

girls have only mattress on the floors. There was no clear beds allocation with regard to age of child, or bed sharing. Girls were assigned to sleep in a manner that allowed them help care for the younger siblings who in most cases were not biologically related. *"Young siblings take us just like their younger sisters at home"*.

From this brief bird eye view of one orphanage there were indications that children living in institutional care homes in Dar as Salaam are vulnerable to psychopathological development not only because of prior adverse risks but of equal concern is the possibility that the culture of orphanage care settings may not recognize post traumatic stress disorder and long term depressive symptoms. Moreover violence in schools is often not taken into account and revealed that vulnerable, poor and orphaned children in Tanzania appear the hardest hit by teachers' harsh behaviour (55, 24). Thus orphans will not be helped to work through the psychological effects of loss, neglect or abuse in order to minimize the risk of more long term serious mental illness.

This study aimed to determine the magnitude of PTSD and associated mental health problems among children who are living in orphanages in Dar as Salaam. The study will provide some basic data from which more formal and systematic research can be done to determine mental health needs of children living in orphanages in Tanzania. It may help stakeholders be more aware that the psychological needs of orphans are as equally important as their physiological wellbeing and that there needs to be greater recognition of about PTSD and associated mental health problems among orphans.

1.7 RESEARCH QUESTIONS

There are no retrievable published studies determining the prevalence of PTSD and associated mental health among children in our orphanagess in Dar es Salaam. The following were the research questions:

- What is the magnitude of PTSD, physical, emotional and sexual child abuse, depressive symptoms and suicidal tendencies among institutionalized orphans in Dar as Salaam?

- What socio-demographic characteristics are associated with PTSD among institutionalized orphans in Dar as Salaam?
- Is there an association between PTSD and other mental health problems; physical, emotional and sexual child abuse, depressive symptoms and suicidal tendencies?
- How PTSD symptoms as a dependent variable associate with physical, emotional and sexual child abuse, depressive symptoms and suicidal tendencies among institutionalized orphans in Dar as Salaam?

1.8 OBJECTIVES

1.8.1 Broad Objective

To determine the prevalence of PTSD and associated mental health disorders among institutionalized orphans in Dar es Salaam.

1.8.2 Specific Objectives

- To determine prevalence of posttraumatic stress disorder (PTSD), Child abuse, Depressive symptoms and Suicidality among institutionalized orphans in Dar es Salaam.
- To determine the association of PTSD and social demographic factors among institutionalized orphans in Dar es Salaam.
- To determine the association between PTSD symptoms (DSM-IV Criteria A, B, C, and D) and child abuse (physical, emotional and sexual abuse), suicidal tendency and depression among institutionalized orphans in Dar es Salaam.

CHAPTER TWO

2.0 METHODOLOGY

2.1 Study Area

The study was conducted in 15 orphanages centers in Dar es Salaam region. Dar es Salaam is the largest commercial city in Tanzania comprising three districts that are considered as municipalities namely Ilala, Temeke, and Kinondoni. Temeke District is the southernmost of three districts in Dar es Salaam, with Kinondoni located to the far North of the city, and Ilala in downtown Dar es Salaam. To the East is the Indian Ocean and to the South and West is the Coastal region of Tanzania. Orphaned children in the selected centers are brought in by MoHSW and some from the streets and have agreed to live in the orphanages as a family. Most of centers have no access to psychological supports despite the mental health challenges residents are experiencing. The population of Dar es Salaam is estimated to be about 4 million with an annual growth rate of 8%.

Dar es Salaam was chosen to conduct the study because of the 94 orphanages listed in the Ministry of Health and Social Welfare (MoHSW) for the whole country 19 are in Dar es Salaam and I had worked in one of them.

2.2 Study Design:

A cross-sectional study was conducted in December 2011 to March 2012. Questionnaires of self report measures were used.

2.3 Sample Size Calculation

Estimated target population (N) is calculated as $N = \frac{z^2\ p\ (1 - p)}{d^2}$

Description:

z = confidence level at 95% (standard value of 1.96)
p = 28% the orphans PTSD prevalence in Cameroon, study done by Behrendt and Mor Mbaye (6)

d = margin of error at 5% (standard value of 0.05)

N = 309.7 orphanage residents from those living in selected orphanages in Dar es Salaam

Adjusting for non response, 10% of the estimated sample size will be added

N = 310 + 31 = 341 approximated to 350 sample size

2.4 Study Population

A list of orphanages in Dar as Salaam was obtained from Ministry of Health and Social Welfare (MoHSW) at Commissioner's office, Department of Social Welfare. Only 9 of the orphanages in Dar as Salaam were registered and 10 orphanages were in process of getting registration from MoHSW. The researcher collected data from 15 orphanages, the rest four were ineligible.

A total of 376 orphans from 15 orphanages were approached; 2 of them declined, 8 were severely physically ill during the data collection and 16 were identified as mentally challenged that they were unable to communicate with others. 350 participants obtained through convenience sampling from 15 orphanages in Dar as Salaam. Participants were identified by caregivers and their socio-demographical data were verified from orphanage registration file. Boy and girls, aged 7 to 17 years were involved in the study.

2.4.1 Inclusion Criteria

- Orphans registered in an orphanage centre
- Orphaned aged 7 to 17
- Orphans whose caregivers consented
- Orphans assented

2.4.2 Exclusion Criteria

- Orphans with severe physical health problem at the time of the data collection
- Orphans who is severe mentally challenged

2.5.0 Materials

A self-administered structured questionnaire was used for data collection on socio-demographic characteristics, physical health and child sexual abuse. The tool was adapted from a previous study in an Iringa orphanage (24). Three standardized scales were used to collect measures for PTSD, depression and suicidality. The University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index Post, (UCLA PTSD Index), children's depression inventory CDI 2-SR[S] for depression and Mini-International Neuropsychiatric Interview kid for Suicidality in children and adolescents (M.I.N.I. Section B)

The questionnaire was translated into Kiswahili and back translated to English. Translation was reviewed by the research team and consultants from the Department of Psychiatry and Mental Health. Scale items were translated from English to Swahili and then later back translated to English. Comparison between the original English questionnaire and the "back translation" was done to ensure the meanings of scale items were retained. The instrument was self administered in a setting where children were seated in a class room manner. The researchers were present to monitor and respond to individual queries and help individual who had any difficulty.

2.5.1 Socio-demographic characteristics

The first part of the questionnaire recorded participant's demographic characteristics including age (range age of 7 to 17 years), sex, residence (Kinondoni Temeke or Ilala), orphan status (single or double orphan) education (not attending, primary or secondary school).

2.5.2 Child abuse experiences

The tool has 41 questions and it has been used in different study in Dar as Salaam (30) and Iringa (24). Orphans were asked about experience of child abuse including physical, emotional and sexual abuse as well as neglect during their entire life at home, in school, within orphanage or neighborhood. The items scores were either none or one point; one or more event considered as child abuse.

2.5.3 UCLA PTSD for DSM-IV

The University of California at Los Angeles Post-traumatic Stress Disorder Reaction Index (UCLA PTSD) for DSM-IV. It was used to screen for exposure to traumatic events and for symptoms. The tool constitutes a brief lifetime trauma screen, allowing for categorizing of traumatic exposures including exposure to community violence, natural disaster, medical trauma and abuse (56).

The assessment of the severity of symptoms is based on the frequency of symptoms reported by the child and the minimum points to meet criteria for PTSD is 17 questions. The occurrence of each DSM-IV symptom within the last month is scored on a scale ranging from none of the time to most of the time. Thus, an overall PTSD severity score can be calculated by summing the scores for each question, which results in a maximum possible score of 68. The UCLA PTSD Index correspond to PTSD by DSM-IV criteria. It shows good psychometric properties and has been successfully utilized in our settings (24).

The PTSD diagnosis by using DSM-IV criteria is divided into full diagnosis and partial PTSD diagnosis. For full diagnosis the individual qualified for all criteria A, B, C, and D while

partial diagnosis there is criteria A and either of the group (B+ C) or (B+D) or (C+D) (45). According to DSM-IV Criterion A is exposure to traumatic event, criterion B is intrusion/re-experiencing, criterion C is avoidance and criterion D hyperarousal (4).

2.5.4 CDI 2: SR [S]

Children's Depression Inventory 2 Self-Report Short Form (CDI 2: SR [S]) (32) was used to measure depressive symptoms. The tool has only 12 item self administered and suitable for quick screening of depressive symptoms in children aged 7-17. Respondents are asked to choose one item from a list of three that best describes their situation. Scoring involves assigning a score of 0, 1, or 2 to each statement. The subscale has a maximum score of 24. The internal consistency was found to be good on the 27 item version of the CDI with Cronbach's alpha for overall total sample was $\alpha = 0.82$. The values among the individual age and sex groups ranged from 0.77 to 0.85 (32). For this study the cutoff point for clinical significant of 6 was used as the authors recommended (32).

2.5.5 M.I.N.I. Kid Section B

Mini-International Neuropsychiatric Interview kid for children and adolescents (M.I.N.I.) Section B for suicidality assessment (53) is a short structured diagnostic interviews, developed jointly by psychiatrists and clinicians in the United States and Europe, for DSM-IV and ICD-10 psychiatric disorders. The section B focuses on screening the severity of suicidal tendency and grouped into past suicide and current suicide. The total scores graded into three groups. Low suicidality 1-5 points, Moderate suicidality 6-9 points and High suicidality $\geq$ 10 points.

2.6 Recruiting and Training of Research Assistants

Two research assistants (RAs) were recruited, orientated to the study protocol, tools and familiarized with the data collection methods including participants' recruitment through consenting process. Both of RAs were graduate social workers and had experience of working with orphans. They were trained for two days prior to being involved in the data collection procedures.

2.7 Pilot Questionnaire Testing

A pilot study was conducted in one orphanage and the research instrument was administered to 10 orphans. The pilot assisted in checking whether the questionnaire was understandable to participants and identify items that were difficult to understand as well as the time taken for completion. Some questions were found to be ambiguous. Questions about sexual abuse and physical abuse were rephrased to add clarity, reduced ambiguity and to ensure they captured the desired responses. On average participant used 45 minutes to complete the questionnaire. However research assistants reported longer time periods in some orphanages.

2.8 Sampling procedure and Data collection

Researcher got introduction letter from MUHAS to MoHSW with a letter of introduction to the Director of each orphanage whose permission was sought (Appendix C & D). The aim of the study as well as potential risks and benefits were clearly explained to caregivers and orphans. Caregivers were asked to consent as guardians for the orphans. However individual orphans had a right to either to participate or refuse the study unconditionally. Participants were further reassured that, information gathered from the study would be kept under high confidentiality. All qualified orphans with caregiver's permission and assented themselves for participation were enrolled in this study.

Participants were placed with enough space each other and a quiet location with minimum distractions. They filled in the questionnaire themselves with minimum assistance from research assistant for clarification of terms. Participants who couldn't read and write were interviewed individually by research assistant. Case note files of the individual orphan were used to verify the socio-demographic data if participant was not sure. Participants were fully debriefed after they completed the questionnaire, and were provided with the author's contacts details if they had any further question to ask.

2.9 Research Ethics

This study was grated ethical approval from the MUHAS Research and Publication Committee (Appendix E). The research protocol was submitted to the MUHAS Higher Degrees Research and Publications Committee for ethical clearance. MoHSW were informed about the study and provided the orphanage list that found in Dar es Salaam. Permission to carry out the study sought from executive director of each orphanage. Children who were found to have severe mental health problems were recommended to take to the nearest hospitals.

2.10 Data analysis

Data collected was checked for completeness and inconsistencies at end of each data collection day. Any inconsistencies noted were corrected immediately. Data entry, cleaning and analysis were done by using Statistical Package for Social System (SPSS) version 15 Microsoft windows. 350 questionnaires were completed for data analysis. The completed questionnaires and typed results in SPSS windows were kept by the Principal Investigator in a secured environment.

Frequencies of relevant variables and cross tabulations as base line were used to explore the association between dependent and independent variables. Cross tabulations were used to determine prevalence of PTSD, child abuse, depressive symptoms and suicidality of orphans. Bivariate analysis was done to get p value. Logistic regression was used to get Chi-square and odd ratio. Statistical associations involving categorical variables were assessed using chi-square test. P-values of less than or equal to 5% was considered statistically significant in differences or association being examined.

PTSD symptoms by DSM-IV criteria were used as dependent variables while child abuse; physical, emotional, and sexual were used as independent variables. Other independent variables were depression and suicidal tendency. Odd ratio derived from the regression

coefficients of >1 were interpreted as a risk factor while odd ratio of <1 suggested to have protective factor.

Bivariate analyses - Chi square estimates were performed to identify associations with PTSD as dependent variable for all orphans enrolled and risk of mental health problem. Pearson χ^2 of <0.005 were used as a cut point of the significant detection. Strengths of associations were assessed using odds ratios (OR) that are reported with their related 95% confidence intervals (95% CI); p-values are used to determine significance of variances and are also reported. The logistic regression of PTSD, and socio demographic characteristics (age, gender, residence, education and orphan status) were analyzed. Association between PTSD criteria (A, B, C and D) and independent variables (physical, emotional and sexual child abuse, depressive symptoms, and suicidality) were done by binomial regression. PTSD, socio demographic characteristics (age, gender, residence, education and orphan status), physical emotional and sexual child abuse, depression and suicidality were identified to be included in the multivariate analysis using a predictor selection criterion of those with variances at p-values ≤ 0.1.

Multivariate analysis: A backwards logistic regression method was used to determine the strengths of associations of the outcome measure (PTSD) and potential predicators identified in univariate analyses. A stepwise method was used because the study design did not allow for causality to be inferred and also this was not the main focus of this exploratory study.

2.11 SUMMARY OF THE STUDY

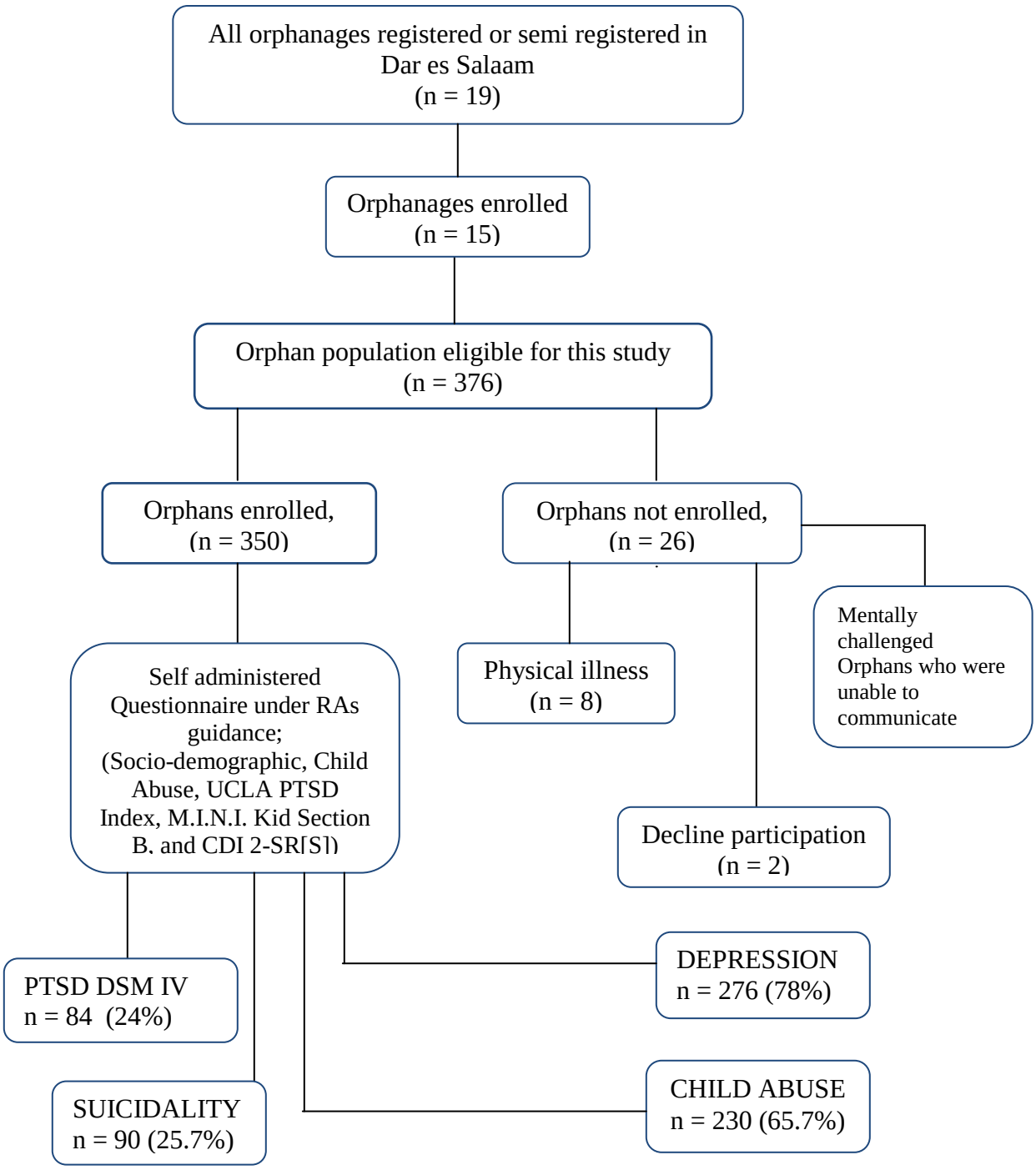


Figure 2: Summary of the study

CHAPTER THREE

3.0 RESEARCH FINDINGS

3.1 Socio-demographic profile of the study population

A total of 350 orphans from 15 different orphanages who were eligible and assented for the study were enrolled. The data for all was processed and analyzed. The respondents were within the age range 7-17 with a mean age of 13.4. Over half (55.1%) were between 10-14 years and more than a third (36%) between the age 15-17 years and a minority (8.3%) were below 7-9 years. A majority of the participants were male (61.4%) and females were 135 (38.6%). Double orphans were 203 (58.0%) and single orphans were 147 (42.0%). More than half of the participants 201 (57%) were attending primary school and 84 (24%) secondary school were and 65 (18.6%) were out of school. Participants from Kinondoni municipality were 185 (52.9%), Temeke 92 (26.3%) and Ilala were 73 (20.9%) as shown in Table 1 below.

3.2 Prevalence of PTSD and associated mental health problems

Data of 350 participants were analyzed to determine the prevalence of PTSD, child abuse (physical, emotional and sexual) depressive symptomatology and suicidality among institutionalized orphans in Dar as Salaam.

i. Two measures were used to determine the prevalence of PTSD (1) overall scale scoring of UCLA PTSD Scale and (2) PTSD DSM-IV criteria were used to determine the prevalence of PTSD. Almost 40% of participants (38.6%) reached the cut off score for PTSD by using the UCLA PTSD scale in that all participants scored $\geq$ 17 points. Whilst the prevalence using DSM-IV criteria was lower 84 participants (24.0%) met all four DSM-IV criteria (A, B, C and D). Participants who had criterion A were 206, criterion B were 257, criterion C were 168 and criterion D were 130. Majority had partial PTSD by DSM-IV criteria (Appendix G)

ii. Child abuse:

For every orphan who reported an encounter of any form of child abuse regardless how often, it was considered as the l child abuse. 65.7% participants (143 males and 87 females) reported being victims of child abuse; 214 participants (135 males and 79 females) reported they had encountered physical abuse; 207 emotional child abuse participants (126 males and 78 females) and 53 participants reported having encountered sexual abuse (males 30 and 23 females).

iii. Suicidal tendency:

The overall suicidality determined from an extracted tool from M.I.N.I including past and current suicidality, 90 (25.7%) participants (55 males and 35 females) revealed suicidal tendency. 39 (11.1%) participants reported current suicidality, males were 26 (12.1%) and females were 13 (9.6%). Participants who reported past suicidality were 66 (18.7%), males were 41 and females were 25.

iv. Depressive symptoms

Each participant who scored ≥ 6 points was considered to have depression symptoms as indicated in CDI 2 standard guideline. 276 (78.8%) participants reported depressive symptoms. Males were 171 and female were 105 as shown in Table 2 below

TABLE 1: Socio-demographic characteristics of study population

Socio-demographic variables	RESPONSES (N = 350)	
	N	%
Age		
7-9	29	8.3
10-14	193	55.1
15-17	128	36.6
Sex		
Male	215	61.4
Female	135	38.6
Orphanage status		
Single orphan	147	42.0
Double orphan	203	58.0
Resident District		
Kinondoni	185	52.9
Temeke	92	26.3
Ilala	73	20.9
School attendance		
Out of school	65	18.6
Primary school	201	57.4
Secondary School	84	24.0
Total	**350**	**100**

TABLE 2: Prevalence of PTSD, Child Abuse, Depressive symptoms and Suicidal tendency among institutionalized orphans in Dar as Salaam

Characteristic			Sex	
		Total n (%)	Male n (%)	Female n (%)
PTSD	Scale (>17 points)	135 (38.6)	86 (40.0)	49 (36.3)
	DSM –IV criteria	84 (24.0)	54 (25.1)	30 (22.2)
Child Abuse	Overall	230 (65.7)	143 (66.5)	87 (64.4)
	Physical	214 (61.1)	135 (62.8)	79 (41.5)
	Emotional	207 (59.1)	126 (60.0)	78 (57.8)
	Sexual	53 (15.1)	30 (14.0)	23 (17.0)
Suicidal tendency	Overall	90 (25.7)	55 (25.6)	35 (25.9)
	Current	39 (11.1)	26 (12.1)	13 (9.6)
	Past	66 (18.7)	41 (19.0)	25 (18.5)
Depressive symptoms		276 (78.9)	171 (79.5)	105 (77.8)

3.3 PTSD and associated socio-demographic characteristics

PTSD was more prevalent (27.3%) among 15-17 years age group compared to the younger age groups with more males (29.9%) than females (19.7%) reporting PTSD symptoms. With regard to district Ilala municipality, 23 (31.5%) had more orphans with PTSD compared with Kinondoni and Temeke. In relation to orphan status PTSD prevalence among single orphans 44 (29.9%) was higher compared to double orphans 40 (19.7%) and this was significant ($p = 0.02$), Participants who were out of school had a higher prevalence rate of PTSD 24 (36.9%) compared to those who were attending schools at a significant level ($p = 0.009$), as shown in Table 3 below.

To identify the specific predictor in education multivariate analysis was done and results showed that out of school is high predictor to PTSD symptoms with significant difference ($p<0.003$, 95% CI 1.5-7.0), when secondary school variable was kept constant.

TABLE 3: PTSD by Socio-demographic characteristics

Socio-demographic variables	PTSD DSM-IV CRITERIA					
	YES		NO		Chi	p-value
	N	%	N	%		
Age					1.32	0.52
7-9	7	24.1	22	75.9		
10-14	42	21.8	151	78.2		
15-17	35	27.3	93	72.7		
Sex					0.38	0.54
Male	54	25.1	161	74.9		
Female	30	22.2	105	77.8		
Residential District					3.0	0.22
Kinondoni	42	22.7	143	77.3		
Temeke	19	20.7	73	79.4		
Ilala	23	31.5	50	68.5		
Orphanage status					4.89	0.02
Single orphan	44	29.9	103	70.1		
Double orphan	40	19.7	163	80.3		
School attendance					9.34	0.009
Out of school	24	36.9	41	63.1		
Primary school	47	23.4	154	76.6		
Secondary School	13	15.5	71	84.5		

3.4 PTSD and associated mental health problems

The association between the PTSD symptoms and child abuse (physical, emotional and sexual), suicidal tendencies and depressive symptoms were determined by bivariate analysis logistic regression to get odd ratio. Results revealed that children who encountered physical and sexual abused shown higher odds for all PTSD symptoms. Children reporting suicidal tendency were 3 times more likely to report a traumatic event (95% CI 1.5-4.7), Re-experiencing (95% CI 1.3-4.8), avoidance (95% CI 1.7-4.9) and twice more likely to be report Hyperarousal (95% CI 1-2.9). Avoidance symptoms were associated more with physical abuse (OR=4.0, 95% CI 1.9 - 8.6), sexual abuse (OR=4.0, 95% CI 1.9 - 8.4), and suicide tendency (OR= 2.9, 95% CI 1.7 - 4.9). Survivors of emotional abuse and depressive symptoms showed no association with PTSD symptoms although emotional abuse was significant in association with traumatic event experience as shown in Table 4 below.

TABLE 4: Association of PTSD symptoms (DSM-IV criteria A, B, C and D) with physical, emotional, sexual, depression and suicide using binomial logistic regression analysis.

Variable	A-Traumatic Event (n=206)		B-Re-experience (n=257)		C-Avoidance (n=168)		D-Hyperarousal (n=130)	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95 % CI
Physical	2.8*	1.3 - 5.9	2.4*	1.1 - 5.2	4.0***	1.9 - 8.6	2.6*	1.2 - 5.4
Emotional	0.5 *	0.2 - 1.0	0.7	0.3 - 1.5	0.5	0.2 - 1.1	0.6	0.3 - 1.4
Sexual	1.7	0.9 - 3.5	2.1	0.9 - 5.1	4.0***	1.9 - 8.4	2.8**	1.4 - 5.4
Suicidality	2.7 ***	1.5 - 4.7	2.5*	1.3 - 4.8	2.9***	1.7 - 4.9	1.7*	1.0 - 2.9
Depression	1.0	0.6 - 1.7	0.9	0.5 - 1.7	1.2	0.7 - 2.2	1.3	0.7- 2.4

* = $p < 0.05$, ** = $p < 0.005$, *** = $p < 0.0005$, OR = Odd ratio, CI = Confidence interval,

3.5 Association of PTSD diagnosis with other mental health problems

Results show that overall sixty four (27.8%) orphans who encounter any form of child abuse met the criteria for PTSD diagnosis ($p < 0.02$). Those who encountered physical abuse 29.4 % (n=63) met criteria for PTSD ($p < 0.003$), those encountered emotional abuse were 57 had PTSD diagnosis ($p < 0.062$) and who encountered child sexual abuse 23 had PTSD diagnosis ($p < 0.001$). With regard to depression 25.7 % (n=71) met criteria for PTSD diagnosis ($p < 0.145$) and 40% of children who reported suicidal tendency met criteria for diagnosed PTSD ($p < 0.001$) as shown in table 5 below.

TABLE 5: PTSD associations with Child abuse (overall, physical, emotional and sexual), depressive symptoms and suicidal tendency

Variables		PTSD DSM-IV CRITERIA			
		YES n (%)	NO n (%)	Chi	p-value
Child Abuse	Overall	64 (27.8)	166 (72.2)	5.384	0.02
	Physical	63 (29.4)	151 (70.6)	8.933	0.003
	Emotional	57 (27.5)	150(72.5)	3.473	0.062
	Sexual	23 (43.4)	30 (56.6)	12.882	0.000
Depression		71 (25.7)	205 (74.3)	2.128	0.145
Suicidality tendency		36 (40.0)	54 (60.0)	17.0	0.000

3.6 Predictors of PTSD in orphans in Dar as Salaam

Results found a highly significant association between PTSD and suicidality (OR= 2.9, $p < 0.001$) and sexual child abuse (OR= 2.5, $p < 0.012$). Child physical abuse showed a marginal significance ($p < 0.07$) with 95% confident interval of 0.8 to 60.8. It didn't show statistical significant probably due to small sample size. Results show no significant association

between PTSD and socio-demographic characteristics; age (OR=1.0, p < 0.9) residence (OR =1.1, p < 0.63) education (OR= 1.2, p < 0.29) gender (OR= 0.8, p < 0.4). Furthermore no significant association was found for depression overall child abuse and emotional abuse as shown in Table 6 below. It revealed that children who encountered sexual abuse and experienced suicidal tendency were approximately three times more likely to have a PTSD diagnosis. Therefore through a process of bivariate and multivariate analysis, a multivariate model of logistic regression was created. Results from this analysis indicated that the strongest predictors of PTSD among institutionalized orphans in Dar es Salaam were child sexual abuse and suicidal tendency.

TABLE 6: Predictors of PTSD among institutionalized orphans in Dar as Salaam

Variable	PTSD (n = 84)			
	COR	AOR	95% CI	p-value
Education	1.2	1.04	0.9 - 1.6	0.296
Suicidality	**2.9**	**3.72**	**1.6 - 5.0**	**0.000**
Gender	0.8	-0.83	0.5 - 1.4	0.409
Physical abuse	**7.2**	**1.81**	**0.8 - 60.8**	**0.070**
Emotional abuse	0.6	-0.92	0.2 - 1.7	0.360
Sexual abuse	**2.5**	**2.52**	**1.2 - 5.0**	**0.012**
Depression	1.1	0.31	0.6 - 2.3	0.755
Overall child abuse	0.3	-0.95	0.0 - 3.4	0.342
Age	1.0	-0.11	0.7 - 1.4	0.909
Residence	1.1	0.48	0.8 - 1.5	0.630

COR = Crude Odd Ratio, AOR = Adjusted odd ratio

CHAPTER FOUR

4.0 DISCUSSION

4.1 Prevalence of PTSD and associated mental health problems among orphans in Dar es Salaam

Overall prevalence of PTSD and associated mental health problems among orphans in institutions in Dar as Salaam was revealed to be high. Compared to global rates for general adolescent populations of 3% to 6% (29), a rate of 24% of institutionalized orphans in Dar as Salaam is high. The findings are consistent with studies in the region. A high prevalence of PTSD has been found among AIDS orphans in South Africa and Zimbabwe (14; 41) and in Tanzania (36: 61). A recent study conducted in one rural Tanzanian orphanage found that 5 (36.8%) of the 14 orphanages had a PTSD diagnosis (24).

4.2 Association of PTSD with socio-demographic characteristics

From analysis socio-demographic characteristics that showed a significant relationship with PTSD symptoms were school status and orphan status.

Education: Orphans who were attending school were less likely to develop PTSD than those who were not attending ($p < 0.009$). This is consistent with findings from a Nigerian orphanage where it was found attending school to be positively associated with mental health well being (3). Extended families usually see school fees as a major factor in deciding to take in additional children orphaned by AIDS (37). It may be that orphans in this study feel optimistic about the future due to the opportunities for schooling. In the formative phase of this study orphans openly reported that one reason for placement in the orphanage for some of them was poor to get access to formal schooling.

Orphan status: It showed a significant relationship with presence of PTSD in that single orphans were more likely report PTSD symptoms than double orphans ($p<0.002$). In a study in Namibia it was found that single orphan (status) were more likely to be depressed than

double orphans and non orphans among adolescents (48). One possible explanation is that single orphans have a parent who for some reasons is not caring for them and perhaps feel more abandoned and neglected where as double orphans know that both parents are dead and don't feel neglected. Interestingly, PTSD prevalence was found to be higher in a study among children who lost one parent but lived with the surviving parent (29/50) then among children in the orphanage (15/38) or children living with both parents (13/50) (χ^2= 33.075, P<0.001) (22)

Sex: Results indicate no significant difference between males and females in association with PTSD. However, others indicate that the prevalence of PTSD symptoms is related, age, sex (26) and in the Cameroon PTSD was found to be more prevalent among girls than boys ($p \leq 0.01$) (6).

Age: The results indicated that there was more PTSD symptoms reported in the older age group (27.3%) in the 15-17 years age group. This is consistent with studies indicating those who get traumatized at older age more at risk for PTSD (44). Although not in keeping with a more psychodynamic perspective that indicates that the earlier the trauma the more risk for adult psychopathology.

4.3 PTSD diagnosis association with other mental health problems

Results indicated that there is strong association between PTSD symptoms and other mental health problems. Numerous studies show a strong relationship between child trauma with mental health problem is (14; 17; 41; 47; 48) and in our own setting (24; 26; 60; 61). Evidence from literature indicates that orphans are overwhelmed with emotional trauma following parental loss and suffer worse health outcomes without emotional, social, and financial support.

In this study orphans who reported ever to have encountered physical abuse were more likely to develop all PTSD symptoms. Analysis also found that it is four times more likely to develop avoidant behavior if the orphan had been physically abused and three times more

likely to have experienced a traumatic event and two times more likely to develop reexperiencing symptom and one time more likely to develop hyperarousal symptom. This is consistent with studies that revealed that exposure to violent environment may cause PTSD development (21) and children from violent homes have more emotional and behavioral problems than those from nonviolent homes (57) and are more aggressive (15) and the severity of PTSD symptoms is associated with drug abuse and violent crimes (51)

In this study the prevalence of PTSD and depressive symptoms in were high (78%). A prevalence of 78% on the CDI 2 SR [S] may indicate that the standard guideline scores ≥ 6 for depression is too low resulting in an overestimation of depressive symptoms. This is an area that needs to be further researched. However, many studies have shown strong associations between PTSD, child abuse and depressive symptoms among children after a traumatic event. For example, in Northern Uganda among children affected by the war it was found that levels of PTSD were high 54% of respondents meeting the diagnostic criteria for PTSD and 67% for depression (46). Similarly, a 2004 study investigating rates of PTSD in former Ugandan child soldiers found that 97% of the respondents met the criteria for the diagnosis. The same study found that even children who escaped from the LRA a long time prior to the study continued to suffer from PTSD-like symptoms several years later (71). However there was no significant association between depression and PTSD contrary to the Cameroon study which found that PTSD and depression were highly prevalent among orphaned children (15).

4.4 The predictors of PTSD among orphan

Multivariate regression analysis indicated that the independent predictors of PTSD among orphans in this setting were suicidality and sexual child abuse. It also indicated child physical abuse as marginally predictive.

Child sexual abuse: The results are supported by various studies which found that PTSD is one of the strongest psychiatric disorders that correlate with sexual abuse (19). Surprisingly the results of this study showed lower prevalence of child abuse compared to the national

prevalence (70). The main reason could it be the age difference age range was 13 to 24 while this study age ranged between 7 and 17 years.

A recent longitudinal study of prevalence of post-traumatic stress disorder among adolescents after the Wenchuan earthquake in China found that depression symptoms were predictive of PTSD symptoms in the 18-month follow-up study. Other predictors of PTSD symptoms included female gender and being a child with siblings (77). This could be understood in the context of the nature of the trauma which is different from the trauma experienced among the study population.

***PTSD and Suicide*:** The study also found suicide tendency to be an independent predictors of PTSD. This compares with previous studies in Tanzania in which orphans were found to have marked internalising problems compared to non-orphans. 34% of the orphans reported that they had contemplated suicide in the previous year. They also found internalising problems to be sex (females were found to be higher than males on internalizing problems), going to bed hungry, no reward for good behaviour, not currently attending school, as well as being an orphan (36).

CHAPTER FIVE

5.0 CONCLUSION

A very high prevalence of PTSD exists among orphans in institutional care in Dar as Salaam. Orphanhood of itself brings a host of mental health vulnerabilities and being placed in an institution significantly increases the risk not only for PTSD but other mental health problems. In this cultural context lack of recognition of PTSD and its long term negative consequences on orphans placed in our institutions leave them more vulnerable to serious psychopathology.

5.1 RECOMMENDATION

Institutional care seems to be on the increase as the kin system is no longer able to bear the brunt of the burden. The MoHSW needs to be more systematic in the overall management of institutional child care in Tanzania and develop policies in collaboration with other Ministries responsible for children's welfare. In fact few orphanages are registered and there is no system for monitoring the quality of care provided. The following recommendations are suggested:

- A more systematic research is needed to explore more fully the issues related to institutional care in Tanzania and clear guidelines regarding the establishment of orphanages.
- A contextual recognition of PTSD and early recognition among vulnerable populations like institutionalized orphans needs to be developed.
- There is an urgent need to expand and improve current interventions not only to meet basic needs but also to include psychosocial support, mental health services for orphans and training for their carers. This is a challenge given the scarcity of professions and the skill level of caretakers but needs to be addressed now.
- It is also recommended that caregivers be formally trained and certified to work in orphanages and be a pre requirement for establishing an orphanage. The training should include the importance of the caregivers relationship with the orphan, how to recognize

PTSD symptoms, child abuse, depressive symptoms and assess for suicidal tendencies. It is also important that a clear referral system for more formal services be established.

- The school enrollment and attendance be compulsory for all institutionalized orphans.

5.2 STUDY LIMITATIONS

The scope of the study is limited in terms of sample size and geographical area covered due to constraints of time and resources. The study used cross-sectional design limiting the type of data collected. Results do not clearly show the direction of association between orphan status, child sexual abuse and suicidality and PTSD. Also some qualitive data on experiences in the orphanages would have enhanced the findings.

More formative work on the scales would help determine more appropriate cut off points and better measurlevels of impairment among children particularly orphans. A prevalence of 78% on the CDI 2 SR [S] may indicate that the standard guideline scores ≥ 6 for depression is too low in this cultural context. Lack of local cut off point for CDI 2 SR [S] scoring may limit the compatibility of results.

The small sample size, limited power of the study, and its geographical restriction to one region of the country does not give a representative picture. It is important that future studies address the issues of mental health among orphans in rural Tanzania to better inform the development of concrete policies and services for this population.

Despite the methodological limitations, the study revealed important information about prevalence of PTSD and its associated factors among orphans in Dar as Salaam. To date this is the only study that explored PTSD and associated mental health problems among orphans in all orphanages Dar as Salaam.

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APPENDICES

A. Questionnaires (English version)

Socio demographic data	
Date of interview	
Name of interviewer	
Name of child	
Gender	Male( ) Female ( )
Age (in years)	_____years
Are you currently in school?	No ( ) Yes ( )
If yes, which grade	_____grade
MOTHER	
Is your mother alive?	No ( ) Yes( )
If yes,	
Where is she living? How often do you see each other,…	
FATHER	
Is your mother alive?	No ( ) Yes( )
If yes,	
Where is she living? How often do you see each other,…	
SIBLINGS and RELATIVES	
Do you have siblings?	No ( ) Yes ( )
If yes,	
How many?	Number of sibling_____
Did any of your siblings died?If yes, how many?	No( )Yes( ) No of them ____
Are any of your siblings living with you in the orphanage? If yes, how many?	No ( ) Yes ( ) Number of them_____
Are any of your siblings living somewhere else? If yes how many?	No ( ) Yes ( ) Number of them_____
Are you in touch with your siblings or other relatives outside the orphanage?	No ( ) Yes ( )
If no, is there any sibling / relative you miss a lot?	No( ) Yes ( )
If yes, whom do you miss most? Name of the person missed most	Name_____

2. Child abuse					
		The neighborhood	**Since march in the orphanage**	**If yes, who**	
				Staff	Child
1	Have your arms been twisted?	No ( )Yes ( )	No ( )Yes ( )		
2	Have you been pulled by the hair?	No ( )Yes ( )	No ( )Yes ( )		
3	Have you been pinched in arms or legs?	No ( )Yes ( )	No ( )Yes ( )		
4	Have you been threatened	No ( )Yes ( )	No ( )Yes ( )		
5	Have you been slapped on the body, arms or legs?	No ( )Yes ( )	No ( )Yes ( )		
6	Have you been slapped in theface?	No ( )Yes ( )	No ( )Yes ( )		
7	Have you been punched/kicked on body, arms or legs?	No ( )Yes ( )	No ( )Yes ( )		
8	Have you been punched/ kicked in the face?	No ( )Yes ( )	No ( )Yes ( )		
9	Have you been hit with an object e.g. belt, board, stick)?	No ( )Yes ( )	No ( )Yes ( )		
10	Have you been burned with hot? water, cigarette or firewood?	No ( )Yes ( )	No ( )Yes ( )		
11	Have things been thrown at you?	No ( )Yes ( )	No ( )Yes ( )		
12	Have you been tied up or locked up?	No ( )Yes ( )	No ( )Yes ( )		
13	Has somebody attempted to strangle you	No ( )Yes ( )	No ( )Yes ( )		
14	Has somebody attempted to burn you?	No ( )Yes ( )	No ( )Yes ( )		
15	Have you been threatened with an object or weapon?	No ( )Yes ( )	No ( )Yes ( )		
16	Have you been threatened to be killed?	No ( )Yes ( )	No ( )Yes ( )		
17	Have you been injured with a weapon(gun, knife)?	No ( )Yes ( )	No ( )Yes ( )		
18	Have you been shouted, screamed, or sworn at?	No ( )Yes ( )	No ( )Yes ( )		
19	Have you been told that you are not good	No ( )Yes ( )	No ( )Yes ( )		
20	Have you been ridiculed in front of others	No ( )Yes ( )	No ( )Yes ( )		
21	Have you been ignored or socially excluded	No ( )Yes ( )	No ( )Yes ( )		
22	Did you have to wear dirty/ragged clothes,	No ( )Yes ( )	No ( )Yes ( )		

23	Were you not given enough food/ Did you suffer hunger?	No ( )Yes ( )	No ( )Yes ( )		
24	Have you not been given anything to drink?	No ( )Yes ( )	No ( )Yes ( )		
25	Have you seen another child being punched/beaten/kicked?	No ( )Yes ( )	No ( )Yes ( )		
26	Have you seen another child being hit with an object?	No ( )Yes ( )	No ( )Yes ( )		
27	Have you seen another child being burned/ strangled?	No ( )Yes ( )	No ( )Yes ( )		
28	Have you seen another child being injured with a weapon?	No ( )Yes ( )	No ( )Yes ( )		
29	Have you seen another child being threatened to be killed?	No ( )Yes ( )	No ( )Yes ( )		
30	Have you been touched in your intimate body parts by someone	No ( )Yes ( )	No ( )Yes ( )		
31	Have you been forced by an adult person to insert something in any part of your body / an sexual act?	No ( )Yes ( )	No ( )Yes ( )		
32	Have you been forced to kiss someone (in a sexual way)?	No ( )Yes ( )	No ( )Yes ( )		
33	Have you been forced to touch the intimate parts of someone much older than you?	No ( )Yes ( )	No ( )Yes ( )		
34	Have you seen someone being, touched on intimate body parts	No ( )Yes ( )	No ( )Yes ( )		
35	Have you been forced to watch sexual act	No ( )Yes ( )	No ( )Yes ( )		
36	Have you experienced or witnessed any other foundation witnessed any other form of violence not mentioned so far?	No ( )Yes ( )	No ( )Yes ( )		
37	Have you ever had injuries(cuts, bruises, burns, broken bones, black eye) as the result of the sort of incidents mentioned so far?	No ( )Yes ( )	No ( )Yes ( )		
38	Did you ever need medical treatment/ did you ever go to a hospital doctor/ the hospital because of an injury resulting from the incidents we mentioned so far?	No ( )Yes ( )	No ( )Yes ( )		
39	Did you ever feel treated unfair in one of the situations mentioned above?	No ( )Yes ( )	No ( )Yes ( )		
40	Did you ever feel helpless in one of the situations mentioned above?	No ( )Yes ( )	No ( )Yes ( )		
41	Did you ever feel terrified in one of the situations mentioned above?	No ( )Yes ( )	No ( )Yes ( )		

3. UCLA - CHILD PTSD INDEX			
	Index Trauma, interview march		
1	Did anything happen to you since march that was REALLY SCARY, DANGEROUS OR VIOLENT?	Yes [ ]	No [ ]
2	About how long ago did this bad thing (your answer to [a] or [b]) happen to you?	_____Month	
3	Please describe what happened to you		
FOR THE NEXT QUESTIONS, please CHECK [YES] or [NO] to answer HOW YOU FELT during or right after the bad thing happened that you just wrote about in Question 14.			
5	Were you scared that you would die?	Yes[ ]	No[ ]
6	Were you scared that you would be hurt badly?	Yes[ ]	No[ ]
7	Were you hurt badly	Yes[ ]	No[ ]
8	Were you scared that someone else would die?	Yes[ ]	No[ ]
9	Were you scared that someone else would be hurt badly?	Yes[ ]	No[ ]
10	Was someone else hurt badly?	Yes[ ]	No[ ]
11	Did someone die?	Yes[ ]	No[ ]
12	Did you feel very scared, like this was one of your most scary experience ever?	Yes[ ]	No[ ]
13	Did you feel that you could not stop what was happening or that you needed someone to help?	Yes[ ]	No[ ]
14	Did you feel that what you saw was disgusting or gross?	Yes[ ]	No[ ]
15	Did you run around or act like you were very upset?	Yes[ ]	No[ ]
16	Did you feel very confused?	Yes[ ]	No[ ]
17	Did you feel like what was happening did not seem real in some way, like it was going on in a movie instead of real life?	Yes[ ]	No[ ]

1. LITTLE: two times a months				**3. MUCH: 2-3 times a week**		
2. SOME: 1-2 times a week				**4. MOST: almost every day**		
	HOW MUCH OF THE TIME DURING THE PAST MONTH	None	Little	Some	Much	Most
1	watch out for danger or things that I am afraid of.	0	1	2	3	4
2	When something reminds me of what happened, I get very upset, afraid or sad	0	1	2	3	4
3	I have upsetting thoughts, pictures, or sounds of what happened come into my mind when I do not want them to.	0	1	2	3	4
4	I feel grouchy, angry or mad.	0	1	2	3	4
5	I have dreams about what happened or other bad dreams	0	1	2	3	4
6	I feel like I am back at the time when the bad thing happened, living through it again	0	1	2	3	4
7	I feel like staying by myself and not being with my friends.	0	1	2	3	4
8	I feel alone inside and not close to other people.	0	1	2	3	4
9	I try not to talk about, think about, or have feelings about what happened?	0	1	2	3	4
10	I have trouble feeling happiness or love.	0	1	2	3	4
11	I have trouble feeling sadness or anger.	0	1	2	3	4
12	I feel jumpy or startle easily, like when I hear a loud noise or when something surprises me.	0	1	2	3	4
13	I have trouble going to sleep or I wake up often during the Night	0	1	2	3	4
14	I think that some part of what happened is my fault.	0	1	2	3	4
15	I have trouble remembering important parts of what Happened	0	1	2	3	4
16	I have trouble conc entrating or paying attention	0	1	2	3	4
17	I try to stay away from people, places, or things that make me remember what happened	0	1	2	3	4
18	When something reminds me of what happened, I have strong feelings in my body, like my heart beats fast, my head aches, or my stomach aches	0	1	2	3	4
19	I think that I will not live a long life.	0	1	2	3	4
20	I am afraid that the bad thing will happen again	0	1	2	3	4

Functioning PTSD – past four weeks!

1	Did you tell a doctor about the problems that occurred as a result of EVENT	YES [ ]	NO [ ]
2	Did you tell a teacher, healer or priest?	YES [ ]	NO [ ]
3	Did you take a medicine more than once for the problems which occurred as a result of it?	YES [ ]	NO [ ]
4	Did the problems which occurred as a result of it interfere with your life or activities a lot?	YES [ ]	NO [ ]
5	In the past 4 weeks, have you been very upset with yourself for having the problems which occurred as a result of (EVENT)?	YES [ ]	NO [ ]
6	In the past 4 weeks, have the problems which occurred as a result of (EVENT) kept you from going to a party, to your friends or to a meeting?	YES [ ]	NO [ ]
7	In the past 4 weeks, have the problems which occurred as a result of (EVENT) kept you from playing with your friends?	YES [ ]	NO [ ]
8	Have these troubles caused you to have problems at school or at home?	YES [ ]	NO [ ]

4. SUICIDALITY: KUJIUA

B1	a Have you ever felt so bad that you wished you were dead?	NO	YES	1
	a Je, ulishawahi kuhisi vibaya kwamba ulitamani ufariki	HAPANA	NDIYO	**1**
	b Have you ever tried to hurt yourself?			
	b Je ulishawahi kujaribu kujidhuru mwenyewe?	NO	YES	2
	c Have you ever tried to kill yourself?	HAPANA	NDIYO	2
	c Je ulishawahi jaribu kujiua	NO	YES	4
		HAPANA	NDIYO	4
	IF **YES** TO ANY, CODE **YES**			
	KAMA **NDIYO** KWA YEYOTE WEKA **NDIYO**			
	In the past month did you:			
	Kwa mwezi uliopita, Je:			
	Wish you were dead?			
B2	Ungetamani uwe umekufa	NO	YES	1
	Want to hurt youself?	HAPANA	NDIYO	1
B3	Unatamani kujidhuru	NO	YES	2
	Think about killing your self	HAPANA	NDIYO	2
B4	Ulifikiria kujiua	NO	YES	6
	Think of a way to kill yourself	HAPANA	NDIYO	6
B5	Kulifikia njia ya kujiua	NO	YES	10
	Try to kill yourself	HAPANA	NDIYO	10
B6	Ulijaribu kujiua	NO	YES	10
		HAPANA	NDIYO	10
	IS AT LEAST 1 OF THE ABOVE CODED **YES**?			
	KAMA ANGAU 1 HAPO JUU NI NDIYO			

→

NO ***YES***

HAPANA ***NDIYO***

SUICIDE RISK PAST
KUJIUA ILIKUWEPO

→

NO ***YES***
HAPANA ***NDIYO***

SUICIDE RISK CURRENT
KUJIUA KUPO

1-5 points	Low	[ ]
6-9 points	Moderate	[ ]
≥ 10 points	High	[ ]

CDI$_2$

SELF-REPORT
SHORT

Name/ ID: _____ Date of Birth_____/ _____/_____
Year Month Day

Age: _____ Grade____ Sex: Male Female Today's Date_____/ _____/ _____
Circle one Year Month Day

Kids sometimes have different feelings and ideas.

This form lists the feelings and ideas in groups of three statements. From each group pick one sentence that describes you best for the past two weeks. After you pick a sentence from the first group, go on to the next group

There is no right or wrong answer. Just pick the sentence that best describes the way you have been feeling recently. Put a mark like this √ next to your answer. Put the mark in the box next to the sentence that you pick.

Here is an example of how this form works. Try it. Put a mark next to the sentence that describes you best.

Example:
- ☐ I read books all the time.
- ☐ I read books once in a while.
- ☐ I never read books.

Remember, for each group; pick out the sentence that describes you best in the PAST TWO WEEKS.

Item 1 ☐ I am sad once in a while. ☐ I am sad many times. ☐ I am sad all the time.	**Item 7** ☐ I feel cranky all the times ☐ I feel cranky many times ☐ I am almost never cranky
Item 2 ☐ Nothing will ever work out for me. ☐ I am not sure if things will work out for me. ☐ Things will work out for me O.K.	**Item 8** ☐ I cannot make up my mind about things. ☐ It is hard to make up my mind about things. ☐ I make my mind about things easily.
Item 3 ☐ I do most things O.K. ☐ I do many things wrong. ☐ I do everything wrong	**Item 9** ☐ I have to push myself all the time to do my schoolwork. ☐ I have to push myself many times to do my schoolwork. ☐ Doing schoolwork is not a big problem.
Item 4 ☐ I have fun in many things. ☐ I have fun in some things. ☐ Nothing is fun at all.	**Item 10** ☐ I am tired once in a while. ☐ I am tired many days. ☐ I am tired all the time.
Item 5 ☐ I am important to my family. ☐ I am not sure if I am important to my family. ☐ My family is better off without me.	**Item 11** ☐ Most days I do not feel like eating. ☐ Many days I do not feel like eating. ☐ I eat pretty well.
Item 6 ☐ I hate myself. ☐ I do not like myself. ☐ I like myself.	**Item 12** ☐ I do not feel alone. ☐ I feel alone many times. ☐ I feel alone all the time.

B. Dodoso la Kiswahili

1. Taarifa za Kijamii za Yatima	
Tarehe ya mahojiano	
Jina la mhojaji	
Jina la mtoto	
Jinsi	Kiume( ) Kike ( )
Umri (miaka)	_____Miaka
Kwa sasa unasoma shule	Hapana ( ) Ndiyo ( )
Kama ndiyo, darasa la ngapi?	_____Darasa
MAMA	
Mama yako ni mzima	Hapana ( ) Ndiyo ( )
Kama ndiyo,	
Anaishi wapi? Una onana naye marangapi?	
BABA	
Baba yako ni mzima?	Hapana ( ) Ndiyo ( )
Kama ndiyo,	
Anaishi wapi? Una onana naye marangapi?	
NDUGU NA JAMAA WENGINE	
Una ndugu (wadogo au wakubwa wako)	Hapana ( ) Ndiyo ( )
Kama ndiyo,	
Wako wangapi?	Idadi yao _____
Kuna ndugu yako aliyefariki? Kama ndiyo, wangapi?	Hapana ( ) Ndiyo ( ) idadi yao_____
Kuna ndugu unaye ishi naye hapa kituoni? Kama ndiyo, wangapi?	Hapana ( ) Ndiyo ( ) idadi yao_____
Kuna ndugu yako anaye ishi sehemu nyingine? Kama ndiyo, wangapi?	Hapana ( ) Ndiyo ( ) idadi yao_____
Je una wasiliana kwa karibu na ndugu wengine nje ya kituo?	Hapana ( ) Ndiyo ( )
Kama hapana, kuna ndugu ambaye una mkumbuka zaidi?	Hapana ( ) Ndiyo ( )
Kama ndiyo, nani unaye mkumbuka zaidi?	Jina lake_____

	2. Ukatili kwa Majumbani na katika Jamii				
		Kutoka kwa Jirani	**Kutoka ndani ya Kituo**	**Kama ndiyo ni nani**	
				Mlezi	Mtoto
1	Je, ulishawahi kunyongwa mkono?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
2	Je, ulishawahi kuvutwa nywele?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
3	Je, ulishawahi kufinywa mkononi au mguuni?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
4	Je, ulishawahi tishiwa kwa maneno?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
5	Je, ulishapigwa kibao cha mwili, mkono au mguu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
6	Je, ulishapigwa kibao cha uso?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
7	Je, ulishapigwa ngumi ya mwili, mkono au mguuni?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
8	Je, ulishapigwa ngumi usoni?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
9	Je, ulishapigwa na kitu kama mkanda, ubao au fimbo?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
10	Je, ulishawahi kuunguzwa na maji ya moto?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
11	Je, ulishawahi kurushiwa kitu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
12	Je, ulishawahi kufungwa kamba au kuzuiliwa usitoke nje?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
13	Je, ulishawahi pigwa kabali na mtu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
14	Je, kuna mtu aliyewahi kukuunguza?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
15	Je, ulishawahi tishiwa kwa kitu au silaha?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
16	Je, ulishawahi tishiwa kuuwawa?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
17	Je, ulishawahi jeruhiwa na silaha kama bunduki au kisu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
18	Je, ulishawahi pigiwa yowe, kelele au kuzomewa	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
19	Je, ulisha ambiwa wewe siyo mwema?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
20	Je, ulishawahi bezwambele ya watu	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
21	Je, ulishawahi kudharauliwa au kutengwa kijamii?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
22	Je, ulishawahi kuvaa nguo chafu /chakaavu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
23	Je, umekuwa hupewi chakula cha kutosha? Uliumwa njaa?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
24	Je, ulisha nyimwa kinywaji?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		

25	Je, ulishawahi kuona mtoto akifinywa/akipigwa / akidundwa?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
26	Je, ulishawahi kuona mtoto mwingine akibondwa na kitu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
27	Je, ulishawahi kuona mtoto akichomwa moto au akipigwa kabali?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
28	Je, ulishawahi kuona mtoto akijeruhiwa na silaha?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
29	Je, ulishawahi kuona mtoto akitishiwa kuuwawa?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
30	Je, ulishawahi kushikwa sehemu zako za siri na mtu mkubwa kwako?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
31	Je, ulishawahi lazimishwa na mkubwa akuingize kitu kwenye sehemu zako za siri?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
32	Je, ulishawahi kulazimishwa kumbusu mtu kimapenzi?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
33	Je, ulishawahi kulazimishwa kushika sehemu za siri za mtu mzima?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
34	Je, ulishawahi kuona mtu anashikwa sehemu za siri bila ya ridhaa yake?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
35	Je, ulishawahi kulazimishwa kuangalia kitendo cha ngono?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
36	Je, ulishawahi fanyiwa au kushuhudia ukatili mwingine zaidi ya yaliyotajwa hapo juu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
37	Je, ulishawahi pata jeraha (mkwaruzo, kidonda, mfupa kuvunjika, kuungua moto, jicho kuvilia) kama matokeo ya matukio uliyotaja hapo juu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
38	Je, ulishawahi kuhitaji matibabu? Ulienda kwa daktari/ hospitali kutokana na jeraha ulilolipata kutokana na matukio uliyotaja hapo juu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
39	Je, ulifikiria kuwa hukutendewa haki kwa tukio ulilolitaja hapo juu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
40	Je, ulishawahi kujisikia kukosa msaada kwa matukio ya hapo juu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		
41	Je, ulishawahi kujisikia kuogopa kwa matukio ya hapo juu?	Hapana ( )Ndiyo ( )	Hapana ( )Ndiyo ( )		

3. UCLA - CHILD PTSD INDEX			
	Mahojiano ya juu Tukio la kutisha au Janga		
1	Kuna kitu chochote kimetokea tangu tukio la HATARI, la KUTISHA au UKATILI utokee?	Ndiyo [ ]	Hapana [ ]
2	Muda gani umepita tangu kitu kibaya ulichotaja hapo juu	_____Miezi	
3	Tafadhali, elezea kilichotokea kwako.		
	KWA MASWALI YANAYOFUATA, tafadhali JIBU NDIYO au HAPANA kwa jinsi ulivyojisikia wakati ule mara baada ya tukio baya kutokea kama ulivyo jibu swali la 1		
5	Ulitishika kuwa unaweza kufa	NDIYO[ ]	HAPANA [ ]
6	Ulitishika kuwa ungeumizwa vibaya	NDIYO[ ]	HAPANA [ ]
7	Je, uliumizwa vibaya	NDIYO[ ]	HAPANA [ ]
8	Je, ulihofia mtu mwingine atakufa?	NDIYO[ ]	HAPANA [ ]
9	Je, ulihofia mtu mwingine ataumizwa vibaya?	NDIYO[ ]	HAPANA [ ]
10	Je, kuna aliyeumizwa vibaya?	NDIYO[ ]	HAPANA [ ]
11	Je, kuna aliyefariki?	NDIYO[ ]	HAPANA [ ]
12	Je, ulihisi kutishika, kama ni tukio ambalo hujawahi kukumbana nalo?	NDIYO[ ]	HAPANA [ ]
13	Je, ulihisi kushindwa kuzuia lisitokee au ulihitaji mtu mwingine aje asadie?	NDIYO[ ]	HAPANA [ ]
14	Je, ulihisi ulichokiona ni uchafu au kero?	NDIYO[ ]	HAPANA [ ]
15	Je, ulikimbia au kufanya kitu kuonyesha hasira yako?	NDIYO[ ]	HAPANA [ ]
16	Je, ulihisi kuchanganyikiwa?	NDIYO[ ]	HAPANA [ ]
17	Je, ulihisi kilichokuwa kinatokea kilikuwa kama siyo kweli, ndoto, au tamthilia, kumbe lilikuwa tukio la kweli na halisi?	NDIYO[ ]	HAPANA [ ]

	1. KIDOGO: Mara mbili kwa mwezi **2. WASTANI:** Mara 1-2 kwa wiki		**3. NYINGI:** Mara 2-3 kwa wiki **4. NYINGI ZAIDI:** Karibu kila siku			
	KWA KIWANGO GANI NDANI YA MWEZI ULIOPITA?	Hakuna	Kidogo	Wastani	Nyingi	Nyingi zaidi
1	Napepesa kuangalia hatari au vitu cha kuniogopesha	0	1	2	3	4
2	Nikikumbushwa yaliyo tokea nakasirika, naogopa au nahuzunika	0	1	2	3	4
3	Nimekuwa nikipata mawazo yanayokera, picha, au sauti za tukio lilivyotokea	0	1	2	3	4
4	Ninahisi kunung'unika, hasira au wazimu	0	1	2	3	4
5	Ninapata ndoto za tukio au ndoto nyingine mbaya	0	1	2	3	4
6	Ninahisi kurudia kuishi kama hali ya wakati wa tukio	0	1	2	3	4
7	Ninahisi kama niwe mwenyewe nijitenge na marafiki	0	1	2	3	4
8	Ninahisi upweke ndani mwangu kama siko karibu na watu	0	1	2	3	4
9	Najaribu kukwepa kuongelea, kufikiria au kuhisi kuhusu kilichotokea	0	1	2	3	4
10	Nina tatizo la kuhisi furaha au upendo	0	1	2	3	4
11	Nina tatizo la kuhisi furaha huzuni au hasira	0	1	2	3	4
12	Ninahisi kama ninalipuka au kushituka sana, kama nikisikia makelele au kushangazwa	0	1	2	3	4
13	Nina tatizo la kupata usingizi au kuamka amka usiku	0	1	2	3	4
14	Nadhani upande mwingine mimi mwenyewe nilisababisha yatokee	0	1	2	3	4
15	Nina pata tatizo la kukumbuka sehemu muhim za tukio lilivyotokea	0	1	2	3	4
16	Nina tatizo la kutuliza mawazo na kupata utulivu	0	1	2	3	4
17	Nina jaribu kujitenga na watu, mahali au vitu vitakavyo nikumbusha tukio	0	1	2	3	4
18	Niki kumbushwa yaliyo tokea ninapata hisia kali za mwili kama mapigo ya moyo kuongezeka, kichwa kuuma au tumbo kuuma	0	1	2	3	4
19	Nina dhani sitakuwa na maisha marefu	0	1	2	3	4
20	Nina hofu kitu kibaya kitatokea tena	0	1	2	3	4

Functioning PTSD - Wiki nne zilipopita

1	Je, ulimwambia daktari kuhusu tatizo ulilopata kutokana na TUKIO?	NDIYO [ ]	HAPANA [ ]
2	Je, ulimwambia mwalimu, mponyaji au mwombezi?	NDIYO [ ]	HAPANA [ ]
3	Je, ulisha wahi kuchukua dawa zaidi ya mara 1 kwa matatizo yaliyosababishwa na Tukio?	NDIYO [ ]	HAPANA [ ]
4	Kwa matatizo yaliyotokea kama matokeo ya Tukio, je, yaliathili sana shughuli zako?	NDIYO [ ]	HAPANA [ ]
5	Kwa wiki 4 zilizopita, je, umekuwa ukikereka sana kwa matatizo ambayo ni matokeo ya TUKIO?	NDIYO [ ]	HAPANA [ ]
6	Kwa wiki 4 zilizopita, je, matatizo yaliyojitokeza kutokana na TUKIO yamekuzuia kushiriki kwenye sherehe, kuwa na marafiki au kwenye mikutano?	NDIYO [ ]	HAPANA [ ]
7	Kwa wiki 4 zilizopita, matatizo yaliyojitokeza kama kutokana na TUKIO yamekuzuia wewe usicheze na watoto wenzio?	NDIYO [ ]	HAPANA [ ]
8	Je, matatizo haya yote yamekuletea shida shuleni au nyumbani/ kituoni?	NDIYO [ ]	HAPANA [ ]

4. SUICIDALITY: KUJIUA

B1	a Have you ever felt so bad that you wished you were dead?	NO	YES	1
		HAPANA	NDIYO	1
	a Je, ulishawahi kuhisi vibaya kwamba ulitamani ufariki	NO	YES	2
	b Have you ever tried to hurt yourself?	HAPANA	NDIYO	2
	b Je ulishawahi kujaribu kujidhuru mwenyewe?	NO	YES	4
	c Have you ever tried to kill yourself?	HAPANA	NDIYO	4
	c Je ulishawahi jaribu kujiua			
	IF **YES** TO ANY, CODE **YES** KAMA **NDIYO** KWA YEYOTE WEKA **NDIYO**	➔ ***NO*** ***YES*** ***HAPANA*** ***NDIYO*** **SUICIDE RISK PAST** **KUJIUA ILIKUWEPO**		
	In the past month did you:			
B2	**Kwa mwezi uliopita, Je:**	NO	YES	1
	Wish you were dead?	HAPANA	NDIYO	1
B3	Ungetamani uwe umekufa	NO	YES	2
	Want to hurt youself?	HAPANA	NDIYO	2
B4	Unatamani kujidhuru	NO	YES	6
	Think about killing your self	HAPANA	NDIYO	6
B5	Ulifikiria kujiua	NO	YES	10
	Think of a way to kill yourself	HAPANA	NDIYO	10
B6	Kulifikia njia ya kujiua	NO	YES	10
	Try to kill yourself	HAPANA	NDIYO	10
	Ulijaribu kujiua			
	IS AT LEAST 1 OF THE ABOVE CODED **YES**? KAMA ANGAU 1 HAPO JUU NI NDIYO	➔ **NO** **YES** **HAPANA** **NDIYO** **SUICIDE RISK CURRENT** **KUJIUA KUPO** 1-5 points Low [ ] 6-9 points Moderate [ ] ≥ 10 points High [ ]		

CDI2

KUJAZA MWENYEW FUPI

Jina/Kitambulisho: _____Tarehere ya Kuzaliwa _____/ _____/_____
Mwaka Mwezi Siku

Umri: ____ Darasa____ Jinsi: Kiume Kike Tarehe ya Leo_____/ _____/ _____
Zungungushia moja Mwaka Mwezi Siku

Zingatia, wakati mwingine watoto wana hisia na fikira tofauti.

Fomu hii imeorodhesha hisia na fikira katika makundi ya sentensi tatu. Kutoka kwa kila kundi chagua sentensi moja ambayo inakuelezea vizuri zaidi katika wiki mbili zilizopita. Baada ya kuchagua sentensi nenda kundi lingine linalofuatia.

Hakuna jibu sahihi au kosa. Chagua tu sentensi inayoelezea vizuri hisia zako kwa siku za karibuni. Weka alama ya √ mbele ya jibu ulilochagua. Weka ndani ya kisanduku cha jibu sahihi.

Hapa kuna mfano jinsi ya kujazaji. Jaribu. Weka alama mbele ya sentensi inayokuelezea vizuri zaidi.

Mfano:
- ☐ Nasoma vitabu wakati wote.
- ☐ Nasoma vitabu mara chache.
- ☐ Sijawahi kusoma kitabu.

Kumbuka, kwa kila kundi, chagua sentensi moja tu inayokuelezea vizuri katika **WIKI MBILI ZILIZOPITA.**	
Kundi 1 ☐ Nakuwa na huzuni mara mojamoja. ☐ Mara nyingi nakuwa na huzuni. ☐ Kila wakati nina huzuni.	**Kundi 7** ☐ Nahisi kukasirika muda wote. ☐ Nahisi kukasirika muda mwingi. ☐ Karibu sijawahi kukasirika.
Kundi 2 ☐ Hakuna jambo nitakalo fanikiwa nalo. ☐ Sina uhakika kama jambo langu lolote litafanikiwa. ☐ Mambo yangu yote yatafanikiwa.	**Kundi 8** ☐ Siwezi kufanya maamuzi juu ya mambo. ☐ Ni vigumu kufanya maamuzi juu ya mambo. ☐ Nafanya maamuzi juu ya mambo kwa urahisi.
Kundi 3 ☐ Nafanya mambo mengi kwa usahihi. ☐ Nafanya mambo mengi kwa makosa. ☐ Nafanya kila kitu kwa makosa.	**Kundi 9** ☐ Wakati wote najilazimisha kufanya kazi za shule. ☐ Mara nyingi najilazimisha kufanya kazi za shule. ☐ Kufanya kazi za shule siyo shida kubwa kwangu.
Kundi 4 ☐ Najifurahisha na vitu vingi ☐ Najifurahisha baadhi ya vitu ☐ Hakuna ninchofurahishwa nacho	**Kundi 10** ☐ Nakuwa mchovu mara moja moja. ☐ Nakuwa mchovu kwa siku nyingi. ☐ Nakuwa mchovu wakati wote.
Kundi 5 ☐ Mimi ni muhimu katika familia. ☐ Sina hakika kama, mimi muhimu katika familia. ☐ Familia yangu inafuhara hata bila ya mimi.	**Kundi 11** ☐ Karibu siku zote sijisikii kula. ☐ Mara nyingi sijisikii kula. ☐ Huwa nakula vizuri sana.
Kundi 6 ☐ Ninajichukia. ☐ Sijipendi. ☐ Najipenda.	**Kundi 12** ☐ Sijisikii mpweke. ☐ Najisikia mpweke. ☐ Nasikia mpweke mara nyingi.

C. Consent Form for Caregivers

Consent form for orphans' participation in a study titled "**PREVALENCE OF POST TRAUMATIC STRESS DISORDER AND ASSOCIATED MENTAL HEALTH DISORDERS PROBLEMS AMONG ORPHANS IN DAR ES SALAAM CITY"**.

My name is **Benjamin Myovela,** a Clinical psychology resident at Muhimbili University of Health and Allied Sciences, department of Psychiatry and Mental health. I am conducting a research study to determine PTSD among orphans in Dar es Salaam. Being a caregiver of children in this orphanage, I would like to ask your consent on behalf the house residents to participate in this study.

The aim of the study: To determine the prevalence of PTSD and associated determinants among orphans in Dar es Salaam. Fortunately results will help to bring awareness caregivers and community as large about PTSD and associated determinants in order to improve the mental health among orphans.

How to participate: If you agree, orphans will be required to fill in some questions which written in Kiswahili. They will be free to join or refuse the study and not forced to answer questions (completely voluntary). Refusal to participate or withdrawal from the study will not involve any penalty or loss of any benefit to which he/she is otherwise entitled.

Confidentiality: their participation will be anonymously and information gathered from orphan will be secured environment.

Contacts: If you have any question or any concern regarding this study please don't hastate to conduct the principle investigator Benjamin Myovela, Department of Psychiatry and Mental Health MUHAS or chairperson of the Research Ethical Committee with this address, P O Box 65001, Dar es Salaam, telephone number 2150302-6.

As a caregiver, do you agree your orphanage residents to participate in this study? (Please tick in one of the boxes below)

YES, I AGREE ☐ NO, I DISAGREE ☐

Name of Orphanage centre_____

Signature of Caregiver _____Date_____

Signature of PI/ Research assistant _____Date_____

D. Fomu ya Ridhaa kwa Mlenzi

Fomu ya ridhaa ya kuwaruhusu watoto yatima kushiriki katika utafiti unaohusu **"UKUBWA WA MSONGO KOVU NA VICHOCHEO VINGINE VYA MATATIZO YA AKILI KWA WATOTO YATIMA WA JIJI LA DAR ES SALAM"**

Jina langu ni **Benjamin Myovela,** Msaikolojia mwanafunzi wa Chuo Kikuu cha Afya na Sayansi na Tiba Muhimbili, Idara ya Magonjwa na Afya ya akili. Ninafanya utafiti wa Ukubwa wa tatizo la Msongo kovu kwa watoto yatima Dar es Salaam. Kwa sababu wewe ni mlezi wao naomba ridhaa yako ya kufanya utafiti huo kwa watoto wa kituo chako.

Lengo kuu la Utafiti: Ni kubaini ukubwa wa tatizo la Msongo kovu kwa watoto yatima pia u vichocheo vingine. Kwa kujua ukubwa itasaidia kuibua uelewa wa msongo kovu kwa walezi wa sehemu nyingine pia kuboresha afya ya akili ya watoto yatima.

Jinsi ya kushiriki: Ukikubali watoto watatakiwa wajaze baadhi ya maswali kwenye dodoso la Kiswahili. Watoto watakuwa huru kukubali au kukataa kushiriki katika utafiti, kamwe hawatalazimishwa. Pia kukataa kwao hakutakuwa na adhabu yeyote.

Usiri: Taarifa zao zote watakazozitoa zitakuwa katika usiri hazitawekwa hadharani zitachukuliwa bila kufahamu mtoa taarifa, pia zitahifadhiwa kwa usalama mkubwa.

Mawasiliano: Kama utakuwa na swali lolote au dukuduku lolote kuhusiana na utafiti huu wasiliana na mimi Benjamin Myovela - mtafiti mkuu au Mwenyekiti wa Kamati ya Maadili ya utafiti ya Chuo Kikuu cha Muhimbili, Anwani yake S. L. P 65001, Dar es Salaam, simu 2150302-6.

Kama mlezi wa watoto ndani ya kituo, je, unakubali watoto yatima wa kituo chako washiriki katika utafiti huu? (tafadhali weka alama ya vema ndani ya kisanduku)

NDIYO, NAKUBALI ☐ HAPANA, SIKUBALI ☐

Jina la Kituo _____

Sahihi ya Mlezi _____Tarehe_____

Sahihi ya Mtafiti/mtafiti msaidizi _____Tarehe_____

E. Approval Letter from MUHAS

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
DIRECTORATE OF POSTGRADUATE STUDIES

P.O. Box 65001
DAR-ES-SALAAM
TANZANIA
Telefax: 255-022-2150465
Telegrams: UNIVMED

E-MAIL dpgs@muhas.ac.tz
TEL: (255-022)-2150302-6 Ext. 207
Direct line: 2151378

Ref. No. MU/PGS/SAEC/Vol. VI/80

3rd November, 2011

Mr. Benjamin Myovela,
MSc. Clinical Psychology,
School of Medicine,
MUHAS.

Re: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED "THE PREVALENCE OF PSOT TRAUMATIC STRESS DISORDER (PTSD) AND ASSOCIATED SOCIAL DEMOGRAPHIC FACTORS AMONG ORPHANS SELECTED ORPHANAGE CENTRES IN DAR ES SALAAM CITY"

Reference is made to the above heading.

I am pleased to inform you that, the Chairman has on behalf of the Senate approved ethical clearance for the above-mentioned study.

Thus ethical clearance is granted and you may proceed with the planned study.

Please liaise with Bursar's office to get your research fund.

Prof. Z. Premji
DIRECTOR, POSTGRADUATE STUDIES

/emm

cc: Vice Chancellor, MUHAS
cc: Deputy Vice Chancellor-ARC
cc: Dean, School of Medicine

F. Introduction Letter 1

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
DIRECTORATE OF POSTGRADUATE STUDIES

P.O. Box 65001
DAR-ES-SALAAM
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TEL: (255-022)-2150302-6 Ext. 207
Direct line: 2151378

Ref. No. HD/MUH/T.164/2010

28th November, 2011

Permanent Secretary,
Ministry of Health and Social Welfare,
P.O. Box 9083
DAR ES SALAAM. Att: Director of Human Resource Development

Re: INTRODUCTION LETTER

The bearer of this letter Mr. Benjamin Myovela is a student at Muhimbili University of Health and Allied Sciences (MUHAS) taking MSc. Clinical Psychology.

As part of his studies he intends to do a study titled: "***The Prevalence of Post Traumatic stress disorder (PTSD) and associated Social Demographic Factors Among Orphans in Selected Orphanage Centres in Dar es Salaam City".***

The research has been aproved by the Chairman of MUHAS Research Ethics Committee.

Kindly provide him the necessary assistance to facilitate the conduct of his research.

We thank you for your cooperation.

Prof. Z. Premji
DIRECTOR, POSTGRADUATE STUDIES

/emm

cc: Mr. Benjamin Myovela

cc: Head
Department of Psychiatry,
MUHAS.

G. Introduction Letter 2

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
DIRECTORATE OF POSTGRADUATE STUDIES
P.O. Box 65001
DAR-ES-SALAAM
TANZANIA
Telefax: 255-022-2150465
Telegrams: UNIVMED
E-MAIL dpgs@muhas.ac.tz
TEL: (255-022)-2150302-6 Ext. 207
Direct line: 2151378

Ref. No. HD/MUH/T.164/2010

7th November, 2011

TO WHOM IT MAY CONCERN

Re: INTRODUCTION LETTER

The bearer of this letter Mr. Benjamin Myovela is a student at Muhimbili University of Health and Allied Sciences (MUHAS) taking MSc. Psychology.

As part of his studies he intends to do a study titled: "***The Prevalence of Post Traumatic stress disorder (PTSD) AND Associated Social Demographic Factors Among Orphans in Selected Orphanage Centres in Dar es Salaam City".***

The research has been aproved by the Chairman of MUHAS Research Ethics Committee.

Kindly provide him the necessary assistance to facilitate the conduct of his research.

We thank you for your cooperation.

D. Athumani
For: DIRECTOR, POSTGRADUATE STUDIES

DA/emm

cc: Mr. Benjamin Myovela

cc: Head
Department of Psychiatry,
MUHAS.

H. PTSD Scoring Sheet

SCORING WORKSHEET FOR UCLA PTSD INDEX FOR DSM-IV, Revision 1: CHILD VERSION©

Subject ID#_____ **Age**_____ **Sex (circle): M F** **# of days since traumatic event** _____

CRITERION A-TRAUMATIC EVENT

Exposure to Traumatic Event
Questions 1-13: at least 1 "Yes" answer **YES NO**

Type of Traumatic Event rated as most distressing (Question 14: write trauma type in the blank) _____

Criterion A1 met
Questions 15-21: at least 1 "Yes" answer **YES NO**

Criterion A2 met
Questions 22-26: at least 1 "Yes" answer **YES NO**

Criterion A met **YES NO**

Peritraumatic Dissociation **YES NO**
Question 27: answer "Yes"

PTSD SEVERITY: OVERALL SCORE

Question # /Score	Question # /Score
1._____	12._____
2._____	13._____
3._____	[Omit 14].
4._____	15._____
5._____	16._____
6._____	17._____
7._____	18._____
8._____	19._____
9._____	[Omit 20].
* 10. *or*	
11._____	

(Sum the items from the above 2 columns, write sum below)
(Sum total of scores) = _____ **PTSD SEVERITY SCORE**
*Place the highest Score from either Question 10 *or* 11 in the blank above: Score Question 10. /Score Question 11.

CRITERION B (REEXPERIENCING) SX.

Question #/DSM-IV Symptom	Score	
3. (B1) Intrusive recollections	_____	
5. (B2) Trauma/bad dreams	_____	
6. (B3) Flashbacks	_____	# of Criterion B
2. (B4) Cues: Psychological reactivity	_____	Questions with Score ≥ Symptom
18. (B5) Cues: Physiological reactivity	_____	Cutoff: _____

CRITERION B SEVERITY SCORE (Sum of above scores): = _____

DSM-IV CRITERION B MET:
(Diagnosis requires at least 1 "B" Symptom): **YES NO**

CRITERION C (AVOIDANCE) SX.

Question #/DSM-IV Symptom	Score	
9. (C1) Avoiding thoughts/feelings	_____	
17. (C2) Avoiding activities/people	_____	
15. (C3) Forgetting	_____	# of Criterion C
7. (C4) Diminished interest etc.	_____	Questions with
8. (C5) Detachment/estrangement	_____	Scores ≥ Symptom
*10. *or* 11. (C6) Affect restricted	_____	Cutoff: _____
19. (C7) Foreshort. future	_____	

[*Place the highest Score from either Question 10 *or* 11 in the blank above.]

CRITERION C SEVERITY SCORE (Sum of above scores): = _____

DSM-IV CRITERION C MET:
(Diagnosis requires at least 3 "C" Symptoms): **YES NO**

CRITERION D (INCREASED AROUSAL) SX.

Question #/DSM-IV Symptom	Score	
13. (D1) Sleep problems	_____	
4. (D2) Irritability/anger	_____	
16. (D3) Concentration problems	_____	# of Criterion D
1. (D4) Hypervigilance	_____	Questions with
12. (D5) Exaggerated startle	_____	Score ≥ Symptom Cutoff: _____

[+Place the highest Score from either Question 4 *or* 20 in the blank above.]

CRITERION D SEVERITY SCORE (Sum of above scores): = _____

DSM-IV CRITERION D MET:
(Diagnosis requires at least 2 "D" Symptoms): **YES NO**

DSM-IV PTSD DIAGNOSTIC INFO.

DSM-IV FULL PTSD DIAGNOSIS LIKELY
(Criteria A, B, C, D all met) **YES NO**

PARTIAL PTSD LIKELY
[Criterion A met and:
Criteria (B + C) or (B + D) or (C + D)] **YES NO**

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