9

Post Traumatic Stress Disorder – A Northern Uganda Clinical Perspective

Emilio Ovuga[1] and Carol Larroque[2]
[1]*Faculty of Medicine, Gulu University,*
[2]*University of New Mexico,*
[1]*Uganda*
[2]*USA*

1. Introduction

Post-Traumatic Stress Disorder (PTSD) is a psychiatric condition, which develops after a person experiences, witnesses, is confronted with or hears about emotionally stressful and painful experiences beyond what a human being can bear. The traumatic event may be life threatening; threatens body integrity and causes considerable fear, horror and a sense of helplessness in the affected individual (APA, 1992). Traumatic events are psychologically wounding to the individual and leave deep scars (Anonymous, 2009; and Tonks, 2007) on trauma victims; they are dehumanising, demoralising and humiliating, and may put an abrupt end to the hopes and plans of an otherwise enterprising individual, as the individual loses the sense of the future (Bardin, 2005) as one of the clinical features of post-traumatic stress disorder.

The experience of traumatic stress in the history of human kind is perhaps not new and was probably limited to the processes of survival in pre-historic times. However with civilization and modernization the nature scope and experience of traumatic stress has become more complex and sophisticated in terms of clinical significance, individual perception and interpretation of the traumatic experience, and public health importance. In Uganda the nature of traumatic stress ranges from natural events including road traffic accidents, industrial accidents, domestic accidents, floods, landslides and occasional earth tremors to manmade traumatic events such as orchestrated domestic violence, child abuse and neglect, and organized violence and war, the most recent of which took place from 1986 to 2009. In recent times there has been an upsurge of child abductions for human sacrifice in Uganda, and this has been extremely traumatizing to affected families and relatives.

War is of particular significance as it is manmade, is associated with significant mental health problems (Murthy & Lakshminarayana, 2006), causes more suffering, deaths and disability within the same time unit than an epidemic, and imposes considerable economic and social burden on communities (Murray et al, 2002). The psychological and psychiatric consequences of traumatic experience have been the subject of initial disagreement and debate in the international literature. However the personal accounts of victims of violence and war as detailed by Judith L. Herman (1997) in her book on trauma; and client accounts

in clinical settings and to journalists (Anonymous, 2007) leaves no doubt as to the clinical and public health significance of traumatic stress experience.

Traumatic events are often sudden and overwhelming irrespective of their origin or nature though certain traumatic experiences last for a short time while others take a protracted or repeated course, particularly if they are politically motivated or occur in the hands of hostage takers or domestic abusers. With almost no exception, traumatic experience seems so unreal, horrible and unimaginable to most victims that its experience leaves victims helpless with a serious challenge to the human sense of omnipotence over the environment. Manmade traumatic events cause intense fear, a systematic weakening of the struggle for freedom, the break-up of victim's self-control fabric, and a total dependence on the perpetrator of the traumatic experience for survival. In most cases trauma victims may hold society as accomplices in their experience with the development of a sense of abandonment and loss of basic trust in the social order. Further more trauma victims develop self-blame, guilt feelings, loss of self-confidence and self-esteem. Emotional numbness that accompanies the traumatic experience causes severe loss of control over personal routines and dignity with a pervasive loss of sense of the future with the victim living by the day (Herman, 1997).

The bulk of published research data on post-traumatic stress disorder concerns adults compared to children. However isolated published research data highlights the magnitude and psychological effects of traumatic stress, physical effects and long-term social consequences of conflict and war among child populations in conflict affected areas of Africa (Anonymous, 2007; Bardin, 2005; Betancourt et al, 2010; Betancourt et al, 2008a, b, c; Mock et al, 2004; Ovuga et al, 2008; and Pham et al, 2009). In an exception to current emphasis on providing care to adult clients, Onyut et al (2005) describe the potential value of narrative exposure therapy for war-affected children in two camps in Uganda.

Most available published data from war zones of Africa pay little attention to the clinical features of post-traumatic stress disorder, and most cases of probable post-traumatic stress disorder presenting at primary care units are misdiagnosed and mismanaged. In this chapter we describe the complex settings and clinical presentation of post-traumatic stress disorder in Northern Uganda. We supplement the chapter with material from our own assessment of mental health needs among children and adolescents in one district of northern Uganda that was the epicentre of Uganda's most protracted and brutal armed conflicts since the country attained independence from Britain in 1962.

2. Historical background of Post-Traumatic Stress Disorder

Historically, the awareness of PTSD as a clinical syndrome followed wars such as the American Civil War, world wars I and II, and the Vietnam and Gulf Wars. Modern wars have become sophisticated and assume the form of guerrilla wars that take place in cities and directly affect civilians exposing adults and children alike to the senselessness of humans killing humans with little regard to the sacred value of human life. In Africa, active wars and organized violence have recently affected millions of civilians in Ivory Coast, Tunisia, Egypt and Somalia. Recent acts of ethnic violence, and organized violence following elections and religious fanaticism have affected hundreds of civilians in previously stable and peaceful communities in Rwanda, Democratic Republic of Congo, Kenya, Tanzania, and Uganda's capital city, Kampala on July 11, 2010.

2.1 PTSD among refugees and in Internally Displaced Persons (IDP) camps in Northern Uganda

Uganda is a country in sub-Saharan Africa that suffered from the ravages of war, poverty and the consequences of the HIV/AIDS epidemic. Gulu in northern Uganda was hit especially hard by recent political upheaval and guerrilla warfare. While safety is no longer an issue in this region, grave social concerns remain arising from the deep wounds the war inflicted on the children in northern Uganda (Tonks, 2007). During the war thousands of children had been abducted: boys to serve as child soldiers; girls to be both killers and sometimes as officers' "wives". Many of the young girls became pregnant and bore children of their own. While the region may now be peaceful many of the young people are not at peace with themselves or their community. For those youngsters who were not abducted they grew up in a shadow of war and lived in extreme fear. Many lost their parents, siblings and friends to the war. Their lives and education were disrupted. In addition, in this developing country many children experience the stress of extreme poverty on a daily basis. They are often hungry and have experienced the loss of loved ones because of medical conditions such as malaria, tuberculosis and HIV/AIDS. In early 2000 Gulu district was hit with the deadly hemorrhagic fever, Ebola that killed many including 21 health care providers in St Mary's Hospital Lacor, the only mission hospital serving many parts of the country. In the year 2008 at least three districts in Northern Uganda were hit by hepatitis B epidemic that killed many pregnant women, adding to the troubles of the region.

More than an estimated three hundred thousand refugees fleeing the civil war in Southern Sudan lived in various districts of the West Nile Region of Uganda. Kanarukana et al (2004) and Neuner et al (2004) reported high levels of mental health problems among the refugees and nationals including post-traumatic stress disorder, alcohol abuse and suicide. Following the fall of dictator Idi Amin of Uganda in 1979 wanton acts of violence against civilians in the West Nile region exposed nearly every family to horrible events of traumatic stress. The Northern Uganda war between government forces and the Lord's Resistance Army of Joseph Kony displaced more than two million civilians from their homes to internally displaced persons' camps in the entire Acholi, Lango and Teso sub-regions of Northern Uganda. Recent surveys have demonstrated significantly high rates of PTSD in the camps (Roberts et al 2008). Published data among various population groups from Northern Uganda suggest high levels of mental health problems including depression, alcohol abuse, anxiety and suicide (Ovuga, 2005; Ovuga et al, 2005a; Ovuga et al, 2005b; Roberts et al, 2008; and Ovuga et al, 2008; Roberts et al, 2009).

While poverty, personal loss and war trauma can produce devastating effects on children, not all children in a community will be impacted to the same degree or in the same manner. In fact, some very resilient children flourish in spite of severe adverse experiences (Betancourt and Khan, 2008). While some studies have been done on the emotional well being of specific groups in war affected areas, information about children is scarce, especially information about children less than 12 years of age. Most of the work that has been published was carried out at a time when there remained significant insecurity in the region of Gulu and many individuals feared for their wellbeing. Studies to date that have examined the emotional well being of individuals in northern Uganda have focused on two primary groups: 1) Internally displaced adults living in camps because of the war and 2) former child abductees of the Lord's Resistance Army (LRA). Research in these populations revealed a very high prevalence of PTSD and depression.

Roberts et al. (2008) and Vinck et al. (2007) separately conducted studies on adult Ugandans living in camps for internally displaced persons (IDPs). Roberts and associates used the Harvard Trauma Questionnaire in 2006 to study traumatic exposures and PTSD symptoms in 1,210 participants while Vinck and his colleagues used the PTSD Checklist-Civilian Version in 2,585 adults. Both sets of investigators used the Hopkins Symptom Checklist-25 to assess for levels of depression in the study participants. The data of Roberts and Vinck each showed very high rates of PTSD (54% and 74.3% respectively) as well as high rates of depression (67% and 44.5% respectively). The prevalence of PTSD was high even compared with other groups with post conflict PTSD (de Jong 2001). The high rates of PTSD in the Ugandan IDPs may be explained by the long duration of exposure (almost 2 decades) of highly traumatizing events including mutilation, abduction, abductees forced to commit violent crimes and displacement of approximately 2 million people. Furthermore, the conditions in the camps contributed to ongoing trauma and deprivation.

Performing a cross-sectional study of 2,875 individuals, selected through a multi-stage stratified cluster design in 8 districts of northern Uganda, Pham and associates (2009) reported that one-third of subjects experienced abduction and more than half of the respondents and greater than two-thirds of abductees met criteria for PTSD. Factors that increased the risk for former abductees experiencing PTSD were: female gender, being a member of the Acholi ethnic group (not surprising as the war began in the Acholi sub-region), witnessing or participating in a number of traumatic events and experiencing difficulty upon re-entry into their communities. Increased risk for depression was associated with an older age of males at time of abduction, lower score on a social relationship scale, high incidence of exposure to traumatic events, high incidence of forced acts of violence and difficulty with re-entry into their communities.

Ilse Derluyn and colleagues (2004) confined their research to 301 former child soldiers in Gulu and Lira towns. The researchers used a semi-structured interview format to learn of past experiences. Additionally, 71 of the children were randomly selected to complete the Impact of Events Scale Revised (IESR). The age span of participants was from 12 to 28 years. Close to one third of the children were orphans. On the average, each child experienced six traumatic events during abduction. The rate of PTSD in the group was extremely high at 97%. The age of the child, the length of abduction, and period of time between escape and research did not affect the rate of PTSD.

Interested in the psychological and social rehabilitation of former child soldiers Bayer et al (2008) performed a cross-sectional field study of 169 former child soldiers in rehabilitation centres in Uganda and the Democratic Republic of the Congo. At the time of this 2005 study the former soldiers ranged in age from 11 to 18 years (mean age 15.3 years). The purpose of this study was to investigate the association between PTSD symptoms and feelings of openness to reconciliation as well as revenge in the study subjects. The investigators used a sample specific events scale and the Child Posttraumatic Stress Disorder Reaction Index. To study openness to reconciliation and feelings of revenge structured questionnaires were utilized. Data indicated that the child soldiers were exposed to high levels of trauma. Over 90% witnessed a shooting and more than half reported having killed someone. Close to 35% of the youngsters scored significantly for PTSD symptoms. Those with more PTSD symptoms were significantly less open to reconciliation and had more feelings of revenge.

The work of Ovuga et al (2008) most clearly demonstrates the need to screen all former child soldiers for PTSD and depression and to provide psychological interventions as a

component of rehabilitation and reintegration of these children into their homes and community. Their research was prompted by the emergency psychiatric admission of 12 former child soldiers of the LRA in 2006 because of mass psychotic symptoms. Ovuga and colleagues studied a total of 102 children aged 6 to 18 years. This included the 12 children who were hospitalized and 90 schoolmates of those children. The 58 girls and 44 boys in the study were attending a rehabilitative boarding school for former abductees in northern Uganda. Data on posttraumatic stress disorder, depression, physical disabilities, social-demographic variables and children's war experiences were collected by using the Harvard Trauma Questionnaire, a modified Hopkins Symptom Checklist and a 15- item War Experience Checklist. Results indicated a very high percentage of children had serious emotional symptoms. This group of youngsters had been severely traumatized with 87.3% reporting that they experienced 10 or more war related events. The data indicated that 55.9% of the children reported symptoms of posttraumatic stress disorder; 88.2% depressed mood and 21.6% had various forms of physical disability. A high percentage of the children (42.2%) reported a family history of severe mental illness. It was the clinical opinion of the authors of this study that the school environment may have contributed to the exacerbation of emotional symptoms. The "ultra-modern" school had limited resources and teachers; yet, the children's learning curriculum was significantly accelerated to enable them to "catch up" for educational time lost while in the bush placing significant pressure on these youngsters. Those older than 16 were limited to vocational training which in reality promised a future of hard work and poverty and left the children with little hope. In addition, the children were in a confined, structured environment away from home and family which may have recreated for them their days in rebel captivity. Finally, the school viewed some of the youngsters as being possessed by demons (Ovuga et al 2008).

2.2 Complications of traumatic experiences in Northern Uganda

Victims of PTSD may suffer a variety of complications that may take the form of physical injuries or the psychological impact of the traumatic event per se. In addition war and violence have destabilizing effects on the social and individual lives of members of affected communities. In northern Uganda former child soldiers are called stigmatizing and criminalizing names that makes it difficult for the affected individuals to be reintegrated into their communities. The children of former female child soldiers who returned from the bush war are often not accepted by the communities of the child mothers, thus essentially uprooting the former child mothers from their communities and social roots. Additionally communities in northern Uganda still face the prospects of ethnic conflicts with potential for further trauma, as war has major impacts on children's development (Bardin, 2005).

Physical injuries include fractures, brain damage, seizures, sexually transmitted diseases and unplanned pregnancies. Psychological impact of traumatic events as seen in Northern Uganda include post-traumatic stress disorder, panic disorder, alcohol abuse and psychosis. At social and community levels, the Northern Uganda war has contributed significantly to lack of education, poverty, early marriages especially among girl children, family breakup among older persons, fear among male youths about getting married and the disempowerment of men as heads of households. Trans-generational effects and conflicts between neighbouring communities (Volkan, 2004) remain serious threats to social security and stability as renewed cycles of violence, war, prejudice, revenge motifs and lack of social development remain significant issues in the region.

3. Clinical features

Four main features characterize post-traumatic stress disorder; namely: intrusive memories of the traumatic event, flashbacks, re-experience of the traumatic event and avoidant behaviour. Intrusive memories may take the form of bad dreams while re-experience of traumatic events and avoidant behavior may take the form of loss of interest in social contact; fear of visiting places where individuals experienced initial traumatic events such as farm fields; depersonalization or aggressive outbursts triggered by conversations; and or bad dreams. The Fourth Edition of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychological Association (APA, 1992) gives the following clinical diagnostic criteria.

- History of having experienced, witnessed or been confronted with events or an event that involved actual bodily harm or serious bodily injury or threatened death or threat of integrity to the person's body.
- During the event the person responded with fear, sense of helplessness or horror in adults, or agitated disorganized behaviour in children.
- The affected person experiences recurrent painful recollections of the traumatic event including images, thoughts or perceptions among adults, or frightening dreams among children.
- Acting or feeling as though the traumatic event were reoccurring manifested by re-living the event, illusions, hallucinations and flash-backs among adults, or plays involving actual traumatic events among children.
- Marked experience of emotional distress whenever the individual is exposed to situations that resemble an aspect of the traumatic event.
- Experience of physical symptoms whenever the person is exposed to situations that resemble the traumatic event.
- Active efforts to avoid thoughts, feelings or conversations about the traumatic event; the client might actively attempt to avoid visiting places that might evoke memories of his/her traumatic experience.
- Active efforts aimed to avoid activities, places or people that arouse recollections of the trauma.
- Inability to remember important aspects of the traumatic event despite the individual's preoccupation with his/her traumatic experience.
- Significant loss of interest or participation in pleasurable activities and daily chores.
- A feeling of emotional detachment or estrangement from friends and other social groups.
- Inability to experience loving warmth for others.
- Loss of hope in the future, e.g. feeling that one has no chance in marriage, raising children or that one might die before long.

In addition the individual might report the following symptoms that might have been absent before the experience of the traumatic event.

- Difficulty falling asleep or staying asleep
- Being easily upset or getting angry
- Difficulty concentrating at tasks involving mental effort
- Being attentive and alert to spot signs of danger
- Exaggerated response to stimuli in the surrounding such as sudden loud noise.

The recognition of post-traumatic disorder in northern Uganda is, however, not simple due to widespread beliefs in witchcraft and supernatural powers in rural areas, and many individuals with the disorder do not receive the intervention they need for a number of considerations. Children in rural areas and in schools receive severe corporal punishment almost routinely as a strategy by adults, teachers, and older children to instil discipline in them. Sometimes children are denied access to basic necessities of life including food in retribution for wrongs they might commit. Thus the nature and scope of traumatic stress in rural communities in northern Uganda is diverse and may pass as normal in the eyes of the ordinary individual. Rural communities in the region are more likely to somatise their ailments and to explain psychological distress in terms of witchcraft; spirit possession and or the non-performance of rituals to appease displeased ancestral spirits. As large communities were exposed to the traumatic events in the region, most people are inclined to underrate the psychological impact of their experiences in their lives, and to consider their psychological experiences as universally normal responses to their traumatic experiences. Informal social support exists at community level, which offers some degree of protection against psychological distress at least at superficial level (Betancourt and Khan, 2008), and most child soldiers (and adults) appear to adjust remarkably well to their traumatic experiences (Betancourt et al, 2010). As a result most investigators who are not accustomed to the social and cultural life of the communities mistakenly believe that post-traumatic stress disorder is rare in northern Uganda and that the communities in the region do not require any form of psychological intervention.

Indeed some individuals may not in fact recover fully from their traumatic experiences due to the delayed onset of post-traumatic stress symptoms in some individuals (Jones, 1987), and the long-term effects of traumatic experiences such as rape (Shanks and Schull, 2000) despite appearing to function well in daily activities. Unpublished work from northern Uganda also indicates that poor parental mental health evidenced by previous history of traumatic stress, depression, suicidal behavior and alcohol abuse may predispose children to poor mental health either independently or arising secondary to children's own traumatic experience. Thus at least in the context of northern Uganda, despite the availability of ubiquitous social support networks children and adults alike may or may not be resilient to the effects of war experience in the region. This thus highlights the importance of routine screening for depression, suicidal behavior, anxiety disorders and post-traumatic stress disorder symptoms among patients attending primary care.

3.1 Common symptom patterns of PTSD in northern Uganda

Post-traumatic stress disorder usually presents with vegetative symptoms of depressive and anxiety disorders or alcohol use disorder symptoms. Patients may complain about poor sleep due to dreams involving the dead beckoning them unto death. Direct inquiry about probable history of exposure to a traumatic event is required as dreams about the dead may be a significant sign of depressive disorder, anxiety disorder or PTSD representing intrusive thoughts. Sometimes patients may complain about having many thoughts or thinking too much. Too many thoughts may mean being worried, and signify depressive disorder or an anxiety disorder, particularly in association with frightening dreams in which the dreamer is visited by dead relatives, is chased by enemies/armed men, or is involved in battle. However too much thoughts may be an idiom for intrusive thoughts seen in post-traumatic stress disorder. Individuals may be described as preferring to be alone, and this description is the equivalent of loss of interest in social contact and pleasurable activities as in

depressive disorder or post-traumatic stress disorder; it is not uncommon for post-traumatic stress disorder and depression to co-exist in the same patient. Such individuals are usually intolerant to conversations that might remind them of their traumatic experiences, and may exhibit considerable levels of irritability and may therefore not wish to participate in conversations with family and friends. Individuals who prefer to be alone following exposure to traumatic events also exhibit episodes of depersonalization with aggressive outbursts. The triad of social isolation, depersonalization and aggressive outbursts is so characteristic of former rebel soldiers in northern Uganda that some communities readily recognize the psychological instability in affected individuals and often arrange a quiet room for the victims to rest before they can rejoin their peers in social activities.

Vignette 1

The following vignette about a 19-year old former child soldier in northern Uganda perhaps illustrates the complex manner in which post-traumatic stress disorder presents sometimes. The patient was referred to the psychiatric unit in a general hospital in northern Uganda by a humanitarian agency. The patient presented with severe cognitive impairment suggesting severe brain damage; he was disoriented to time, place and person and he had poor attention span and poor concentration with poor short-term and recent memories. The young man had no idea as to where his home was claiming that he came from a location in Okokoro county in northern Uganda; however his name suggested that he came from the West Nile region of Uganda. He claimed he had graduated from a university in central Uganda (non-existent) and that he came from the Congo-Somali-Ethiopia border. Clinical examination, and laboratory and radiological investigations revealed no physical abnormality. This case illustrates the psychological consequences of brainwashing and indoctrination that the rebel captors used to keep control of the young children they abducted and trained as members of their forces. However the cognitive impairment in this case may also be explained on the basis of memory impairment that accompanies the clinical features of post-traumatic stress disorder.

Vignette 2

A 40-years-old married man and father of four children was admitted with severe psychotic symptoms and features of alcohol dependence to the psychiatric unit of a general hospital in northern Uganda. The man had been violent toward his wife for her failure to respond to his sexual advances, as he seemed to her not stable psychologically. Additionally the man's admission was prompted by his unusual behavior of watching a line of ants as they moved into and out of an anthill. The man interpreted the line of ants as government soldiers tracking rebel forces in northern Uganda. In a systematic order he crushed and killed some of the ants that he believed were government soldiers while sparing the ones that he thought were rebel soldiers. In therapy the man lamented the extent to which people in northern Uganda had suffered from the effects of the northern Uganda war and he wished that he were able to prevent a return of war in the region. The man reported repeated dreams of him hiding up in very tall trees to avoid being spotted by helicopter gunships, or looking down on government soldiers who would stare up helplessly at him from down below after escaping from them. Despite the location of his residence in northern Uganda, and the symptoms of post-traumatic stress disorder, the man denied any history of traumatic experience or links with either rebel forces or government troops.

Vignette 3

A 72-years-old man who had been involved with religious work in northern Uganda was admitted to the psychiatric unit of a general hospital in northern Uganda with what seemed to be unclear to the junior mental health professionals in the hospital. The man had features of early dementia as well as major depressive disorder, and he complained that his memory was poor and that his mind kept going blank as he held conversations; indeed as he narrated his traumatic experiences, the man seemed hesitant, paused frequently to recollect his thoughts and repeatedly asked for questions or sentences to be repeated to him. The man had been exposed to repeated traumatic experiences both in Southern Sudan and northern Uganda for over four decades and he reported several episodes of witnessing torture, killings and human suffering; he himself reported at least three occasions of near escape from death, making him wonder as to why it was always him who had to go through the sort of traumatic experiences that he repeatedly encountered. While in hospital the man always ran out from his hospital room to spend the night outside the room in the open, claiming that attackers had come for him. Out of his several dreams related to traumatic situations, the man reported one example of him leading a group of five men who had attacked a refugee camp and killed many of the refugees before the authorities sent in reinforcement to rescue the refugees. When the reinforcement arrived they informed him and his men that since they were the ones that started the fighting, they would all be killed. Though he ordered his men to retreat, his men were all killed and he woke up from sleep just in time before he was himself killed.

Vignette 4

A four-year-old male child was admitted to a large mental hospital in a former homeland in South Africa with scanty history of his psychiatric problem. By the time one of the authors (EO) saw him, the child's parents had returned to their remote rural village. The available information indicated that the child had been attended to at the rural district hospital and at a traditional healer's shrine without benefit. Each of the child's hands was firmly and securely crepe-bandaged into a fist. He had a combination of recent and old healing wounds and scratches in both temporo-frontal areas of the head. The child was otherwise of good nutritional status and there was no immediate evidence of child neglect. The reason for bandaging the child's hands became immediately obvious when the child suddenly began to hit himself with both hands in the injured areas of the head. The blows were so strong and fierce that an onlooker would feel sympathy and pity for the child. Efforts to prevent the child from his self-injurious behavior only led to resistance and even stronger blows to the child's head. Whenever the child got tired from hitting himself he would sometimes hold the hand of the nearest adult and beckon the adult to hit him. Routine laboratory test results were normal. Report of an electroencephalography indicated non-specific occasional spikes and waves in the temporal lobes, particularly in the right temporal lobe. The child was treated with an initial low dose of haloperidol, followed by ethosuximide but with no clinical benefit.

Nursing report indicated, however, that the child was attracted to two female nurses both of who responded appropriately as surrogate mothers. The reports further indicated that each time the primary surrogate mother lifted the child into her arms he would reach out for and pull out her breasts though he did not attempt to breast-feed. While in the company of the surrogate mothers, the frequency and severity of the child's blows to his head decreased. This observation led us to believe that there was a problem with loss of attachment and to

develop and break down a set of the child's self-injurious behavior pattern from the most complex to the smallest units for purposes of drawing up a behavior modification strategy based on appropriate rewards if the child refrained from self-injurious behavior and the withholding of attention or reward if the child engaged in any form of behavior considered by the surrogate mothers or other nurses as unacceptable. Each time the child's behavior was considered positive he was praised and occasionally presented with a personal toy, but each time his behavior was unacceptable this was indicated to him in a clear simple language promptly. The rules of the therapy were typed out and pinned on the notice boards on the children's ward for all nurses to follow in support of the two surrogate mothers. Though the author (EO) was from another culture, the behavior modification strategy was planned carefully with the nurses, written out in simple language and explained before its implementation. As part of the therapy, the bandages were removed from the child's hands as the initial reward for non-injurious behavior. All medications were also withdrawn and the child was left free to do whatever he wanted within the provisions of the behavior modification strategy. Using this strategy, the child's self-injurious behavior progressively and eventually resolved completely within two weeks. The child's clinging behavior on either of the surrogate mothers stopped; he became social and interacted freely with all nursing staffs on the ward and began to play with other children.

When the parents eventually came to take him home after six months, the mother narrated the history of the child's mental health problem as follows. The child was the first-born in the family and received the full attention of his mother. When he was two-and-half years old, a sibling came in between him and his mother. The child reacted with intense rivalry with his infant sibling who the child attempted repeatedly to push off from their mother's lap. When he failed in his efforts to push the infant from the mother's lap, he became more and more vicious in his attacks on the infant sibling. In a final effort to stop the child's hatred toward the infant sibling his mother confessed hitting the boy so hard that he stopped pushing the infant from her lap. In reaction the child turned his hatred toward himself and started to slap and scratch himself. As observed in the hospital whenever he got tired he would come to the mother and beckon her to slap him in the face as she had done. A full explanation was made to the mother as to the probable origin of his self-injurious behavior, which the parents accepted, and the mother believed the explanation would help in her future relations with the little boy, who we shall call Sipho in this chapter.

It is possible that this child suffered from two episodes of traumatic stress; first his loss of his first love object, the mother, and secondly the physical attack on his physical integrity by the mother. Though young, the child apparently drew the correct relationship between his hateful feelings toward his sibling and the punishment that he received from the mother. In order to protect himself and his infant sibling, the child took a middle option; self-punishment that in adult term would have led him to suicidal behavior, which is a common occurrence in post-traumatic stress disorder. One might interpret his never-ending urge for punishment as an obsession, and the self-injurious behavior as a compulsive disorder. It is therefore not surprising that a program of response prevention that aimed to modify his behavior into a healthy lifestyle in the face of unavoidable challenge in life worked for him. The child's mental health problem that we might refer to basically as an obsessive-compulsive disorder probably qualifies to be intrusions and attempts to re-experience his traumatic experience in the hands of his mother. Further his behavior interfered significantly with his social functioning to the extent that it interrupted his normal relations with his parents and sibling resulting in hospitalization. Given the history this was a case of post-traumatic stress disorder co-morbid with obsessive-compulsive disorder.

4. Mental health problems of children in Northern Uganda

Methods of data collection

In this section we summarize the findings of our research on the patterns of mental health problems of children in northern Uganda. The findings highlight the diverse nature of traumatic experiences and their associated psychological distress symptoms the children aged 4-17 in the region experience. We conducted a cross-sectional survey of children in Gulu district using both qualitative and quantitative research methods. We used stratified cluster sampling strategy to select two urban and two rural villages in Gulu District. We randomly selected the participating villages from 2 sub-counties (one rural and one urban) in Gulu District. We estimated that 100-150 children would participate in the study. The parent or caretaker of each child or adolescent selected was also requested to participate in the study.

Participant selection involved community leaders in each village who helped the research team to discuss the research in general terms with the identified children and their caregivers and gave them the opportunity to ask questions and to think about possible participation. We explained the research project; and gave the participating children and their caregivers the opportunity to ask questions. A simple consent/assent form was explained to each potential participating child and caregiver. If they still wished to participate we asked that they sign the consent/assent form or place a thumbprint in the case of those who could not write. (In some of the studies referred to above only verbal consent was obtained). Throughout the interviews participants were asked if they were okay in participating and given the opportunity to stop if they chose to. At the end of each interview participants were asked how they felt about having participated and if they had any questions about the project at the end. Each caregiver was given a phone number to call or a person they could contact (they may not have access to a phone) who could contact one of our team members (EO or CL) if any concerns or questions should arise in the future about the research interview.

Using a semi-structured interview we collected demographic information, descriptions given by the children of their personal experiences and their reactions to events in their lives. We covered areas of strengths as well as difficulties. A principal investigator (CL) or a trained assistant conducted the interviews. When indicated, an interpreter asked the questions in Luo (the primary language spoken in Gulu district) and translated the answers for the primary interviewer who spoke English. The primary interviewer clarified answers with the research subjects through the assistance of the interpreter. The primary interviewer wrote down answers to the questions on each questionnaire. We also used a semi-structured interview with parents/caregivers of the children to determine how well the children functioned emotionally and behaviorally. The investigators of this research project constructed the questions for the interview with the assistance of community members in order to be sure that the concept of how an individual functioned in daily life was consistent with cultural expectations. We examined the child's ability to function in 3 domains: 1) the home 2) in peer relationships and 3) at school, job (such as farming), or age appropriate activity.

In order to gather the information required we developed three questionnaires to obtain information about the emotional well being of children in northern Uganda. In order to be culturally and linguistically accurate each questionnaire was developed with input from professionals and community members in the region. The questionnaires were first written

in American English and converted into Ugandan English to assure accuracy in communication. The questionnaires were then translated from Ugandan English to Luo. In order to be sure that the original meaning of each questionnaire was not lost in translation the questionnaires were translated from Luo back to American English to check for accuracy.

1. *Questions for Caregivers*

Parents, guardians or other caregivers of children participating in the study were asked questions about the children in the study. One interview took place using a semi-structured format to determine how the children functioned at home, school or work, and with their peers. The interview took approximately 30 minutes to complete.

2. *Interview of Children and Adolescents (Ages 9 years to 17 years)*

This semi-structured questionnaire was administered to children and adolescents aged 9 years to 17 years of age. It was administered in 2 parts. Part one was administered during a first meeting in order to establish rapport. Part two was administered during a separate meeting during which time questions related to feelings; reactions and functioning were more personal. Each interview took approximately one hour.

3. *Interview with Young Children (Ages 8 Years and Younger)*

To date studies related to the mental health of children in Uganda have focused on older children, primarily adolescents. There is little information about children 8 years of age and younger. This semi-structured questionnaire was designed to engage younger children by using puppets and giving stories about the puppets. After hearing about the puppets the children were asked questions about themselves in a qualitative approach using a semi-structured interview. The questionnaire was administered in two parts on two separate occasions. Part one was administered during a first meeting in order to establish rapport. Part two was administered during a separate meeting during which time questions related to feelings, reactions, and functioning were more personal. Each interview took approximately 30 minutes.

To participate in the study we included a) children or adolescents who participated in the study were aged between 4 and 17 years and were willing and able to answer our questions and b) those that agreed to be in the study and an adult responsible for the child (parent/caregiver/guardian) also willingly consented to the child's, and their own participation in the study. We excluded from the study a) children who could not speak English and there was no appropriate interpreter to interpret for the subject related to the study and b) children that were unable to communicate due to a medical or severe psychological problem such as mutism, catatonia, and severe mental retardation. Children under 18 years of age, who were able to answer our questions, as well as their guardians / caregivers, were interviewed. We took special care to be sure the children and their caregivers knew that participation was voluntary; that there would be no negative consequences for not participating, and that any benefits they might receive from the community, university or hospital would not change if they decided not to participate. We received informed consent from the caregivers and assent from the children in the study. Because our study did not offer specific interventions and because mental health resources are limited in rural areas of the region we interviewed the children in a non-direct manner asking about their life – what they enjoyed, what annoyed them, what they routinely ate and or how they slept, what they would like to see be different, etc. Such an approach allowed the children to disclose information while not putting them in a position of forcing them to talk about things that are emotionally very upsetting for them. If we were to notice some

children (or caregivers) who were of serious concern to us, e.g. severely depressed, suicidal etc. we attempted to help them utilizing any resources that might be available such as Hospital. In addition, CL who is child psychiatrist provided supervision for mental health workers referring them to the mental health unit at Gulu Regional Referral Hospital.

Pre-coded numerical data from the semi-structured questionnaires were entered and analyzed with SPSS version 10.0. Chi-squared test was used to determine statistical significance levels between groups. One-way ANOVA multivariate and logistic regression analyses were used to determine factors associated with emotional disorders and impaired social functioning among the participants. Significance levels were set at 0.05 and 95% Confidence Intervals. Prose accounts from the questionnaires were analyzed manually according to emerging themes emotional disorders and psychosocial functioning of participants. In this chapter we provide only qualitative material to present the nature of post-traumatic stress disorder among children aged 4-17 years in Gulu district, northern Uganda. We conducted our interviews in a private room or outdoor space chosen by the caregivers of every subject in the comfort of their own homes. In general, the adolescent participants were interviewed alone without an adult caregiver present; children, especially those younger than 9 years, were interviewed in the presence of their caregiver. However, children and adolescents were given the opportunity to determine whether they wished to have an adult caregiver present or not during the interview. We received ethical clearance for the study from the Institutional Review Committee of Gulu University and the Uganda National Council for Science and Technology.

We analyzed the interviews to determine themes and patterns that were expressed by each child. We then worked with selected community members and faculty members of the school of medicine to determine how certain themes and patterns such as somatic complaints, visitation by spirits, feelings of abandonment, etc. might compare with western constructs of such disorders as PTSD, depression and anxiety. We hoped that the analyzed information would give us a percentage of the children in each village who were experiencing significant emotional difficulty and those who were not functioning adequately. We also hoped that we would have qualitative and descriptive data, which would give us information that would take into consideration the culture and context of the participating children and their caregivers.

5. Results

Ninety-eight families from four separate randomly selected villages in Gulu district in northern Uganda participated in a Fulbright-supported qualitative study to determine the mental health needs of one child per family in January to March in 2010. The study related to the mental health of the children and the children's functioning, their general concerns, attitudes and coping strategies of each child who was aged between four and seventeen years. This review highlights the complex situation of children in northern Uganda where they not only cope with the day-to-day problems of poverty, the aftermath of war and conflict but also troubled relationships within their own families. We summarize our findings under seven themes; namely: stress related to difficulties paying school fees, aggression/violence, fear, sleep disturbance, emotional problems, spirit possession, and coping strategies. Coping strategies are particularly significant as they relate to the resilience described by Betancourt and Khan (2008), Betancourt et al (2010), and Akello et al 2010, 2011). For purposes of clarity we group the children in this study as younger children aged between 4 and 8 years, and older children aged from 9-17 years.

5.1 Significant stress related to the families' inability to pay school fees with resulting lack of education or inconsistent education for the children

Fifty-eight caregivers (59%) expressed concerns that lack of school fees was a source of stress for them or their children. Many of the children expressed feeling worried about being able to pay fees as well as sadness when "chased from school" because of an inability to pay. Though education is free in government-aided primary and secondary schools in Uganda, many parents in rural areas are sometimes unable to meet small amounts of fees levied by schools to meet the welfare needs of their children; the experience of a child being chased away from school is therefore traumatic for affected children. For some children the stress was very severe with one youngster reporting that when his family failed to pay his school fees he felt that he would never be happy again; another teen reported that when school fees are not paid she thinks of committing suicide.

5.2 Aggression/violence

Children and caregivers reported that much aggression occurred in the children's lives. The aggression was experienced directly by many children and many also witnessed it. The aggression occurred in the home, in the community, at school and with peers. At times children were victims and at times they participated in the aggression.

Of the 98 youngsters in the study 66 (65%) experienced physical aggression that was directed towards them. Almost 31% of the children experienced physical aggression toward them at school by teachers and or other students; almost 29% of the children experienced physical aggression at home by caregivers and or siblings and almost 28% of the children experienced physical aggression in the community.

The percentage of children who reported that they experienced physical aggression in the home was much higher in the rural communities as compared to the urban communities. In the two rural communities: 11 out of 24 youngsters from one community and 11 out 25 youngsters from the second community, for a total of 22 out of 49 children (almost 45% from both rural communities) experienced aggression at home. In the urban communities 3 out 25 youngsters from the first community and 2 out 24 from the second community, or a total of 6 out of 49 (12%) from both urban communities experienced aggression at home. Five of the 98 children reported experiencing physical aggression in all three places; i.e.: home, school and community. Three of the five were from the same rural village, and there was one child from each of the two urban villages.

Fifteen of the 98 children were reported to be aggressive. Out of the 15, eight children came from the rural village in which 3 children experienced physical aggression in all three sites examined. The children in the study were more vocal about the aggression they experienced than any other topic. They reported fear, sadness and anger related to the behaviour directed toward them.

5.3 Fear

Many of the younger children expressed that they were fearful. While it is not uncommon for young children to express fear the content and extent of the fear was troubling as it suggested significant stress and at times trauma. 36 out of 47 children from the younger age group (76%) reported that they had experienced fears from at least one f the three categories; 1) some one or something 2) illness and 3) going to sleep. Eight out of 47 children (17%) feared something from all 3 categories; 15 children (almost 32%) feared something from 2 categories and 13 (almost 27%) from one category. Twenty-five children (53%) feared people

or things. Some of the people or things the children feared were "strangers who chop off children's heads for human sacrifice" (witchcraft), thieves, snakes, cats, mad people, darkness, elephants, dogs, rats, kidnappers, and other children who beat them. Twenty-eight of 47 children (59%) reported that they feared getting ill. Many feared an illness that they had in the past; some children feared they would die or never get well. Fifteen of 47 children (almost 32%) feared going to sleep. The reasons for fearing going to sleep were fear of darkness; fear that someone such as a thief, someone to cut off their heads and other scary people would come to them. Some feared animals such as snakes, hyenas or rats would come and harm them while asleep. Two children reported being bitten by a rat in the past; one child reported that a snake bit his younger brother.

5.4 Sleep disturbance

Sleep disturbance was common with nightmares being the most prevalent problem. Many nightmares were triggered by actual experiences. Sixty-seven out of 98 youngsters (68%) reported a sleep disturbance. For the younger children the sleep disturbances were: difficulty falling to sleep; fear of falling asleep, and bad dreams. For the older children sleep disturbances were: worrying at night; trouble falling asleep; waking up at night; and nightmares. Fifty-two out of 98 children (54%) reported having bad dreams. The content of the dreams varied some between the younger and older groups as well as between villages. However, the most common themes of the nightmares of the younger group of children were; death, or being harmed or chased by animals or bad people. The most common themes in the nightmares of the older children were: death, fighting, being attacked or abducted. In the first rural community, the predominant themes of the nightmares of younger children were death and being chased by ghosts. The content of the bad dreams of the older group of children was primarily of fighting, or being chased or attacked. In the second rural community, the themes of nightmares of younger children were: abandonment, being in a life-threatening situation, and being harmed and or killed by bad people. In regard to the older children almost 86% reported nightmares. For the older children, in general the nightmares were traumatic, with the predominant themes of death or life threatening experiences. In 66% of the older children who reported nightmares they described someone dying in their dream. Some nightmares were recurrent and some were reported as occurring every night. In the third (urban) community, the themes of the bad dreams reported by younger children were that of bad animals coming to harm them or the death of someone close. Almost 79% of the older children in this community reported nightmares. The content of the nightmares were significant. The themes were of death and dying, killing and fighting and abduction by the LRA. In the fourth (urban) community, the prominent sleep disturbance of the younger children was bad dreams. The themes of the nightmares were; animals or a kidnapper coming to harm them, a collision of motor vehicles, and falling in a lake. Of the older children only 2 reported nightmares and the theme was of death – one of them being killed by a witch; the other was of the deceased father coming to him (child) to take him away to die.

5.5 Emotional problems: sadness/ isolation/ anger/ worries

Boxes 1 and 2 below illustrate various reasons that study participants gave for children feeling sad, angry or worried. Twenty-two of the younger children reported that there were times when they were sad; 39 of the older children reported episodes of sadness/ isolation and/or anger. A total of 61 youngsters out of 98 (62%) reported feelings in the spectrum of

Children's reasons for feeling sad, angry or isolative	Caregivers' reasons for their children feeling sad, angry or isolative
• 9 year old female feels sad when she arrives at school; she fears being caned by the teacher • 10 year old male feels very sad when he is sick; he feels he will not get better; he feels very angry when friends beat and hurt him one time per week • 13 year old female reports that she is lonely, sad and likes isolating because friends gossip; she is angry with herself after quarrelling at home • 15 year old male is sad when he quarrels with friends • 13 year old female fees sad when she is lacking food and when she asks for something and is denied; she is angry when school asks for fees and there is no money; she thinks about and plans suicide when relatives compare her to her late father • 14 year old female is sad often when there is no money for school fees and when there is no food in the house about twice a week; she often thinks of committing suicide by collecting pills and overdosing; she feels suicidal because of failure to pay school fees • 17 year old female reports that she is sad when she lacks school fees or when she is sick; she is sad when she thinks about her deceased father and he is not here; she is angry when relatives disturb her because her father is dead; she is angry when she is all alone • 14 year old female says she is angry when she is delayed by being asked to do something at school and because of the delay she is denied food at home and gets no lunch • 11 year old female is lonely because she likes to stay away from boy neighbors; she feels bad when friends say she is stupid • 16 year old female is sad after she refuses to do something for her parents; she isolates when someone gossips about her • 16 year old male feels that he will never be happy again because of a lack of school fees • 16 year old female whose both parents are deceased is lonely and sad when friends are not around	• Lonely; wants to see her dad/ wants to go to school • Fears other children will fight him • Lonely; friends like beating him • Thinking about mother; parents are dead • Stomach pain; "many thoughts"; does not like father because he beats the mother • Sad one time per week; caregiver does not know why • Sees other children going to school and cannot go because of fees • "Many thoughts"; not going to school because of fees; isolates when being refused something asked for • He has "many thoughts " 2 or 3 times per month and is sad because of the death of his father • He is sad and lonely for reasons unknown to caregiver; "many thoughts" about how he will make a living • She is sad and lonely when she thinks about her deceased parents; sad and has "many thoughts" when she is chased from school because she lacks fees • He is sad but caregiver does not know the reason • 9 year old male is sad; caregiver does not know why

Box 1. Reasons why children felt sad, angry or isolative

sadness and anger. Sixty-two caregivers (63%) reported that their child had periods of being sad, lonely, isolative and/or angry. Reasons youngsters gave for being sad or angry were: physical abuse by caregivers, teachers or peers; death or illness of parent or parents with child being neglected or being deprived of food or school because of no money; being overworked; illness; relationship issues with peers and missing someone. Nineteen of the younger children and 26 of the older children, a total of 45 out of 98 (45%) reported that they worried. Fifty-five caregivers (56%) reported that their youngsters worried. Children reported that they worried about the following things: a sick parent or sibling who they fear will die or who would transmit disease to them; physical abuse by teachers, caregiver or peers; well being of family members when they travelled or went to school; being turned away from school because of no fees or not passing grades; fear of nightmares; fear of abandonment; lack of food; poor living conditions; becoming burned when starting a fire; and alcohol problems of caregiver.

Children's reasons for being worried	Caregivers' reasons for their children being worried
• 9 year old male worries and will not eat at school because he fears the teacher will beat him • 17 year old male worries about the living conditions of his mother • 16 year female worries when her brother is delayed that he might be in an accident; worries when boys slap her and say bad things to her • 15 year old female worries when her brother lacks school fees; sometimes she goes out digging to earn school fees for the brother • 16 year old female worries about getting bad dreams about a man slashing her throat for human sacrifice • 16 year old male worries that his aunt (caregiver) has alcohol problems • 16 year old female whose parents are deceased worries about her brother when he has no money	• No food; friends fight him • When friends or children at school try to take her belongings • Lack of school fees • Thinking about father's death last year • When hungry; when friends steal her books or pens; when friends fight over toys • Lack of school fees • Lack of fees; being beaten by teachers

Box 2. Reasons children and caregivers gave for children being worried

5.6 Spirit possession

No caregiver from urban villages reported their child as having experienced spirit possession currently or any time in the past. However three caregivers from rural villages felt that their youngster might have spirit possession. In one case the caregiver thought this because the child would awaken from sleep 2 to 3 times per month shouting, "something is coming to hurt me". Another caregiver reported that a teenager experienced spirit possession at the beginning of each month. Rebels abducted the child when he was very young. He has had episodes of spirit possession since returning from the bush. A third caregiver felt that her child experienced possession during the previous year. The nine-year-old girl reported that she is sad most of time and has repetitive dreams of her deceased

grandmother coming to take her away. She cries because her father was killed by the rebels and there is no one to help her mother care for her. The previous year when her mother was hospitalized, the mother's sister-in-law cared for the child. The child did poorly in school due to the hardships she went through during that period. One day during the same year the child ran away to the bush for just 1 day. Her mother saw her rolling on the ground and her mother heard spirits making sounds over the girl's head and the mother thought the girl was possessed or cursed. Two additional caregivers initially reported that their children did not experience spirit possession. Each caregiver then added that their child does get nightmares and, therefore, they wondered if the child had spirit possession.

5.7 Coping strategies

The children in the study discussed various strategies that they used to help themselves when they were sick, sad or angry.

5.7.1 Religion

Almost universally (94 out of 98 youngsters) of both the older and younger age groups reported both believing in a religion and also found religious beliefs and praying helpful when coping with illness and emotional difficulties. The children came from Catholic, Protestant and Muslim backgrounds.

5.7.2 The use of alcohol or drugs (Asked only of the older children ages 9 through 17)

No youngsters reported using street drugs. Only 2 children reported the use of alcohol and neither described it as a method of coping. One 10-year-old female from a rural village reported drinking 250 mgs of local brew with sugar "for enjoyment". One 10-year-old male from an urban village reported drinking alcohol on one occasion only – Christmas. He drank alcohol because he saw adults drinking it.

5.7.3 The use of traditional medicine/ceremonies (Asked only of older children 9-17)

Seven youngsters from the 2 rural villages reported that they used traditional medicine or had used it in the past. Traditional medicines were described as tree bark, herbs or roots that were used to treat such ailments as cough, rash, vomiting and convulsions. Two of the youngsters who had used traditional medicine were not sure if it had been useful. From the 2 urban villages none of the youngsters reported using traditional medicines or ceremonies. However, one teenager felt that traditional beliefs and ceremonies were sometimes useful. Another youngster reported that some traditions are helpful but that some are not correct.

5.7.4 Coping when Ill (Asked only of the older children ages 9 through 17)

Almost universally, 50 out of 51 older children used medication that they received from a hospital or elsewhere when they were ill and found the medication useful. The medications that were specifically mentioned were: Panadol (Paracetamol), quinine and painkillers. Bathing in cold water to relieve fever or putting cold water on the head to relieve headache was also mentioned. Foods and beverages were also taken by some children when ill. All the remedies were thought to be helpful.

5.7.5 Use of food to feel better when ill (Asked only of the older children ages 9-17)

Out of 51 older youngsters, 30 (59%) reported that they drank specific beverages or ate specific food to help them feel better and for most this was helpful. More of the young

people who lived in the urban villages ate or drank items for their wellbeing than did those in the rural villages. Some of the beverages the youngsters drank were juice, which gave energy and strength and improved appetite; tea, especially to reduce shivering: water which "added blood", and soda to relieve headaches. Some of the food items eaten were: peas to relieve headaches, beans, vegetables, rice, *posho* (bread made from maize or corn flour), eggs, porridge and fish.

5.7.6 Coping when sad (Asked only of the older children ages 9 through 17)

Of the 51 older children 35 (69%) reported using specific strategies when sad; 13 specifically reported that they did not do anything when feeling sad; 1 child reported that he did not get sad and for 2 coping strategies are unknown. Of the children who used strategies there were several approaches to coping.

a. Going to another person such as a friend or relative (mother, brother or sister) to get advice, to play, or to listen to a song or stories. Twenty-two youngsters chose this strategy making it the most popular. Friends were chosen more often than family members
b. To participate in an enjoyable activity. Six youngsters chose this approach and went to play; played football; sang or enjoyed music or a movie.
c. To engage in a quiet or contemplative activity. One child bathed or relaxed; 1 prayed and 1 just sat.
d. To isolate. Two children reported that they isolated and 1 "moved away".
e. To correct the reason for sadness. One young lady would go to those who offended her and ask for their apology.

5.7.7 Coping when angry (Asked only of the older children ages 9 through 17)

Thirty-four of 51 youngsters (66%) reported using specific strategies when angry and for most the strategies worked. However, 1 teen coped very poorly. He would cry and then he thought of running in front of a car. One child reported that he did not get angry. Fifteen reported doing nothing when angry. For 1 child the coping approaches were unknown. For the young people who used strategies there were several approaches to coping:

a. Going to another person such as a friend or relative for advice, to talk, to play, to tell stories and laugh or get away and sit with people. Thirteen young people chose this strategy. Twelve went to friends or other people; 1 went to an older sister.
b. To participate in a useful or enjoyable activity. Three children chose this strategy and cleaned utensils; ate; and played by concentrating on a game.
c. To engage in a quiet or contemplative activity. Ten youngsters chose this strategy and would go and lay down; sat and did nothing; slept; kept quiet; and prayed.
d. To move away from the situation or to isolate. Five young people chose this approach and would move away from home or the situation; stay or sit alone; and isolate to think of new things.
e. Aggression. Two youngsters reported that they would fight.
f. To wait for the situation causing anger to be corrected – to seek fairness. One child would ask her parents to give her the same things given to her siblings and wait for them to do so.
g. Self-destruction. One child would cry and think of killing himself by running in front of a vehicle.
h. Some of the youngsters chose more than one strategy to help them overcome feelings of anger.

6. Comment

The children of Uganda are at high risk for emotional problems yet there is limited information about children's mental health in the country. This is especially true of very young children (8 years of age and younger) for which information is scarce. Our study was an exploratory mental health needs assessment that could facilitate the development of mental health programs in northern Uganda. The study focused on the children in the community at large and not one targeted group of children. It included a representative sample of all children between 4 and 17 years of age who were willing and able to participate in a semi-structured interview. The study took place at a time when the region of Gulu was secure, and without war related violence or ongoing abductions. In a secure environment selected by children's parents, guardians or caretakers in the comfort of their homes, we obtained a different assessment of mental health problems and needs of children than that obtained from research conducted at a time of political upheaval, warfare and unrest despite the documented long-term effects of war (Jones, 1987); in this way much of our results do not include cases of acute stress disorder among children related to war and organized community violence though some of our study participants appeared to live under the threat of aggression in their homes, school or community almost on daily basis. Our study gathered information that might be useful in guiding mental health interventions for children and adolescents. It is necessary to understand the types of emotional difficulty children experience, as well as the degree to which they are affected, in order to provide appropriate treatment interventions and resources that might prevent further psychological damage.

By sampling a broad spectrum of children from several communities, by not limiting our research to one specialized group and by using qualitative measures we believe we had the opportunity to obtain information about the children that will be contextually and culturally rich and provide information about strengths as well as difficulties. We also hoped that the information would complement the data obtained from previous studies and hopefully provide important information in guiding future research, intervention and prevention. The research information can then be used to develop mental health services for children and adolescents (these services are currently rudimentary and inadequate in northern Uganda) and to seek resources to properly address the emotional needs of these children. Our findings from this exploratory research indicate that the children of Gulu district experience significant levels of not only post-traumatic stress disorder but also other mental health problems including anxiety disorders, depression and suicidal behavior in response to a variety of traumatic stressors some of which might be regarded by families as normal manifestations of growing up in this rural district of northern Uganda. Our results suggest that the mental health problems of the children and adolescents resulted from the experiences of loss due to death or separation of parents, domestic violence, lack of food and or school fees, or disputes in the youngsters' relationships at school and in the community. The presentation of depressive disorder with sadness, "many thoughts" and worrying is typical for both adults and children and adolescents. It is also noteworthy that adult caregivers were able to recognise the signs of emotional problems in their children albeit the lack of access to appropriate mental health services in rural areas . Though we did not specifically screen for alcohol and substance use disorders, this appears to be a major potential mental health issue for the children and adolescents in Gulu district. Our findings suggest that children in this resource-poor setting used a variety of psycho-social, traditional and complementary healing approaches to manage their own experiences of distress as reported by Akello et al (2007) and Akello, Richters and Ovuga (2011). As a result of the

selection procedure it is possible that the results of this study are skewed toward the mental health needs of participants who were willing to participate in the study. We are aware that our results might not apply to the general population of children and adolescents in northern Uganda generally. However we endeavoured to ensure that participant selection was unbiased and that our findings could form a reasonable basis for further research into the mental health needs of children and adolescents in post-conflict settings.

7. Management of post-traumatic stress disorder

The professional management of post-traumatic disorder in northern Uganda has taken advantage of the special social and cultural situation of the communities in the region. In general, the principles of PTSD management follow the general ones of any psychiatric disorder but with particular emphasis on preventing re-traumatisation and aimed to promote psychosocial functioning within the individual's social milieu.

7.1 Principles of assessment

Most individuals who suffer from PTSD will a) present with symptoms that will not suggest the condition b) come to the health unit late and or c) present to health facilities with physical complications of traumatic experiences. Typically patients will present with multiple somatic and vegetative or psychotic symptoms, behavioural problems (children and adolescents), or symptoms of alcohol or other drug abuse. An adequate assessment of PTSD is made on suspicion of the presence of the condition at all times and progresses through three related stages. Firstly the process and type of assessment is thus influenced by the patient's residential address; circumstances in which the individual lives; and history, timing and type of trauma. There are various types of traumatic events but these can be categorised as either individual (e.g. car-accident, rape, etc) or group (e.g. landslides, floods, war-trauma, volcanic eruptions, plane crashes, rebel attacks, etc). It also depends on the severity of injuries sustained, some of which may be life threatening or at other times minor, e.g. slaps. Secondly assessment aims to determine the nature of traumatic event, and as to when the trauma occurred. PTSD can be acute (including Acute Stress Disorder, PTSD), chronic or delayed. Complex PTSD involves the exposure of the individual to multiple and complex patterns of trauma that are often repeated and or prolonged leading to changes in the victim's personality and general behaviour. Acute PTSD (including acute stress disorder) calls for immediate treatment and sometimes rescue operations e.g. in volcanic eruption, in war or terrorist attacks. Thirdly, assessment aims to determine the need for immediate intervention.

7.2 Immediate treatment

Immediate intervention is contemplated during the acute phase or shortly after exposure to a traumatic event. Immediate intervention is provided based on the principles of crisis intervention.

a. *Assessing risk factors for post-traumatic stress disorder:* Several risk factors for post-traumatic stress disorder have been documented including criminal assault, political detention and torture, rape, childhood physical abuse (Kaimer et al, 2009); acute posttraumatic stress disorder and the presence of premorbid and comorbid psychopathology (Koren et al, 1999); age at first experience of traumatic experience, severity of traumatic experience and availability of social support after traumatic

exposure (Engdahl et al, 1997), sex, previous experience of trauma and the subjective appraisal of threat to life (Stallard, Velleman & Baldwin, 1998). Assessment and identification of predictive risk factors for posttraumatic stress disorder and addressing these at the earliest opportunity after exposure to traumatic experience is a vital first step in trauma management.

b. *Assessing the nature and severity of physical injury:* An adequate assessment of the nature, type and severity of injury and associated complications usually involves collaboration with other health care specialists including general surgeons, gynaecologists, neurologists, and general physicians. On the basis of a comprehensive assessment of findings, it will then be possible to plan a comprehensive care program targeting the needs of each trauma victim.
c. *To prevent further re-traumatisation:* This often involves removing the individual from the traumatising situation e.g. from a fire, war-front or from domestically an abusive home (sexually or domestic violence).
d. Prevention of further injury or provision of immediate first aid to care for injuries e.g. to prevent bleeding, to immobilise unstable fractures or treatment for surgical shock: Often, traumatised individuals experience psychological shock and panic. In such emotionally laden situations, victims of trauma cannot make rational decisions. They need support and someone else to make decisions for them; e.g. not to run back in a raving fire in order to rescue someone or property. Removing someone from the scene of trauma to an area of safety, provision of security, ensuring protection from rain, cold, or other harsh environmental condition, providing food and immediate shelter and giving emotional support are all part of crisis intervention. After crisis intervention, one then embarks on planning the longer-term treatments based on an assessment of risk factors for post-traumatic stress disorder.

7.3 Short-term treatment

This involves those treatments necessary to mitigate the effects of the trauma or limit the progression of the psychological sequel into chronic or complicated phase. Intervention follows a thorough psychiatric assessment and then treatment planning involving the individual in which the interventions are individualized depending on the needs of each patient. These interventions include (as deemed necessary):

- Medication
- Psychotherapy
- Counselling
- Management of co-morbid physical and psychiatric disorders.

7.4 Medications

The use of medications in PTSD is for the control of symptoms that include insomnia, agitation, anxiety, panic, depression or those specific to the organs injured e.g. epilepsy, . Anxiety, panic and agitation are especially common and will respond to minor tranquillisers such as alprazolam, diazepam, and clorazepam. Depression, panic disorder and phobias will respond to antidepressants such as fluoxetine, paroxetine, amitryptiline. Specific medications for other health problems may be indicated such as Anticonvulsants for Seizures due to brain injury, such as Phenytoin or carbamazepine or antipsychotics such as haloperidol or chlorpromazine.

7.5 Psychotherapy

Psychotherapy involves talk therapies popularly termed "counselling" in the Ugandan context. Various types psychotherapy have been used by trained counsellors and members of humanitarian agencies in PTSD in Uganda including individual counselling of a supportive nature, group counselling such as Interpersonal Psychotherapy, Cognitive Behaviour Therapy, Narrative Exposure Therapy, Play therapy for children, and Art therapy for both children and adults. Specific issues are dealt with during psychotherapy e.g. helping clients overcome the problems of memory loss and denial related to the traumatic stress experience, exploring social resources available to the client, strategies the client might have used in coping with symptoms of PTSD before seeking professional help, how to come to terms with a shameful trauma such as rape, imprisonment, and how to deal with perpetrators who may be in the victims environment such as police officers, prison guards or rebel abductors in the victim's community, and how the client can reconstruct his/her life so as to continue living positively. For psychotherapy to be successful, the environment for psychotherapy should be neutral so that the client can feel safe to share or receive support in coping with his/her traumatic experiences. The role of the therapist/counsellor is to facilitate the validation of the client's traumatic experience and foster recovery.

7.6 Management of co morbidities

PTSD in northern Uganda tends to be associated with other specific psychiatric illnesses and physical complications (Ovuga, Oyok and Moro, 2008), which need treatment. Co-morbid psychiatric disorders include Depression, Anxiety and Panic disorder, social phobia, sexual disorders and alcohol dependence. Often, these occur in multiple combinations. Specific interventions are directed to these disorders as appropriate e.g. treatment of depression, addictions, and counselling or family interventions for unwanted babies of rape etc. Often there's a need for, or age and gender specific intervention as well as spiritual atonement in line with cultural traditional practice, and the individual needs of specific clients. Specialised surgical interventions include removal of foreign bodies, correction of contractures and deformities and surgery for osteomyelitis to prevent prolonged effects of physical disability.

7.7 Rehabilitation

The aim of rehabilitation in PTSD in northern Uganda is to integrate the victim back into his/her society as a fully functioning individual with dignity. Many of these victims were abducted as young children and missed the opportunity for formal education. Other individuals got institutionalized to camp life in internally displaced persons' camps and require adaptation to life outside camp life. The various types of rehabilitation that are tailored to the individual needs of victims include job acquisition or vocational skills re/training; training for social functioning in the family and community with integrity as a leader; and traditional or social remedies to redress financial losses, material supplies e.g. to repossess one's land upon return from camp life; reconciliation rituals and ceremonies aimed to facilitate the acts of forgiveness for acts committed in the course of the northern Uganda war.

7.8 Prevention

Some forms of PTSD as in landslides, or earthquakes may not be preventable but their long-term impacts on the lives of victims can be mitigated through emergency medical and

psychological interventions. Evidence suggests that immediate intervention prevents the development of long-term psychological effects of trauma of whatever cause. Availability of services for the early detection of landslides and earth tremors with prompt evacuation of civilians from danger spots prevents unnecessary physical and psychological harm and public sensitisation and education about these services is perhaps the most significant step toward preventing the occurrence of posttraumatic stress disorder.

Secondly, road safety based on controlling the use of alcohol and other intoxicants, following appropriate road safety regulations, and taking measures to promote visibility on public roads and access routes reduces or prevents unnecessary motor vehicle accidents. Parenting skills and availability of family services reduces on domestic violence and child abuse. This should also be extended to child guidance and counselling in schools for teachers and children. Strengthening existing social support systems in the face of disasters will help mitigate the long-term harmful effects of traumatic experience.

Measures to prevent crime should form the armamentarium against PTSD. Issues of poverty reduction, the early detection and treatment of severe mental illness in the household and sensitization on security matters might act together to significantly reduce the incidence of violent traumatic events in the lives of the ordinary individual.

Communities in Northern Uganda are keen to prevent the vicious cycles of militarised violence as seen in perpetual wars in Uganda. This can only be by building institutions for respecting observances of Universal Human Rights and as well as participatory democratic governance which is culturally acceptable and understandable by the cultural diversity of peoples in their various groupings and yet with respect and tolerance of others who may be different. The principles and values of Human Rights should be a taught subject in schools from primary school to the highest levels of learning and in all the colleges of the nation as well as in homes as a sign of good education, civility and culture. Furthermore renewed cycles of violence in African countries can only be stopped if governments make peace and reconciliation with respect for the principles of fairness, justice and equal opportunities for every citizen to participate in governance at the top of their policy agendas for national security and stability that support all other government efforts toward good governance.

7.9 Prognosis

The outcome of post-traumatic stress disorder in Uganda is unknown. However clinical experience indicates that most individuals with the disorder recover on two to six sessions of counselling. It is possible that the ubiquitous social support available to people in their communities contributes to the apparent good prognosis for victims of traumatic experiences in rural Uganda. Ovuga et al (2008) have reported that former child soldiers in northern Uganda who returned to their homes without passing through government established reception centres had lower mean scores on the Harvard Trauma questionnaire and the Hopkins Symptom Checklist for depression. Ovuga and colleagues attributed their observation on the possibility that the child soldiers who went directly to their communities had committed fewer atrocities, were more readily received and forgiven by their respective communities, and possibly experienced fewer traumatic experiences than their colleagues who returned home through the government reception facilities.

8. References

Akello G, Reis R, Ovuga E, Rwabukwali EB, Kabonesa C, & Richters R (2007). Primary school children's perspectives of common diseases and medicines used:

implications for school healthcare programmes and priority setting for Uganda, *African Health Sciences*, 7(2): 74-80

Akello G, Richters A, & Ovuga E. (2011) Children's management of complaints symptomatic of psychological distress: A critical analysis of the different approaches in Northern Uganda, African Journal of Traumatic Stress, 1(2): 70-79

American Psychological Association (1992), *Diagnostic and Statistical Manual of Mental and Behavioral Disorders*, American Psychological Association, Washington DC

Anonymous (2007). Invisible wounds from the Congo war, *CMAJ*; 181: (6-7)

Bardin C. Growing up too quickly: Children who lose out on their childhoods. Paediatric Child Health; 2005; 10(5): 264-268.

Bayer, C. P., Klasen, F., Adam, H. (2007). Association of trauma and PTSD symptoms with openness to reconciliation and feelings of revenge among former Ugandan and Congolese child soldiers, *JAMA*; 298 (5): 555-559.

Betancourt T.S. and Khan K.T. (2008). The mental health of children affected by armed conflict: Protective processes and pathways to resilience; Int Rev Psychiatry; 20(3): 317–328. Doi:10.1080/09540260802090363.

Betancourt T.S., William T.P. (2008). Building an evidence base on mental health interventions for children affected by armed conflict, Intervention (Amstelveen). 2008; 6(1): 39–56. doi:10.1097/WTF.0b013e3282f761ff.

Betancourt T.S., Borisova I.I., Williams T.P., Brennan R.T., Whitfield, T.H., Marie de la Soudiere, Williamson J., and Gilman S.E. (2010). Sierra Leone's Former Child Soldiers: A Follow-up Study of Psychosocial Adjustment and Community Reintegration, *Child Dev*; 81(4): 1077–1095. doi:10.1111/j.1467-8624.2010.01455.x.

Derluyn, I., Broekaert, Schuyten, G., De Temmerman, E. (2004). Posttraumatic stress in former Ugandan child soldiers, *The Lancet*; 363: 861-863.

de Jong,J.T., Komproe, I. H., Van Ommeren, M. (2001). Lifetime events and posttraumatic stress disorder in 4 postconflict settings. *JAMA*; 286 (5): 555-562.

Herman, J. L. (1997). *Trauma and Recovery. The aftermath of violence - from domestic abuse to political terror* (Second edi., pp. 115-132). New York: Basic Books.

Jones G.H., and Lovett J.W.T. (1987). *Journal of the Royal College of General Practitioners*; 37, 34-35.

Engdahl B., Dikel T.N., Eberly R., and Arthur A., Jr. (1997). Posttraumatic stress disorder in a community group of former prisoners of war: A normative response to severe trauma, *Am J Psychiatry* 1997; 154:1576–1581

Kaminer D., Grimsrud A., Myer L., Stein D., & Williams D. (2008). Risk for posttraumatic stress disorder associated with different forms of interpersonal violence in South Africa, *Soc Sci Med*.; 67(10): 1589–1595.

Karunakara, U. K., Neuner, F., Schauer, M., Singh, K., Hill, K., Elbert, T., et al. (2004, August). Traumatic events and symptoms of post-traumatic stress disorder amongst Sudanese nationals, refugees and Ugandans in the West Nile, *African health sciences*, 2004; 4(2): 83-93

Koren D., Arnon I., & Klein E., M.D. (1999). Acute stress response and posttraumatic stress disorder in traffic accident victims: A one-year prospective, follow-up study, *Am J Psychiatry;* 156:367–373

Mock N.B., Duale S., Brown L.F., Mathys E., O'Maonaigh H.C., Abul-Husn N.K.L. and Elliott S (2004). Conflict and HIV: A framework for risk assessment to prevent HIV

in conflict-affected settings in Africa; *Emerging Themes in Epidemiology*; 1:6 doi:10.1186/1742-7622-1-6

Murray, C. J. L., King, G., Lopez, a D., Tomijima, N., & Krug, E. G. (2002). Armed conflict as a public health problem, *BMJ (Clinical research ed.)*, *324*(7333), 346-9

Murthy R. S., Lakshminarayana R. (2006). Mental health consequences of war: a brief review of research findings. *World Psychiatry,* 5 (1): 25-30

Neuner, F., Schauer, M., Karunakara, U., Klaschik, C., Robert, C., & Elbert, T. (2004). Psychological trauma and evidence for enhanced vulnerability for posttraumatic stress disorder through previous trauma among West Nile refugees. *BMC psychiatry*, *4*, 34. doi: 10.1186/1471-244X-4-34.

Onyut L.P., Neuner F., Schauer E., Ertl V., Odenwald M., Schauer M. and Elbert T. (2005) *BMC Psychiatry*; 5:7 doi:10.1186/1471-244X-5-7

Ovuga, E. (2005). *Depression and Suicidal Behavior in Uganda*. PhD Thesis, Karolinska Institutet and Makerere University, Stockholm and Kampala, 2005

Ovuga E, Boardman J & Wasserman D (2005). The prevalence of depression in two districts of Uganda. *Social Psychiatry Psychiatric Epidemiology,* 40(6): 439-445

Ovuga E, Boardman J & Wasserman D (2005). Prevalence of suicide ideation in two districts of Uganda. *Archives of Suicide Research*, 9(4): 321-332

Ovuga, E., Oyok, T. O., & Moro, E. B. (2008). Post traumatic stress disorder among former child soldiers attending a rehabilitative service and primary school education in northern Uganda. *African health sciences*, *8*(3), 136-41.

Pham P.N., Vinck P. and Stover E. (2009). Returning home: forced conscription, reintegration, and mental health status of former abductees of the Lord's Resistance Army in northern Uganda, *BMC Psychiatry*, 9:23 doi:10.1186/1471-244X-9-23

Roberts, B., Ocaka, K. F., Browne, J., Oyok, T., & Sondorp, E. (2008). Factors associated with post-traumatic stress disorder and depression amongst internally displaced persons in northern Uganda. *BMC psychiatry*, *8*, 38. doi: 10.1186/1471-244X-8-38.

Roberts, B., Felix Ocaka, K., Browne, J., Oyok, T., & Sondorp, E. (2009). Factors associated with the health status of internally displaced persons in northern Uganda. *Journal of epidemiology and community health*, *63*(3), 227-32. doi: 10.1136/jech.2008.076356.

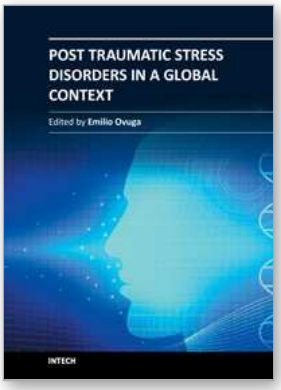
Shanks L. and Schull M.J. (2000). Rape in war: the humanitarian response, *JAMC*; 163 (9)

Stallard P., Velleman R., & Baldwin S. (1998). Prospective study of posttraumatic stress disorder in children involved in road traffic accidents, *BMJ*; 317: 1619-1623

Tonks A., War in Uganda leaves deep psychological scars, *BMJ*; 335: 278-279

Volkan V. (2004). *Blind Trust: Large Groups and Their Leaders in Times of Crisis and Terror*, Pitchstone Publishing, Charlottesville, Virginia

Vinck P., Pham, P.N., Stover, E., Weinstein, H. M. (2007). Exposure to war crimes and implications for peace building in northern Uganda, JAMA; 298 (5):543-553.



Post Traumatic Stress Disorders in a Global Context

Edited by Prof. Emilio Ovuga, Md, PhD

ISBN 978-953-307-825-0
Hard cover, 286 pages
Publisher InTech
Published online 20, January, 2012
Published in print edition January, 2012

If, as a health care or social service provider, one was called upon to help someone who has experienced terror in the hands of a hostage taker, an irate and chronically abusive spouse or parent, or a has survived a motor vehicle accident, landslide, earthquake, hurricane or even a massive flood, what would be one's priority response? What would be considered as the most pressing need of the individual requiring care? Whatever the answer to each of these questions, people who have experienced terror, suffer considerable psychological injury. Post-Traumatic Stress Disorder in a Global Context offers some answers to meet the needs of health care and socials service providers in all settings, whether in a hospital emergency room, at the war front, or natural disaster site. The take home message is, after providing emergency care, there is always a pressing need to provide mental health care to all victims of traumatic stress.

How to reference

In order to correctly reference this scholarly work, feel free to copy and paste the following:

Emilio Ovuga and Carol Larroque (2012). Post Traumatic Stress Disorder – A Northern Uganda Clinical Perspective, Post Traumatic Stress Disorders in a Global Context, Prof. Emilio Ovuga, Md, PhD (Ed.), ISBN: 978-953-307-825-0, InTech, Available from: http://www.intechopen.com/books/post-traumatic-stress-disorders-in-a-global-context/post-traumatic-stress-disorder-a-northern-uganda-clinical-perspective

INTECH
open science | open minds

InTech Europe
University Campus STeP Ri
Slavka Krautzeka 83/A
51000 Rijeka, Croatia
Phone: +385 (51) 770 447
Fax: +385 (51) 686 166
www.intechopen.com

InTech China
Unit 405, Office Block, Hotel Equatorial Shanghai
No.65, Yan An Road (West), Shanghai, 200040, China
中国上海市延安西路65号上海国际贵都大饭店办公楼405单元
Phone: +86-21-62489820
Fax: +86-21-62489821

© 2012 The Author(s). Licensee IntechOpen. This is an open access article distributed under the terms of the Creative Commons Attribution 3.0 License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.