The Mental Health Sequelae and Treatment
Of Massive Community Violence in West Africa

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Dedication

“If you have come to help me, you are wasting your time. But, if you have come because your liberation is bound up with mine, then let us work together.”

– Attributed to an Aboriginal activist group

This dissertation is dedicated to those who work and live for peace, harmony, and the welfare of all beings in Sierra Leone, Liberia, Guinea, and everywhere.

Abstract

Sierra Leone is one of several countries in sub-Saharan Africa in which great deposits of diamonds have been exploited to fund regional wars. These wars have resulted in 3.7 million deaths (Amnesty International, 2007a), and massive and systematic human rights atrocities in Sierra Leone and Liberia. Although many international agencies overcame innumerable challenges during this period to provide in-camp relief services for refugees, conventional wisdom in this field suggested that ongoing data collection could not be done in the politically unstable, critically underfunded, and frequently unsafe conditions of a refugee camp. This paper explores the mental health sequelae of the massive violence perpetrated against the people of Sierra Leone and Liberia, and the relations between post-trauma symptomology, daily functioning, social support, and counseling while following survivors living in United Nations' refugee camps, internally-displaced-persons camps, and back to their home communities in West Africa. A secondary, cross-sectional analysis of data initially collected from 2001 to 2006 for program evaluation and the clinical assessment of 4010 adult clients attending a counseling program showed that reported exposure to violence was related to psychosocial symptomology and problematic functioning; worse symptoms were related to worse functioning; refugees who reported exposure to torture had worse symptoms, but no difference in functioning than refugees who reported no torture; females had worse symptoms and worse functioning than males; younger age was related to greater exposure to violence and worse symptoms; greater substance use was related to greater exposure to violence, worse symptoms, and male sex; and access to

informal social support was related to better symptoms and better functioning. From the original dataset of 4010 completed intake assessments, a subset of data from 1186 clients who had been successfully tracked for two subsequent assessments was examined. Substantial improvement in symptoms, functioning, and social connectedness was found one month into an 8-to-10-week counseling program and at three-months. Also of significance, this study demonstrates that data can be effectively collected over an extended period under difficult and dangerous conditions, and that ongoing program evaluation and clinical assessment can be reasonably included as a regular component of refugee relief field-programs.

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Chapter 1: Introduction

In this moment of national debate regarding our government's use of torture against those the President perceives as our enemies, this is an especially timely topic to study and understand. During the recent wars in Sierra Leone and Liberia, widespread and systematic torture was used to sow terror and control over the civilian populations. This study examines the effects upon the survivors, and a treatment program.

Background of the Problem

Journalist Greg Campbell (2004) opens his account of the recent civil war in Sierra Leone at the moment a civilian became a victim of the rebel army's preferred method of mass intimidation:

Ismael Dalramy lost his hands in 1996 with two quick blows of an ax. He didn't—or couldn't—recall the pain of the blows. But he remembered being ordered at gunpoint to place his wrists on a wooden stump dripping with the blood of his neighbors who were writhing on the ground around him trying to stem the flow of blood from their arms or staggering away. (p. xiii).

Dalramy was shoved to his knees in the red dirt, and as one of the young rebels tossed the amputated hands of the previous victim into the thick brush, twirling them in a spray of blood...his left wrist was placed palm up in a thick puddle of blood oozing off the stump like wax from a long-burning candle. An AK-47 barrel was pressed to his left temple....There was a quick glint of sunlight on the blade of the homemade ax, and Dalramy squeezed his eyes tight against the blow. The blade slammed through the bones of his arm just above the wrist. His

hand came off with one clean chop; a blessing considering many such crude amputations required more than a dozen blows to sever a limb. He saw his hand bounce off the edge of the stump, gleaming white ulna bone seeing the sun for the first time (p. xvii).

As a result of widespread violence of this kind during the recent civil wars in Sierra Leone and Liberia, two million civilians were displaced, more than a quarter of whom found their way to refugee camps in the neighboring country of Guinea.

Research has shown that treatment is effective for the psychological effects of trauma (Sherman, 1998; Van Etten & Taylor, 1998; Bradley et al., 2005), but the literature contains no studies exploring effectiveness of in-camp counseling interventions for refugees from mass violence. Since most survivors are displaced in their home countries or to refugee camps in nearby countries, only a small fraction gets to the West and receives treatment. In 1999, in response to non-governmental organization (NGO) reports of massive traumatization among refugees from Liberia and Sierra Leone living in United Nations (UN) camps in the area of Guéckédou, Guinea, the U.S. Department of State contacted the Center for Victims of Torture (CVT) of Minneapolis to conduct a mental-health needs assessment in these camps. At that time approximately 400,000 people lived in the camps (Hubbard & Pearson, 2004), and what CVT assessment found was staggering—91% of these refugees had experienced atrocities “almost beyond comprehension” (CVT, 2006). The wars in both Sierra Leone and Liberia were “notorious for their extreme brutality. Rival factions were responsible for the deaths of more than 300,000 civilians (250,000 in Liberia; 50,000 in Sierra Leone), including an

estimated 50,000 children” (Stepakoff, Hubbard, Katoh, Falk, Mikulu, Nkhoma, & Omagwa, 2006, p. 923). Stepakoff et al.(2006) describe further:

Mass terrorization of entire villages and towns was routine. Common practices included summary execution, systematic rape and enslavement of women, abduction and use of children as soldiers, and wanton destruction of property... War atrocities frequently described by these refugees included intentional hacking off of limbs, carving the initials of rebel factions into victims’ skin, slaughtering pregnant women to bet on the gender of the unborn child, and use of young girls as human sacrifices. Numerous people have reported that they were forced to cut, cook, eat, and serve human flesh and internal organs, including those of their own parents and infants. Countless numbers of children and teenagers were forced to watch the torture, rape, and brutal murders of their parents and siblings. In many cases, family members—including children—were forced to rape, murder, and mutilate each other. During these acts, victims were forbidden to show any emotion, or, in many cases, were commanded to laugh. In some instances, people who shed tears in response to these atrocities were punished by being permanently blinded... The results of CVT initial needs assessment in Guinea clearly indicated that these experiences of torture and war atrocities had left profound psychological scars (p. 923).

As part of the CVT’s mission, it had been exploring ways to intervene with this “vast and underserved population” (Hubbard & Pearson, 2004, p. 96), and developed a treatment program for the traumatized inhabitants of these camps. This intervention

program evolved and adapted to the fluid movements of refugees in and out of the countries of Sierra Leone, Liberia, and Guinea as political conditions and military activities fluctuated in the area.

Figure 1. *Map of Sierra Leone with Inset of Africa.*

Figure 2. Map of Guinea with Sierra Leone and Liberia.

Tragically for Ismael Dalramy—and countless others who had their hands chopped off, or who were brutalized in other ways—he lives in a country blessed and cursed with a source of inestimable natural wealth in the form of diamonds lying just below the surface. Notwithstanding geologic history, the story of these diamonds begins in the 19th Century.

In 1871, an 18-year-old Cecil Rhodes arrived in South Africa during the fever of a diamond rush, prior to which most of the world's diamonds had been found in India and Brazil. Rhodes focused his efforts at consolidating ownership of the most productive mining areas. The quantity of diamonds was vast and he sought to control production to keep international prices as high as possible. He became the majority stakeholder in the De Beers mine in the early 1880s, began buying up as much diamond land and as many companies as he could leverage, and by age 35, he controlled 90 percent of the world's diamond production (Green, 1984, as cited in Campbell, 2004). The De Beers Company continues to dominate the world market by manipulation of production and demand. The price of diamonds is kept artificially high because De Beers purchases diamonds at a much greater rate than they release for distribution, stock-piling the rest in company vaults, and by sustaining the mystique and mass appeal of diamonds, invented by De Beers, with their “A Diamond is Forever” marketing campaign (Campbell, 2004).

Sierra Leone's involvement in this story begins in the late 18th Century, following the abolition of slavery in Britain, at which time the area in West Africa that would become the country of Sierra Leone was used as a resettlement experiment for a growing

number of former slaves and others no longer welcome in England, Jamaica and Nova Scotia. In 1896, Britain claimed the region as a protectorate. Then, following the discovery of diamonds in Sierra Leone by British geologists in the 1930's, make-shift mines proliferated through the forests, particularly in Dalramy's home Kono region near the "Parrot's Beak" adjacent the convergence of Sierra Leone, Liberia, and Guinea, providing the world market with precious gems and fueling escalating cycles of armed conflict and terror (Campbell, 2004). This violence has been funded by what have become known as "conflict diamonds," which have created billions of dollars in profits for warlords and rebels during the devastating wars in Angola, the Democratic Republic of Congo (DRC) and Sierra Leone resulting in 3.7 million deaths (Amnesty International, 2007a) and massive and systematic human rights atrocities in Sierra Leone (Amnesty International, 1995).

Sierra Leone gained independence from Britain in 1961 and functioned until the late 1960s as a wobbly, new democracy. Sierra Leone then slid into an increasingly repressive period of corruption and military coups, and by the 1990s, governmental dysfunction had disintegrated into widespread, violent anarchy. In response to a 1996 plea by Sierra Leone's president Ahmed Tejan Kabbah to "join hands" for peace, one of the rebel armies (RUF—Revolutionary United Front) began dismembering their victims, cutting a "bloody swath through the forest, murdering and mutilating anyone in the way," then dumping the body parts on the steps of the presidential palace (Campbell, 2004, p. xv). Although their "signature war crime" was amputation of hands, they also severed lips, ears, breasts, and tongues. Other terror tactics included mass rape and other forms of

torture, random executions, looting, and forced cannibalism “all so they could control the millions of dollars waiting to be mined from the diamond fields; it was the only thing the RUF has ever wanted—gems to sell for guns and retirement funds” (p. xvi).

There has been widespread torture and ill-treatment by both soldiers and rebel forces, causing half the civilian population of Sierra Leone—hundreds of thousands of people—to be displaced (Amnesty International USA, 1997). As has been documented in Amnesty International’s annual reports from 1993-2002, both sides in this conflict, rebel and government forces, committed widespread, gross, human rights abuses against civilians, but, according to Amowitz, Reis, Lyons, Vann, et al. (2006), the RUF was primarily responsible. Thousands of civilians were deliberately killed, mutilated, raped and tortured in other ways, and as many as 10,000 children were abducted and forced to fight as soldiers for both armies (UNICEF, 2004; Amnesty International Annual Reports, 1993-2002; Amnesty International, 1998; Amnesty International 2000a; Amnesty International, 2000b).

Of the forced conscription of children into armed groups in sub-Saharan Africa, Baro (2006) reports that they are routinely forced to witness or perpetrate the rape, torture and/or murder of their parents, other family members, or companions as a part of their “initiation” as combatants, some as young as seven. (p. 192). “If they screamed or cried they were killed,” and some were lined up to witness the execution of their loved ones and forced to applaud. (p. 193). In his memoir, Ishmael Beah tells a similarly horrific story from his perspective of having been conscripted into the government army at the

age of twelve following the murder of all his family members by the rebel army in 1993 (Beah, 2007).

Sierra Leone was engulfed by internal war during the decade from the early 1990s to 2002, which was exacerbated by violent interference from forces of neighboring Liberia, also involved in their own, horrific, 14-year civil war. These conflicts drove millions of civilians from their homes, many of whom sought refuge in Guinea.

The Statistical Yearbook published by the United Nations High Commissioner for Refugees documents the previous decade's movement of refugees from Sierra Leone and Liberia into neighboring Guinea and the number of internally displaced people (IDP) remaining within Sierra Leone. The UNHCR (2006) estimates that approximately half a million refugees from Sierra Leone fled to Guinea, and approximately another million remained within Sierra Leone as IDP as a result of the 11-year civil war (p. 464-465). Similar statistics are presented for Liberia.

During this time, the U.N. established refugee camps in Guinea for those who fled from Liberia and Sierra Leone, but many camp residents were not able to avail themselves of the services offered due to the debilitating effects of the torture and other intense trauma they had experienced (Hubbard & Pearson, 2004). The U.S. Department of State was assisting the United Nations in this effort and contacted CVT and requested an assessment of the mental health situation in the camps (Hubbard & Pearson, 2004). CVT is a Minnesota-based non-profit organization founded in 1985 with a mission that includes providing direct services to survivors of torture and conducting research on the effects and effective treatment of torture (CVT, 2007). CVT is involved in numerous

international projects aimed at the prevention of torture, and supporting the recovery of torture survivors. Following the initial needs assessment, CVT developed an intervention program for the residents of the refugee camps in Guinea (CVT, 2006), most of whom have since repatriated to their home communities, where the treatment programs continue to operate.

Definition of Torture

Defining the term *torture* is a complex, legal and political issue (Garcia-Peltoniemi, & Jaranson, 1989). Amnesty International was the first organization to define torture “from a political and operational point of view to be used in eligibility for care, human rights advocacy, and for surveys and epidemiological research” (Quiroga & Jaranson, 2005):

“Torture is the systematic and deliberate infliction of acute pain by one person on another, or on a third person, in order to accomplish the purpose of the former against the will of the latter” (Amnesty International, 1973) as cited in Quiroga and Jaranson (2005).

In 1975 the World Medical Association (WMA) produced a definition and published it in a document entitled the Declaration of Tokyo. The WMA defines torture as “the deliberate, systematic, or wanton infliction of physical or mental suffering by one or more persons acting alone or on the orders of any authority, to force another person to yield information, to make a confession, or for any other reason” (World Medical Association, 1975). The United Nations (UN) adopted an alternative definition in 1984 in the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT) that describes torture in language similar to the Declaration of Tokyo,

but it distinguishes it as an act committed at the “instigation of, or with the consent or acquiescence of, a public official or other person acting in an official capacity” (United Nations, 1984, p. 17). As of April 2004, 210 countries had ratified the CAT, adopting this as their official definition (Quiroga & Jaranson, 2005).

Basoglu, Livanou, and Crnobaric (2007) conducted a study to determine the relative psychological impact of “torture” as strictly defined by the United Nations (UN) and “ill treatment” as practiced by the U.S. on detainees in Guantanamo Bay, Iraq, and Afghanistan. Ill treatment included detention and interrogation methods such as psychological manipulations (i.e. sham executions, witnessing torture of others, threats of rape, threats against loved ones), humiliating treatment (i.e. forced nudity, excrement in food, mocking, verbal abuse, throwing of excrement and urine at detainee), forced stress positions, sensory discomfort, blindfolding/hooding, deprivation (i.e. isolation, prevention of urination/defecation, hooding, deprivation of sleep/water/food/medical treatment), and acts designed to induce fear, terror, or helplessness. The study found little distinction in the “severity of mental suffering they caused, the underlying mechanism of traumatic stress, and their long-term psychological outcome” (p. 277). As a result, the authors suggest a “need for a broader definition of torture based on scientific formulations of traumatic stress and empirical evidence rather than on vague distinctions or labels that are open to endless and inconclusive debate and, most important, potential abuse” (p. 284).

In its provision of care, CVT recognizes the WMA and UN definitions, and has determined that many of the thousands of refugee camp residents from Sierra Leone and

Liberia were survivors of torture, by either of these definitions (J. Hubbard, personal communication, October 19, 2006). Although there may be disagreement regarding the legal definition of torture, the purpose and effects of torture are not in dispute.

Prevalence of Torture

In a recent study covering the period from 1997 to mid-2000, Amnesty International found evidence of torture or ill-treatment committed by state officials in more than 150 countries, 70 in which the practice was described as “widespread” or “persistent.” (Amnesty International Annual Report 2006). Miles (2007) stated “torture is illegal and practiced by more than half the nations of the world” (p. 275).

At the beginning of 2006, the United Nations High Commissioner for Refugees (UNHCR) documented worldwide 20.8 million people “of concern,” including 8.4 million refugees, 6.6 million IDP, 2.4 – 11 million stateless people, 773,500 asylum seekers, and 1.6 million returned refugees (UNHCR, 2007). Estimates from the U.S. Committee for Refugees and Immigrants (USCRI) suggest that worldwide there are 12 million refugees and 21 million IDP (USCRI, 2006).

While these statistics tend to blur into a senseless mass, note the following:

The International Rehabilitation Council for Torture Victims (IRCT) in Copenhagen found that an estimated 30% of external refugees are torture survivors (IRCT, 2003). The total numbers of torture survivors are believed to be much higher, however, because many displaced peoples – even most – remain in their home countries and are never counted (Amnesty International, 2007b).

This disturbing statistic may explain why refugees are recognized as more prone to psychopathology than non-refugee populations (Tang & Fox, 2001). The results of a meta-analysis of 20 psychiatric surveys based on assessments of refugee populations shows that refugees settled in western countries are ten times more likely to have posttraumatic stress disorder (PTSD) than age-matched groups from the general populations in those countries (Fazel, Wheeler, & Danesh, 2005).

According to Amnesty International, The UNHCR has given assistance to more than 22 million IDP, external refugees, and returnees, many of whom are torture survivors having been persecuted and often tortured in police stations, prisons or detention camps prior to leaving their homes (Amnesty International, 2007b). Jaranson et al. (2004) stated that “estimating the prevalence of torture in community samples of refugees is extremely difficult, often impossible, and rarely attempted” (p. 591). They cited Baker (1992) suggesting that 5% to 35% of refugees have been tortured, but found in their study of Somali and Oromo (Ethiopian) refugees in the United States that prevalence ranged from 25% to 69% by ethnicity and gender. In a cross-sectional epidemiological study (n=1134) Jaranson et al. administered the PTSD Checklist (PCL-C), and carefully developed and administered a comprehensive questionnaire assessing torture techniques; traumatic experiences; and social, physical, and psychological problems. Torture history varied by gender (n=272, 45% of the men; n=228, 43% of the women) and ethnicity (n=286 of the Oromos, 55%; n=224, 36% of the Somalis). Oromo men were most often exposed to torture (69%), followed by Somali women (47%), then Oromo women (37%), and Somali men (25%). They found with multivariable analysis of

characteristics and problems that trauma count and exposure to torture were significant at $P < .0001$ for each category of problem, and higher number of traumatic events correlated positively with scores on all problem scales and PCL-C. Those exposed to torture averaged 7 points ($>10\%$) higher on the PCL-C score, and 25% ($n=123$) of those exposed to torture met the threshold for a diagnosis for PTSD while only 4% ($n=23$) of those who were not exposed to torture met this threshold. The PCL-C instrument has tested reliable, but the questionnaire developed for this study is new. To generate a large enough sample for this study, participants were not randomly drawn from the population, but were recruited through community organizations.

In a review of the literature, Quiroga and Jaranson (2005) found that the prevalence of torture survivors among external refugees is a function of their national origin, age, and sex, and varies widely. The prevalence rates in the studies they cited ranged from 2.74% to 100%. Other research supports the recognition that *most external refugees and IDP have experienced significant trauma including torture* (Mollica, Wyshak, & Lavelle, 1987; Hauff & Vaglum, 1993; Carlson & Rosser-Hogan, 1994; Alden et al., 1996; Silove, Sinnerbrink, Field, Manicavasagar, & Steel, 1997; *Cunningham & Cunningham, 1997; Hollifield et al., 2002*).

Purpose of Torture

According to Somnier and Genefke (1986), the primary purpose of torture is the destruction of the personality of the victim. When an individual's personal will is crushed, he or she can no longer generate a source of resistance. Silove, Tarn, Bowles, and Reid (1991) describe torture as an intentional and systematic act used to sow terror

with the intent of silencing and controlling populations to eliminate opposition.

Researcher-therapist Michael Simpson, former victim of the “chronic tragedy of South Africa” (Simpson, 1993, p. 668), states “...we also see PTSD as a deliberate and carefully nurtured product...for the purpose of ensuring that after release, the victim will be less active and less effective as a member of any opposition” (p. 668-670).

Elena Nightingale (1990) explains that torture is unique because it involves the deliberate infliction of pain by one person on another and therefore is different from the trauma that is suffered from a natural event. Nightingale (1990) identifies four consistent characteristics of torture. First, torture involves at least two people—a perpetrator and a victim. Second, the torturer has complete physical control over the victim, so the helplessness of the victim remains long after the torture episode ends. Third, while pain and suffering are integral parts of torture, demoralizing humiliation is also an objective. Finally, torture is a politically purposeful act intended to punish or intimidate the victim and others as a means of systematic control.

Silove et al. (1991) state:

Torture surpasses other forms of trauma in that it is deliberate, planned, and explicitly malevolent in its intent; it usually is applied with repetitious and inexorable intensity; the threat to psychic integrity and mortal survival is sustained; and it is deliberately designed to maximize the assault on the victim’s dignity leading to enduring feelings of moral outrage, all characteristics thought to exacerbate the effects of traumatic events on future psychiatric morbidity (p. 485).

Torturers seek to break down the identity of the victim and to isolate him or her according to Ortmann, Genefke, Jakobsen, and Lunde (1987), by provoking responses in the victim “which are so degrading and so much in conflict with the personality of the person” (p. 163) that they are unable to disclose the experience to others. Wilson and Raphael (1993) argue that the “various forms of torture and detention are political acts of oppression of freedom and attempts to subjugate the will of the victim to the ideological views and the pathological needs of the perpetrator” (p. 659). The sequelae of torture are multiple, long-term, and if not treated, transgenerational (Albeck, 1994; Danieli, 1993; Harkness, 1993; Van der Veer, 1992).

Much literature about torture includes descriptions of specific methods of torture. A brief discussion of the techniques is necessary to approach an understanding of the level of trauma suffered by the victims.

Methods of Torture

Countless sources list common methods of torture which are compiled in the following list: Beating; cutting; crushing; physical deprivation by lack of food, water, sleep, warmth, clothing, sanitation and/or hygiene; sensory deprivation; sensory overload; isolation; exposure to filth and vermin; forced consumption of excrement; rape: heterosexual and homosexual, with objects—outsized and electrified, with trained dogs, in the presence of loved ones, and forced perpetration upon loved ones; stretching; “la barra” or “helicopter” (suspension from bar); burns; genital abuse and mutilation; electric shock; “telephono” (blows to the ears with palms of the hand); sham executions; threats of future torture or death toward detainee or loved ones; “cajones” (confinement in small

space); forced witnessing of torture—often against loved ones; forced participation in the torture of others—often loved ones; pharmacologic manipulation; “falanga” (beating on the soles of the feet); fingernail extraction, puncturing nail bed with needle, or forcing objects under nails; dental abuse; “submarine” (repeated partial asphyxiation by submersion in water or with a bag over the head); repeated release and re-arrest.

Allodi and Stiasny (1990) report that the severity of torture for both male and female victims is proportional to their level of political involvement, but the form of torture used against females is more often sexually directed (Allodi & Stiasny, 1990; Goldfeld, Mollica, Pesavento & Farone, 1988; Amowitz et al. 2002, Baro, 2006, Amnesty International, 2000). Both men and women are raped, but a higher percentage of women prisoners suffer this method of brutality. Allodi and Stiasny (1990) report, “...from a feminist point of view, the torture of women is an instance of sexual oppression since the victims are attacked specifically through their gender identity” (p. 1). The act of gender-specific torture combines the female prisoners’ offense of political opposition with the common, cultural taboo of female sexuality. Although rape during war is internationally recognized as a war crime and a form of torture, the profound physical and psycho-social injury caused by rape has been neglected and under-treated in Sierra Leone (Amnesty International, 2000a). During the 11 years of conflict in Sierra Leone, rape and sexual slavery by rebel forces were “systematic and widespread,” were directed at girls—up to ten thousand of whom were abducted for sexual slavery and forced labor (UNICEF, 2004, p. 15)—and women of all ages, and was perpetrated against 75-90 percent of the thousands of girls and young women who were abducted (Amnesty

International, 2000a). In addition to the harm and stigma of rape and unplanned pregnancies, many survivors now live with HIV/AIDS (Amnesty International, 2000a).

Aside from deliberately attempting to disturb a prisoner's future sexual functioning (Agger, 1989), Agger and Jensen (1993) argue that psychosexual torture has another specific purpose:

The aim of these pernicious methods of [sexual torture] is not primarily to force the victims to confess or to give information. Rather, it must be seen as the authorities' attempt to deprive victims of both personal and political identity with the aim of neutralizing individuals without killing them. (p. 686).

Purpose of this Study

Using an existing data set that was collected for clinical treatment planning and program evaluation between the spring of 2001 and December 2006 as waves of refugees from Sierra Leone and Liberia moved in and out of the refugee and IDP camps and their home communities, this study was undertaken to examine the relations between exposure to massive trauma, psychological symptomology, and daily functioning are examined. Also, this study was conducted to examine the relation between exposure to trauma and how social connectedness correlates with symptomology and problems of daily functioning. Next, this study was conducted to identify the relation between participation in a group counseling program, symptomology, and problems of daily functioning. Finally, and perhaps most importantly, this study was conducted to establish that ongoing clinical assessment and program evaluation data collection can be accomplished, even

under the most difficult and dangerous field conditions, so future refugee-relief work might begin to incorporate this practice into their regular efforts.

Research Questions and Hypotheses

With these objectives, the present study addresses four questions. First, what relation exists between the self-reported exposure to torture and war trauma and the self-reported psychosocial symptomology among refugee survivors? Based upon findings in the literature, the following hypotheses would be expected:

Hypothesis 1a. Greater self-reported exposure to torture and war trauma would be related to higher levels of somatic problems and scores on measures of anxiety, depression, and posttraumatic stress, with the strongest relation expected to posttraumatic stress.

Hypothesis 1b. Females would be expected to have higher rates of depression; males would be expected to have lower rates of anxiety; and sex would not be related to rates of somatic problems.

Hypothesis 1c. Younger age would be related to lower levels of somatic problems, anxiety, depression, and posttraumatic stress, and older age would be related to higher levels.

Second, what is the relation of self-reported exposure to torture or war trauma and composite score of self-reported behavioral functioning in activities of daily life (e.g. housework, going to the market, attending church/Mosque, visiting with others) and drug and alcohol use? Exposure to torture or war trauma would be expected to interfere with functioning in activities of daily life in the following ways:

Hypothesis 2a. Exposure to torture and war trauma would be related to higher levels of problematic functioning in activities of daily life.

Hypothesis 2b. Exposure to torture and war trauma would be related to higher levels of drug and alcohol use.

Hypothesis 2c. Higher levels of somatic problems, anxiety, depression, and posttraumatic stress would be related to higher levels of problematic functioning in activities of daily life.

Hypothesis 2d. Higher levels of somatic problems, anxiety, depression, and posttraumatic stress would be related to higher levels of drug and alcohol use.

Third, what is the relation of self-reported social support to self-reported posttraumatic symptomology and what is the relation of self-reported social support to self-reported behavioral functioning in activities of daily life? Access to social support would be expected to have the following effects:

Hypothesis 3a. Having people in the camp to go to for help or support would be related to lower levels of anxiety, depression, somatic problems, and the intrusive and the avoidant symptoms but not the arousal symptoms of posttraumatic stress.

Hypothesis 3b. Greater number of people available in the camp to go to for help or support would be related to lower levels of anxiety, depression, somatic problems, and the intrusive and the avoidant symptoms but not the arousal symptoms of posttraumatic stress.

Hypothesis 3c. Greater number of people available in the camp for help or support would be related to lower levels of problematic functioning in activities of daily life.

Hypothesis 3d. Being sought for help by others in the camp would be related to lower levels of somatic problems, anxiety, depression and the intrusive and the avoidant symptoms but not the arousal symptoms of posttraumatic stress.

Hypothesis 3e. Being sought for help in the camp would be related to lower levels of problematic functioning in activities of daily life.

Fourth, what is the relation of self-reported posttraumatic symptomology to the self-reported exposure of traumatic events by family members? Trauma experienced by a client's family members would be expected to have the following effects on the client:

Hypothesis 4a. Exposure of family members to greater number of traumatic events would be related to a client's higher levels of somatic problems, anxiety, depression, and symptoms of posttraumatic stress.

Fifth, what changes would be expected from intake to follow-up for people who participated in the CVT counseling program? From results of other studies with traumatized refugees and residents of other sub-Saharan communities, and from exploratory analysis the following results from self-report measures would be expected from time of intake to near completion of treatment (1 month) and follow-up (3 months):

Hypothesis 5a. A decrease in levels of depression would be expected.

Hypothesis 5b. A decrease in levels of anxiety would be expected.

Hypothesis 5c. A decrease in problems of functioning in activities of daily living would be expected.

Hypothesis 5d. A decrease in levels of somatic symptoms would be expected, but less of a decrease than for depression, anxiety, and the intrusive and avoidant symptoms of posttraumatic stress.

Hypothesis 5e. A decrease in levels of the intrusive and avoidant symptoms of posttraumatic stress intrusive symptoms would be expected, but significant decrease in arousal symptoms would not be expected.

Hypothesis 5f. An increase in the number of people available in the camp for help or support would be expected.

Definitions

Exposure to torture and war trauma. By use of structured interview, a history of traumatic experiences was collected at intake for each program participant, from which a composite score was computed. Exposure to torture and war trauma included experiences of being captured, tortured, separated from family, and the capture, torture, and murder of family members.

Behavioral functioning in activities of daily life. A mean composite score of problematic functioning was computed for each participant based upon self-report responses to assessment instrument.

PTSD intrusive symptoms. Cluster “B” diagnostic items for Posttraumatic Stress Disorder from the Diagnostic and Statistical Manual-IV (DSM-IV). Intrusive symptoms describe re-experiencing the trauma such as through dreams, memories, or flashbacks.

PTSD avoidant symptoms. Cluster “C” diagnostic items for Posttraumatic Stress Disorder from the DSM-IV. These symptoms include emotional numbing and efforts to avoid cues, activities, and memories associated with the trauma.

PTSD arousal symptoms. Cluster “D” diagnostic items for Posttraumatic Stress Disorder from the DSM-IV. This cluster includes emotional and physiological symptoms such as anger, hypervigilance, and jumpiness.

Exposure of family members to traumatic events. By use of structured interview, a history of traumatic experiences of participants’ family members was collected at intake, from which a composite score was computed. Exposure to traumatic events included experiences of participants’ family members being captured, tortured, and killed.

Statistical significance and clinical meaningfulness. This study uses of a large sample ($N = 4010$), so analyses have high statistical power. This affords the possibility of finding statistically significant—though very slight—variability in the sample that may or may not translate into clinically useful distinctions for understanding symptoms or guiding treatment decisions. A “significant” result is understood as one that happened beyond the likelihood of chance, as defined by alpha. For example, for research purposes, finding that men and women differ in a symptom would be statistically important, but the degree to which they differ may not be clinically “meaningful” if the difference is only slight. If a statistically significant finding shows only slight variability in the sample, that information may not help a clinician understand how that symptom is differentially experienced in the population, or how treatment should be provided differentially to address the variance. Three commonly accepted standards of effect size (R^2 , Cohen’s d ,

and Eta^2) were used to assess practical “meaningfulness” of statistically significant findings. R^2 describes the proportion of the variance that can be accounted for by a correlation (Howell, 2002). Cohen’s d is interpreted as the magnitude of an analytical result, and is roughly characterized as follows: $d = 0.20$ reflects a small effect size; $d = 0.50$ reflects a medium effect; and $d = 0.80$ reflects a large effect (Howell, 2002). Eta^2 indicates the proportion of variance of the dependent variable that is explained by the values of the independent variable (SPSS, 1999).

Significance of the Study

This study makes several contributions. Until now, in the field of refugee relief work, it has been widely believed that ongoing data collection for clinical assessment, program evaluation, or for research could not be conducted in the unpredictable conditions of a refugee camp. CVT’s success in collecting the longitudinal dataset upon which this study was made possible allows a change of assumptions that have heretofore prevented this type of data collection. The team of CVT clinicians and paraprofessionals working in West Africa has demonstrated that data can be collected over time in the fluid, difficult, and dangerous conditions of refugee and IDP camps and in home communities near a war zone. With this first success, now that longitudinal clinical assessment and program evaluation has been shown to be possible, an ethical perspective would argue that future relief efforts should be expected to embed program evaluation and research designs into the mission of relief and healing programs to determine if, and how, efforts are clinically effective. Gurr and Quiroga (2001) explain that there are few funds available for research in this area because economic benefits are not perceived, and there

are “strong pressures” to commit all resources to direct service and immediate care (p. 14). Since, as this study demonstrates, ongoing data collection is possible, the pressure for fiscal responsibility would argue that program evaluation be included in budgets to determine if refugee relief expenditures are realizing benefits and maximizing efficiency.

As mentioned earlier, there is a dearth of material in the literature examining the in-camp and transitioned-home status of refugees from massive community violence, which, unfortunately, is a trans-globally grotesque reality of our current human behavior. This study provides the largest-ever group of refugee survivors for cross-sectional analysis of posttraumatic problems. Also, there is a dearth of studies in the literature assessing the effectiveness of in-camp and home-community treatment programs for survivors of mass community violence. Although the design of this study prohibits conclusions of causation, it provides a first correlational look at possible treatment effects that can be used to guide future efforts to provide healing, and to measure and define effectiveness of treatment approaches.

Chapter 2: Review of the Literature

Effects of Torture

Numerous studies exploring the effects of torture have concluded that exposure to torture and other trauma is correlated with the symptomology of posttraumatic stress, depression, anxiety, and somatic problems.

In the short time during which war-atrocity and torture survivors have been studied, a debate in the field has kept alive an argument regarding psychological diagnoses for survivors. According to McIvor and Turner (1995), “initially focusing on the relevance of a largely discredited concept of a torture syndrome, the debate has now shifted to the relative importance of PTSD,” and to the limitations of this diagnosis, which “does not go far enough in explaining the wide range of symptomatology seen in torture survivors” (p. 705). Moreau and Zisook (2003), in citing the findings of Yehuda and McFarlane (1995) and McFarlane, Atchinson and Yehuda (1997), suggest that the response to trauma is a non-uniform blend of PTSD major depressive disorder, drug abuse, other anxiety disorders, and eating disorders, and that pure PTSD is rare, arguing that trauma precipitates a range of symptoms and conditions, not a single response.

Adshead (2000) reports that depression and substance misuse are the most common post-trauma disorders. Turner and Gorst-Unsworth (1990) identified four common elements in the reaction to torture, including PTSD, which they attribute to incomplete emotional processing, depressive reactions from loss and other adverse life events, somatoform symptoms, and what they argue is the most significant element, an existential shift as seen in a changed personal value system, religious beliefs, political

views, and ability to relate normally to others. Van Ommeren et al. (2001) found that tortured refugees were more likely than nontortured refugees to report PTSD, somatic problems, affective disorder, generalized anxiety disorder, and dissociative disorders. And Jaranson et al. (2004) found a “striking” correlation between exposure to torture and PTSD symptoms, but no significant relation between exposure to trauma and social problems.

The only study in the literature examining the experiences and effects of trauma on West African refugee was conducted by Fox and Tang (2000). They studied 55 Sierra Leonean refugees in a UN refugee camp in Gambia, and found “disturbingly high rates for various traumatic experiences and psychiatric sequelae” (p. 490). By use of two self report instruments, the Harvard Trauma Questionnaire and the Hopkins Symptom Checklist (HSCL-25), the researchers interviewed camp residents and found extreme levels of exposure to trauma and levels of symptoms.

“Put simply,” they report, “Sierra Leonean refugees have suffered horribly. The data here provide only a numerical sketch of the actual horrors and atrocities that occurred....The unfortunate reality is, however, that no numerical-based system comprised of group data could ever effectively communicate the horror to which so many Sierra Leonean refugees have been exposed (p. 494).

Following a recent effort to develop improved assessment instruments for use with West African refugees, Fox (2003) wrote, “the findings of this pilot study suggest that the impact of trauma such as experienced by refugees is so complex that a unitary diagnostic label is insufficient” (p. 488). Turner (2000) shares this position and states

“PTSD is an important but insufficient diagnosis to explain the whole of the reaction to torture” (p. 295), and Herman (1992) discussed an idea of complex PTSD induced by cumulative traumas that transcends current diagnostic recognition of posttraumatic reactions. The populations of Sierra Leone and Liberia suffered chronic, unimaginable trauma and stress for a decade, the complex result of which may be manifest in their symptomology.

Others argue that the diagnosis of PTSD is overused (Mollica, 2004), and question the validity of DSM categorization of psychopathology in non-Western cultures (Eisenbruch, 1991; Mollica & Caspi-Yavin, 1991; Agger & Jensen, 1993; Parson, 1994; Bracken, 2001; Kagee & Naidoo, 2004). Bracken, Giller and Summerfield (1995) state “because concepts such as PTSD implicitly endorse a Western ontology and value system, their use in non-Western groups should be, at most, tentative” (p. 1073).

However, Allodi (1991) stresses the importance of the PTSD diagnosis, and Carlson and Rosser-Hogan (1994) found close similarity in symptom expression between traumatized Westerners and non-Western (Cambodian) traumatized refugees, and a dose-effect relation between the severity of symptoms and the amount of trauma experienced, but the literature is mixed regarding a “dose-effect” (Cunningham & Cunningham, 1997; Tang & Fox, 2001). Eisenbruch (1991) suggests that some refugees who present symptoms consistent with PTSD should be understood as coping with “cultural bereavement” in a “normal, even constructive, rehabilitation from devastatingly traumatic experiences” (p. 673). Although similar symptoms may be found in different cultural groups, they do not necessarily carry the same meaning or importance, and what

constitutes “normal” emotional experience and expression varies across cultures (Zur, 1996), so caution needs to be exercised in interpreting and labeling posttrauma reactions in the Western medical paradigm of “pathology.”

Some researchers have found that PTSD is the “most appropriate label for the constellation of symptoms exhibited by Southeast Asian refugees” (Rozee & Van Boemel, 1989, Kinzie, 1993;), that it has been intentionally induced by the use of torture in South Africa (Simpson, 1993), that it is a worldwide medial problem, especially in regions of violent conflict, and can be treated successfully with Western therapies if it is recognized (Davidson, 2001).

Mollica (2004) does not object to DSM categorization of distress, but states that, despite the Western medical field’s overemphasis on PTSD, the most common mental illness diagnosed in survivors is depression. Bolton, Wilk and Ndogoni (2004) examined the prevalence of depression in rural Uganda, a region severely affected by HIV. Using the HSCL-25 and DSM-IV criteria (including functional impairment) to assess 587 respondents, they diagnosed 21 percent with depression, and found substantial associated functional impairment. Mollica recommends that all survivors should be assessed for depression, generalized anxiety disorder and PTSD. Mollica (2004) also states that torture survivors rarely suffer from factitious or somatization disorders, and their “somatic symptoms are usually culture-specific expressions of emotional distress—often an underlying depression.” (p. 7). Binitie (1981), in a brief survey of the literature examining clinical manifestations of depression in Africa, concluded that depression is a

common clinical problem among African patients, but that the “presentation of multiple bodily complaints may mask depressed mood” (p. 39).

Supporting Mollica’s assertion that depression is highly prevalent among torture survivors is a study by Roncevic-Grzeta, Franciskovic, Moro, and Kastelan (2001) who explored the prevalence of depression among refugees who had been exposed to torture by comparing two cohorts populated with refugees diagnosed with PTSD and a control group. One group of refugees (n=50) had combat experience and had been imprisoned and tortured, the second group (n=29) had combat experience with no exposure to captivity and torture, and the third group (n=30) consisted of randomly selected local residents with no combat or torture experience. Data were collected the PTSD Questionnaire—based upon the DSM-IV, the Beck Depression Inventory, the Hamilton Depression Scale, and a structured interview. Multiple analyses revealed that individuals with traumatic experiences are more depressed than non-traumatized individuals; those who have been exposed to torture are more depressed than those who have not been exposed and present similar to major depressive disorder; and forms of torture involving threat provoke more intense depression than other forms of torture. Lack of randomization to the non-control cohorts limits generalization.

Turner and Gorst-Unsworth (1990) found depressive reactions to loss prevalent after the experience of torture. “Individual survivors of torture may have lost parts of their bodies (limbs and eyes for example), normal bodily functions, or bodily health. They are likely to have lost work, status, family, and credibility” (p. 477), they’re colleagues are likely to be suspicious of them, and they know that if they stay in the same

region they may again be detained and tortured (p.477). In addition to these losses, torture survivors and refugees may feel grief for loss of possessions; friends; homes; cultural identity; hopes and dreams; sense of safety; family and community role; emotional stability; economic security; self respect; self confidence; independence; freedom from pain, nightmares and hate; traditional art, handicrafts and language; belief system and religion including burial rites and practices, courtship and marriage customs, and sources of healing. Tang and Fox (2001), in examining the mental health of Senegalese refugees who had been exposed to trauma, found that depression “appears to be quite similar to the DSM definition throughout various cultures” (p. 511).

De Sliva (1993) presents the importance of cultural constructs in the manifestation of symptoms, the socio-cultural meaning of the trauma, and the approach to treatment. Morris et al., (1993) described a difference in expectations of therapy and outcomes between subjects from Southeast Asia and South America, and recommended use of therapeutic approaches that are consistent with the cultural expectation of the clients. Turner (2002) emphasizes moving “beyond simple psychiatric diagnosis into the realms of complex trauma reactions” (p. 297). He believes the way forward can be found in the balance between the common effects of trauma, especially PTSD and depression, and the complexity of the individual, including the social and political contexts.

Thapa and Hauff (2005) conducted a cross-sectional survey with 290 IDPs during an armed conflict in Nepal. They used the Hopkins Symptoms Checklist-25 (HSCL-25) to assess depression and anxiety, and the PTSD Checklist—Civilian Version (PCL-C) to assess PTSD symptoms. They found that nearly all participants reported experiencing

trauma, including acts of torture, and the rates of anxiety, depression and PTSD symptomatology were 80.7%, 80.3% and 54.4%, respectively. Each symptom category was independently associated with feeling miserable on arrival at new place. In addition, anxiety was independently associated with illiteracy, depression was associated with female gender, and age 41-50, and PTSD was associated with experiencing more than three traumatic events. Protective factors included having a week to prepare prior to evacuation and membership in one of the three lower castes. Data was collected prior to a permanent peace agreement from IDPs that had returned to their homes during a temporary cease-fire in combat and had registered for assistance. Those more traumatized may have chosen to not return home, those less traumatized may have not sought assistance, limiting the generalizability of the results.

Another study surveyed a matched sample of tortured (n=418) and nontortured (n=392) Bhutanese refugees living in camps in Nepal (Van Ommeren et al., 2001). Researchers used a structured diagnostic psychiatric interview and a battery of instruments to gather information and assess a range of physical and psychological distress. The study sought to investigate history of torture and demographic correlates, likely psychiatric disorders as an effect of torture in this population, and demographic correlates among Bhutanese tortured refugees. Chi-square analysis revealed male sex as the only demographic item significantly ($p<.001$) positively correlated with torture. Multivariate analysis of covariance showed that those who had experienced torture were more likely to report 12-month PTSD, persistent somatoform pain disorder, and dissociative (amnesia, conversion) disorders. Those who had been exposed to torture also

reported higher rates of lifetime PTSD, persistent somatoform pain disorder, affective disorder, generalized anxiety disorder, and dissociative (amnesia, conversion) disorders than their nontortured counterparts.

A second study with the same group of Bhutanese refugees living in camps in Nepal assessed psychiatric disorders and disability. Chi-square test and Student's t-test examined univariate differences in disability demographic items between the groups, and multivariate analyses followed. Results disclosed that the most common forms of torture were beating, threats, humiliations, forced incongruent acts (e.g., breaking religious codes of behavior), isolation, and deprivation of sleep and food. The mean duration of torture was 21 days (SD=0.7), the average time since torture and relocation was 6.0 (SD=0.9) years and 5.0 years (SD=0.7). Average age was 44.3 (SD=12.5) ranging from 21 to 85, and approximately 20% of the tortured and nontortured Bhutanese refugees were found to be disabled. Disability among the tortured refugees was associated with PTSD, specific phobia, and physical disease, while disability among the nontortured was associated with physical disease, greater age, and generalized anxiety disorder (Thapa et al., 2003).

Cunningham and Cunningham (1997) studied the incidence of symptoms among 191 refugees resettled in Australia, finding PTSD was predicted most strongly by the experience of threats and humiliation, and by the forced witnessing of others being tortured. In a study exploring the impact of torture on refugees in a developing country (Shrestha et al., 1998), a sample of 526 tortured Bhutanese refugees was randomly selected from a population of 2331 identified torture survivors in a UN refugee camp in Nepal then matched for age and sex with a control group of 526 non-tortured camp

neighbors. These refugees were then interviewed with a questionnaire about torture experiences, somatic problems, and PTSD symptoms, and given the Hopkins Symptom Checklist-25 (HSCL-25) translated into Nepali. Chi-Square and t-tests for analysis, with significance set at .01. Sequential logistic regression was used to explore predictors of psychological status among the torture survivors. Results indicate that, with the exception of sleep disturbance and intrusive recollection of traumatic memory, the tortured refugees suffered significantly more on each of the 17 PTSD symptoms, and a diagnosis of PTSD was significantly more common among the tortured cohort (14%) than among the nontortured cohort (3%). Also, the tortured group had significantly higher cumulative HSCL-25 anxiety scores (17.9) and depression scores (22.6) than the nontortured group (16.4 and 21.3, respectively). The regression analyses show that torture predicts symptoms of PTSD, depression, and anxiety. Tortured refugees also presented more musculoskeletal and respiratory somatic problems. Those tortured refugees who identified as Buddhist were less likely to experience depression, males were less likely to experience anxiety, and illiteracy predicted anxiety scores.

Interpretation of results is limited by several factors. Although interviewers were trained to administer the instruments, they were not blinded to torture status of the participants, and use of the HSCL-25 had not been validated with Bhutanese refugees. During the PTSD assessment, interviewers provided examples of traumatic events and interpretations were made by the interviewers but inter-rater reliability was not established.

Holtz (1998) conducted a retrospective cohort study with 35 Tibetan nuns and students who had been arrested and tortured and were subsequently living as refugees in India. With a control group of refugees who had not been tortured—closely matched for age, lay status, sex, time in exile, and place of origin—Holtz assessed for anxiety symptoms, affective disturbances, somatic problems, and social impairment using a standardized structured interview and the Hopkins Checklist-25. One limitation to this study resulted from the removal of an assessment for PTSD, for which a meaning could not be translated between Western and Buddhist ontological systems. Using chi-square and t-tests, torture survivors were found to have a significantly higher mean anxiety score than the non-tortured cohort, but not for depression or somatic problems. Higher depression scores correlated with higher education, the youngest, oldest and males. Scores for anxiety and depression were related to time in exile, history of persecution, and the experience of torture. Holtz (1998) noted that the broad social support systems among and around these refugees had a protective effect, Engdahl, Page and Miller (1991) found social support was related to lower distress scores for maltreated POWs, but McKelvey and Webb (1997) found no evidence that social support is associated with lower levels of psychological distress for refugees, although individual's exposure to torture was not considered. Numerous other studies note that social support and connectedness are related to better functioning and lower post-trauma symptoms (Carlsson, Mortensen, Kastrup, 2006; Emmelkamp, Komproe, Van Ommeren & Schagen, 2002; Engdahl, Page & Miller, 1991; Cunningham & Cunningham, 1997; Basoglu & Parker, 1995; Basoglu et al., 1994), and Emmelkamp et al. (2002) state that

greater levels of social support are related to lower post-traumatic symptoms. Basoglu et al. (1994) note the impact of trauma on the family is predictive of PTSD.

In a retrospective study of refugees resettled in Denmark, Carlsson, Mortensen and Kastrup (2006) sought to identify predictors of mental health and quality of life in male torture survivors (N=63). Subjects had been admitted for a pre-treatment assessment at the Research Centre for Torture Victims and were administered the HSCL-25 and HDS to assess anxiety and depression, the HTQ to assess PTSD, and WHOQOL-Bref to assess quality of life. Multiple regression analyses revealed that the number of torture methods was a predictor of all mental scores except depression on the HSCL-25, and suggested a “stronger association between torture and PTSD than between torture and symptoms of depression or anxiety” (p. 54). They determined that previous torture and trauma, lower education, fewer social contacts, unemployment, and physical pain were predictive of greater emotional distress, and that lack of social relations was a stronger predictor than trauma for symptoms of depression.

In an early study (N=165), Basoglu, Parker, Ozmen, Tasdemir, and Sahin. (1994) assessed for psychiatric symptoms with a variety of the Turkish language versions of recognized instruments. Three groups of N=55 were matched for age, sex, marital status, education, socio-cultural status, political ideology, and political involvement. Group 1 included political ex-prisoners who had been tortured, group 2 had political activists who had not been tortured, and group 3 had no history of torture or political activism. Results showed that the torture survivors had significantly higher scores than the other two groups on most measures, but their anxiety and depression level were within normal

range. Incidence of major depression did not vary between the three groups, but the torture survivors were more likely than the others to have current and lifetime PTSD. Pearson correlations showed that younger age at torture was related to higher PTSD and depression ratings. Low political activism and greater risk of future arrest were correlated with anxiety. Multiple regression revealed that lack of social support predicted anxiety and depression, but not PTSD; perceived severity of torture predicted PTSD but not anxiety or depression; and impact of captivity on family was the strongest predictor of PTSD—accounting for 2-3 times as much variance as perceived severity. More work by Basoglu et al. suggests that the perceived levels of distress and uncontrollability associated with the experience of torture seem to determine the level of traumatic stress following torture. Basoglu et al. (1994) found that core PTSD symptoms often presented by survivors “reflect the direct conditioning effects of torture” (p. 361), and that “unpredictability and uncontrollability of stressors play an important role in the origins and maintenance” of the traumatic stress impact of torture (Basoglu, 1995, p. 346, Basaglu, Livanou, & Crnobaric, 2007). The nadir of the torture experience, according to Silove et al. (1991), “is the devastating loss of control over their inner emotional, moral and psychic worlds, which is often attended by dehumanized pleading, regression, and an inability to contain primitive emotions” (482).

Doerr-Zegers et al. (1992) describe in torture survivors “a loss of interest that greatly surpasses anything observed in anxiety disorders or even in nonpsychotic depression” (p. 178), in a high proportion of cases “a deep personality change” (p.178), and routinely, a permanent increase in the disposition toward anxiety, fatigue, inertia, and

paranoia. They found a general “impoverishment in the psychic life, a decrease in previous capacities, and a breakdown of engagement with life and a basic trust toward other human beings” (p. 179).

In addition to the above-listed responses to torture, Fischman and Ross (1990) describe a number of thematic conflicts common to victims of torture. They more fully describe the fear, rage, and guilt evoked by torture including the fear of destroying others with their trauma story; fear of losing control and becoming violent; shame and rage over the vulnerability and helplessness created by torture; rage and grief at the sudden disruption of life and at the violation of personal rights; guilt over surviving and not being able to save companions; for bringing distress to the family and for not being able to protect them while imprisoned; grief over the loss of significant others by death or exile; and the loss of aspects of the self such as trust or innocence. (136).

Silove, Tarn, Bowles, and Reid (1991) also discuss the anger as one of the common PTSD arousal-cluster symptoms. Jumpiness, impaired concentration startle response, hypervigilance, etc. are other common stress-activated arousal symptoms, which according to Yehuda (2002) are “inherently biologic” (p.110) and recognized as the “physiological manifestations” of post-traumatic reactions (p. 108). As such, arousal symptoms, once established, would logically be expected to respond less effectively to psychological treatment than symptoms of the intrusive and avoidant clusters. When Birck (2001) tested symptom change among 30 tortured refugees following psychotherapy (mean duration of treatment 23.5 months), intrusive symptoms improved, but arousal and avoidant symptoms did not change. This finding does not align with the

implications of Yehuda's (2002) explanation of the psychological and biological aspects of PTSD symptoms. The behavioral symptoms of the avoidant cluster would seem more amenable to counseling than the more biologically-based arousal symptoms.

Somatic expression of symptoms are common among Africans (Binitie, 1981); somatic problems are found to be common among traumatized refugees (Tang & Fox, 2001; Kira et al., 2006, Turner & Gorst-Unsworth, 1990; Mollica, 2004; Van Ommeren et al., 2001; Cunningham & Cunningham, 1997); and those who have been exposed to torture are less healthy physically than those who have not been exposed to torture (Kira et al., 2006).

Regardless of the range of explanations, Shrestha et al. (1998) and Holtz (1998) corroborate the results of Mollica et al. (1998), which found that the experience of torture among refugees results in psychological distress beyond the levels predicted solely by the experience of flight from one's country and subsequent life in exile. Silove, Steel, McGorry, Miles, et al. (2002) also found that torture was the main predictor of PTSD in a multiple regression analysis with 107 war-affected Tamils living in Australia. To probe the relation between cumulative torture experience and level of PTSD and depression in Vietnamese ex-political prisoners newly arrived in the United States, Mollica et al. (1998) used the HSCL-25 and the Harvard Trauma Questionnaire and found that "significant dose-effect relationships exist between cumulative torture and the psychiatric symptoms of PTSD (and its subcategories) and depression" (p.553).

The sequelae of torture are also recognized to reach beyond the level of the individual to the societal. The healthy functioning of communities is impaired or

disrupted by the actions of torture, and individual health may not be restorable within the context of a damaged community (Quiroga & Jaranson, 2005; Gonsalves et al., 1993; Turner, 2000).

Treatment Approaches

While there has been extensive research into the mental health sequelae of numerous forms of trauma and the treatment effects for survivors, the literature of empirical studies specifically on treatment of torture is limited, and treatment effects have been mixed. The combined weight of a survivor's symptoms can make it difficult to maintain employment, fulfill family responsibilities, integrate socially, or pursue an education; all of which serves to exacerbate the primary symptoms. According to Herman (1992), the objective of treatment for survivors can be conceptualized in three phases beginning with establishment of safety and trust; then the use of treatment methodologies to address the trauma and losses; followed by a phase of reintegration involving the reconnection with others, reorientation of personal beliefs, readdressing of life's tasks, resumption of personal causes, and resurrection of the spirit to live. Kinzie (1989) argues that, regardless of the therapists' preferred theoretical orientation or treatment approach, therapy should correspond with the cultural expectations of the client.

Many studies have tested therapies among trauma survivors, but, to date, the literature contains a limited number of studies of discrete treatment methods tested specifically for the torture-survivor population, and effectiveness remains unproven (Gurr & Quiroga, 2001). Turner (2000) states that a number of approaches for treatment have been advocated, "but there is little evidence on which to make a decision" (p. 299). In a

review of the literature, Quiroga and Jaranson, (2005) found that PTSD and depression are the most common diagnoses in populations of torture survivors in resettlement countries, refugee camps, and countries of origin, but the preponderance of studies address PTSD alone. This will, therefore, will be the main focus of the following review.

Nicholl and Thompson (2004) reviewed the literature on the current state of psychological therapies for the treatment of PTSD in adult refugees. They comment on the heightened prevalence of war-trauma and torture (among other sources of distress) for refugee populations, and in referencing Friedman and Jaranson (1994), they state the “PTSD concept has been applied effectively in the diagnosis and treatment of individuals exposed to a number of different trauma situations, including war, torture, rape, natural disasters and industrial accidents” (p. 353). They acknowledge the cultural limitations and controversy of this diagnosis, but state “the majority of authors do recognize that the concept is applicable to refugees” (p. 354). Carlsson, Mortensen, and Kasrup (2005) conducted a study examining the symptoms for 55 tortured refugees prior to multidisciplinary treatment (psychotherapy, physiotherapy, social assistance) and after eight months of treatment. They found no significant change in symptoms of PTSD, depression, anxiety, or health-related quality of life.

Of reports found in the literature that address treatment of PTSD specifically for refugees, only one (Paunovic & Ost, 2001) is a randomized controlled study. In a pre-post study, Paunovic and Ost compared the efficacy of cognitive-behavior therapy (CBT) (n=7) and exposure therapy (E) (n=9) on refugees—six of whom had survived torture—diagnosed with PTSD in Stockholm, Sweden. Thirty four individuals were recruited from

centers of psychiatric care in Stockholm, and attended two screening interviews with the Clinician Administered PTSD Scale (CAPS-IV), which corresponds to the DSM-IV, and the Anxiety Disorders Interview Schedule-IV (ADIS-IV). The test-retest reliability for the CAPS-IV was given at 0.90-0.98 for all 17 items, but no reliability information was provided for the ADIS-IV. The interviewer was a trained doctoral student.

Fourteen volunteers were screened out of the study for a variety of reasons, five of them because their PTSD symptoms were too severe. Of the 20 selected for the study, three were female, 17 male (four of whom later dropped out). The 12 participants (six in each cohort) who took medication for their PTSD were required to have been on a steady regimen for five months prior to the study. The participants were randomly assigned to the two conditions, with no wait-list control group in accordance to international guidelines when torture victims are to be included. In addition to the assessor ratings, a battery of self-report scales was used. The PTSD Symptom Scale and the Impact of Event Scale-Revised were used to assess PTSD. Anxiety was assessed with the Beck Anxiety Inventory and the State-Trait Anxiety Inventory, and depression was assessed with the Beck Depression Inventory. Cognitive schemas were assessed with the World Assumptions Scale, and quality of life was assessed with the Quality of Life Inventory. Participants completed the self-report scales and the assessor ratings prior to treatment, again one week following completion of treatment, and a third time at a six-month follow-up.

Modality for treatment was individual, length of sessions was 60-120 minutes, and duration was 16-20 sessions with homework assignments. The E condition included

imaginal and/or in vivo exposure. The CBT condition included a “flexible combination” of exposure, cognitive restructuring to decatastrophize interpretations of intrusive recollections, and controlled breathing (p. 1189).

Significant main effects of time on PTSD symptoms, anxiety, depression, cognitive schemas, and quality of life were revealed by ANOVAs on the assessor ratings, but no group or interaction effect. Post hoc Tukey tests indicated significant improvement for both conditions between pre- and post-treatment ($p < 0.01$), between pre-treatment and follow-up ($p < 0.01$), but not between post-treatment and follow-up.

This study is so fraught with limitations, any generalization is risky. The design is likely insufficiently powered to detect group differences, and ethical considerations prohibit a control condition so comparison is not possible. The inclusion criteria allowed participation only by refugees fluent in Swedish with stable residency status to participate, suggesting a level of acculturation and safety atypical of many refugees. Those presenting with severe symptoms were not included ($n=5$), and no cultural information or consideration is offered. Both treatment conditions included elements of exposure therapy, the professional experience level of the therapist was limited (doctoral student), and there was unexplained variability in the length and duration of sessions. Finally, high attrition (20%: 1E, 3CBT), and unaccounted changes in medication regimen (50%: 4CBT, 2E) further undermine any conclusions that could be drawn.

Two widely cited meta-analyses (Van Etten & Taylor, 1998; Sherman, 1998) examined trials for the treatment of PTSD covering a broad range of therapeutic approaches. Van Etten and Taylor analyzed 61 trials from 39 pre-post studies that tested

pharmacotherapies, behavior and cognitive-behavior therapies, Eye-Movement Desensitization and Reprocessing (EMDR), relaxation training, hypnotherapy, psychodynamic therapy, and control conditions. Articles were included if participants had received a DSM diagnosis of chronic PTSD (though none were identified as torture survivors), $n > 4$, effect sizes were available, and self-report or observer-rated measures that were deemed valid and reliable were used to judge outcomes for intrusion, avoidance, total PTSD severity, depression, and anxiety. An individual modality was used in all but one treatment, which used a group approach. The meta-analysis included 14 drug trials, 13 behavior/cognitive behavior trials, 11 eye movement desensitization and reprocessing (EMDR) trials, and one trial each for relaxation training, hypnotherapy, and psychodynamic therapy. Effect sizes were calculated using Cohen's d statistic. Results revealed that behavior therapy and EMDR were the most effective psychological therapies, with behavior showing slightly larger effects on total PTSD symptoms at post-treatment, but these differences became non-significant at follow-up. There was no difference in effect size between behavior therapy and EMDR for specific symptom domains. Selective serotonin reuptake inhibitors (SSRI) and carbamazepine were the most effective medications, but had high (36% average for SSRIs) dropout rates. These drugs were most effective, equal to behavior therapy and EMDR, on intrusive symptoms and depression. This study is limited by the low number of trials available per treatment condition, the inclusion of non-controlled trials, the arbitrary distinctions drawn between EMDR and other forms of behavioral therapy, the decision of the authors to collapse

behavioral and cognitive behavioral approaches into a single category, and by the fact that results are based on participants who completed their treatment condition.

Sherman (1998) conducted a meta-analysis of 17 pre-post controlled trials on psychotherapies for PTSD with a total of 690 participants, none of whom were identified as survivors of torture. Sherman included behavioral, cognitive behavioral, and combined psychodynamic and hypnotherapy treatments. Also included were anger treatment, adventure-based activities, psychodrama, the Koach program, and the Coatesville program. Treatments employed individual and group modalities. Clinical trials were included from studies in which the participants met DSM diagnosis for PTSD, a comparison group was tested, effect sizes could be calculated, and objective measures of outcomes were taken pre- and post-treatment. To compare effect sizes, Sherman averaged effect sizes across all dependent variables yielding a composite effect for each study. Effect sizes were also calculated for five symptom categories, including intrusion, hyperarousal, avoidance, depression, and anxiety. Effect sizes were calculated for immediate post-treatment and longer-term follow-up and defined as the difference between the means of the treatment and control conditions divided by the pooled standard deviation. Sherman states that the overall effect “demonstrates strong empirical support for the efficacy of psychotherapeutic interventions for the treatment of combat, crime, and traumatic bereavement-related PTSD” and that treatments have positive effects greater than one-half a standard deviation on the symptoms of PTSD, depression and anxiety (p. 426). Of the 103 participants with a diagnosis of PTSD entering a treatment, 44 (43%) showed such improvement that they no longer met the criteria for PTSD

following treatment. Sherman also found by analysis of effect sizes that treatment effects are maintained at follow-up after discontinuation of therapy, but offered a word of caution for the use of in vivo exposure modalities without sufficient participant control of the process. The two studies of this type included in Sherman's analysis resulted in post-treatment deterioration.

In a third meta-analysis, Bradley, Greene, Russ, Dutra, and Westen (2005) examined 26 studies: $n > 9$, published in English, of psychotherapies for PTSD conducted with control conditions, an alternative credible therapy—or a combination of the two, and using validated measures and blind evaluators with a total of 1535 randomized participants. In addition to comparing effect sizes between treatments, Bradley included five other variables of interest. Indices of recovery rate and improvement rate were used to determine the proportion of participants who experienced clinically significant improvement sub-classified between participants who completed and did not complete the treatment, and included a metric to describe sustained efficacy over time.

Effect size was calculated by using Cohen's d for both pre- versus post-treatment, and treatment versus control condition. Recovery rate was defined as the proportion of participants who met the pretreatment diagnostic threshold for PTSD but following treatment no longer reached PTSD threshold criteria. Improvement rates were calculated by relying upon the definitions of improvement used by each study. Average effect size for pre- versus post-treatment was 1.43, for active versus wait-list control was 1.11, and for treatment versus supportive control was 0.83. These results lend strong empirical support for the efficacy of psychotherapeutic treatments. Across all studies, 56% of post-

treatment participants, including those who did not complete a treatment, no longer met the criteria for PTSD, and 44% showed meaningful psychological improvement. Of those who completed a treatment, 67% no longer qualified for a diagnosis of PTSD, and 54% showed meaningful improvement. Although, the mean post-treatment symptom level showed clinically significant improvement, the average score when reported, for the PTSD Symptom Scale was 17.28 (SD=5.34, N=14) and for the Impact of Event Scale score was 23.96 (SD=7.96, N=7.97) suggesting considerable continuing symptoms.

Keane, Fairbank, Caddell, and Zimering (1989), conducted the first empirical study of its kind with U.S. veterans (n=24 male) from the war in Vietnam diagnosed with PTSD. Participants were recruited and screened at a Veterans Administration Medical Center. Those meeting the diagnosis for PTSD were randomly assigned to either a treatment condition (n=11) of implosive therapy, or to a wait-list (n=13) control. There were no significant demographic or combat exposure differences between the cohorts. Of the veterans assigned to the therapy cohort, four had in-patient status, seven were out-patients. Also, six of these participants were prescribed anxiolytic, sleep or pain medication during the course of the study. The treatment was administered over 14-16 sessions of individual therapy, and began with relaxation training for 2-3 sessions. Next, for 12-14 sessions, the participant was led through a therapeutic process of flooding. During this time, 10 of the 13 participants in the wait-list cohort had been prescribed anxiolytic medications. The study authors argue for the welfare of the control group, and suggest this arrangement also represents a more rigorous test of the effect of implosive therapy.

A battery of validated instruments was used to assess levels of depression, anxiety, PTSD symptomology, and social adjustment. Treatment cohort participants were assessed pre, post, and six months following therapy. The control participants were assessed twice; the average elapsed time between assessments was 4.5 months, conducted at the therapists' convenience. Continuous-variable data were analyzed by univariate repeated ANOVAs and t-tests, and Chi-square analyses were used for categorical data. Results indicate that those in the implosive therapy condition reported significantly less depression at post-treatment and 6-month follow-up, and correspondingly less anxiety and fear. Positive symptoms of PTSD responded significantly to implosive therapy, but not the numbing or social avoidance symptoms.

The generalizability of these results is affected by several limitations. A number of participants (n=6 treatment, n=10 wait-list) were prescribed medication during the course of the study, possibly confounding outcome measurements. At the same time, an undisclosed subset of participants concurrently received treatment from other services to address their acute distress. Also, by nature of the study design, the treatment-condition participants received much more therapist contact than their wait-list counterparts and the timing of the assessments varied between groups, and within the control group, possibly introducing unrecognized, confounding time and outside-event variables.

Two studies (Birck, 2001; Boehnlein et al., 2004) found sustained (at two years and 10 years, respectively) decreases in posttraumatic symptomology following participation in psychotherapy among tortured and traumatized refugees treated in the West, and a randomized controlled study (Bolton et al. 2003) examining the effectiveness

of the treatment of depression among residents of 30 villages in rural Uganda found group interpersonal psychotherapy to be highly effective.

Summary of the Literature Review

Relevant findings in the literature can be summarized by the following points:

1. Numerous studies have determined that following exposure to trauma, including torture, survivors frequently manifest symptoms of PTSD, depression, anxiety, somatic problems, and substance use, all of which can contribute to impairments in normal, effective functioning.
2. Some observers have reported, following exposure to especially horrific, sustained trauma, the manifestation of complex PTSD; cumulative trauma may present and resolve differentially than single-event trauma.
3. Refugees who have been exposed to torture have higher levels of symptoms than those who have not been exposed to torture.
4. Studies have shown that among refugees, who have been exposed to trauma, including torture, females presented higher rates of depression, males presented lower rates of anxiety, and older age correlated with higher rates of depression.
5. Numerous studies have reported the protective effect of social connectedness.
6. Impact of trauma on family members was predictive of PTSD.
7. Meta-analyses indicate that treatment is effective for survivors of trauma.

The studies reviewed in this paper demonstrate that the particularly traumatic experience of being exposed to torture is predictive of lasting, serious emotional distress beyond that induced by the trauma of war, flight, and exile, with the principal effects

being PTSD, depression, anxiety, and somatic problems. Six of the seven controlled studies with torture survivors exploring the range of effects reviewed in this paper revealed that torture was predictive of PTSD. The one study (Holtz, 1998) that did not test for PTSD could not find an adequate translation/interpretation of this disorder for the Buddhist ontological system held by the study participants. Among these studies, exposure to torture was variably predictive of depression and anxiety, and a variety of protective factors were identified, with social support being most commonly identified. Another study (Roncovic-Grzeta et al. 2001) found torture predictive of major depressive disorder among refugees diagnosed with PTSD.

Three meta-analyses arrived at similar conclusions regarding the efficacy of psychotherapeutic treatments for PTSD. Van Etten & Taylor (1998), Sherman (1998), and Bradley et al. (2005) determined that therapy for PTSD is effective. Van Etten & Taylor (1998) found that approaches using cognitive-behavioral and EMDR methods were most effective. Sherman did not find a certain approach most effective, but determined treatment reduces symptomology even after termination of treatment. Bradley (2005) also found strong empirical support for significant reduction in the PTSD diagnoses following treatment, but also found continuing sub-diagnostic-threshold symptomology.

Many limitations overlie the literature and interfere with its theoretical interpretation and practical application. Torture is intended to be horrific, that is, to evoke horror, and the natural biological reflex is to avoid contact—contact by experience and/or contact by knowledge, and by international standards torture is illegal and is usually

committed in secret. These dual pressures serve to control the dialog around the reality of torture and to interfere with the general awareness of its practice. It has not been possible to adequately estimate the numbers of those who did not survive torture or of those who did survive but are living in hiding, those who continue to live in an oppressive society, and those who are living quietly with the secret of their torture experience (Gorman, 2001). The numbers are also underreported because caregivers are under-qualified to accurately assess for torture or they withdraw from the distressing atrocity stories and avoid the topic (Gorman, 2001).

Research design for survivors of torture is impaired by the difficulty of obtaining an unbiased sample of survivors (Mollica et al., 1998) and by the fact that those who survived, escaped, resettled, and are included in treatments and studies, are not necessarily representative of the general population of survivors.

Metrics of distress and diagnostic criteria of disorders are products of Western constructs and ontological systems and their application to the treatment and study of torture survivors is disputed. De Silva (1993) discusses the influence of cultural factors upon the differential presentation of psychological stress reactions (itself a Western notion) and the relevance to treatment. Gorman (2001) states “symptomology associated with torture and trauma will vary with respect to learned patterns of coping and the particular ethnic, political, and spiritual perspectives through which an individual views the experience” (p. 444), and Kagee and Naidoo (2004) explain the limitations of viewing nonwestern individuals through western perspectives of psychopathology.

Most studies examine the treatment of one symptom or another recognized to be a result of torture trauma, but Mollica (2004), who states he and his colleagues have cared for more than 10,000 torture survivors argues:

In general, persons who have been tortured do not want to be treated primarily as torture survivors. They prefer a holistic approach that addresses their current reality in a culturally sensitive way. Many have begun to recover from torture with the help of spiritual and religious practices, work, and altruistic activities that benefit their family and community. Clinicians should strongly support such self-care and recommend other healthful practices, such as proper nutrition and exercise that may enhance the patient's coping ability and resilience (p. 7).

Yet another limitation derives from the common fact that, as many studies have described, the effects of being exposed to torture are often confounded with the effects of war-trauma, flight, exile, loss, and bereavement, and attempting to disentangle and study the variance a single component thread of the traumatic experience may not be possible, or even fully useful. Most torture survivors who eventually receive treatment are refugees, as with those who escaped Sierra Leone into neighboring Guinea, so their traumatization does not end with the torture experience. The struggles of the inestimable numbers of IDP aside, those who survive torture and are able to escape their home countries are confronted with post-trauma problems that are complicated by the difficulties of life in exile. (Silove et al., 1991). Fischman and Ross (1990) wrote, "their present and future seem disconnected from their past. Exiles experience social and cultural disorientation and face the process of mourning the loss of nuclear family, home,

friends, language, culture, legal status, and dreams or ideals” (p. 135). Survivors often name exile as the “most devastating” part of the torture experience. (p. 136).

In pursuit of the primary goal—restoration of a sense of health and wholeness as defined by the survivor and his/her community—future research efforts may best be aimed at a holistic, non-reductionistic approach. Exploring the treatment of the whole person in the context of their whole story and whole community by understanding what the trauma means to the individual and their community and testing approaches for treatment that ameliorate the individual distress and societal disruption and facilitate reconnections, may yield new possibilities for success and support for the people of Liberia and Sierra Leone on their journey of recovery.

Chapter 3: Methodology

Design

This study is a secondary analysis of data originally used for clinical assessment and program evaluation, collected from 2001 to 2006 in refugee camps established by the UN in the area of Guéckédou, Guinea near the convergence of the borders with Liberia and Sierra Leone, and in refugee camps near Kissidougou, Guinea after the UN moved the camps farther from the borders, a safer distance from the war zone. In addition to data collection in refugee camps, CVT continued this work in the IDP/refugee camps established in the area of Kenema, Sierra Leone for the Sierra Leoneans after they repatriated to their country, but before it was safe enough to return to their home communities, and for Liberian refugees for whom it was too dangerous to return to their country. CVT then followed the population of IDPs back to their home communities within Sierra Leone once the violence in those areas subsided to a level deemed acceptable. Community-based work has also been established by CVT in Liberia, but data from that work was not available for this study.

This study used cross-sectional analysis of the intake assessment data of 4010 adult clients attending a CVT counseling program to examine relations between exposure to extreme violence—including torture, psychosocial symptomology, functioning, sex, age, substance use, and access to social support. From the original dataset of 4010 completed intake assessments, a subset of data from 1186 clients who had been successfully tracked for subsequent assessments at 1-month, and 3-month follow-up was examined for symptom change over time.

This is the first effort in the field of refugee relief and healing to follow a population of traumatized refugees beyond their stay in a refugee camp, through the transition process back to their home communities, while continuing to provide direct healing-services and to continue collecting clinical assessment and program evaluation data through each phase. For many of these refugees, much trauma was yet unaddressed prior to leaving the camps, and new trauma was awaiting them upon their return home triggered by their broken and maimed bodies, disrupted lives, burned villages, lost property, poverty, and the injuries and death of friends, neighbors, and family members.

Participants

Data obtained from clinical assessment records previously collected from 4010 CVT clients were included in this study. The clients were refugees and IDPs of the civil war in Sierra Leone, refugees of the mass violence in Liberia, and repatriated Sierra Leonean's in their home communities following return from refugee and IDP camps. Clients had sought CVT counseling services in the refugee camps near Guéckédou and Kissidougou, Guinea, in the IDP/refugee camps near Kenema, Sierra Leone, and in their home communities primarily in the eastern districts of Kenema, Kailahun, and Kono, Sierra Leone. Participants were referred for CVT services if assessed to have non-psychotic mental disorders and/or distress associated with significant functional impairment as a result of the extreme violence which they had experienced.

Data from the home communities in Liberia were not available to include in this study, and data for clients who were younger than 18 years old (approximately 20% of CVT clients) at the time of intake were not included in this study.

Procedure

Upon referral to CVT from family, friends, other in-camp NGOs, or self-referral, each individual was screened by a Psychosocial Agent (PSA)—a trained paraprofessional—for exposure to trauma, and functional problems. Following discussion of each case among professional clinical staff and PSAs, referrals to other resources were offered as needed, and those individuals assessed as appropriate for counseling were administered a structured clinical intake interview by a paraprofessional to gather demographic information, personal and family trauma history, indicators of social support, a description of current problems, basic health information, and five symptom checklists (see Appendix, pg. 148). Clients who had a trauma history assessed to meet the criteria for “torture” were included, as were other individuals who reported a history of exposure to extreme violence, the details of which less clearly met the criteria for “torture.” As articulated in the definitions of “torture,” it is the status of the perpetrator and/or the intent of the violence that defines a behavior as torture, not the level of atrocity or the psychosocial/physical effects on the survivors, and, as a legal definition, it is subject to interpretation. Since the intent and status of the perpetrators was not always discernable by the survivors and the level of the violence so extreme, CVT staff followed a rationale of inclusivity when assessing individual cases for referral to counseling. That is, the staff met to consult as a team prior to approving each participant’s referral to treatment and included individuals whose experience clearly met the criteria of torture. Also, individuals were referred for treatment who had survived extreme violence, but whose experience likely/possibly met the criteria for torture, but less clearly so. Intake

interviews were conducted in the clients' native language with an informal approach to minimize the risk of re-enacting survivors' possible history of interrogation. As part of the intake assessment instrument, five symptom-checklists were administered assessing for somatic problems, anxiety, depression, posttraumatic stress disorder (PTSD), and problems of functioning in activities of daily life. To identify any change in symptoms over time, clients were tracked and re-administered these checklists as part of a brief clinical assessment questionnaire, including items about social connectedness and basic health information. Working with this transient population in the unpredictable, fluid circumstances of porous refugee and IDP camps was challenging, and tracking and maintaining contact with clients became increasingly difficult following conclusion of the groups. Of the original dataset comprising information from 4010 clients, a subset of data from 1186 clients who had been successfully tracked for subsequent assessments at 1-month, and 3-months was used for symptom-change analyses.

Clients were treated in small groups (10 to 12 individuals) for a 10 to 12-week closed-group counseling intervention (2 hours, weekly), theoretically founded upon an eclectic, integrative blend of culturally adapted strength-based, interpersonal, CBT, narrative, expressive/humanistic, and psychodynamic psychotherapies (Stepakoff et al., 2006). Informed by Herman's (1992) model of trauma recovery, according to Hubbard and Pearson (2004), the group program sought to foster trust and safety in self and others, encourage sharing of traumatic experiences, affirm a positive sense of self, increase feelings of self-control, normalize traumatic experiences, and to support survivors to "redefine themselves in the light of their traumatic experiences, place these experiences

in the broader perspective of their total life story, and reinvest in life and the future” (Stepakoff et al., 2006, p. 930). Local, customary rituals and familiar activities were incorporated into the counseling program (De Silva, 1993), and to support the re-establishment of culturally normal social connectedness, the expectation was held that group members would make an effort to visit each other between sessions. One unexpected result of this treatment activity was the ongoing connection of group members beyond the conclusion of formal treatment. Members continued to meet for mutual social and economic support, such as through the creation of a communal garden, and a small bread-baking business where a support network was available along with much needed supplementary food. Clients were also exposed to community-wide interventions in the form of large outdoor activities including psycho-educational skits performed by refugee youth, radio programs, sports and play, and traditional healing customs and ceremonies.

Clinical Staff and Psychosocial Agents

The treatment program was organized and supervised by an international staff of up to four expatriate mental health clinicians (from Australia, Belgium, Chile, Democratic Republic of Congo, Denmark, Germany, Japan, Kenya, Nepal, Netherlands, Philippines, Rwanda, South Africa, Spain, Uganda, United Kingdom, and the United States), from a variety of fields including psychology, psychiatry, psychiatric nursing, child development, and clinical social work with diverse religious and socioeconomic backgrounds. They were required to have extensive experience “with victims of ethno-political trauma from multicultural populations” (Stepakoff et al., 2006, p.924), and

they worked full-time in the field for a minimum of one-year commitments. Without the staff resources to meet the needs of the thousands of traumatized refugees who could benefit from mental health services, CVT recruited, screened, trained, supervised and provided continual education to a team of resident refugees who demonstrated potential for becoming competent, skillful paraprofessional counselors. Following a competitive and rigorous recruitment and screening process, successful applicants were provided “initial, intermediate, and advanced training in mental health, counseling skills, trauma theory, child development, group dynamics, treatment planning, family and community interventions, and related topics...” (Stepakoff et al., 2006, p. 924), and in data collection and data entry. Hubbard and Pearson (2004) described the inclusive and multiculturally sensitive approach to creating this program as “not simply to train Sierra Leonean counselors in a model of ‘Western’ psychotherapy, but rather, to create a program that blended Western knowledge with local wisdom and understanding about trauma and recovery” (p. 106). They sought input and participation from the community “in all aspects of the program from the initial needs assessment and training of staff to the development of the intervention and evaluation components of the program” (p. 106).

As these Psychosocial Agents (PSA) moved into counseling roles, they continued to be closely supervised, supported, and given continual training. For as long as they worked for CVT (many continue), they were considered in-training and received daily supervision and received several hours of training every week. Some developed competence enough to run groups with minimal supervision, to assist with training of new recruits, and to hold roles with responsibilities similar to that of the professional

clinicians. Over time, some developed special interest and competence in adult counseling, work with children, program administration, training, and/or data entry. Primarily as a result of their training and practical experience, over half of the PSAs were able to receive a diploma from a local university for the equivalent of an associates' degree in psychosocial counseling. Most of the PSAs when they were repatriated, worked with CVT to establish counseling services in their home communities and are building the "beginnings of a mental health infrastructure for their war-torn country" (p. 924), and two of the PSAs provided counseling services to witnesses testifying in the UN-sanctioned war crimes tribunal in Sierra Leone (Stepakoff et al., 2006). With the support and guidance of CVT, a group of PSAs in Liberia has established their own non-profit to continue the development of mental health awareness and delivery of services beyond the eventual departure of CVT. One general objective of CVT is to build capacity in local areas that could benefit from the growth of mental health services, and so, Hubbard and Pearson (2006) state, "In the end, the Psychosocial Agents are the most important outcome or 'product' of the program" (p. 107).

Instruments

Information regarding demographics, trauma history, social support, specific health problems, and post-trauma psychological symptoms was collected by use of the Adult Intake Assessment Form (see Appendix). This was based on an assessment tool that had been successfully used with West African clients at CVT clinics in Minneapolis and was adapted by expatriate staff for use in the field. The Assessment Form includes five symptom-checklists. The anxiety and depression checklists were reproduced from

the HSCL-25, and the PTSD checklist was created from DSM-IV diagnostic criteria, with modification of psychological jargon into common language.

The assessment measures were used primarily to inform the clinical counseling process, and secondarily for program evaluation. The items on the intake measure were “selected for inclusion because they were seen as important things to know about clients in order to provide quality counseling services,” (CVT, 2008, p. 5) by consensus through a series of meetings with an international team of local paraprofessionals and expatriate clinicians, experienced working in Guinea and Sierra Leone. Translation and back-translation between English and four languages: Kissi, Mende, Kono, and Krio for all instruments helped ensure cultural accessibility for the measures (Stepakoff et al., 2006). First, two individuals fluent in English and the local language worked together through consensus to translate the document. Then, a group of eight to twelve PSAs meeting together reached consensus on the wording of the translation. Following that, another pair of fluent readers translated the document from the local language back into English, which was then compared to the original. Discrepancies were discussed, re-translated and sent through this system again until the back-translation agreed with the original form. In completing the self-report checklists, clients rated how frequently they had been affected by each symptom on a 4-point scale (*Never, Rarely, Sometimes, and Often*). A diagram of four drinking glasses ranging from empty to full (see Figure 14) was used to help the clients learn how to interpret the scales (Hubbard & Pearson, 2004). As described earlier, the anxiety and depression checklists are reproduced from the Hopkins Symptom Checklist-25 (HSCL-25), which has been widely translated for use in a variety of non-

Western contexts, and the posttraumatic stress symptoms checklist was created directly from the Diagnostic and Statistical Manual (DSM-IV) diagnostic criteria. The items on PTSD checklist are organized to follow the three symptom-clusters described in the DSM-IV: intrusive re-experiencing symptoms such as unbidden memories, nightmares, and flashbacks (5 items); avoidance of trauma cues by means such as emotional numbing, memory loss, and physically staying away from trauma reminders (7 items); and physiological arousal symptoms such as anger, jumpiness, and hyper-alertness (4 items).

The somatic symptoms checklist and the problems-in-functioning checklist were created by the mental health professionals and paraprofessionals based on qualitative data gathered from the refugees and from the staff's experience working with the refugee population regarding physical symptoms and problems in tasks of daily living. Then an internal data reduction method was used to isolate the most common symptoms and domains of functional problems, from which the checklists were created.

Fox (2003) describes the need for West African-sensitive assessment instruments, and a focus-group approach used to begin the process of developing culturally appropriate instruments. Mollica et al. (1987) describes the successful adaptation and validation of Cambodian, Laotian, and Vietnamese versions of the HSCL-25. Choi, Mericle, and Harachi (2006) also tested the cross-cultural use of the HSCL-25 with Cambodian and Vietnamese immigrants and found that the majority of the items were equivalent for the two groups, but some were not, suggesting that culturally different groups may "manifest certain aspects of trauma and depression differently" (p. 16).

Independent Variable

A single independent variable was included in this study: Time. Data for this study was collected at intake (Time 1), at approximately one month (Time 2), and at approximately 3-months follow-up (Time 3).

Dependent Variables

CVT Client Intake Data form

The intake form was used to inform clinical treatment and for program evaluation. This instrument included items to collect demographic information; personal and family trauma history; indicators of social support; history and current pattern of alcohol and drug use; a description of current problems; basic health information; and five, self-report, symptom-checklist, problem rating scales.

Problem Rating Scales

1. Physical Symptoms scale (7 items, $\alpha = .80$)
2. Anxiety Symptoms scale (10 items, $\alpha = .86$)
3. Depression Symptoms scale (15 items, $\alpha = .84$)
4. Posttraumatic Stress Symptoms scale (16 items, $\alpha = .89$), and
5. Level of Functioning scale (10 items, $\alpha = .88$).

For each scale a composite score was created by averaging the values (1 to 4 =

Never, Rarely, Sometimes, and Often) at intake, one month, and three months. For the hypotheses examining posttraumatic stress symptoms separated into the three sub-clusters defined in the DSM-IV, a composite score for each of the three PTSD symptom clusters (intrusive, avoidant, and arousal) was created to describe mean symptomology

for clients at intake, one month, and three months. The assessment rated clients on intrusive symptoms (5 items, $\alpha = .80$); avoidant symptoms (7 items, $\alpha = .77$); and arousal symptoms (4 items, $\alpha = .73$).

CVT Client Follow-Up Data form

The CVT Follow-Up Data form was used to collect ongoing data for clinical use regarding client care and for program evaluation at approximately one month and three months. Items in the Follow-Up instrument that were relevant to this study included three questions about the clients' social connectedness and the five self-report symptom-checklist Problem Rating Scales initially administered at intake.

Other Variables Created/Used for Correlation Analyses

Exposure to Trauma Composite

A composite score describing the level of exposure to torture and war trauma was created by averaging the standardized values given by clients in response to items on the structured interview. Items in this composite included the clients' history about capture, torture, separation from family, and history of family members captured, tortured, and killed (7 items, $\alpha = .63$). A second composite score was created to describe the level of trauma experienced by clients' family members by combining items (3 items, $\alpha = .75$) about the capture, torture, and killing of family members.

Alcohol and Drug Use Score

The intake interview and subsequent assessments included questions about alcohol and drug use (1 to 5 = *Never, Occasionally, Monthly, Weekly, Daily*), from which

an additive score was created that ranged from 2 to 10, with “2” representing never using alcohol or drugs, to “10” representing daily use of both alcohol and drugs.

Social Support Score

To assess social support, clients were asked whether or not they had people in the camp or community to whom they could go to for help or support, and how many. Being sought for help by others was similarly assessed on the intake interview, and during the subsequent assessments.

Analysis of the Data

Data collected at intake from 4010 clients between 2001 and 2006 was combined to create a master dataset from CVT sites in the refugee camps in Guinea, and the IDP/refugee camps and home communities in Sierra Leone. This data was used for cross-sectional analyses, from which descriptive statistics were calculated on demographic and life-experience variables. For the hypotheses in research questions #1-4, correlational analyses were used to test the strength of linear dependence between the continuous variables, and *t*-tests were used to assess whether the means of two groups statistically differed from each other. Effect sizes were estimated by calculating R^2 for the correlational analyses, and by calculating Cohen’s *d* values for the *t*-tests.

For the hypotheses in research questions #5, repeated measures one-way ANOVAs were used to determine whether or not dependent variables statistically differed over time from Intake, to 1-month, to 3-months follow-up. Eta^2 values were used to describe effect size.

Chapter 4: Results

The first section of this chapter presents descriptive intake statistics for relevant demographics, exposure to torture and war trauma, symptomology, functioning, drug and alcohol use, and social support. The second section presents the results of analyses of the research hypotheses. The third section presents results of exploratory analyses examining relations of exposure to trauma, symptomology, and change of symptomology over time by sex and status of torture history.

I. Demographics, Trauma Exposure, Drug and Alcohol Use, Social Support and Symptomology

Of the 4010 refugees included in this study, 2246 (56%) were female, 1763 (44%) were male, while the sex of one client remained unidentified. They ranged in age from 18 to 90 years old (mean = 36, S.D. = 15). Prior to being forced from their homes, they lived in the neighboring countries of Liberia and Sierra Leone, largely near the region where the international borders converge with the border of Guinea. They had worked as farmers, students, miners, teachers, professionals, and artists, and they worked in the trades and business. Of the 60 percent who had attended school, the average time in school was eight years. They had been refugees an average of 4.5 years and had been in camps an average of 3.2 years. Eighty-one percent had been held captive an average of nine months, and the trauma history of 3032 clients (76.7%) were documented by PSAs to have been tortured. Ninety-four percent were separated from their family by the fighting an average of 2.3 years, and 87 percent had family members killed. Seven dichotomous (yes-no) interview items designed to collect information about traumatic

experiences were combined to create an exposure-to-trauma composite score, for item frequencies see Table 1. The mean exposure-to-trauma rating was 0.86 on a standardized scale ($SD = 0.19$), with higher scores representing greater exposure to trauma (see Table 2). Fifty-three percent of clients had a rating of 1.0 on the exposure to trauma scale.

Frequencies for the reasons given for torture are listed in Table 3.

The mean of the additive score describing use of alcohol and drugs at intake was 2.3 ($SD=1.45$) on a two-to-ten scale (for both alcohol and drugs: 1=*never*, 2=*occasionally*, 3=*monthly*, 4=*weekly*, or 5=*daily*).

At intake, seventy-four percent of clients ($SD = 0.44$) reported having people in the camp or community to whom they could go for help or support, with a mean of 3.22 people available ($SD = 2.77$). At intake 62 percent ($SD = 0.49$) said that others sought them for help, with a mean of 4.34 people seeking their help ($SD = 5.77$).

Mean scores were calculated for each of the five self-report symptom checklists by creating an average rating on a 4-point scale (1=*Not At All*, 2=*Rarely*, 3=*Sometimes*, 4=*Often*). Average scores at intake for somatic problems was 2.66 ($SD = 0.66$), anxiety was 2.85 ($SD = 0.61$), depression was 2.97 ($SD = 0.50$), posttraumatic stress was 2.99 ($SD = 0.54$), and problems of functioning was 2.69 ($SD = 0.71$).

II. Research Hypotheses Results

Hypothesis 1a: Greater self-reported exposure to torture and war trauma would be related to higher levels of somatic problems and scores on measures of anxiety, depression, and posttraumatic stress, with the strongest relation expected to posttraumatic stress.

Correlation analysis revealed that greater exposure to torture and war trauma was related to significantly higher symptomology on measures of somatic problems, anxiety, depression, and posttraumatic stress, but the strongest relation was to depression rather than posttraumatic stress (see Table 4).

Hypothesis 1b: Females would be expected to have higher rates of depression; males would be expected to have lower rates of anxiety; and sex would not be related to rates of somatic problems.

Using t-tests, it was shown, as predicted, that females at intake reported significantly higher rates than males on the measures of depression (3.04 v. 2.87, $t = -11.24$, $p < .000$, $d = -0.360$) and anxiety (2.92 v. 2.77, $t = -7.52$, $p < .000$, $d = -0.241$).

Contrary to prediction, somatic problems were not independent of sex, but were significantly higher for females than males (2.72 v. 2.57, $t = -7.09$, $p < .000$, $d = -0.228$) at intake.

Hypothesis 1c: Younger age would be related to lower levels of somatic problems, anxiety, depression, and posttraumatic stress, and older age would be related to higher levels.

By correlation analysis, contrary to expected outcomes, younger age was found to be related at intake to significantly higher levels of somatic problems, anxiety, and posttraumatic stress, while age was found to have no significant relation to level of depression (see Table 5).

Hypothesis 2a: Exposure to torture and war trauma would be related to higher levels of problematic functioning in activities of daily life.

Analysis found a significant relation between level of exposure to trauma and greater difficulty functioning in activities of daily life ($r = 0.56$, $p = .037$).

Hypothesis 2b: Exposure to torture and war trauma would be related to higher levels of drug and alcohol use.

Exposure to trauma was found to be significantly correlated with drug and alcohol use ($r = 0.52$, $p = .001$).

Hypothesis 2c: Higher levels of somatic problems, anxiety, depression, and posttraumatic stress would be related to higher levels of problematic functioning in activities of daily life.

Higher levels of somatic problems, anxiety, depression, and posttraumatic stress were found to be correlated with lower functioning in activities of daily living (see Table 6).

Hypothesis 2d: Higher levels of somatic problems, anxiety, depression, and posttraumatic stress would be related to higher levels of alcohol and drug use.

Analyses revealed significant correlations between level of alcohol and drug use and levels of somatic problems, depression, and posttraumatic stress, but no significant relation with level of anxiety (see Table 7).

Hypothesis 3a: Having people in the camp to go to for help or support would be related to lower levels of anxiety, depression, somatic problems, and the intrusive and the avoidant symptoms but not the arousal symptoms of posttraumatic stress.

Use of *t*-tests showed that availability of support was not significantly related to levels of anxiety; that availability of support was significantly related to lower levels of

depression; and that availability of support was significantly related to higher levels of somatic problems (see Table 8). *T*-test analyses found that those clients who had people available for help and support had significantly lower levels of intrusive, avoidant, and arousal symptoms of PTSD than clients who did not have people available for help and support (see Table 9).

Hypothesis 3b: Greater number of people available in the camp to go to for help or support would be related to lower levels of anxiety, depression, somatic problems, and the intrusive and the avoidant symptoms but not the arousal symptoms of posttraumatic stress.

Correlation analyses found that having greater numbers of people available for help and support was significantly related to lower levels of anxiety and depression, but not significantly related to level of somatic problems (see Table 10). Analyses revealed significant relations between having greater numbers of people available for help and support and lower levels of intrusive, avoidant, and arousal symptoms of PTSD (see Table 11).

Hypothesis 3c: Greater number of people available in the camp for help or support would be related to lower levels of problematic functioning in activities of daily life.

A significant correlation was found between numbers of people available for support and level of functioning, that is, clients who had greater numbers of people available for support had better functioning in tasks of daily living ($r = -.170$, $p < .000$).

Hypothesis 3d: Being sought for help by others in the camp would be related to lower levels of somatic problems, anxiety, depression and the intrusive and the avoidant symptoms but not the arousal symptoms of posttraumatic stress.

T-test analyses showed that being sought for help and support by others versus not being sought was related to fewer somatic problems, less anxiety, and less depression (see Table 12). Also, being sought for help and support by others versus not being sought was related to lower levels of PTSD intrusive, avoidant, and arousal symptoms (see Table 13).

Hypothesis 3e: Being sought for help in the camp would be related to lower levels of problematic functioning in activities of daily life.

Analysis by *t*-test showed that being sought for help or support by others versus not being sought is related to lower levels of problematic functioning (2.53 v. 2.89, $t = 9.64$, $p < .000$, $d = .525$).

Hypothesis 4a: Exposure of family members to greater number of traumatic events would be related to a client's higher levels of somatic problems, anxiety, depression, and symptoms of posttraumatic stress.

Analyses results supported this hypothesis. It was found that higher levels of family members' exposure to trauma were related to higher levels of somatic problems, anxiety, depression, and PTSD (see Table 14).

Repeated measures ANOVAs were conducted to identify the difference in self-report symptom-levels for CVT clients at intake, one month, and three-month follow-up. Results for hypotheses 5a, 5b, 5c, and 5d are given below:

For Hypothesis 5a: A decrease in levels of depression would be expected; Hypothesis 5b: A decrease in levels of anxiety would be expected; Hypothesis 5c: A decrease in problems of functioning in activities of daily living would be expected; and Hypothesis 5d: A decrease in levels of somatic symptoms would be expected, but less of a decrease than for depression, anxiety, and the intrusive and avoidant symptoms of posttraumatic stress.

Analyses showed that means decreased over time for levels of depression, anxiety, somatic problems, and problematic functioning, as expected (see Table 15 and Figure 3). For each of these analyses, within-subjects contrasts showed that means decreased by linear progression. As predicted, somatic-symptoms means decreased less than means for depression, anxiety, and the intrusive and avoidant symptoms of posttraumatic stress. Contrary to expectation, somatic symptoms also decreased less than the arousal symptoms of posttraumatic stress.

Hypothesis 5e: A decrease in levels of the intrusive and avoidant symptoms of posttraumatic stress symptoms would be expected, but significant decrease in arousal symptoms would not be expected.

As expected, repeated measures ANOVAs found a decrease in levels of the intrusive and avoidant symptoms of PTSD, but unexpectedly also found a decrease in levels of arousal symptoms (see Table 16 and Figure 4). PTSD symptom means were found to have decreased by linear progression.

Hypothesis 5f: An increase in the number of people available in the camp for help or support would be expected.

And finally, a significant increase in the number of people available for help or support (see Figure 5) was found from Intake to 3-Months, as predicted (Means: Intake = 3.19, 1-month = 4.62, 3-months = 5.97; $F = 158.04$; $p < .000$; $\eta^2 = .253$).

III. Exploratory Analysis

Analyses showed females had significantly higher levels of somatic problems, anxiety, depression, PTSD, and more problems functioning than males at intake (see Table 21). Younger age was shown to be significantly related to higher levels of somatic problems, anxiety, and PTSD, so an analysis was conducted to determine if age was related to exposure to trauma in this population. Results showed that younger age was significantly related to higher exposure to trauma ($r = -.071$, $p < .000$).

To determine if pre-treatment symptom levels at intake changed from 2001 to 2006, a correlation analysis was conducted to test for a relation between date of intake and symptom levels at intake. A significant relation was found showing an increase over time in somatic problems, anxiety, depression, PTSD, and functioning problems (see Table 17). Earlier dates of intake correspond to lower mean scores; later dates of intake correspond to higher mean scores.

Examination showed no significant correlation between substance use at intake and having other people available for help and support, or between substance use and being sought by others for help. Substance use was found to be significantly higher for those clients who had reported torture versus those who had reported no torture (2.70 v. 2.43, $t = 4.84$, $p < .000$, $d = .19$), and for males (2.93 v. 2.41, $t = 11.11$, $p < .000$, $d = .36$). Greater substance use was found to be significantly related at intake to fewer problems in

daily functioning ($r = -.078$, $p = .005$). Older age was also found to be significantly related to greater substance use ($r = .05$, $p = .002$). Age was found to have no significant relation to level of functioning. Also, analysis found a significant relation between having people available for support and better functioning (2.58 v. 2.83, $t = 6.60$, $p < .000$, $d = .361$).

Given the relatively low rate of reported substance use (892 clients, 23.5%, acknowledged some level of use) and the relatively low mean of reported substance use ($M = 2.63$ on a 2 to 10 scale, $n = 3802$), it was speculated that symptom correlations for those clients engaged in potentially problematic use might be statistically concealed leading to spurious findings, therefore post hoc analyses were conducted to explore further. After creating a subset of data from clients who acknowledged daily use of alcohol or any level of drug use ($n = 423$)—drug use is illegal and generally, culturally considered inappropriate at any level—analyses were re-conducted. Results (see Table 7a) showed an increase in correlation strength between level of substance use and somatic problems, depression, and PTSD. A relation with anxiety emerged that was not found with the full dataset; the relation between increased substance use and better functioning was no longer present; the relation to age and reported history of torture no longer was found; and substance use for males was still significantly higher, but the effect size for sex dropped (6.12 v. 5.75, $t = 2.07$, $p < .039$, $d = .21$).

Exploratory analysis was performed to discern differences in the refugee population between males and females, and between those who had been tortured versus those who had not. Analysis revealed that males had a higher rate of exposure to trauma

than females (0.88 v. 0.84, $t = 6.86$, $p < .000$, $d = .22$). Descriptive statistics (see Table 1) showed that 84.8 percent of the males and 70.4 percent of the females reported torture. Of the women who were tortured, 48 percent reported having been raped, while three percent of the men reported rape ($t = 22.61$, $p < .000$, $d = 1.11$). Of the men who reported torture, 56 percent said the reason was for refusing to join the perpetrators' group/cause, while 21 percent of the women gave this reason ($t = 16.61$, $p < .000$, $d = .78$). The next most common reason given for torture was "No reason" from 36 percent of the men and 34 percent of the women. A substantial drop is seen in percentages on the list for other reasons given – next "For money or other material possessions," men: 16 percent, women: 10 percent.

Significant differences in social support were found between males and females when looking at level of exposure to trauma. For men with greater exposure to trauma, fewer people sought them for help ($r = -.112$, $p < .000$); for women, no significant relation was found between level of exposure to trauma and number of people seeking their help. For women, there was a significant relation between level of exposure to trauma and the number of people available to them for help and support ($r = .057$, $p = .008$); for men, no significant relation was found.

Several findings emerged when symptom levels by sex were examined across time. Repeated measure ANOVAs found no significant relation between sex and change of symptoms from intake to follow-up, that is, there was no significant difference between males and females in how their symptoms improved. Anxiety, depression,

PTSD, somatic problems, and level of functioning showed the same change for men and women.

When symptom means across time were examined between refugees who had been tortured and those who had not been tortured, some differences were found in the population (see Table 18). For those refugees who had been tortured, depression mean was significantly higher over time. Also, depression improved more rapidly from intake to one-month, than from one-month to three-month follow-up (see Figure 6). For refugees who reported torture, anxiety (see Figure 7), PTSD (see Figure 8), and somatic problems (see Figure 9) were significantly higher than for clients who reported no torture. There was no significant difference in level of functioning between the tortured and non-tortured refugees.

When symptom means are examined by sex across time between refugees who had been tortured and who had not been tortured, differences emerge (for males, see Tables 19; for females, see Table 20). For symptoms of depression, there is no significant difference between men who reported torture and those who reported no torture; but among women, those who reported torture showed significantly higher depression than those who reported no torture (see Figure 10). Also, the rate of symptom improvement for tortured women is greater between intake and one month, than between one month and three-month follow-up. Anxiety means are significantly higher for men who report torture than for men who report no torture, but there is no significant difference between tortured and non-tortured women (see Figure 11). Both men and women who report torture showed significantly higher PTSD scores than men and women who reported no

torture (see Figure 12). No significant difference is found in somatic problems between tortured and non-tortured men, but tortured women show significantly higher somatic scores than non-tortured women (see Figure 13). There was no significant difference in levels of functioning between men who reported torture and men who reported no torture, and between women who reported torture and women who reported no torture.

Summary of Results

1. As predicted for this population, exposure to the extreme violence of torture and war trauma was generally related to psychosocial symptomology, problematic functioning in tasks of daily living, and substance use.
2. Females were found to have higher levels of all symptoms and more problems functioning than males.
3. Younger age was found to be related to higher exposure to trauma and higher levels of symptoms.
4. Higher levels of symptoms were found to be related to greater difficulties in daily functioning.
5. Merely having people available for help or support was related to increased somatic problems, lower depression, lower PTSD, better functioning, but was not related to anxiety or substance use.
6. Having a greater number of people available for help and support was not related to somatic problems, but was related to lower anxiety, lower depression, lower PTSD, and better functioning.

7. Merely being sought by others for help and support was related to lower anxiety, lower depression, lower PTSD, and better functioning, but was not related to substance use.
8. Greater exposure by family members to extreme violence was related to higher levels of clients' somatic problems, anxiety, depression, and PTSD.
9. Anxiety, depression, PTSD, somatic problems, and daily functioning improved linearly from intake, to 1-month, to 3-month follow-up.
10. Pre-treatment symptom levels rose over time from 2001 to 2006.
11. The number of people available for help and support increased for clients linearly from intake, to 1-month, to 3-month follow-up.
12. Increased substance use was related to being tortured, male, older age, and better functioning.
13. When data from non-substance-use and low-substance-use clients was removed from the data set, potentially-problematic use was found to be more strongly related to somatic problems, anxiety, depression, and PTSD. No relation to functioning, age, or reported history of torture was found, and the relation to sex weakened.
14. Males reported greater exposure to trauma, including torture, than females. Males reportedly were most often tortured "for refusing to join [the perpetrators group/cause]." Females reportedly were tortured most often "for sexual favors."
15. Males who reported greater exposure to trauma were sought by fewer people for help.

16. Females who reported greater exposure to trauma had more people available for help and support.
17. No difference in symptom change was found between males and females – symptoms declined at a similar rate for males and females.
18. Tortured refugees had higher depression, anxiety, PTSD, and somatic problems, than non-tortured refugees, but there was no difference in functioning.
19. For men, those who reported torture had higher anxiety and PTSD than those who reported no torture, but there was no difference in depression, somatic problems, or functioning.
20. For women, those who reported torture had higher depression, PTSD, and somatic problems than those who had reported no torture, but there was no difference in anxiety, or functioning.

Chapter 5: Discussion and Recommendations

The purpose of this study was to explore the psychological effects of extreme violence perpetrated against civilians during the recent civil wars in Liberia and Sierra Leone, and to explore the relations between posttrauma psychosocial symptomology and group counseling conducted from 2001 to 2006 in refugee camps, IDP camps, and survivors' home communities. As described in other studies (McFarlane, Atchison, & Yehuda, 1997; Turner & Gorst-Unsworth, 1990; Carlsson, Mortensen, & Kastrup, 2006), symptoms of PTSD, anxiety, depression, somatic problems, problematic daily functioning, and substance abuse are expected following exposure to trauma. In particular, Fox and Tang (2000), found psychological symptoms among the recent refugees from Sierra Leone living as refugees in Gambia. While counseling has been found to be helpful in reducing levels of symptomology for trauma survivors (Van Etten & Taylor, 1998; Sherman, 1998), little is found in the literature regarding in-camp or in-home-communities about interventions for war refugees, or effectiveness of treatment specifically for survivors of torture. This study offers an initial step into this important area for a vast, growing, global, underserved population.

Despite the fact that the data used for this study face three inherent limitations: (1) they were originally collected for clinical and program evaluation purposes—not research; (2) they were collected under extraordinarily difficult conditions; and (3) those who collected the data were trained refugees previously unknowing of Western ideas of psychology and data collection; despite these limitations, results in this study are generally consistent with other findings in the literature. This would indicate that valid,

longitudinal data-collection can be accomplished in remote and challenging areas, and refugees can contribute to this important and necessary process.

This chapter presents a discussion of the findings, limitations of the current study, and suggestions for future research.

Discussion of the Findings

This study made use of a data set, unprecedented in size and scope, collected from 2001 to 2006 as part of CVT's effort to provide healing services to the generally understudied and overlooked population of critically traumatized refugees in West Africa. The analyses of the data produced numerous significant results yielding new understanding about this population, and relations between exposure to trauma, symptomology, functioning, substance use, social support, and symptom change during and following participation in a group counseling program. New questions emerged as a result of these finding, suggesting continued investigation.

Symptoms, Functioning, and Exposure to Trauma

A predominance of studies has confirmed a clear relation between exposure to trauma and symptoms of depression, PTSD, anxiety, and somatic problems. Of the relations between exposure to the trauma of torture and symptoms of PTSD, depression, and anxiety, Carlsson, Mortensen and Kastrup (2006) found a stronger association with PTSD than with either depression or anxiety among torture survivors. In the present study, greater exposure to torture was found to be correlated with higher levels of somatic problems, anxiety, depression, and PTSD, with the strongest correlation to depression,

not to PTSD—as predicted—supporting the position of Mollica (2004) and Bolton (2004) who view depression as a primary psychological outcome.

Although these findings are statistically significant, it is useful to question how meaningful the differences are in a clinical or experiential sense. Effect sizes range from 4.0 percent (anxiety), 3.7 percent (PTSD), 3.4 percent (somatic) to 1.5 percent (depression) of the variance explained by the relation between exposure to trauma and self-reported symptoms. The small effect sizes perhaps suggest that the items used to create the exposure-to-trauma composite-measure incompletely or inadequately captured the traumatic experiences of these refugees. As discussed earlier in this paper, the data collection instrument was designed to provide practical information to clinical staff about the clients' history and problems; it was not structured as a research instrument to capture trauma as it has been defined and discussed in the literature. Further research is indicated.

Results of analyses comparing refugees who had reported torture to those who had reported no torture showed a statistically higher level of somatic problems, anxiety, depression, and PTSD for those who reported torture. Perhaps the personal nature of torture—“this is happening to me because of who I am”—results in higher distress, rather than being hurt by a less personal trauma of other causes. However, the effect sizes were small enough to raise doubt about the clinically practical relevance of these differences. Functioning showed no difference by torture history, sex, or age. Perhaps the volume and severity of trauma of all kinds experienced by this population overwhelmed differences and is reflected in a universality of functioning levels.

The work of Eisenbruch (1991) may offer an explanation for higher levels for depression than for PTSD. Eisenbruch described what he termed “cultural bereavement” as the normal, primary result among war refugees caused by uprooting that is not “itself a disease but an understandable response to the catastrophic loss” (p.2) of “social structures, cultural values, and self-identity” (p. 2) producing in a community a state of “collective grief” (p. 6). This non-Western perspective may explain the high depression levels.

Analysis found, as expected, a significant correlation between exposure to trauma and problematic functioning in activities of daily living with a meaningful effect size of 31.4 percent. Of note, the instrument used to assess functioning was ethnographically created (although not independently validated) for use in the refugee camps and home communities to capture culturally meaningful and appropriate measures of functionality, while the symptom measures were Western instruments.

Analysis showed higher levels of somatic problems, anxiety, depression, and PTSD positively correlated with higher levels of problematic functioning in activities of daily life with meaningful effect sizes: 17.8 percent for somatic problems, 23.7 percent for anxiety, 32.8 percent for depression, and 29.2 percent for PTSD.

Differences in Findings by Sex

Also possibly contributing to the higher rates of depression was the massive, systematic use of rape as an instrument of war (Amowitz, et al., 2002; Amnesty International, 2000) that left countless girls, women, and family-members to hold in secret isolation the horror of this culturally taboo trauma—the shame, anger, guilt and

isolation turned inward may be manifest in higher levels of depression. Thirty-four percent of all female clients reported sexual violence as the means of being tortured, and rape was often committed by multiple perpetrators and in the presence of family members—some of whom were forced to participate (Amowitz, et al., 2002; Baro, 2006). It reasonably can be speculated that the incidence of rape was substantially higher than has been reported. The powerful stigma that rape carries in this culture compels survivors, especially males, into silence; disclosing rape carries the risk of the secondary trauma of social and familial rejection and abandonment. From the experience of the treatment staff working with this population at CVT in Minneapolis, it has been learned “there is a real hesitancy to report rape at intake, so we assume for clinical reasons, that every woman was raped” (J. Hubbard, personal communication, December 5, 2008). Also, because the paraprofessional staff of PSAs, as members of the clients’ same cultural and religious background and community life, would have been influenced by the same local mores that inhibit the clients from revealing and discussing information about sexual violence, some could have been expected to avoid gathering complete data about rape; all of which likely contributed to inaccurately low statistics about the incidence of rape. For similar reasons, alcohol and drug use is also likely underreported.

Following the findings of Thapa and Hauff (2005) and Cunningham and Cunningham (1997), females were expected to have higher levels of depression and anxiety than males, and somatic problems were predicted to be independent of sex. Confirming these studies, females were found to have reported higher levels than males at intake for anxiety, and depression. The present study also found females reported

higher levels of somatic problems, PTSD, and more problems functioning, suggesting the possibility of higher level of overall traumatization among females, higher rates of injury or disease, or possible cultural variables (Eisenbruch, 1991) regarding gender-appropriate manifestation and/or expression of distress. Cohen's d calculations yielded effect sizes for sex: 0.23 for somatic problems, 0.24 for anxiety, 0.36 for depression, 0.14 for PTSD, and 0.30 for functioning. These elucidate a small-to-moderate, clinically meaningful difference between males and females in levels of depression and functioning; and a small, clinically meaningful difference between males and females in levels of somatic problems, and anxiety. Only a minimal and clinically questionable difference in PTSD levels was found.

Differences in Findings by Age

It was predicted that levels of somatic problems, anxiety, depression, and PTSD would be higher with older age, but this population presented the opposite. Younger age was significantly correlated with higher levels of anxiety, PTSD, and somatic problems, but depression and functioning showed no significant relationship with age. The largest effect size was 0.008, explaining that only 0.8 percent—an effect of low clinical importance—of the variance can be explained by age. More than 99 percent of the variance in anxiety is explained by something other than the relation with age. Two explanations may account for this unexpected finding. It was expected that, by virtue of being older, those clients likely would have had more trauma exposure in their lives than those who were younger. This assumption proved false. It was found that younger age was significantly correlated with higher exposure to trauma ($r = -.07$, $p < .000$), albeit an

effect size of only half a percent. This may be reflective of the fact that as children, many witnessed the torture of parents and other family members, were raped, and were abducted and forced into combat. Another issue possibly confounding this research question is the fact that approximately one-fifth of the sample was removed from this data set prior to analysis, as required by the Institutional Review Board, for being less than 18 years old at intake, so the sample was skewed and little can be assumed regarding what was lost by this adjustment.

Alcohol and Drug Use

Exposure to trauma was also related to higher rates of alcohol and/or drug use with an effect size of 27 percent. A significant relation was not found between substance use and anxiety. A significant relation was found between substance use and depression, PTSD, functioning, and somatic problems, but the effect sizes were small: somatic problems $R^2 = 0.45$ percent; depression $R^2 = 0.23$ percent; PTSD $R^2 = 0.37$ percent; and functioning problems $R^2 = 0.61$ percent. When data from non-use and minimal/moderate-use clients is removed from the dataset, these relations change. When relations with potentially-problematic use are analyzed, the relation with functioning is no longer found, a relation between potentially-problematic use and anxiety emerges, and the relation with other symptoms is stronger. Effect sizes increase, though remain relatively small: anxiety ($R^2=2.07\%$), somatic problems ($R^2=3.46\%$), depression ($R^2=3.17\%$), and PTSD ($R^2=2.50\%$).

Although average use in the full dataset was low ($M=2.63$ on 2 to 10 scale) perhaps suggesting that moderate use is normative or supportive of better functioning at

lower levels of distress in this population following exposure to extreme violence, it would be important to understand how and why substances are used (i.e. social connectedness, self-medicating, family celebrations) before speculating about conclusions based upon these results. Also, since a high proportion of this population are Muslims, and substance use is discouraged, it is believed clients likely underreported their use of substances, further confounding possible conclusions with the full dataset.

Social Support

As with many other studies describing social support as a psychological protective factor for trauma survivors, this study found a relation between availability of support and distress symptoms. Analysis showed that the mere availability of supportive others was significantly related to lower depression, lower PTSD, and better functioning. It was not significantly related to anxiety, and was significantly related to higher levels of somatic problems, but had no significant relation to anxiety. The effect sizes were clinically meaningful for depression ($d = 0.19$), PTSD ($d = 0.21$), and functioning ($d = 0.36$). The relation with somatic problems, although statistically significant, was less clinically meaningful ($d = -.011$). As discussed in Eisenbruch (1991) and Binitie (1981), somatic expression of psychological distress is not necessarily pathological but may be culturally appropriate. With the population in the present study, increased somatic problems may be linked to support-seeking behaviors, or viewed another way, having a supportive friend may give permission to emote through somatic expression.

When the relation between social support and PTSD is examined by symptom cluster, it was found that availability of social support was significantly related to lower

levels of the intrusive, avoidant, and arousal symptoms. Since the arousal symptoms are recognized as more physiologically-based than the intrusive or avoidant symptoms, it was expected they would be less responsive to social support than the other symptom clusters. The effect sizes showed the relations were small, but clinically meaningful. The weakest effect size appeared with the arousal symptoms ($d = .15$), the avoidant symptoms were next ($d = .19$), and the intrusive symptoms showed the strongest effect ($d = .22$). Possibly, the a greater variance of the arousal symptoms are psychological than speculated and so related to social support, or having help and support available is related to as-of-yet unidentified or measured physiological changes.

Based upon previous research, it was expected that higher levels of social support would be found to be related to lower levels of distress. This finding was confirmed in the present study. The correlations between number of people available for support and level of anxiety, depression, PTSD, and functioning were statistically significant. Having more people available for support was related to lower anxiety, lower depression, lower PTSD, and to better functioning, while the number of people available for support had no significant relation to somatic problems. Effect sizes showed that less than one percent of the variance for anxiety, depression, and PTSD could be explained by the relation with number of people available for support, and less than three percent for functioning. These small effect sizes suggest that the relation between number of people available and symptoms may not be clinically meaningful.

This study also explored the relation between the state of being sought by others for help and levels of distress. A significant relation was found between being sought by

others and lower levels of somatic problems, anxiety, depression, and PTSD, and better functioning. Cohen's d showed a very small effect size for somatic problems ($d = 0.15$), a small effect size for anxiety ($d = 0.21$); and small-to-medium effect sizes for PTSD ($d = 0.35$), and depression ($d = 0.40$); and a medium effect size for functioning ($d = 0.53$). This suggests a clinically meaningful relation between being sought by others for help and all symptoms, except somatic problems. The strength of the effect sizes between number of people and symptoms, especially functioning, possibly suggests that family, friends and neighbors notice how well a fellow refugee is functioning (especially in her/his tasks of daily living) and uses that to decide to whom they will go for help. Alternatively, this relation may suggest that being sought by others for help helps to moderate levels of distress and helps support effective daily functioning.

Exploring this relation for the symptom clusters of PTSD revealed significant relation between being sought by others for help and manifesting lower levels for all three symptoms clusters of posttraumatic stress, though effect-sizes varied. Cohen's d showed clinically meaningful effect sizes for each cluster. Intrusive ($d = 0.25$), avoidant ($d = 0.37$), and arousal ($d = 0.35$) were in the small-to-medium range. Perhaps being behaviorally avoidant or emotionally numb, and/or angry, jumpy, and vigilant are stronger cues than the somatic, anxiety, and depression symptoms when deciding to who to seek for help.

Symptomology and Family Exposure to Trauma

Another purpose of this study was to examine at the relations between the level of traumatic-experience of family members and clients' levels of somatic problems, anxiety,

depression, and PTSD. As with the correlations discussed above, these relations were found to be statistically significant, but the effect sizes were small so the variance explained by family trauma is not highly meaningful from a clinical perspective. For somatic problems, only 1.8 percent of the variance is explained; for anxiety, 1.6 percent; for depression, 0.7 percent; and for PTSD, 1.3 percent.

Change in Symptoms During Treatment and at Follow-up

The final purpose of this study was to examine and identify change in levels of symptoms, problems in functioning, and number of people available for support from time of intake to treatment program, through 1-month, to 3-month follow-up. Although the entire population of Sierra Leone likely experienced some degree of trauma, according to Hubbard and Pearson (2004), “CVT does not believe that all, or even most refugees are traumatized to an extent that requires a mental health intervention to help them get on with their lives” (p. 104), and that “refugees tend to demonstrate remarkable resilience and most—given a supportive environment and an opportunity to be productive—will regain meaning and purpose and rebuild their lives” (p. 104). This perspective is shared in Summerfield’s (1998) argument against over-pathologizing refugee populations and seeing them all in need of treatment. However, as found in previous research, treatment has shown to be effective for many trauma survivors.

Previous research identified relations between treatment and levels of depression, anxiety, PTSD, functioning, and somatic problems. A statistically significant drop was found in each of the symptom sets, effect size values for each showed clinically meaningful effect sizes. For depression, mean scores dropped 1.20 points (on the one-to-

four point scale) with 68 percent of the variance explained by the relation between symptom level and time. Anxiety dropped 1.09 points, with 64 percent of the variance explained by the symptom-time relation. PTSD dropped 1.17 points, with 78 percent of the variance is explained. Problems in functioning decreased by 1.06 points, with the relation explaining 57 percent of the variance. And somatic problems dropped 0.89 points, with 53 percent of the variance explained by the relation with time. A linear progression in score change was found for each of these symptom sets, showing the rate of decrease in distress was not statistically different in the time from intake to one-month, than in the time from one-month to three months follow-up (see Figure 3). Similarly, the three PTSD symptom clusters showed significant drops, with clinically meaningful effect sizes (see Figure 4). Intrusive symptom scores dropped 1.18 ($\eta^2 = .60$), avoidant dropped 1.15 points ($\eta^2 = .63$), and arousal dropped 1.16 points ($\eta^2 = .60$). Intrusive and avoidant symptoms were expected to drop, but not arousal symptoms. This shows that the time during and after treatment had a similarly ameliorative, meaningful effect on the biological symptoms for this population as it did with the other symptoms. And finally, as anticipated, the mean number of people available to the clients in the camp for help and support increased. The mean number of people available went from 3.19 at intake, to 5.97 at three-month follow-up (+2.78 people), with a smooth, linear rate of change (see Figure 5). This might be explained that as levels of distress dropped, interest and energy for social engagement increased; or, having increased number of people available for support helped to decrease level of distress.

Although it would be valuable for research to provide evidence that counseling treatments are effective, this study is unable to make that conclusion. Clients were not randomly selected from a pool of eligible participants and randomly assigned to different counseling conditions or a control group. The primary goal of CVT program was to get healing services to as many people as possible, as efficiently as possible. While claims of treatment effectiveness can not be made for the counseling program in this study, the results of an extra, exploratory examination invite intriguing speculation and further research. If time alone—from intake, to one-month, to three-months follow-up—alone accounted for the decreases found in symptoms, then it could be assumed that clients entering the program at earlier dates would have higher scores at intake than clients who entered the program at later dates, provided the later entrants were exposed to trauma at historically the same time (the widespread violence was significantly moderated when peace was declared in Sierra Leone in 2002 and in Liberia in 2003, although sporadic and isolated violence likely continued). The CVT data set for this study ($N = 4010$) was created from 2001 through 2006 in multiple locations in Guinea, and Sierra Leone. Counseling groups were filled at approximately three-month, staggered intervals, with approximately 100 groups formed a year. That equals approximately 25 new groups, four times a year (staggered), for five years. Analysis found positive correlations between the date of intake and scores for somatic problems, anxiety, depression, PTSD, and problematic functioning (see Table 17). Since mean intake scores became higher over time, the mere passage of time can not be the only cause for the decreased mean scores found at one-month and three-months. Over the course of five years with approximately

500 groups, the mean scores for the treatment participants moved in the opposite direction of the mean scores for the population of untreated traumatized refugees. This study does not provide evidence to explain causation, but it clearly suggests further study is indicated.

Limitations of the Study

Numerous limitations exist with the present study, primarily the design. Since this data was collected initially only for clinical assessment and program evaluation purposes, no control groups, alternate conditions, or randomization were considered. This, of course, precludes any claims of causation. Also the instruments used have not been tested for validity or reliability for use with this population. CVT staff used their judgment—from having successfully worked in Minnesota with refugees from this area—that the assessments were functional. Van Ommeren (2003) argues that problems of instrument validity are not new to epidemiology, “but are more likely to occur in transcultural epidemiology” (p. 376), and generalizability may become “especially problematic when the original measure is translated into another language” (p. 376). Also, as stated in Nicholl and Thompson (2004) and others, manifestations of distress are not uniformly meaningful or relevant in different cultures, and “cultures vary in their understanding of what constitutes ‘normal’ emotional expression” (p. 353).

Attrition was dramatic—human and data. The refugee populations were highly transient and especially difficult to track for follow-up assessments. The refugee and IDP camps were porous and residents frequently moved in and out to search for missing family members, to check on farm fields back home, to seek economic opportunities, and

to flee for safety. The war was always close and sometimes encroaching, so camps would be hastily evacuated and relocated. As rebel armies approached and made incursions into the camps, to protect data from being captured, large piles of assessments were burned and lost. Also, on one occasion, an infestation of rats in a field storage office had made their nests in cartons of assessments before the data had been entered into an electronic data base. To prevent infection and transmission of disease by handling these soiled assessments, the entire lot was burned.

Data was collected and entered under the most difficult conditions imaginable. Unpredictable environmental conditions made travel across the large distances and mud-swallowed roads separating treatment sites, camps, villages, and home communities often treacherous or impossible, so data collection and consolidation was challenging. Heat, humidity, and balky field-generators frequently led to computer and equipment failure. Malaria and numerous other tropical diseases are endemic to the area and common among the population. The Psychosocial Agents had no prior experience with Western psychological theory, treatment, or research methodology, so there was variability in how well data was collected, and they had to work across the multiple non-indigenous cultures and languages of the clinical and research teams. Treatment delivery, data collection, and data entry were done as best as possible, heroically, in fact.

Data on any program participant who was younger than eighteen years old at intake was removed from the data set for this study. Since children were not spared from atrocity, the potential knowledge available from their experience is not included in this

study. The small number of adults who presented to CVT with psychotic symptoms were referred, as possible, for psychiatric care rather than for CVT counseling.

Recommendations for Future Research

This study was the result of an initial effort by CVT conducting longitudinal data collection in refugee and IDP camps and in the home communities of repatriated refugees, while delivering critical healing services. Much was learned regarding problems and procedures, allowing heretofore assumptions to be challenged and changed about the limitations and possibilities of doing ongoing clinical-assessment and program-evaluation data collection. A future challenge would be to test these procedures in other cultural groups and populations.

As discussed by Van Ommeren (2003), another recommended area of future research would be in establishing measurement validity and reliability of the assessment instruments used with this population. Solidifying validity and reliability would reduce uncertainty in the findings.

This dataset, the largest of its kind ever collected, invites many possibilities in going more deeply into cross-sectional analysis of symptom presentation and correlation, and identifying rates of diagnoses over time for comparison to Bolton's (2003, 2004) findings in studying rates and treatment of depression in Uganda, and the epidemiological findings of the Kola & Makanjuola (2006) study in Nigeria. Looking more deeply at the differences across age, sex, education, history of employment status, exposure to torture, social connectedness, country of origin, location of intervention (refugee camp, IDP

camp, or home community), etc. could provide a much more detailed understanding of the effects of trauma and treatment for this population.

So many children are affected world-wide by war, displacement, and other forms of extreme mass-violence and trauma (Baro 2006; Amnesty International Annual Reports), that examination of the children's data (originally included by CVT for clinical-assessment and program-evaluation purposes, but removed for this study) would be recommended to understand more completely and accurately the effects this trauma has on children in this population, and the potential effects of treatment.

Numerous questions emerged as a result of examining the data and from earlier research. It would be invaluable to understand what caused changes in the levels of symptoms and functioning during treatment and follow-up, and why symptoms differed for males and females. It would be important to learn why functioning was affected by level of exposure to trauma, but not related to whether or not a refugee had reported torture. This invites exploration into the concept of a cumulative or complex trauma reaction that may differ from accepted ideas of PTSD. The examination of the relations of social support suggests new areas of research – how and why do different kinds of support (having others v. being sought by others) have a different effect. Amnesty International (2000a) reported that rape is a neglected and undertreated result of war. This would be an essential area for further research. And it would be valuable to know how all of these potential findings could be integrated into an approach for treatment for survivors of mass violence and torture.

Also, eventually, it is recommended that empirical studies be designed and conducted so as to provide treatment programs while conducting in-camp and home-community research with randomization and controls. Although it would be unethical to wait-list a trauma survivor in need of treatment, providing different treatment conditions could afford the possibility of drawing conclusions regarding effectiveness of various therapy models and approaches. And, as recommended by Fox and Tang (2000), a qualitative study is needed to capture and define the experiences and effects of these refugees's extreme trauma in a manner allowing greater comprehension than a "numerical-based system comprised of group data could ever effectively communicate" (p. 494).

If ever it could be communicated so as to be comprehensible, perhaps those who commit acts of violence against others; and those who occupy positions of power, influence, and decision-making in the world would move to prevent future acts of atrocity and human rights abuses, and to eliminate this pattern of behavior from human expression.

Tables

Table 1.

Frequencies of Exposure to Trauma.

	Males% Yes	Females% Yes	Combined% (n)
Was the client captured or held against his/her will?	87.2	76.2	81.0 (3117)
Was the client tortured?	84.8	70.4	76.7 (3032)
Were family members held captive or taken away?	84.1	85.7	85.0 (3335)
Were other family members tortured?	86.1	82.8	84.2 (3283)
Has anyone in the family been killed in the conflict?	87.8	86.7	87.1 (3227)
Was the client separated from family by the conflict?	95.4	93.4	94.3 (3690)
Is the client separated from family now?	92.8	94.0	93.5 (3358)

Note. Total N = 4010, but sample sizes vary due to missing data.

Table 2.

*Frequency of Mean Exposure-to-Trauma Composite Scores**

Standardized Trauma Mean	Male%	Female%	Combined%	n
0.00	0.2	0.2	0.2	9
0.14	0.6	0.6	0.6	24
0.17	0.1	0.0	0.0	1
0.20	0.1	0.0	0.0	1
0.29	1.0	1.7	1.4	55
0.33	0.5	0.4	0.4	18
0.40	0.1	0.1	0.1	4
0.43	2.5	3.6	3.1	124
0.50	0.8	1.9	1.4	56
0.57	4.8	6.2	5.5	222
0.60	0.1	0.1	0.1	5
0.67	2.0	2.4	2.2	88
0.71	8.7	14.2	11.7	471
0.75	0.1	0.1	0.1	3
0.80	0.5	0.7	0.6	25
0.83	2.4	3.0	2.7	109
0.86	14.8	16.8	15.8	634
1.00	60.8	48.0	53.2	<u>2135</u> 3984

*Minimum 0, Maximum=1, Combined Mean=0.86, SD=0.19

Note. Total Sample N = 4010, but data is missing for 26 clients (0.6%).

Table 3.

Reasons Given Why Clients were Tortured.

	Male%	Female%	Combined%	n
For revenge	5.2	1.9	3.3	132
For political affiliation	12.0	8.5	10.0	399
For money or possessions	16.1	10.5	12.8	513
To destroy personality	7.4	5.5	6.2	250
For sexual favors	2.5	48.5	14.7	588
For no reason	36.4	33.8	15.1	606
For denying to join them	56.2	20.8	17.3	694
For other reasons	11.4	5.7	8.1	<u>326</u>
				3508

Note. Percentages do not sum to 100% because clients were instructed to endorse all reasons that apply, and due to missing data.

Table 4.

Intercorrelations of Exposure to Trauma, Somatic Problems, Anxiety, Depression, PTSD and Functioning at Intake.

	n	1	2	3	4	5	6
1. Trauma	3984		.19**	.20**	.12**	.19**	.06*
2. Somatic Problems	3970			.65**	.54**	.50**	.42**
3. Anxiety	3968				.63**	.69**	.49**
4. Depression	3967					.68**	.57**
5. PTSD	3954						.54**
6. Functioning Problems	1370						

*p<.05; **p<.001

Table 5.

Correlations of Age with Somatic Problems, Anxiety, Depression, PTSD, and Functioning at Intake.

Age (n=4010) correlated with:	n	r
Somatic Problems	3970	-0.05**
Anxiety	3968	-0.09***
Depression	3967	-0.02
PTSD	3954	-0.07***
Functioning Problems	1379	-0.01

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 6.

Correlations of Functioning Problems with Somatic Problems, Anxiety, Depression, and PTSD at Intake.

Problems of Functioning Correlated with:	n	r
Somatic Problems	1369	.42**
Anxiety	1369	.49**
Depression	1369	.57**
PTSD	1369	.54**

**p<.001

Table 7.

Correlations of Alcohol and Drug Use with Somatic Problems, Anxiety, Depression, PTSD, and Functioning at Intake.

Alcohol and Drug Use Correlated with:	n	r
Somatic Problems	3801	.07***
Anxiety	3799	.01
Depression	3798	.05**
PTSD	3787	.06***
Functioning Problems	1324	-.08**

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 7a.

Post-Hoc Correlations of Potentially-Problematic Substance Use with Somatic Problems, Anxiety, Depression, PTSD, and Functioning at Intake.

Alcohol and Drug Use Correlated with:	n	r
Somatic Problems	423	.186***
Anxiety	422	.144*
Depression	422	.178***
PTSD	420	.158**
Functioning Problems	83	.089

* $p < .005$; ** $p < .001$; *** $p < .000$

Table 8.

T-test Results for Somatic Problems, Anxiety, Depression, PTSD, and Functioning for Clients Who Did Not Have People Available for Support versus Clients Who Did at Intake.

Symptoms	n	1*	2**	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
		<u>M</u>	<u>M</u>			
Somatic Problems	3849	2.60	2.67	-2.86	.004	-0.11
Anxiety	3847	2.87	2.85	1.07	.287	0.04
Depression	3846	3.04	2.94	5.13	.000	0.19
PTSD	3833	3.07	3.00	5.71	.000	0.21
Functioning Problems	1361	2.83	2.58	6.60	.000	0.36

*Clients who did not have people available for help and support

**Clients who did have people available for help and support

Table 9.

T-test Results for the Intrusive, Avoidant, and Arousal Clusters of PTSD at Intake for Clients Who Did Not Have People Available for Help and Support versus Clients Who Did.

PTSD Symptom Cluster	n	1*	2**	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
		<u>M</u>	<u>M</u>			
Intrusive	3833	3.21	3.08	5.90	.000	0.22
Avoidant	3833	3.02	2.91	5.10	.000	0.19
Arousal	3833	2.99	2.89	4.06	.000	0.15

*Clients who did not have people available for help and support

**Clients who did have people available for help and support

Table 10.

Correlations of Support with Somatic Problems, Anxiety, Depression, PTSD, and Functioning at Intake.

Mean Number of People Available for Support Correlated with:	n	r
Somatic Problems	2875	-.00
Anxiety	2874	-.04*
Depression	2873	-.040*
PTSD	2860	-.09**
Functioning Problems	767	-.17**

* $p < .05$; ** $p < .01$

Table 11.

Correlations of Support with Intrusive, Avoidant, and Arousal Clusters of PTSD at Intake.

Number of People Available for Support Correlated with PTSD		
Symptom Cluster	n	r
Intrusive	2860	-.11**
Avoidant	2860	-.06*
Arousal	2860	-.07*

* $p < .05$; ** $p < .01$

Table 12.

T-test Results for Somatic Problems, Anxiety, Depression, PTSD, and Functioning at Intake for Clients Who Are Sought by Others for Help versus Those Who Are Not Sought by Others.

Symptoms	n	1*	2**	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
		<u>M</u>	<u>M</u>			
Somatic Problems	2996	2.65	2.55	3.92	.000	0.15
Anxiety	2994	2.89	2.76	5.46	.000	0.21
Depression	2993	3.07	2.87	10.65	.000	0.40
PTSD	2983	3.08	2.89	9.20	.000	0.35
Functioning Problems	1354	2.89	2.53	9.64	.000	0.53

*Clients who were not sought by others for help and support

**Clients who were sought by others for help and support

Table 13.

T-test Results for the Intrusive, Avoidant, and Arousal Clusters of PTSD at Intake for Clients Who Are Sought by Others for Help versus Those Who Are Not.

PTSD Symptom Cluster	n	1*	2**	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
		<u>M</u>	<u>M</u>			
Intrusive	2983	3.20	3.05	4.46	.000	0.25
Avoidant	2983	2.98	2.76	6.58	.000	0.37
Arousal	2983	2.94	2.67	6.16	.000	0.35

*Clients who were not sought by others for help and support

**Clients who were sought by others for help and support

Table 14.

Correlations of Family-Trauma with Somatic Problems, Anxiety, Depression, PTSD and Functioning at Intake.

Family Trauma Correlated with:	n	r
Somatic Problems	3965	.13**
Anxiety	3963	.13**
Depression	3962	.08**
PTSD	3949	.11**
Functioning Problems	1369	.09**

** $p < .01$

Table 15.

F-test Results for Somatic Problems, Anxiety, Depression, PTSD, and Functioning, at Intake, 1-Month, and 3-Months.

Symptoms	n	1*	2**	3†	<i>F</i>	<i>p</i>	Eta ²
		<u>M</u>	<u>M</u>	<u>M</u>			
Somatic Problems	670	2.59	2.09	1.70	748.51	.000	.53
Anxiety	669	2.84	2.19	1.75	1179.25	.000	.64
Depression	668	2.97	2.24	1.77	1412.18	.000	.68
PTSD	665	2.96	2.29	1.79	2307.64	.000	.78
Functioning Problems	283	2.72	2.07	1.66	380.60	.000	.57

*Mean Level at Intake; **Mean Level at 1-Month; †Mean Level at 3-Months

Table 16.

F-test Results for Intrusive, Avoidant, and Arousal Clusters of PTSD at Intake, 1-Month, and 3-Months.

PTSD Symptom Cluster	n	1*	2**	3†	<i>F</i>	<i>p</i>	Eta ²
		<u>M</u>	<u>M</u>	<u>M</u>			
Intrusive	664	3.08	2.42	1.90	1012.85	.000	.60
Avoidant	665	2.91	2.27	1.76	1149.87	.000	.63
Arousal	663	2.90	2.17	1.74	981.53	.000	.60

*Mean Level at Intake ; **Mean Level at 1-Month; †Mean Level at 3-Months

Table 17.

Correlations of Intake-Date with Somatic Problems, Anxiety, Depression, PTSD, and Functioning at Intake.

Date of Intake Correlated with:	n	r
Somatic Problems	1484	.22**
Anxiety	1484	.23**
Depression	1483	.17**
PTSD	1483	.26**
Functioning Problems	1388	.25**

** $p < .001$

Table 18.

F-test Results for Somatic Problems, Anxiety, Depression, PTS, and Functioning at Intake, 1-Month, and 3-Months between Tortured and Non-tortured Refugees.

Symptoms	n	1*	2**	3†	<i>F</i>	<i>p</i>	Eta ²
		<u>M</u>	<u>M</u>	<u>M</u>			
Somatic – tortured	514	2.67	2.17	1.73	8.66	.000	.01
Somatic – not tortured	153	2.32	1.86	1.59			
Anxiety – tortured	513	2.90	2.24	1.77	5.43	.004	.01
Anxiety – not tortured	153	2.62	2.02	1.66			
Depression – tortured	512	2.99	2.28	1.77	3.23	.040	.01
Depression – not tortured	153	2.92	2.12	1.75			
PTSD – tortured	509	3.03	2.35	1.81	13.33	.000	.02
PTSD – not tortured	153	2.73	2.12	1.76			
Functioning – tortured	188	2.72	2.09	1.65	0.54	.584	.00
Functioning – not tortured	93	2.73	2.05	1.69			

*Mean Level at Intake; **Mean Level at 1-Month; †Mean Level at 3-Months

Table 19.

F-test Results for Somatic Problems, Anxiety, Depression, PTSD, and Functioning at Intake, 1-Month, and 3-Months between Tortured and Non-tortured Male Refugees.

Symptoms	n	1*	2**	3†	<i>F</i>	<i>p</i>	Eta ²
		<u>M</u>	<u>M</u>	<u>M</u>			
Somatic – tortured	237	2.56	2.05	1.67	1.90	.150	.01
Somatic – not tortured	40	2.27	1.84	1.57			
Anxiety – tortured	237	2.84	2.19	1.74	5.03	.007	.02
Anxiety – not tortured	40	2.42	1.97	1.62			
Depression – tortured	236	2.90	2.18	1.73	0.44	.645	.00
Depression – not tortured	40	2.83	2.15	1.74			
PTSD – tortured	235	3.02	2.30	1.75	9.28	.000	.03
PTSD – not tortured	40	2.60	2.11	1.71			
Functioning – tortured	108	2.60	1.98	1.59	0.51	.604	.00
Functioning – not tortured	21	2.76	1.98	1.49			

*Mean Level at Intake; **Mean Level at 1-Month; †Mean Level at 3-Months

Table 20.

F-test Results for Somatic Problems, Anxiety, Depression, PTSD, and Functioning at Intake, 1-Month, and 3-Months between Tortured and Non-tortured Female Refugees.

Symptoms	n	1*	2**	3†	<i>F</i>	<i>p</i>	Eta ²
		<u>M</u>	<u>M</u>	<u>M</u>			
Somatic – tortured	277	2.76	2.27	1.77	8.43	.000	.02
Somatic – not tortured	113	2.34	1.86	1.60			
Anxiety – tortured	276	2.96	2.28	1.80	2.73	.066	.01
Anxiety – not tortured	133	2.69	2.04	1.68			
Depression – tortured	276	3.07	2.36	1.81	4.17	.016	.01
Depression – not tortured	113	2.95	2.10	1.75			
PTSD – tortured	274	3.04	2.39	1.86	5.82	.003	.02
PTSD – not tortured	113	2.77	2.12	1.77			
Functioning – tortured	80	2.89	2.25	1.88	0.04	.964	.00
Functioning – not tortured	72	2.72	2.07	1.72			

Mean Level at Intake = 1; Mean Level at 1-Month = 2; Mean Level at 3-Months = 3

Table 21.

T-test Results for Somatic Problems, Anxiety, Depression, PTSD, and Functioning for Males versus Females at Intake.

	Males	Females			
Symptoms	<u>M</u> (n)	<u>M</u> (n)	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
Somatic Problems	2.57 (1737)	2.72 (2232)	7.09	.000	0.23
Anxiety	2.77 (1736)	2.92 (2231)	7.52	.000	0.24
Depression	2.87 (1736)	3.04 (2230)	11.24	.000	0.36
PTSD	2.95 (1731)	3.02 (2222)	4.25	.000	0.14
Functioning Problems	2.59 (694)	2.79 (685)	5.50	.000	0.30

Figures

Figure 3.

Mean Scores of Depression (n=668, $p<.000$), Anxiety (n=669, $p<.000$), Functioning Problems (n=283, $p<.000$) and Somatic Problems (n=670, $p<.000$) at Intake, 1-Month, and 3-Months.

Figure 4.

Mean Scores of PTSD Intrusive, Avoidant, and Arousal Clusters at Intake, 1-Month, and 3-Months ($n=665$, $p<.000$).

Figure 5.

Number of People Available for Support at Intake, 1-Month, and 3-Months (n=468, $p<.000$).

Figure 6.

Mean Scores of Depression for Tortured (n=512) and not-Tortured (n=153) Refugees at Intake, 1-Month, and 3-Months (p=.040).

Figure 7.

Mean Scores of Anxiety for Tortured (n=513) and not-Tortured (n=153) Refugees at Intake, 1-Month, and 3-Months (p=.004).

Figure 8.

Mean Scores of PTSD for Tortured (n=509) and not-Tortured (n=153) Refugees at Intake, 1-Month, and 3-Months ($p<.000$).

Figure 9.

Mean Scores of Somatic Problems for Tortured (n=514) and not-Tortured (n=153) Refugees at Intake, 1-Month, and 3-Months ($p<.000$).

Figure 10.

Mean Scores of Depression for Tortured Female (n=276), not-Tortured Female (n=113), Tortured Male (n=236), and not-Tortured male (n=40) Refugees at Intake, 1-Month, and 3-Months.

Figure 11.

Mean Scores of Anxiety for Tortured Female (n=276), Tortured Male (n=237), not-Tortured Female (n=113), and not-Tortured Male (n=40) Refugees at Intake, 1-Month, and 3-Months.

Figure 12.

Mean Scores of PTSD for Tortured Female (n=274), Tortured Male (n=235), not-Tortured Female (n=113), and not-Tortured Male (n=40) Refugees at Intake, 1-Month, and 3-Months.

Figure 13.

Mean Scores of Somatic Problems for Tortured Female (n=277), Tortured Male (n=237), not-Tortured Female (n=113), and not-Tortured Male (n=40) Refugees at Intake, 1-Month, and 3-Months.

Figure 14.

Symptom-Checklist Aid for Explaining Likert Scale.

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Appendix

CVT CLIENT INTAKE DATA
(Rev. May 08)

ADULT INTAKE FORM	CVT International Services
--------------------------	---------------------------------------

Client Code _____

PSC's Name: First: _____ Last: _____

PSC's Site: _____ Interview Date: _____ dd/mm/yyyy

Interviewer's Name: First: _____ Last: _____

A. Client's Demographic Information

1. Client's name:

First name: _____ Last name: _____

2. Client's camp or community: _____

3. Sex of client: ☐ Male ☐ Female

4. Client's age: _____ years

4a. Client's date of birth (if known): _____ dd/mm/yyyy

5. Client's home country:

☐ Sierra Leone ☐ Liberia ☐ DRC ☐ Other _____

6. Client's education:

6a. Did the client go to school? ☐ Yes ☐ No

6b. If yes, how many years of school? _____

6c. Client's highest level of education:

- ☐ Primary or elementary school
- ☐ Secondary or junior high school
- ☐ High school
- ☐ Technical school
- ☐ University

CVT CLIENT INTAKE DATA
(Rev. May 08)

7. Client's employment:

7a. Client's primary occupation? _____

7b. Is the client currently working?

☐ Yes ☐ No

7c. If yes, list current job: _____

8. Civil state:

- ☐ Single
☐ Married
☐ Divorced
☐ Widow
☐ Separated (Married but living apart by choice)

9. Does the client have children?

☐ Yes ☐ No

9a. If yes, how many? _____

10. Who is the client living with? (Check all that apply)

- ☐ Alone
☐ Husband or wife/wives
☐ Children
☐ Parent(s)
☐ Other _____

11. Who advised the client to come for services? (Check all that apply)

- ☐ Own decision
☐ CVT PSC
☐ Other community workers
☐ Family
☐ Other: _____

12. Did the client come alone?

☐ Yes ☐ No 12a. If no, who did the client come with? _____

B. History**13. Was the client forced to leave home because of the conflict?**☐ Yes ☐ No

13a. If yes, for how long? _____ months

13b. Is the client currently a returnee?

☐ Yes ☐ No**14. Did the client live in a refugee camp?**☐ Yes ☐ No

14a. If yes, how long? _____ months

15. Was the client captured or held against his/her will?☐ Yes ☐ No

15a. If yes, how many times? _____

15b. Longest period client was held captive: _____ days

16. Was the client tortured?☐ Yes ☐ No

16a. If yes, why was he/she targeted for torture? (Check all that apply)

| ☐ Revenge| ☐ Political affiliation| ☐ Money or material possessions| ☐ Destroy personality| ☐ Sexual favors| ☐ No reason| ☐ Denying to join them| ☐ Other (specify) _____

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17. Were family members held captive or taken away?

☐ Yes ☐ No

17a. If yes, who? (Check all that apply)

☐ Husband or wife/wives	☐ Children
☐ Brothers or sisters	☐ Other relatives
☐ Parent(s)	

18. Were other family members ever tortured?

☐ Yes ☐ No

18a. If yes, who? (Check all that apply)

☐ Husband or wife/wives	☐ Children
☐ Brothers or sisters	☐ Other relatives
☐ Parent(s)	

19. Has anyone in the family been killed in the conflict?

☐ Yes ☐ No

19a. If yes, who? (Check all that apply)

☐ Husband or wife/wives	☐ Children
☐ Brothers or sisters	☐ Other relatives
☐ Parent(s)	

20. Was the client separated from family by the conflict?

☐ Yes ☐ No

20a. If yes, how many times? _____

20b. What was the longest time separated from family? _____ days

21. Is the client separated from family now?

☐ Yes ☐ No

21a. Who? (Check all that apply)

☐ Husband or wife/wives	☐ Children
☐ Brothers or sisters	☐ Other relatives
☐ Parent(s)	

C. Social Support**22. Does the client have people to go to for help or support?**☐ Yes ☐ No

22a. If yes, how many people? _____

23. Do any of these people live near the client?☐ Yes ☐ No

23a. If yes, how many people? _____

24. Do people come to the client for help?☐ Yes ☐ No

24a. If yes, how many people? _____

24b. If yes, who comes to the client for help? (Check all that apply)

☐ Family☐ Friends☐ Others: Who? _____**D. Client's Specific Problems****25. What is the main reason that the client came to the center:**

--

26. Problems: Assist the client in identifying 1 or 2 specific psychosocial problems that they would like help with (e.g. sleep problem, fights with spouse or crying easily).

26a. First problem:

--

26a1. How severe was this problem during the past week?

☐ Not at all ☐ A little bit ☐ Much ☐ Very Much

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26a2. What is the client's goal for this problem?

26b. Second problem (optional):

26b1. How severe was this problem during the past week?

☐ Not at all ☐ A little bit ☐ Much ☐ Very much

26b2. What is the client's goal for this problem?

E. Health Problems

27. How would the client rate their overall physical health?

- ☐ Very Poor
☐ Poor
☐ Fair
☐ Good
☐ Very Good

28. Does the client have any medical or health problems that cause ongoing discomfort or interfere with daily functioning?

☐ Yes ☐ No

28a. If yes, what is the problem?

29. Is the client currently taking any medications prescribed for their health?

☐ Yes ☐ No

29a. If yes, what for? _____

29b. Who prescribed the medicine? _____

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30. Does the client currently use alcohol?

- ☐ Never
- ☐ Occasionally (less than monthly)
- ☐ Monthly (less than once a week)
- ☐ Weekly (some each week)
- ☐ Daily

31. Does the client currently use any drugs for non-medical reasons (like marijuana/other illegal drugs)?

- ☐ Never
- ☐ Occasionally (less than monthly)
- ☐ Monthly (less than once a week)
- ☐ Weekly (some each week)
- ☐ Daily

32. Has the client ever had a problem with drugs or alcohol in the past?

- ☐ Yes ☐ No

33. Has the client ever been knocked unconscious?

- ☐ Yes ☐ No

33a. If yes, how many times? _____

33b. What made the client unconscious?

34. The client has experienced which of the following (check all that apply)

☐ TS (torture survivor)	☐ ST/GBV (sexual torture/gender based violence)
☐ WOV (war and organized violence)	☐ CS (child soldier)
☐ TIP (trafficking in person)	☐ EC (ex-combatant)
☐ Other _____	

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F. Problem Rating Scales

The problem rating scales are to be completed with the client. Please use the cup rating scale cards to explain the response options while filling out the answers.

35. Physical Symptoms *Not at all Rarely Sometimes Often*

Do you feel like vomiting when eating?	☐	☐	☐	☐
Do you feel sick?	☐	☐	☐	☐
Do you have stomach aches?	☐	☐	☐	☐
Have you had constipation or diarrhoea?	☐	☐	☐	☐
Do you find it hard to breathe?	☐	☐	☐	☐
Do you feel constant pain in parts of	☐	☐	☐	☐
Do you feel a tightness or heaviness in your chest?	☐	☐	☐	☐

36. Anxiety Symptoms	<i>Not at all</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>
Suddenly scared for no reason	☐	☐	☐	☐
Feeling fearful	☐	☐	☐	☐
Faintness, dizziness, or weakness	☐	☐	☐	☐
Nervousness or shakiness inside	☐	☐	☐	☐
Heart pounding or racing	☐	☐	☐	☐
Trembling	☐	☐	☐	☐
Feeling tense or keyed up	☐	☐	☐	☐
Headaches	☐	☐	☐	☐
Spells of terror or panic	☐	☐	☐	☐
Feeling restless, can't sit still	☐	☐	☐	☐

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37. Depression Symptoms	<i>Not at all</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>
Feeling low in energy, slowed down	☐	☐	☐	☐
Blaming yourself for things	☐	☐	☐	☐
Crying easily	☐	☐	☐	☐
Loss of sexual interest or pleasure	☐	☐	☐	☐
Poor appetite	☐	☐	☐	☐
Difficulty falling asleep or staying asleep	☐	☐	☐	☐
Feeling sad	☐	☐	☐	☐
Feeling lonely	☐	☐	☐	☐
Feeling trapped by your problem	☐	☐	☐	☐
Worrying too much about things	☐	☐	☐	☐
Feeling no interest in things	☐	☐	☐	☐
Feeling everything is an effort	☐	☐	☐	☐
Feeling hopeless about the future	☐	☐	☐	☐
Feelings of worthlessness	☐	☐	☐	☐
Thoughts of ending your life	☐	☐	☐	☐

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38. Post-traumatic Stress Symptom:	<i>Not at all</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>
Having repeating thoughts and memories about traumatic events when you do not want them.	☐	☐	☐	☐
Having repeating bad dreams or nightmares about the traumatic experience you have had.	☐	☐	☐	☐
Feeling like part of the trauma was happening again or feeling like you are living the trauma over again (sometimes called "flashbacks").	☐	☐	☐	☐
Feeling unhappy, nervous, or upset by things that remind you of the traumatic event.	☐	☐	☐	☐
Having your body react to things that remind you of the traumatic event (like sweaty hands, upset stomach or dizziness).	☐	☐	☐	☐
Trying to avoid thoughts, feelings, or conversations related to your traumatic experiences.	☐	☐	☐	☐
Trying to avoid activities, places or people that remind you of your traumatic experiences.	☐	☐	☐	☐
Not able to remember an important part of your traumatic experience, even when you try.	☐	☐	☐	☐
Feeling less interested in doing things you used to enjoy.	☐	☐	☐	☐
Feeling emotionally distant from other people since your traumatic experience (feeling like you can't talk to or share feelings with other people now).	☐	☐	☐	☐
Less able to feel happy since your traumatic experience.	☐	☐	☐	☐
Not thinking about or planning for the future as much as you did before your traumatic experience	☐	☐	☐	☐
Being more irritable or angry than before your trauma experience (even if you keep your anger inside).	☐	☐	☐	☐
Having difficulty concentrating or focusing on your thoughts.	☐	☐	☐	☐
Watching everything around you or feeling "extra alert" or "on guard" much of the time.	☐	☐	☐	☐
Being more "jumpy" to sounds or movements than before the trauma ("startling" easier than before).	☐	☐	☐	☐

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39. Level of functioning	<i>Not at All</i>	<i>Very Little</i>	<i>Some times</i>	<i>Often</i>
Difficulties doing domestic work because of your traumatic experiences?	☐	☐	☐	☐
Difficulties going to the market because of your traumatic experiences?	☐	☐	☐	☐
Difficulties engaging in income generation activities because of your traumatic experiences?	☐	☐	☐	☐
Difficulties engaging in religious or spiritual activities because of your traumatic experiences?	☐	☐	☐	☐
Difficulties playing games or sports because of your traumatic experiences?	☐	☐	☐	☐
Difficulties listening to radio or enjoying other entertainment because of your traumatic experiences?	☐	☐	☐	☐
Difficulties visiting friends or relatives because of your traumatic experiences?	☐	☐	☐	☐
Difficulties talking or sharing thoughts because of your traumatic experiences?	☐	☐	☐	☐
Difficulties doing things with your partner because of your traumatic experiences?	☐	☐	☐	☐
Difficulties discussing the future because of your traumatic experiences?	☐	☐	☐	☐
Difficulties discussing news, current events or politics because of your traumatic experiences?	☐	☐	☐	☐