

A Quantitative Evaluation of the Healing and Rebuilding our Communities Program of  
the African Great Lakes Initiative  
Burundi 2007

## Introduction

[Insert background/description of AGLI and HROC here?]

The purpose of this report is to convey the findings of a quantitative evaluation of the Healing and Reconciling our Communities program of AGLI. After a descriptive quantitative evaluation in 2005 that suggested that the program reduced traumatic stress, and more general psychological symptoms, it seemed worth attempting a more rigorous evaluation design.

First, the study design was experimental in nature. This means that participants were carefully randomized to one of three conditions. Randomization (though groups were matched for gender and ethnicity) serves to evenly distribute other variables that may contribute to group findings. An experimental design allows the attribution of a specific variable as causal to any observed differences between groups because, aside from the manipulated variable, all other variables are common to all conditions. In the case of this study, it was possible to observe the specific effect of the intervention by comparing outcomes to a group that did not participate in the intervention until after their second interview. Similarly, it was possible to observe the specific effect of the inclusion of information about Posttraumatic Stress Disorder or trauma by comparing the outcomes associated with two groups who each had the same intervention with the exception of the inclusion/exclusion of content about PTSD/trauma.

Second, we made a renewed attempt to measure change in attitude and behaviors reflective of a sense of security, trust, and community across ethnic difference. In the previous study, self report of opinions on these issues did not provide a sufficient range to demonstrate any change. This time, participants were asked to quantify the frequency with which they had performed a particular behavior (e.g. “borrowed fire from a person of the other ethnicity . . .”) in the last 30 days. This was improvement in design that better allowed us to capture some of the change that occurred.

*Trauma education/PTSD treatment interventions for refugees or displaced people*

Trauma education is increasingly common as a treatment intervention for populations around the world. However, empirical investigations of these interventions are rare. Of the few studies available, the majority describe treatments for immigrants or refugees having already arrived in a modern, industrial setting. A recent review paper found only eight PTSD treatment studies of adult refugee populations. Three of these were essentially case studies and most of the others lacked comparison groups and had a small sample size (for a full review see Nicholl & Thompson, 2004). For instance, one study treated 20 Bosnian refugees with Testimony Psychotherapy, an approach that incorporates substantial elements of imaginal exposure techniques (Weine et al., 1998). Significant decreases in PTSD and other symptom types could not be attributed to the specific intervention given the absence of a comparison group. The inclusion of PTSD psychoeducation is not specified. Another study provided an analysis of CBT treatment compared to exposure treatment alone for a group of traumatized refugees ( $n = 16$ )

(Paunovic & Ost, 2001). Both conditions included some normalization of PTSD symptoms, though whether this included explicit psychoeducation was not specified.

Two treatment studies with child refugees did explicitly include PTSD psychoeducation in their intervention. Kosovar youth ( $n = 18$ ) recently arrived in Denmark were treated with a short trauma psychoeducational intervention (Staaehr, 2001). PTSD symptoms as measured on the IES (Impact of Events Scale) indicated significant decreases in symptoms. However, this study had no comparison groups and could not account for the possibility of maturation effects or other factors. Another study in Britain with children ( $n = 26$ ) from diverse war-ravaged countries assessed the effect of an intervention using *Children and War: Teaching Recovery Techniques Manual* (Smith et al., 2000), the “primary purpose of which is to educate children about the symptoms of PTSD and to teach them appropriate coping strategies” (Ehnholt, Smith, & Yule, 2005, p.237). Results indicated a significant reduction in PTSD symptoms post-intervention compared to a waitlist control. However, these gains were not maintained at two months post-intervention.

A few studies report on components of humanitarian interventions with samples still in their home country. Trauma treatment and education programs have been developed for Eastern Europe (Bosnia and Croatia) and different regions of Africa (Miller & Rasco, 2004). Given the challenges of such an environment and the meager budget on which many of these programs are administered, there is a paucity of outcome studies in existence. Even developers of recent innovative interventions for refugees acknowledge the legitimate difficulty and the unfortunate dearth of evaluative efforts (Hubbard & Miller, 2004). Of those that do exist, some have opted for anecdotal

summaries or more qualitative methods, whereas others have taken more of an empirical approach. Fewer still have been published in peer-reviewed journals. However, a few randomized controlled trials in pre-industrial settings exist that investigate the effects of PTSD-oriented treatment frameworks on traumatic stress symptoms.

Sudanese refugees ( $n = 43$ ) in Northern Uganda were randomly assigned to either one session of PTSD psychoeducation, 4 sessions of psychoeducation plus supportive counseling (SC), or four sessions of psychoeducation plus narrative exposure therapy (NET; Neuner, Schauer, Klaschik, Karunakara, & Elbert, 2004). NET was associated with significant decreases in PTSD symptoms (measured by the Posttraumatic Stress Diagnostic Scale, Foa et al., 1997) at post-intervention ( $d = .6$ ) and at one-year follow up ( $d = 1.6$ ). No significant changes were associated with SC, and psychoeducation was associated with significant increases in PTSD symptoms at post intervention ( $d = -.5$ ) and one-year follow up ( $d = -.9$ ). Given the dramatic differences between NET and psychoeducation, it would be valuable to know whether the presence of psychoeducation in the NET treatment condition enhanced or diminished the therapeutic effect. Again, the research design does not fully permit an interpretation of the specific effect of PTSD psychoeducation, though the increase in symptomatology for those in the control/psychoeducation condition implicates a negative effect.

Five years after the Rwandan genocide, Staub, Pearlman, Gubin, and Hagengimana (2005) designed and evaluated an intervention for survivors. The intervention took the form of a nine-day training of workshop facilitators and included psychoeducational lectures on PTSD, but also offered substantial opportunity for participants to understand the causes of genocide, to have small and large group

discussions, and to share painful memories with other participants. Traumatic experiences, psychological symptoms, and orientation toward reconciliation were assessed in the participants of the subsequent workshops, not in the facilitators who were in direct receipt of the training. An adapted version of the HTQ (Mollica et al., 1992) was used to assess trauma history and symptoms. Controlling for Time 1 symptoms and trauma history, results showed that two months after the intervention, trauma symptoms (a combination of PTSD, traumatic grief, self-perceived functioning, Rwanda-specific trauma symptoms) decreased significantly more in the intervention condition than in either of the other two (traditional treatment, wait list control). This study offers encouraging results in support of the intended effects of the intervention. However, their research design does not allow for evidence as to the change in PTSD-specific symptoms. More importantly, as the workshops were designed by the newly trained facilitators, it is impossible to know which of the training components (psychoeducation, exposure to experience through sharing, etc.) were present in or responsible for the observed effects.

The majority of the treatment interventions that include PTSD psychoeducation have not been empirically studied or subsequently published (D. Summerfield, personal communication, September 7, 2006). The majority of the limited literature on PTSD treatment for non-Westerners describes refugees living in industrialized nations. A few of these make explicit reference to treatments that include PTSD psychoeducation. There is some suggestion that these studies have led to beneficial effects, but in most cases, the research designs preclude definitive conclusions. Fewer still describe treatment efforts for samples still in their pre-industrial home country. One study suggests that

psychoeducation, though utilized as a comparison to treatment group, was associated with increases in PTSD symptomatology (Neurer et al., 2004), and another demonstrated beneficial outcomes from a treatment that included psychoeducation as well as other treatment approaches (Staub et al., 2005). The specific effect of psychoeducation could not be identified given the specific treatment design. At this point in time, there is little empirical data by which to gauge whether PTSD psychoeducation for pre-industrial populations is beneficial. However, the empirical support for the influences of social desirability, power differentials, and secondary gain, the evidence for iatrogenic treatment effects, and our limited understanding of cultural differences in the manifestation of traumatic stress, demand a careful consideration of how pre-industrial populations may respond to psychoeducation or trauma discourse developed in industrial cultures.

#### *Burundian context and history*

Burundi is home to over 7 million people in a fertile but violence-wracked region of East Central Africa (AFSC, 2001). Also known as the Great Lakes Region of Africa, Burundi is bordered by Rwanda, Congo, and Tanzania. Burundi has suffered much of the violence of its sister country, Rwanda, but at a fraction of the pace. After its independence in 1962, Burundi suffered a discontinuous series of violent years particularly in 1965, 1972, 1988, and 1991 when the Hutu-Tutsi ethnic conflict became embroiled and was retriggered (AFSC, 2001). Remnant elements of the latent civil war that began in 1993 have continued to destabilize regions of the country until recently. Burundi's two primary ethnic groups, Hutu and Tutsi, have been socially polarized at least since the arrival of colonial powers (German in 1895, Belgian in 1918)

(Lemarchand, 1995). Peace has gradually returned to the region, and over the summer of 2005, a three-year transitional government process was completed and a new parliament and president were elected.

Both sides suffered terribly throughout the war. Studies estimate that well over 200,000 people have died since the beginning of the civil war in 1993 (AFSC, 2001). As the two ethnicities have lived interwoven into the same communities, much of the killing took place neighbor upon neighbor and threw entire communities into disarray. Those who survived lost their homes and either fled the country as refugees or have been displaced internally and now reside in IDP camps. Tutsis are the primary camp residents while Hutus live in the surrounding community. While both groups live in proximity to each other, the community is far from integrated and the last thirty years of reciprocal retribution makes social polarization nearly intractable.

Given the country's limited resources, the government has welcomed the assistance of various international agencies. Though many churches and non-governmental organizations (NGO) provide Burundi with programs ranging from economic development to social services, the international attention that Burundi receives pales in comparison to the resources directed at Rwanda after it burst into the international spotlight during the 1994 genocide.

Foreign and modern notions of traumatization are increasingly common in Burundi. Smaller NGO's, such as HROC/AGLI, Transcultural Psychosocial Organization, and Search for Common Ground offer workshops, training, or individual counseling. Larger NGO's, such as World Vision and Catholic Relief Services, have similarly begun to add psychosocial and trauma counseling components to their

provision of humanitarian assistance. Some of the organizations have also used radio as a medium for psychoeducation on trauma. In a few isolated instances, Burundians have encountered trauma discourse from industrialized culture within the context of research efforts.

*Statement of purpose of the present study*

The research took place in a region of Burundi where people still live largely traditional, subsistence agrarian lives, and applied an experimental design to assess whether PTSD psychoeducation attenuates or enhances the possibly beneficial effects of local trauma and reconciliation workshop interventions. The study included three conditions (workshop with PTSD psychoeducation, workshop without PTSD psychoeducation, and a waitlist control). The project's primary aims were as follows:

- To evaluate the effects of a trauma healing and reconciliation program in rural Burundi.
- To evaluate the specific effects of a PTSD psychoeducation component with a trauma healing and reconciliation program.
- To assess change in psychosocial outcomes such as attitudes and behaviors reflective of reconciliation and trust between ethnic groups.
- To assess change in community members, who did not participate in the program, but who have regular contact with participants.
- To identify trauma-related symptoms and level of functioning among highly traumatized rural Burundians.

## Methods

### *Design*

The study used a 3 X 2 mixed factorial design, with a between-subjects factor of condition (workshop with psychoeducation (PG), workshop with no psychoeducation (NPG), and waitlist control (WLC)) and a within subjects factor of time (baseline and after workshops). The primary independent variables were condition and time, and the dependent variables were measures of psychological symptoms. Trauma discourse exposure (TDE) served as a continuous independent variable for secondary analyses utilizing multiple regressions to examine both main effects and interactions with condition.

### *Participants*

Participants were recruited through the Healing and Reconciling Our Communities (HROC), a program sponsored by the African Great Lakes Initiative of the Friends Peace Teams (AGLI-FPT). HROC facilitates periodic workshops on trauma counseling for those community members who have experienced traumatic events within the last ten years. In the summer of 2007 HROC offered workshops in the communities within and peripheral to the communities of Nyakibingo and Bugendana and their associated Internally Displaced Persons (IDP) camps in rural Burundi. Workshop participants were recruited to participate in an interview for the purposes of this research project and for a program evaluation. Initially, one hundred and twenty participants were contacted and invited to be interviewed prior to beginning the workshop. These 120 participants were referred to the workshop through a network of church elders who identified them with hopes that their distress would be ameliorated by the workshop, so there is no indication that the sample was selected for

being highly susceptible to the influences of Western trauma models. These approximately 120 participants were then asked to invite a “friend” to come with them to the interviews prior to and after the HROC workshops. The only requirement for this friend was that they have regular contact with the participant, but be neither related by family nor live in the same house as the participant. Therefore, 240 people were engaged for this study. Some analyses were conducted with the full 240, but subsamples, such as “participants” or “friends of participants” were also used as appropriate.

Data revealed that “participants” and “friends of participants” were essentially identical on a number of demographic measures. Fifty-five (44.4%) were female and 69 (55.6%) were male. The mean age was 38.6 years ( $SD = 12.8$ ). Only 5% of the sample had completed more than six years of education, and mean years of education was 3.7 years ( $SD = 2.6$ ). Among the portion of the sample that lived in the Internally Displaced Persons (IDP) camp (48.3%), the mean length of residence was 12.3 years ( $SD = 3.2$ ). As explicit solicitation of ethnicity is considered inappropriate and divisive, interviewers were asked to assess ethnicity based on the details of the history they provided and based on their current living situation. The sample was closely balanced in terms of ethnicity with 65 Hutus (52.4%) and 59 Tutsi (47.6%). Most people had been directly victimized by violence during or since the revolution of 1993. However, a few were returnees from other countries (Rwanda, Tanzania) who fled the conflict and had recently repatriated. All people interviewed received reimbursement for transportation expenses.

Participants came from one of two villages in rural northeastern Burundi: Bugendana or Nyakibingo. Baseline analyses were checked for significant differences between participants from each of these communities. Subsamples from each community

did not vary in terms of age, number of events experienced. However, participants from Bugendana had 1.6 years more of education ( $t(121) = -3.54, p = .001, -CI\ 95\%: -2.4 < u < -.71$ ), whereas participants from Nyakibingo had greater distress: a mean difference of .26 on the HTQ ( $t(121) = 2.8, p = .006, CI\ 95\%: .08 < u < .45$ ), and a mean difference of .40 on the HSCL ( $t(121) = 3.85, p < .001, CI\ 95\%: .19 < u < .60$ ).

### *Measures*

*Anxiety and depression.* The Hopkins Symptom Checklist-25 (HSCL-25; Hesbacher, Rickels, & Morris, 1980) was designed as a self-report measure and uses a 4-point Likert scale across an anxiety subscale (10 items) and a depression subscale (15 items). By adding the 12-item somatic subscale of the HSCL-58, the HSCL-25 was used to assess a broad range of symptoms of distress (Terheggen et al., 2001). The HSCL-25 total score can be used universally as a global measure of emotional distress (Mollica et al., 1987). When matched to diagnoses based on clinical interview, the HSCL had a sensitivity of .88 and specificity of .73 (Mollica et al., 1987), and internal reliability of .86-.95 across multiple languages (Kleijn, 2001). (See Appendix A).

*Posttraumatic stress and event history.* The Harvard Trauma Questionnaire Part IV (HTQ; Mollica, Caspi-Yavin, Bollini & Truong, 1992) was designed as a self-report measure of PTSD symptoms. The HTQ-IV symptom list uses a 4-point Likert scale and includes sixteen items that reflect the standard PTSD symptoms as well as fourteen additional items (HTQ-b) that were added when the measure was culturally validated in a Cambodian refugee sample. Mollica et al. (1992) report an interrater reliability of .93, internal consistency of .90, and test-retest reliability of .89 for the HTQ. The HTQ has been

translated for a number of samples and consistently yields sufficient reliability (internal reliability of .74-.89) (Kleijn et al., 2001) (see Appendix B).

Both of these measures have proven to be culturally sensitive with samples around the world and have demonstrated sufficient validity and reliability (Fox & Tang, 2000). In a prior study the two subscales of the HSCL-25 had an internal reliability of .88 and .90, and the HTQ-IV had an internal reliability of .90. The measures were checked for content and semantic equivalence by the three-person Burundian advisory team (Flaherty, 1988).

*Functional assessment.* Assessment of function is often overlooked in cross-cultural studies of PTSD (Kagee & Naidoo, 2004). A measure of functional assessment was used based on the methods and results of Bolton and Tang (2002), who developed a new technique for cross-cultural and gender-specific functional assessment using samples in Uganda ( $n = 587$ ) and Rwanda ( $n = 368$ ). Bolton and Tang used a convenience sample of 40 people from each country to do free listing in response to three questions: 1) what are the tasks that men/women must do regularly to care for themselves?; 2) what are the tasks that men/women must do regularly to care for their family?; 3) what are the tasks that men/women must do regularly to care for their community? The top nine responses were then inserted into separate measures for each gender. Reliability was then assessed using samples from both countries (Uganda:  $n = 587$ ; Rwanda:  $n = 368$ ). Cronbach's alpha for male and female questionnaires were respectively .81 and .82 in Rwanda and .89 and .88 in Uganda. Whereas the primary purpose of Bolton and Tang's paper was to propose a new method for measuring functioning, their samples and the Burundian sample of the proposed study are highly

similar (rural, impoverished, Bantu linguistic roots, mostly subsistence agrarians), such that their measure could be used in the present study. Indeed, Rwanda and Burundi in particular were once considered the same region and are culturally highly similar. Bolton and Tang discuss the observed commonalities between their two samples and predict, with appropriate caution, the emergence of a measure that could be used in assess function in African rural communities. Though the measure is not yet well established, it is the preferred choice for functional assessment for purposes of this study (appendix E).

*Demographics.* A short demographic measure solicited age, gender, and employment (see Appendix F).

#### *Translation*

All instruments had been translated into Kirundi and then backtranslated as a result of having been used in a prior study. The first step was for bilingual Burundians living in the United States to translate the measures into Kirundi. The second step was for bilingual Burundians living in Burundi to “backtranslate” the measures without having seen the original documents. The two English versions were then compared and adjustments to the translation were made in a dynamic process between the primary investigator and three Burundians assisting with the research. Prior to the use of the measures, the structure of the intended interview was reviewed with multiple Burundians involved in the project to verify that it was comprehensible to local people (Terheggen et al., 2001).

#### *Procedure*

Workshops were offered in two communities in north central Burundi: Bugendana and Nyakibingo. In each community, participants were randomized to one of the three conditions (workshop with psychoeducation (PG), workshop without psychoeducation (NPG), waitlist control (WLC)). Five workshop facilitators comprised a team for a workshop. All of the workshops were led by experienced Burundian HROC trainers with close ties to the local community. Perfect balance of facilitators across location and condition as planned was compromised by logistics and scheduling. Table 2 presents the flow of facilitators across conditions and locations. Essentially, five facilitators did their second workshop in a different community and different location, five others worked across conditions but did both workshops in the same condition, and one facilitator who was serving as a coordinator worked in all four workshops. All facilitators did one workshop in each condition, with the exception of the coordinator (AN) who did two workshops in each condition. The waitlist control condition received the workshops after the second assessment period (Table 1).

Table 1

*Study Conditions X Facilitators*

| Community | Conditions           |                          |
|-----------|----------------------|--------------------------|
|           | Psychoeducation (PG) | No psychoeducation (NPG) |
| Village A | Facilitator Team 1   | Facilitator Team 2       |
| Village B | Facilitator Team 2   | Facilitator Team 1       |

Table 2

*Balance of workshop facilitators across location and condition*

|                        | FB | JNy | PN | JNg | AV | AN | GB | MS | SG | SK | SN |
|------------------------|----|-----|----|-----|----|----|----|----|----|----|----|
| Village A, Condition A | X  | X   | X  | X   | X  | X  |    |    |    |    |    |
| Village A, Condition B |    | X   |    | X   | X  | X  | X  | X  |    |    |    |
| Village B, Condition A |    |     |    |     |    | X  | X  | X  | X  | X  | X  |
| Village B, Condition B | X  |     | X  |     |    | X  |    |    | X  | X  | X  |

Interviews were conducted six weeks before the beginning of the intervention and two weeks after its end. A discussion of the voluntary and confidential nature of participation preceded the interview. Most participants were not fully literate, so measures were administered verbally. Each participant completed the event history, the symptom measures, the Trauma Discourse Exposure (TDE) interview, and a short sociodemographic form at baseline. Each participant completed the symptom measures again approximately three months later after the completion of the workshop cycle. Baseline interviews were conducted by four Burundian staff of the African Great Lakes Initiative (AGLI). Two of the four interviewers returned to complete the post-test workshops. Interviewers included two men and two women and both ethnicities were represented within the team (Pernice, 1994). The American evaluation coordinator was not present in the interviews but remained nearby so as to consult with the staff when there were questions or concerns. The Likert scale was demonstrated visually by

showing pictures of glasses containing varying amounts of water (Terheggen et al., 2001).

### *Intervention*

*Workshop with psychoeducation (PG).* The intervention included two components implemented five to six weeks apart. Six groups of 20 participants gathered for three days. One month later each workshop group reconvened for a follow-up day in which major workshop components were reinforced. (Two months later community leaders and the general public were invited to join all workshop groups from that community as they gather together for a day designed to reinforce the themes of the program. However, this took place after the administration of the post-test measures.) A full summary of the intervention contents is provided in Appendix G.

The first day of the workshop with psychoeducation included introductions, community-building exercises aimed at encouraging people to trust the other participants, and a presentation on the causes and symptoms of PTSD (see Appendix H). This presentation included discussion of each of the three PTSD symptom clusters and the 17 specific symptoms of PTSD. A substantial portion of the day was devoted to ensuring that people were increasingly comfortable with each other and with the objectives of the workshop. For instance, after more formal introductions and an overview of the workshops, participants were asked to interview each other in pairs. They then were required to form groups of four and summarize the information they had learned about their partner to the other two people they had joined. After a break, the facilitator introduced the concept of trauma. First, sufficient time was devoted to a process in which the group discussed the meaning of the word and chose an equivalent

Kirundi word that best captured that meaning. The group participated in a brainstorm of possible causes of trauma before the facilitator presented the symptoms of PTSD. The morning end with an opportunity to discuss in small groups what participants had learned. The afternoon session began with an activity in which each participant had to choose an adjective that has positive valence and begins with the same phoneme as their given name (e.g. “Admirable Adrien”). These names were then used throughout the workshop to invoke playfulness, informality, and to reinforce the theme of emphasizing the positive attributes in each person. Symptoms and consequences of trauma were again reviewed. First in small, and then big groups, participants shared how they have been affected by traumatic events they had experienced before concluding for the day.

On the following day, the focus turned to the topics of loss and grief as people were asked to share more substantial experiences. The Gestalt Empty Chair Exercise preceded the facilitator then introducing the concepts of loss, grief, and mourning, and as with “trauma,” encouraged the group to clarify the meaning of these words in the local language. Participants returned to small groups in which they then each told a story of personal loss. Some of these stories were then shared with the larger group if an individual chose to do so. After a break, the facilitator introduced Kubler-Ross’s (1970) Stages of Grief: denial, anger, bargaining, depression, and acceptance. Participants reacted to and discussed the model with reference to their own experience. Participants were invited to generate ideas for how someone advances through these stages. With the intention of fostering participant motivation to move through the stages of grief, the facilitator led a visioning exercise in which participants imagined how their lives would be different.

After a song and prayer, the afternoon opened with an exercise aimed at fostering trust and a sense of community. Each participant was asked to speak about a person, place, or thing that they valued very deeply. The focus of the afternoon then shifted to anger. The facilitator gave a presentation on different types of anger according to their different sources and asked the group to draw on their own experience for ideas as to how to manage anger. After a break, these management strategies were practiced and further investigated in role played scenarios of the participants' design. In addition to fostering practical skills, the exercise also encouraged people to be more expressive of their anger. Before closing for the day, the participants learned deep breathing techniques and incorporated them into a guided imagery relaxation exercise.

On the last day, exercises and discussions focused on understanding how trust is formed and broken and how the seeds of violence are sewn. An opening exercise served to reinforce the recollection of the positive attributes of one's offenders and the facilitator discussed this ability as an essential component for moving toward reconciliation. Participants were then put into pairs and given one blindfold. Each pair alternately blindfolded the other and silently guided them on a walk through the classroom and around the exterior of the building. A discussion followed on what people experienced and why it was difficult to trust the other person. Using a diagram of two trees, the facilitator led a discussion to identify the causes ("the roots") and the results ("the fruits") of trust and mistrust. Participants began to see the cyclical nature of this relationship as well as to develop ideas as to how they can interrupt this cycle. The morning closed with a brainstorm of means by which participants can enhance the trust in their community. The afternoon commenced with the Acceptance Circle exercise and

Question and Answer period in which participants raised new questions or returned to topics that required additional attention. The workshop then ended with solicitation of evaluative comments and a closing involving song and prayer.

Whereas HROC included a substantial component on traumatic stress symptoms, the program was strongly oriented to using the communal experiences (e.g. sharing personal histories in workshops, community-wide closing day) to meet their stated objectives of decreasing distress and increasing reconciliation. Such an approach is supported by Bracken et al (2002) who observe that in collectivist cultures much of the healing takes place in the relationships of the client with his surrounding community members.

*Workshop with no psychoeducation (NPG).* The active workshops condition with no psychoeducation varied only in the absence of the introduction of psychoeducational models of trauma including discussions of PTSD symptoms. Instead, an exercise was conducted that aimed to further trust and communication in group members by having them answer particular questions in pairs. Therefore, both workshop conditions had an equal total length of intervention. Whereas, didactic presentation of PTSD symptoms only lasted 45 minutes, participants had subsequent opportunities (approximately 75 minutes) to further discuss and reinforce these concepts with each other during the workshop. Participants shared and discussed their own perspectives as to how they were affected by their traumatic experiences in both workshop conditions.

*Waitlist control (WLC).* Two additional workshop groups were identified as waitlist controls. These participants were enrolled in the standard workshop but

informed that it would not start until after the termination of the workshop cycle that was about to begin (approximately three months later).

#### *Power Analysis*

A power analysis was conducted before proceeding with data collection to estimate a sample size necessary for sufficient power. Power was calculated based on computing the ANCOVA for the primary hypotheses. An alpha of .05, an  $n$  of 117 (those who completed pre-test, post-test and participated in their assigned intervention), and a medium effect size of .25 per Cohen's conventions resulted in a calculated power of .67. Given the possibility of insufficient power, all analyses included estimations of effect sizes.

## RESULTS

#### *Full sample: demographics and historical information*

Of the 240 participants, 179 (74.6%) experienced some kind of displacement from their home as a result of the fighting. Specifically, 60.4% were displaced in 1993, 12.5% were displaced between 1994-1997, 1.5% since 1997, and 25.4% were not displaced.

The full sample was also asked how many times they fled the fighting. The answers lack precision because people answered in different ways, and some could not even begin to estimate the frequency. The responses ranged from once to more than 35 times and others gave qualitative responses suggesting more frequently than that. Another set of responses that were partly confounded by the different ways people counted, was the frequency with which they had slept outside of their house because of

the killings. However, we can confidently say that 90.4% of the full sample of 240 endorsed having done this to protect themselves.

The full sample was asked how many years they have lived in an IDP camp. Responses reflected the high frequency of displacement in 1993 as reported above. Of the 240 participants, 116 (32.1%) had been living in the camp for 14 years, another 16.3% reported a range of responses evenly distributed across 1-12 years, and 51.7% either did not live or had not lived in the camp.

Seventy-six percent of the sample were or had been married, and of those married, 20% had been widowed. The mean number of children that participants reported having was four and ranged from none to fifteen. Forty percent of the sample had experienced the death of at least one child and ranged from zero to nine. As well, 43% endorsed caring for other (not blood relations) children in their home and this ranged from zero to five.

Participants were asked to name the three or four main problems in their life. Answers were recorded qualitatively, so some of the responses are obviously overlapping. For instance, “poverty” and “no food” are not distinct and separate problems. Nonetheless the frequencies at which different problems were reported provides a sense for how people conceptualized their difficulties (Table 2.5).

Table 2.5

Frequency of responses to questions about “your 3-4 four biggest problems”

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|         |     |
|---------|-----|
| Poverty | 64% |
|---------|-----|

|  |     |
|--|-----|
| No food                                  | 29% |
| Illness or lack of money for medicine    | 25% |
| Land problems                            | 18% |
| Bad social relations                     | 16% |
| Lacking clothes or supplies for children | 13% |
| Thieves                                  | 10% |
| No parents                               | 8%  |
| No shelter                               | 8%  |
| No education or lack of school fees      | 7%  |
| Memories of what I lost                  | 5%  |
| Bad family relations                     | 5%  |

#### *Randomization check*

One hundred and twenty participants were randomized to one of three conditions, intervention with PTSD psychoeducation (PG), intervention without PTSD psychoeducation (NPG), and a wait-list control (WLC). Four participants who did not show up for their intervention who had been in one of the active conditions were moved to the wait-list control. Thus, there were 39 participants in PG, 39 in NPG, and 46 in WLC. Randomization was successful in that there were no significant differences between these three groups across age, gender, ethnicity, symptoms (HTQ and HSCL), and traumatic events experienced (Table 3).

Table 3

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*Randomization check*


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|                    | <i>F</i> | $\chi^2$ | <i>df</i> | <i>p</i> |
|--------------------|----------|----------|-----------|----------|
| HTQ                | 1.55     |          | 122       | .22      |
| HSCL               | .45      |          | 122       | .64      |
| Age                | .53      |          | 123       | .59      |
| Gender             |          | .08      | 2         | .96      |
| Ethnicity          |          | .32      | 2         | .85      |
| Events experienced | .31      |          | 123       | .74      |

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*Note.* HTQ = *Harvard Trauma Questionnaire*; HSCL = *Hopkins Symptom Checklist*

*Treatment integrity*

Facilitators completed a report after each workshop in reference to the integrity of the condition. In one workshop without trauma education, one participant proposed the concept of trauma during a brainstorm about the consequences of the war. The facilitator did not comment directly and continued with the brainstorm. In the other workshop without trauma education, a participant stated “trauma is the problems I have passed through in my life.” The facilitators did not respond to that specific term and continued with the workshop. Another said that “trauma is a consequence of war.” Again, the facilitators continued without a direct response. Otherwise, each facilitator reported that the workshop components were consistent as planned and true to treatment condition.

One hundred and twenty-four participants attended their appointments for pre-test interview and consented to participate in the study. Thirty-nine of 40 participated in the PG intervention and 39 of 40 participated in the NPG intervention (An additional 40 participants were designated as wait-list control.). Of the seven who did not complete post-

tests, two were from the PG condition, three were from the NPG condition, and two were from the WLC.

*Event history*

All participants were asked to endorse items from a list of nineteen possible traumatic events as listed in the HTQ- Part I (Mollica et al., 1992). The frequencies with which participants endorsed each item as an event they had experienced, witnessed, heard about, or had no exposure to are listed in Table 4. Across these 19 items, the mean number of types of events experienced was 9.9 ( $SD = 2.1$ ) and the mean number of types of events experienced, witnessed, or heard about was 15.4 ( $SD = 3.2$ ). Though cultural differences make it difficult to speculate as to which events were more definitive Criterion A events, it is arguable that some of the items would not necessarily qualify as Criterion A events. However, even after removing these more ambiguous Criterion A events (lack of shelter, lack of food and water, combat situation, forced to hide, confined to indoors because of danger, imprisonment), the sample still demonstrated a significant trauma history. For instance, 91.7% of the sample endorsed “narrowly escaping death” and 96.7% endorsed “unnatural death of a family member.”

Table 4

*Frequency and types of events endorsed (HTQ – Part I).*

|                 | Not experienced | Witnessed | Experienced |
|-----------------|-----------------|-----------|-------------|
|                 | Heard about     |           |             |
| Lack of shelter | -               | 1.7%      | 90.4%       |

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| Lack of food and water                           | -     | 2.1%  | .4%   | 95.0% |
| Ill health and no medical care                   | -     | 1.3%  | 7.5%  | 86.2% |
| Loss of personal property                        | 3.8%  | 5.0%  | 9.2%  | 81.9% |
| Combat situation                                 | .4%   | .4%   | .4%   | 98.8% |
| Narrowly escaping death                          | -     | 2.1%  | 6.3%  | 91.7% |
| Rape   | 23.8% | 45.8% | 25.0% | 5.4%  |
| Sexual abuse/humiliation                         | 27.1% | 37.5% | 25.4% | 10.0% |
| Serious physical injury from combat              | 9.2%  | 10.4% | 45.4% | 35.0% |
| Forced to hide                                   | .4%   | 1.7%  | .8%   | 97.1% |
| Forced to hide among the dead                    | 19.2% | 29.6% | 22.9% | 27.5% |
| Betrayed and placed at risk of death             | 25.8% | 12.9% | 18.3% | 41.7% |
| Confined to indoors because of danger            | 8.5%  | 6.4%  | 5.6%  | 79.5% |
| Forced to harm or kill a family member or friend | 42.5% | 23.3% | 24.2% | 9.2%  |
| Forced to harm or kill a stranger                | 40.0% | 24.2% | 24.6% | 10.0% |
| Disappearance/kidnapping of spouse               | 38.8% | 19.6% | 18.3% | 8.8%  |
| Disappearance/kidnapping of son or daughter      | 38.8% | 25.4% | 19.6% | 3.8%  |
| Unnatural death of family member                 | .4%   | 1.3%  | .8%   | 96.7% |
| Imprisonment                                     | 20.8% | 36.3% | 18.3% | 23.8% |

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Note. HTQ = Harvard Trauma Questionnaire.

Table 5

*HSCL mean scores and norms*

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| Current Sample |             | Published Norms |             |
|----------------|-------------|-----------------|-------------|
| Sample mean    | Nonclinical | Psychiatric     | Psychiatric |

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|                       |            | mean      | outpatient mean         | inpatient mean           |
|-----------------------|------------|-----------|-------------------------|--------------------------|
| HSCL-25               | 2.02 (.63) | .33 (.37) | 1.63 (.91) <sup>a</sup> | 1.61 (1.07) <sup>a</sup> |
| Depression subscale   | 1.97 (.60) | .36 (.37) | 1.79 (.94) <sup>a</sup> | 1.74 (1.08) <sup>a</sup> |
| Anxiety subscale      | 2.22 (.74) | .30 (.37) | 1.47 (.88) <sup>a</sup> | 1.48 (1.05) <sup>a</sup> |
| Somatization subscale | 2.29 (.69) |           | 1.89 <sup>b</sup>       |                          |

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*Note. Standard deviations in parentheses. HSCL = Hopkins Symptom Checklist.*

<sup>a</sup> Derogatis, L. R. (1994). SCL-90-R: Administration, scoring and procedures manual third - edition. Minneapolis, MN: National Computer Systems, Inc.

<sup>b</sup> Derogatis et al., 1974

*Anxiety, depression, and somatization.* Mean scores on the HSCL subscales (anxiety, depression, somatization) are reported in Table 5. Mean scores on the anxiety and depression subscale (HSCL-25) were 2.22 (.74) (Cronbach's  $\alpha = .90$ ) and 1.97 (.60) (Cronbach's  $\alpha = .90$ ), respectively. The mean somatization subscale (HSCL-58) score was 2.29 (.69). For the purposes of comparison, established norms for different groups are also included (Derogatis, 1994). Level of anxiety and somatization were markedly higher than found in a North American psychiatric inpatient sample. Depressive symptoms were likewise slightly higher than what would be found in a North American psychiatric inpatient sample. Mollica et al. (1987) established a critical cutoff of 1.75 on the HSCL-25 indicative of "substantial distress" in a non-Western southeastern Asian sample. In this sample 60.8% exceeded this cutoff in the depression subscale and 69.7% in the anxiety subscale. Though Mollica et al.'s cut-off does not specifically apply to the somatization scale from the HSCL-90, it is noteworthy that 74.0% of the sample exceeded the cut-off in the somatization subscale. Thus, these nonspecific symptoms of anxiety, depression, and somatization generally exceeded inpatient psychiatric norms and were endorsed at considerably higher rates than were the PTSD symptoms.

*Posttraumatic stress measure.* The sample's mean score on the HTQ–Part IV was 2.14 (.55) (range from 1.0 – 3.6) (Cronbach's  $\alpha = .84$ ); when including Mollica et al.'s additional 14 items (HTQ-b) intended to capture more culturally variable traumatic stress reactions,  $M=1.97$  (.53), range 1.0 – 3.6, (Cronbach's  $\alpha = .92$ ). Mollica et al. (1992) determined a cut-off of 2.5 for the HTQ–Part IV in a southeastern Asian sample as indicative of being symptomatic for PTSD. Only 23.7% (16.9% with the additional 14 items) of the sample exceeded the cut-off. Therefore despite the extensive trauma history endorsed by the sample, only a small percentage endorsed symptoms at a level indicative of being symptomatic for PTSD.

*Trauma Discourse Exposure (TDE).* The percent of participants who reported exposure to trauma education through workshops, radio and written material was 10.8%, 61.7% and 11.7%, respectively. Some participants did not specify a value from a continuous scale in their response (e.g. “many times”). These responses were therefore thrown out, and as a result, analyses using radio exposure were limited to 19.6% of the sample. The mean number of workshop days was .23 (SD = .78) (range 0 – 5). The number of trauma-related radio programs heard was .99 (SD = 1.9) (range 0 – 12). The number of times reading trauma-related written material was .25 (SD = 1.3) (range 0 – 12). Not a single member of the full sample was familiar with the term ‘Posttraumatic

Table 6

*Responses to general industrialized cultural and specific TDE questions*

|                            |                                 |
|----------------------------|---------------------------------|
| 1) Spoken with Westerners? | None: 93.5%<br>1-2 people: 6.5% |
| 2) Have Western friends?   | None: 95.2%                     |

|   |  |
|---|--|
|   | 1-3: 4.8%  |
| 3) Watch TV   | Never: 74.2%<br>Monthly 6.5%<br>Weekly: 1.6%<br>Most days: 17.7% |
| 4) Listen to radio  | Never: 8.1%<br>Most days: 28.2%<br>Every Day: 63.7%              |
| 5) Read newspapers  | Never: 79%<br>Monthly: 4%<br>Most days: 16.9%                    |
| 6) Listen to radio about how people are affected by frightening or terrifying events: |  |
|   | Never: 79.1%<br>> 4 times: 15.3%<br>< 4 times: 5.6%              |
| 7) Read about frightening or terrifying events?                                       |  |
|   | Never: 85.2%<br>< 4 times: 6.5%<br>> 4 times: 3.2%               |
| 8) Attended workshops on the effects of frightening or terrifying events?             |  |
|   | Never: 87.1%<br>< 3 days: 11.1%<br>>3 days: 4.0%                 |
| 9) Know what “Posttraumatic Stress Disorder” is?                                      | No: 100%   |
| 9) Know what “trauma” is?   | No: 96%  |
| 10) Know the word Ihahamuka?  | No: 24.4%<br>Yes: 75.6%  |

Stress Disorder” and only 4.6% were familiar with the word “trauma.” Seventy-four percent were familiar with the term ‘Ihahamuka,’ a Rwandan word that has seen increased use and has been evolving to become increasingly synonymous with the word ‘trauma.’ Complete responses are summarized in Table 6.

*Psychosocial questionnaire*

On the psychosocial questionnaire, people were asked to self-report on the frequency of behaviors that involved the other ethnic group. Therefore, first they were asked if they have people of the other ethnic group living near them, as this proximity could skew the results. Analyses were conducted with the 78 people who received the intervention without regard for whether their workshop included PTSD psychoeducation or not, as this was assumed not to bear directly on these measures. Thirty-seven percent said they had “some” living near them, whereas 44% said “many,” and 19% said “none.” Results were compared when the full group was included against when only those who said “some” or “many” were included, and there were minimal differences. Therefore, the results below include all workshop participants irrespective of how they reported the density of the other ethnicity in their surroundings. Overall, changes in the direction of reconciliation were seen across a number of the items, and while significant, was small in value. A few items showed no significant change and showed increases in the undesired direction. Each will be discussed briefly.

A) The following showed significant change in the direction of reconciliation. (Note that mean change is the actual change in the mean frequency reported between pre- and post-test.)

In the last month, how many times have you . . .  
 . . . *invited the other ethnicity into your home*  
 ( $p = .01$ , mean change of 1.2).

. . . *talked compassionately about the suffering of the other ethnic group?*  
 ( $p < .001$ , mean change of 4.5).

*... protected someone from the other ethnicity who was being mistreated?*  
( $p = .01$ , mean change of .5).

B) A few items should trends in the desired direction, but did not reach significance. (Note that both borrowing fire and asking for water may be events of very low frequency, which would diminish the potential to see significant change.)

*... shared a meal with someone from the other ethnic group?*  
(not significant, mean change of .75).

*... asked for water from a neighbor of a different ethnicity?*  
(not significant, mean increase of 1.0)

*... talked with someone of the other ethnicity about the Crisis?*  
(not significant, mean increase of .71)

*... gone to the home of the other ethnic group and asked for fire?*  
(not significant, mean increase of 0.9)

C) Two item showed significant change in the direction that was not desired. (Note, that both of these may have been subject to seasonal (rain) and school calendar factors).

*... gone to the other ethnic group's house to avoid the rain?*  
( $p = .01$ , mean change of -2.0).

*... have your children played with children of the other ethnicity?*  
( $p = .01$ , mean change of -8.3).

D) The frequency of two items was almost identical at both pre- and post-test.

*... have you cultivated fields with someone of the other ethnicity?*

*... quarreled with your husband or wife or children?*

*... talked ironically about the suffering of the other ethnicity?*

Similarly, participants were also asked if they have close relatives who are of the other ethnicity. Forty-one (53%) said yes. They were then asked the following questions:

With this relative, in the last month, how many times have you ...

*... quarreled with them?*

(no significant change)

*... talked with them about the Crisis?*

(no significant change)

*... shared meals with them?*

(positive trend short of significant, mean change of 3.3).

*... freely shared your stories of how you suffered?*

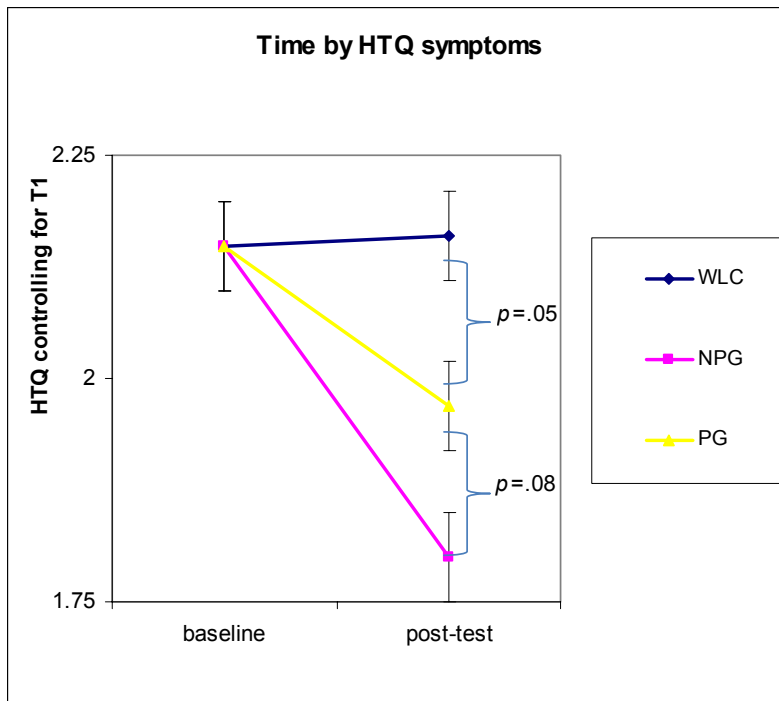
(no significant change)

#### *Hypotheses related to symptom change in participants*

*PTSD symptoms.* An ANCOVA with pre-test scores as a covariate was conducted with condition as an IV and post-intervention HTQ scores as the dependent variable to assess whether the effect of treatment depended on condition. The covariate was found to be linearly related to the DV within all levels of the IV (condition x HTQ T1 interaction,  $F(2) = 2.9, p = .06$ ). Thus, our test of the assumption of equal slopes was nonsignificant, albeit narrowly, and the null hypothesis was supported. ANCOVA has been shown to be robust and valid even when assumptions are mildly violated. The ANCOVA indicated that there was a main effect (medium in magnitude) for condition ( $F(2) = 6.87, p = .002, \text{partial } \eta_2 = .11$ ) while covarying out the effect of pre-HTQ scores. Contrasts showed that participants in the WLC had significantly greater HTQ scores than those in the PG ( $b = .18, p = .05, \text{partial } \eta_2 = .03$ ). Participants in the NPG condition also reported significantly less severe HTQ symptoms than those in the WLC ( $b = -.36, p < .001, \text{partial } \eta_2 = .11$ ). Participants in the NPG showed a trend for having less severe HTQ symptoms than those in the PG ( $b = -.18, p = .08, \text{partial } \eta_2 = .03$ ). Thus, treatment does appear to reduce symptoms given that after the intervention, people who received no treatment had greater traumatic stress symptoms than those receiving

the standard workshop. Additionally, people who received the NPG showed a trend for a significantly greater reduction of traumatic stress symptoms than those receiving the PG (Figure 1.). The effect of condition on HTQ symptoms did not depend on location (village 1 or 2) ( $F(5) = .86, p = .51$ ).

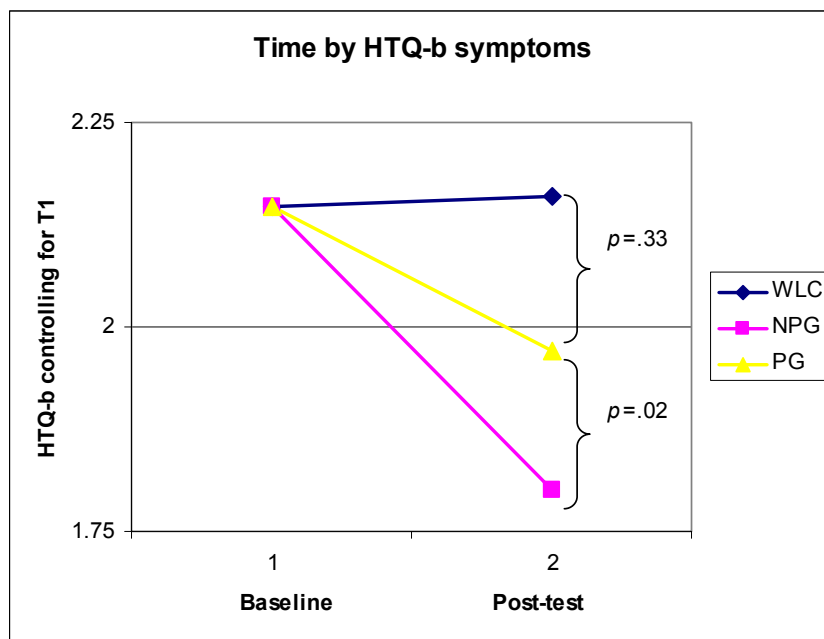
Figure 1.



The same analysis was considered using Mollica's broader definition of traumatic stress symptoms (all 30 items on the HTQ; HTQ-b). The covariate was found to be linearly related to the DV within all levels of the IV and the slopes of the regression line were equal (condition x HTQ-b T1 interaction, ( $F(2) = 2.4, p = .09$ ). Thus, the test of the assumption of equal slopes was again not significant and the null hypothesis was supported. The ANCOVA indicated that there was a main effect for condition ( $F(2) = 5.84, p = .004$ , partial  $\eta^2 = .09$ ) while covarying out the effect of pre-HTQ-b scores. Contrasts showed that

participants in the WLC did not have significantly different HTQ scores when broadly defined than those in the PG ( $b = .09, p = .33$ ). However, participants in the NPG showed significantly lower HTQ-b scores than those in the PG ( $b = -.23, p = .02, \text{partial } \eta^2 = .05$ ) as well as compared to those in the WLC ( $b = -.32, p = .001, \text{partial } \eta^2 = .09$ ). Results were therefore slightly different using a broader definition of traumatic stress that accounts for some cultural variability according to Mollica et al. (1992). In this case, people who received no trauma education in their workshop had significantly lower scores than people who received the workshop with trauma psychoeducation or who were in the WLC. People in the WLC had the highest scores though not significantly different from those receiving trauma psychoeducation.

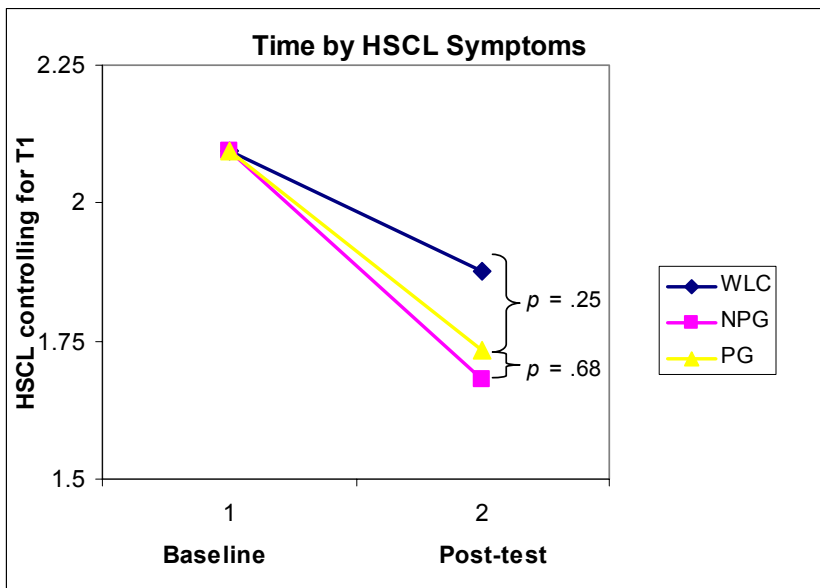
Figure 2.



*General symptoms.* An ANCOVA with pre-test scores as a covariate and was conducted with condition as an IV and post-intervention HSCL scores as the dependent

variable. The covariate was found to be linearly related to the DV within all levels of the IV and the slope of the regression line was equal for all groups (condition x HSCL T1 interaction,  $(F(2) = 1.8, p = .17)$ ). The test of the assumption of equal slopes was again not significant, and the null hypothesis was supported. However, the ANCOVA indicated that there was no main effect for condition ( $F(2) = 1.37, p = .26$ ) while covarying out the effect of pre-HSCL scores. Thus, post-treatment scores reflecting general distress did not vary significantly across conditions (Figure 3.). Additionally, the effect of condition on HSCL symptoms did not depend on location (village 1 or 2) ( $F(5) = .54, p = .59$ ).

Figure 3.



*Level of functioning.* An ANCOVA with pre-test scores as a covariate was conducted with condition as an IV and post-intervention FA scores as the dependent variable. The covariate was found not to be linearly related to the DV within all levels of the IV (condition x FA T1 interaction,  $(F(2) = 2.7, p = .02)$ ). Thus, the assumption of equal

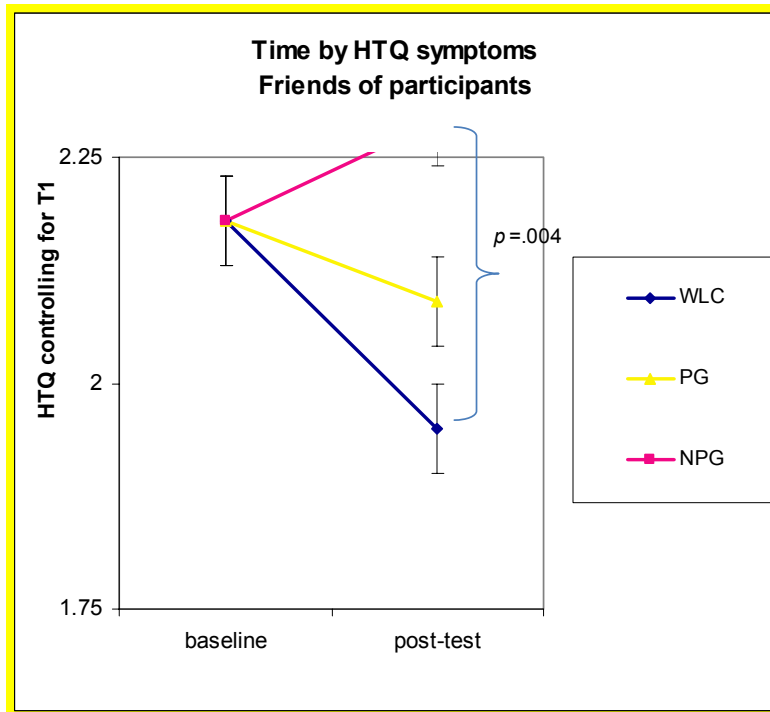
slopes was met, given that the result was significant. The ANCOVA indicated that there was no main effect for condition ( $F(2) = .83, p = .44$ ) while covarying out the effect of pre-FA scores. Thus, post-treatment scores reflecting level of functioning did not vary significantly across conditions.

#### *Hypotheses related to symptom change in friends of participants*

Each of the 120 participants was asked to bring a friend, a non-relative with whom they had regular contact, but did not live with them. That friend interviewed on the same day as the participant, but did NOT participate in the workshop themselves. This design was intended to allow us to examine what kind of effects the workshop have on community members who do not participate in the workshop but might be touched by it through their social network. Thus, each “friend of participant” was associated with the intervention condition to which their friend was assigned.

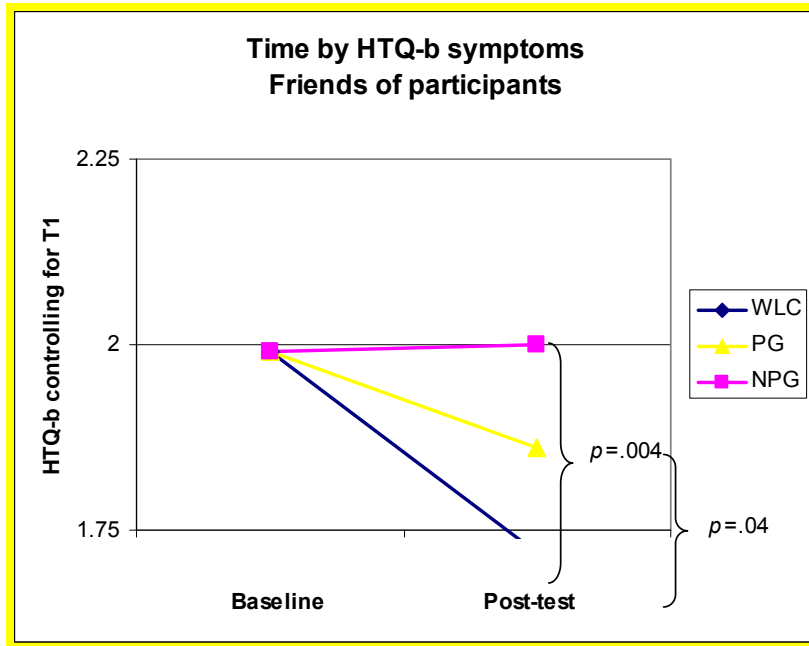
*PTSD symptoms.* An ANCOVA with pre-test scores as a covariate was conducted with condition as an IV and post-intervention HTQ scores as the dependent variable to assess whether the effect of affiliation with a participant depended on condition. The ANCOVA indicated that there was a main effect (medium in magnitude) for condition ( $F(2) = 4.36, p = .02$ , partial  $\eta^2 = .09$ ) while covarying out the effect of pre-HTQ scores. Contrasts showed that participants in the WLC had significantly greater decreases in HTQ scores than those in the NPG (mean difference =  $.32, p = .004$ ). The PG group decreased but to a degree that it was not significantly different from either of the other two conditions. In other words, friends of participants who did not receive the workshop saw the greatest improvement in symptoms to a degree that was significantly

different from the friends of participants who were in the workshop with psychoeducation. Overall, these relationships do not mirror the changes in symptoms observed among participants, so it is difficult to suggest that the differences here are the result of an association with participants.

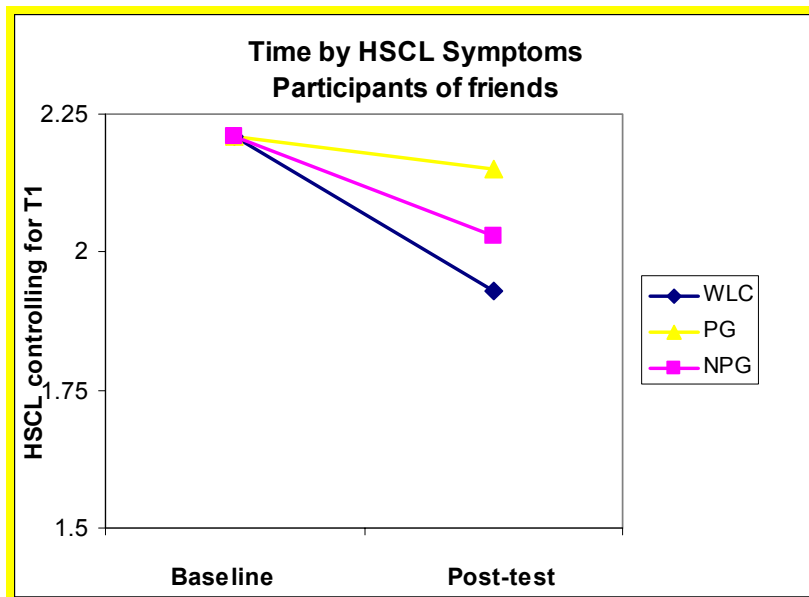


The same analysis was considered using Mollica's broader definition of traumatic stress symptoms (all 30 items on the HTQ; HTQ-b). The ANCOVA indicated that there was a main effect for condition ( $F(2) = 4.76, p = .01$ , partial  $\eta^2 = .09$ ) while covarying out the effect of pre-HTQ-b scores. Contrasts showed that participants in the WLC did have significantly different HTQ scores (when broadly defined) than those in the PG (mean difference =  $.21, p = .04$ ). Additionally, participants in the WLC showed significantly lower HTQ-b scores than those in the NPG ((mean difference =  $.32, p =$

.004). In other words, friends of participants who did not receive the workshop saw the greatest improvement in symptoms and to a degree that was significantly lower than either of the other two groups. Overall, these relationships do not mirror the changes in symptoms observed among participants, so it is difficult to suggest that the differences here are the result of an association with participants.



As with changes in HSCL symptoms among participants, HSCL symptoms among friends of participants were no significantly different across conditions. Furthermore, the relationships of relative change of HSCL symptoms for friends of participants across the three conditions did not mirror the relationship found among HSCL symptoms for participants.



This study could not detect an effect of condition on changes in symptoms among friends of participants. Overall, friends of participants in the wait list control condition generally seemed to experience greater decreases in symptoms than friends of participants in the workshops (HTQ, HTQ-b, not HSCL). It should be noted that we exerted much less control on who the friends were than we did with the participants. For instance, it was not possible to match friends of participants for gender and ethnicity across the three conditions. Other factors may also be contributing to this non-finding, or the effect is perhaps too small to be detected in this manner.

## DISCUSSION

### *Event history and symptom levels*

Our sample was drawn from a population of rural Burundians, all of whom reported histories of multiple extremely distressful events. These events included being forced to

harm or kill others, the murder of family members, and rape. In most cases, the worst of the events took place more than twelve years prior to the investigation. An average of nine events was endorsed from a predetermined list. Given that the list was predetermined and given that there was no solicitation of additional events, it is likely that many participants experienced additional traumatic events.

Despite significant histories of multiple traumas, the participants reported relatively low levels of PTSD symptoms. Using Mollica et al.'s (1992) cutoff for the HTQ, 23.7% could be considered symptomatic for PTSD (16.9% using Mollica's broader definition of PTSD across cultures). This figure is slightly lower than the general rule that 30% of people exposed to traumatic events will develop PTSD (Bonanno, 2004). The figure is also lower than what might be expected especially considering the multiplicity and horrifying nature of events that most participants endorsed.

The question remains as to how to explain the somewhat lower rates of PTSD symptoms than might be expected for a group exposed to so many horrific events. One possible explanation is that there has been a process of natural recovery during the interim period. Most participants suffered the bulk of their traumatic events between 1993 and 1995. Given the continued but intermittent civil war and general lack of security within the community, there is reason to suspect that many participants have experienced traumatic events in the more recent years leading up to our study. We did not assess to what degree participants continued to experience trauma over the last ten years. Therefore one explanation for the low level of PTSD symptomatology relative to the substantial trauma history is a gradual abatement of symptoms over the years. Such findings are strikingly similar to Bryant's (2004) reports that the vast majority of people either recover naturally or

are resilient such that they never develop full-scale PTSD. However, this explanation stands in contrast to conventional claims that PTSD is unremitting without treatment (e.g., traumatized Vietnam veterans who experienced trauma over 30 years ago; see Fontana & Rosenheck, 1994).

A second possibility is that participants were underreporting. However, the Burundian interviewers, whose presence should have facilitated disclosure, stated that they did not think that participants were generally underreporting, but were in fact often very eager to disclose the ways in which they had been affected by their experiences. Underreporting is also unlikely given that the mean scores on the HSCL-25 (anxiety and depression subscales) exceeded inpatient clinical means by almost half a standard deviation.

A third explanation for the low levels of PTSD in this sample is that PTSD symptoms do not accurately capture the type of post-traumatic stress reactions of these individuals. Many more participants exceeded Mollica et al.'s (1987) cutoff for substantial distress on the HSCL than they did on the HTQ. Perhaps the most fitting construct for traumatic stress in Burundi is something other than PTSD. The relationship between traumatic events and the ensuing symptoms remains complex, particularly in a cross-cultural setting.

#### *Hypotheses on symptom change*

Our findings suggest that the HROC intervention reduces traumatic stress symptoms in program participants. Eight weeks after the three-day HROC workshop (and 3 weeks after the follow-up day), participants of each treatment condition reported significantly lower levels of traumatic stress than those in the wait-list control. Clearly, this intervention serves to reduce symptoms above and beyond the effects of time. More

specifically, findings suggest that compared to WLC, participants randomized to the condition without reference to trauma saw greater decreases in their traumatic stress symptoms than those randomized to the condition with trauma education content. Again, those in the treatment condition without trauma psychoeducation saw the greatest decreases in the traumatic stress symptoms. Those in the standard workshop did not see improvement of a significant difference from the WLC.

There are at least three ways to understand the differential effect of treatment conditions. One is to argue that the effect of PTSD psychoeducation was due to the fact that people, in hearing these concepts for the first time, could then better express what they had been either too shy to endorse or were otherwise unable to articulate. Prior to the intervention they were already experiencing intrusive thoughts, foreshortened future, and an exaggerated startle response but could not conceptualize it sufficiently to endorse it on a symptom inventory. One way to clarify this issue is to make the distinction between experience and expression of symptoms. Do we know if the participants were experiencing symptoms but not expressing them, or were they not experiencing them? While it is possible that some participants were experiencing but not expressing symptoms, this seems unlikely given that participants did express moderate levels of distress on both symptom measures at baseline. Thus, there was no indication at baseline that they did not have the words for these items or were too shy or hesitant to endorse them.

A second explanation is that a demand characteristic resulted in different patterns of responding to questionnaires. Participants who had learned about PTSD as part of their intervention were more inclined to give the socially desirable response of endorsing

PTSD symptoms. In this explanation, there is no actual difference in symptoms, but rather only a difference in response styles.

The third explanation is that the participants did not have the symptoms or had them to a lesser degree and that the symptoms were not associated with functional impairment or severe distress. This explanation suggests that the effect of psychoeducation is to foster new symptoms and new vulnerability in someone who would not otherwise have experienced them. A plausible mechanism for this effect is that education about supposedly-normative reactions to trauma induces an expectation that trauma exposure will be debilitating. Additional studies and innovative research designs will be necessary to further tease apart these possible explanations for the differences observed across condition.

These differences between conditions were not evident within measures of anxiety, depression, and somatization symptoms (HSCL) or within a measure of level of functioning. Whereas all three conditions exhibited significant decreases from pre-test to post-test, there were no significant differences in general symptoms between conditions. Thus, the observed decreases did not vary significantly by symptom type. As with general symptoms, each condition experienced significant improvement in level of functioning, yet these differences did not vary significantly between conditions. Most likely this observed reduction in symptomatology and improvement in function was the result of causal factors common to all conditions such as enlistment in a treatment program, regression to the mean, and natural recovery.

The observed effect that the HROC program had on the distress of its participants was limited to a reduction in traumatic stress symptoms and that reduction was most

pronounced in the treatment condition that did not include PTSD psychoeducation. As the objective of the HROC program was specifically to target traumatic stress, it is perhaps a logical expectation that reduction in other symptom areas would not be achieved (relative to WLC). However, one might reasonably expect, given their theoretical relatedness, that a reduction in traumatic stress symptoms would be echoed in measures of general symptoms and level of functioning. Lastly, one might argue that these observed effects are the result of an effect specific to the group. However, it should be noted that this sample was a composition of people from distinct communities, and that each condition was conducted in each condition.

#### *Psychosocial outcomes*

This study also effectively demonstrates that, when measured by self-report of participants, people who received the HROC workshop reported changes in behaviors that are indicative of a greater stance and perspective of reconciliation. Specifically, three items yielded significant change in the desired direction (inviting others to the home, talking compassionately, and protecting someone). Importantly, a number of other items (shared meal, asked for water, talked about Crisis, asking for fire) would have also suggested significant change in behavior toward reconciliation had the effect been slightly bigger or the sample somewhat larger (compromised responses limited the sample we could use for these analyses). On the other side, some changes were robust and not for the best (avoid rain, children playing together). A Burundian perspective and consideration of the rainy season and the school calendar must be considered when interpreting these results.

#### *Friends of participants*

Results did not show that friends of participants saw significant reduction of symptoms that paralleled the outcomes of the condition to which the “friend’s participant was assigned.” There are two ways to understand this finding. Either there is an effect that was not observable given certain design limitations, or “friends of participants” are not directly affected, at least in terms of the type of outcomes we assessed. In either case, investigating whether these programs impact more than the 20 participants directly involved seems crucial and will demand additional efforts for a better assessment.

#### *Study strengths and limitations*

Certain limitations of the study warrant discussion. Our attempt to improve on past studies by including a specific assessment of level of functioning was hampered by a measure that lacked sensitivity with this specific sample. As a result, there was very little range in this variable because the vast majority reported no difficulties with level of functioning. Furthermore, interviewers on occasion failed to properly assess a hypothetical level of functioning if the practical obstacle to being able to complete the task was removed (e.g., “how well could you do it if you DID have animals to care for?”). A few responses (“not enough time to go to meetings” and “need hot water to wash myself” were difficult to assess in terms of whether they were indicative of a disability of some kind (mental health or physical) or only described a practical issue. Nonetheless, the fact that people reported reasonably high levels of distress and minimal difficulty with functioning may point a need for further research to understand the relationship between level of functioning and symptoms in different cultural settings.

A second limitation lay in the interpretation of the response to the specific content of TDE. Responses were sometimes ambiguous as to whether people were describing specific information about PTSD and trauma or if they were describing more general information about the effects of terrifying events. Analyses were conducted with both liberal and conservative interpretation of these responses to the extent that a sufficient sample size was still available. Results did not vary accordingly, so the analyses with the more conservative interpretation have been presented. Lastly in reporting frequency of TDE, interviewers did not always sufficiently press participants for responses more specific than “many times.” We had to drop these responses so our sample was unfortunately narrowed for these analyses.

Despite these methodological limitations, the study also possessed several notable strengths. This study provided an outcome study for a grass roots non-profit organization while also assessing a specific question around the effect of PTSD psychoeducation. Measures were translated and blind-back translated by and the study procedures were refined in consultation with native Burundians. Interviews were conducted entirely by local Burundian staff who were unaffiliated with the HROC project and at both pre and post test were unaware of the two treatment conditions and the associated predictions. Lastly, the sample was markedly provincial with minimal exposure to Western culture.

## References

- American Friends Service Committee (AFSC). (2001). *Burundi Update*. American Friends Service Committee Peacebuilding Update. Philadelphia: Author.
- Bolton, P. & Tang, A. M. (2002). An alternative approach to cross-cultural function assessment. *Social Psychiatry and Psychiatric Epidemiology*, 37, 537-543.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59, 20 - 28.
- Bracken, P. (2002). *Trauma: Culture, meaning and philosophy*. Philadelphia, PA, US: Whurr Publishers.
- Ehnholt, K. A., Smith, P. A., & Yule, W. School-based Cognitive-Behavioural Therapy group intervention for refugee children who have experienced war-related trauma. *Clinical Child Psychology and Psychiatry*, 10, 235-250.
- Fontana, A., Rosenheck, R., & Brett, E. (1992). War zone traumas and posttraumatic stress disorder symptomatology. *The Journal of Nervous and Mental Disease*, 180, 748 – 755.
- Hesbacher, P. T., Rickels, K., Morris, R. J. (1980). Psychiatric illness in family practice. *Journal of Clinical Psychiatry*, 1980, 41, 6-10.
- Hubbard, J. & Miller, K. E. (2004). Evaluating ecological mental health interventions in refugee communities. In Miller, K. E. (Ed.) *The mental health of refugees* (pp. 337-374). New Jersey: Lawrence Earlbaum Associates.
- Kagee, A. & Naidoo, A. V. (2004). Reconceptualizing the sequelae of political torture: Limitations of a psychiatric paradigm. *Transcultural Psychiatry*, 41, 46-61.

- Kleijn, W. C., Hovens, J. E., & Rodenburg, J. J. (2001). Posttraumatic stress symptoms in refugees: Assessments with the Harvard Trauma Questionnaire and the Hopkins Symptom Checklist-25 in different languages. *Psychological Reports*, 88, 527-532.
- Kubler-Ross, E. (1970). *On death and dying*. New York: Collier Books/Macmillan Publishing Co.
- Lemarchand, R. (1995). *Burundi: Ethnic conflict and genocide*. Cambridge, UK: Cambridge University Press.
- Miller, K. E, & Rasco, L. M (2004). *The mental health of refugees: Ecological approaches to healing and adaptation*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Mollica, R. F., Wyshal, G., de Marneffe, D., Khuon, K., & Lavelle, J. (1987). Indochinese versions of the Hopkins Symptom Checklist-25: A screening instrument for the psychiatric care of refugees. *American Journal of Psychiatry*, 144, 497-500.
- Mollica, R. F., Caspi-Yavin, Y., Bollini, P., Truong, T., Tor, S., & Lavelle, J. (1992). The Harvard Trauma Questionnaire: Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. *Journal of Nervous and Mental Disease*, 180, 111-116.
- Neuner, F., Schauer, M., Klaschik, C. Karunakara, U., & Elbert, T. (2004.) A comparison of Narrative Exposure Therapy, supportive counseling, and psychoeducation for treating Posttraumatic Stress Disorder in an African refugee settlement. *Journal of Counseling and Clinical Psychology*, 72, 579-587.

- Nicholl, C. & Thompson, A. (2004). The psychological treatment of Post Traumatic Stress Disorder (PTSD) in adult refugees: A review of the current state of psychological therapies. *Journal of Mental Health, 13*, 351-362.
- Paunovic, N. & Ost, L.-G. (2001). Cognitive-behavior therapy versus exposure therapy in the treatment of PTSD in refugees. *Behavior Research and Therapy, 39*, 1183-1197.
- Pernice, R. (1994). Methodological issues in research with refugees and immigrants. *Professional Psychology: Research and Practice, 25*, 207 – 213.
- Smith, P., Dyregrov, A., Yule, W., Perrin, S., Gjestad, R. & Gupta, L. (2000). *Children and War: Teaching recovery techniques*. Bergen, Norway: Foundation for Children and War.
- Staaehr, M. A. (2001). Psychoeducation with Kosovo Albanian refugee children. *Psyke & Logos, 22*, 127-146.
- Staub, E., Pearlman, L. A., Gubin, A. & Hagengimana, A. (2005). Healing, reconciliation, forgiving, and the prevention of violence after genocide or mass killing: An intervention and its experimental evaluation in Rwanda. *Journal of Social and Clinical Psychology, 24*, 297-334.
- Terheggen, M., Stroebe, M., & Kleber R. (2001). Western conceptualization and Eastern Experience: A Cross-cultural study of traumatic stress reactions among Tibetan refugees in India. *Journal of Traumatic Stress, 14*, 391-403.
- Weine, S. M. Becker, D. F., Ghashan, T. H., Laub, D., Lazrove, S., Vojvoda, D., & Hyman, L. (1995). Psychiatric consequences of 'ethnic cleansing': Clinical

assessments and trauma testimonies of newly resettled Bosnian refugees.

*American Journal of Psychiatry, 152, 536-542.*

## Appendix A

### HSCL

Listed below are some symptoms or problems that people sometimes have. Please read each one carefully and decide how much the symptoms bothered or distressed you in the last week, including today. Place a check in the appropriate column. If the question is too sensitive to answer, please choose, "prefer not to answer" instead of answering inaccurately.

Scale: 1 – not at all 2 – a little 3 – quite a bit 4 - extremely

|     |                                   |  |                      |
|-----|-----------------------------------|--|----------------------|
| 1.  | Suddenly scared for no reason     | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 2.  | Feeling fearful                   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 3.  | Faintness, dizziness, or weakness | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 4.  | Nervousness or shakiness inside.  | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 5.  | Heart pounding or racing.         | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 6.  | Body trembling                    | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 7.  | Feeling tense or keyed up         | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 8.  | Headaches                         | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 9.  | Spells of terror or panic         | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 10. | Feeling restless, can't sit still | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |

|     |                                    |  |                      |
|-----|------------------------------------|--|----------------------|
| 11. | Feeling low in energy, slowed down | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 12. | Blaming yourself for things        | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 13. | Crying easily                      | 1 2 3 4  | Prefer not to        |

|     |   |  |                      |
|-----|---|--|----------------------|
|     |   | <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/>            | answer               |
| 14. | Loss of sexual interest or pleasure               | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 15. | Poor appetite                                     | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 16. | Difficulty falling asleep and difficulty sleeping | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 17. | Feeling hopeless about the future                 | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 18. | Feeling blue                                      | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 19. | Feeling lonely                                    | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 20. | Thoughts of ending your life                      | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 21. | Feeling of being trapped or caught                | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 22. | Worrying too much about things                    | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 23. | Feeling no interest in things                     | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 24. | Feeling everything is an effort                   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 25. | Feelings of worthlessness                         | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |

|     |                                     |  |                      |
|-----|-------------------------------------|--|----------------------|
| 26. | Stomach pain                        | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 27. | Pains in the heart or chest         | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 28. | Heavy feelings in your arms or legs | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 29. | Pains in the lower back             | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 30. | Soreness of your muscles            | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 31. | Trouble getting your breath         | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 32. | Hot or cold spells                  | 1 2 3 4  | Prefer not to        |

|     |   |   |                         |
|-----|---|---|-------------------------|
|     |   | <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/>                     | answer                  |
| 33. | A lump in your throat                         | 1    2    3    4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to<br>answer |
| 34. | Weakness in parts of your<br>body             | 1    2    3    4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to<br>answer |
| 35. | Numbness or tingling in<br>parts of your body | 1    2    3    4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to<br>answer |

## Appendix B

### HTQ (Part I)

Instructions: We would like to know something about your experiences in the past. Knowing what your past experiences are will help us to create better programs. You may find answering some of the questions upsetting and if this is so, please feel free not to do so. We will read a list of different experiences. Please indicate whether you have experienced, witnessed, or heard about this event since 1993.

E=Experienced W=Witnessed H=Heard About N= No X = Prefer not to answer

|  | E | W | H | N | X |
|--|---|---|---|---|---|
| Lack of shelter  |   |   |   |   |   |
| Lack of food or water  |   |   |   |   |   |
| Ill health without access to medical care                                      |   |   |   |   |   |
| Confiscation or destruction of personal property                               |   |   |   |   |   |
| Combat situation   |   |   |   |   |   |
| Narrowly escaping death  |   |   |   |   |   |
| Rape   |   |   |   |   |   |
| Sexual abuse or sexual humiliation   |   |   |   |   |   |
| Serious physical injury from combat  |   |   |   |   |   |
| Forced to hide   |   |   |   |   |   |
| Forced to hide among the dead  |   |   |   |   |   |
| Someone was forced to betray you and place you at risk of death or injury      |   |   |   |   |   |
| Confined to indoors because of danger outside                                  |   |   |   |   |   |
| Forced to physically harm or kill a family member or friend                    |   |   |   |   |   |
| Forced to physically harm or kill someone who is not a family member or friend |   |   |   |   |   |
| Disappearance or kidnapping of spouse  |   |   |   |   |   |
| Disappearance or kidnapping of son or daughter                                 |   |   |   |   |   |
| Death of a family member   |   |   |   |   |   |
| Imprisonment   |   |   |   |   |   |

### HTQ (Part IV)

The following are symptoms that people sometimes have after experiencing hurtful or terrifying events in their lives. Please read each one carefully and decide how much the symptoms bothered you **in the past week**. If the question is too sensitive to answer, please choose, “prefer not to answer” instead of answering inaccurately.

Scale: 1 – not at all 2 – a little 3 – quite a bit 4 - extremely

|     |  |  |                      |
|-----|--|--|----------------------|
| 1.  | Recurrent thoughts or memories of the hurtful or terrifying event      | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 2.  | Feeling as though the event is happening again.                        | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 3.  | Recurrent nightmares   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 4.  | Feeling detached or withdrawn from people                              | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 5.  | Unable to feel emotions  | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 6.  | Feeling jumpy, easily startled   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 7.  | Difficulty concentrating   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 8.  | Trouble sleeping   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 9.  | Feeling on guard   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 10. | Feeling irritable or having angry outbursts                            | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 11. | Avoiding activities that remind you of the traumatic or hurtful event. | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 12. | Inability to remember parts of the most traumatic or hurtful event.    | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 13. | Less interest in daily activities                                      | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 14. | Feeling as if you don't have a future                                  | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 15. | Avoiding thoughts or feelings associated with the traumatic or         | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |

|     |   |  |                      |
|-----|---|--|----------------------|
|     | hurtful experience  |  |                      |
| 16. | Sudden emotional or physical reaction when reminded of the most hurtful or traumatic event      | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 17. | Feeling that people do not understand what happened to you.                                     | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 18. | Difficulty performing work or daily tasks   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 19. | Blaming yourself for things that have happened  | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 20. | Feeling guilty for having survived  | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 21. | Hopelessness  | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 22. | Feeling ashamed of the hurtful or traumatic events that have happened to you                    | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 23. | Spending time thinking about why these events happened to you                                   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 24. | Feeling as if you are going crazy   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 25. | Feeling that you are the only one who suffered these events.                                    | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 26. | Feeling others are hostile toward you   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 27. | Feeling that you have no one to rely on   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 28. | Finding out or being told by other people that you have done something that you cannot remember | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 29. | Feeling as if you are split into two people and one of you is watching what the other is doing  | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |
| 30. | Feeling someone you trusted betrayed you.   | 1 2 3 4<br><input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> ----- <input type="checkbox"/> | Prefer not to answer |

## Appendix C

### Trauma Discourse Exposure (TDE) Items for Content Validity Coding

*Please rank these items from 1-11 (one being the most, and 11 the least) according to how well they indicate having learned about Western models of traumatic stress such as Posttraumatic Stress Disorder.*

1. Listening to radio programs about how people's mental health is affected by extremely frightening or violent events. Rank: \_\_\_\_\_
2. Reading brochures or information about how people's mental health is affected by extremely frightening or violent events. Rank: \_\_\_\_\_
3. Attending workshops or trainings about how people's mental health is affected by extremely frightening or violent events. Rank: \_\_\_\_\_
4. Level of education (number of years in school). Rank: \_\_\_\_\_
5. Meeting people born in Europe, Canada, or the United States. Rank: \_\_\_\_\_
6. Having friends who were born in Europe, Canada, or the United States. Rank: \_\_\_\_\_
7. Watching TV. Rank: \_\_\_\_\_
8. Listening to radio. Rank: \_\_\_\_\_
9. Reading newspapers or magazines. Rank: \_\_\_\_\_
10. Receiving assistance from a foreign humanitarian organization like the Red Cross, the World Food Programme, the United Nations, International Rescue Committee, World Vision, Catholic Relief Services. Rank: \_\_\_\_\_
11. Receiving modern health care or medical services Rank: \_\_\_\_\_

## Appendix D

### Trauma Discourse Exposure (TDE) Interview

*Note: this measure will be reduced according to the ranking of item by expert judges.*

#### General Western Exposure

Before today, have you spoken with people born in Europe, Canada, or the United States?      Yes      No

*How many times?*

Do you have friends who were born in Europe, Canada, or the United States?      Yes      No

*How many?*

Do you:

|                   |                  |                  |                    |                     |  |
|-------------------|------------------|------------------|--------------------|---------------------|--|
| Watch TV?         | Yes              | No               |                    |                     |  |
| <i>How often?</i> | <i>Every day</i> | <i>Most days</i> | <i>Once a week</i> | <i>Once a month</i> |  |
| Listen to radio?  | Yes              | No               |                    |                     |  |
| <i>How often?</i> | <i>Every day</i> | <i>Most days</i> | <i>Once a week</i> | <i>Once a month</i> |  |
| Read newspapers?  | Yes              | No               |                    |                     |  |
| <i>How often?</i> | <i>Every day</i> | <i>Most days</i> | <i>Once a week</i> | <i>Once a month</i> |  |

#### Trauma Discourse Exposure

Have you ever listened to radio about how people's mental health is affected by extremely frightening or violent events?      Yes      No

*When or how long ago?*

*What did you learn?*

*How many times did you listen to such programs?      Once    Twice    3-4 time    5+ times*

*(If literate)*

Have you ever read information about how people's mental health is affected by extremely frightening or violent events?      Yes      No

*When or how long ago?*

*What did you learn?*

*How many times did you read this information?      Once    Twice    3-4 time    5+ times*

Have you ever attended workshops about how people's mental health is affected by extremely frightening or violent events? Yes No

*When or how long ago?*

*What did you learn?*

*How many days have you spent in these trainings? 1-2 3-5 7-10 10+*

Do you know what "Posttraumatic Stress Disorder" is? (use English) Yes No  
What is it?

Do you know what "trauma" is? (use English) Yes No  
What is it?

Do you know the word Ihahamuka? Yes No  
What is it?

*Interviewer:* \_\_\_\_\_

### Appendix E

#### Functional assessment measure for men

| Task or activity     | Degree of difficulty completing task or activity |        |          |       |                      | Cause of difficulty |
|----------------------|--|--------|----------|-------|----------------------|---------------------|
|                      | None   | Little | Moderate | A Lot | Often can't do tasks |                     |
| 1. Wash self         | 0  | 1      | 2        | 3     | 4                    |                     |
| 2. Earn money        | 0  | 1      | 2        | 3     | 4                    |                     |
| 3. Advise the family | 0  | 1      | 2        | 3     | 4                    |                     |
| 4. Manual labor      | 0  | 1      | 2        | 3     | 4                    |                     |
| 5. Socialize         | 0  | 1      | 2        | 3     | 4                    |                     |
| 6. Dress self        | 0  | 1      | 2        | 3     | 4                    |                     |
| 7. Attend meetings   | 0  | 1      | 2        | 3     | 4                    |                     |
| 8. Other             | 0  | 1      | 2        | 3     | 4                    |                     |

#### Functional assessment measure for men

| Task or activity                                   | Degree of difficulty completing task or activity |        |          |       |                      | Cause of difficulty |
|--|--|--------|----------|-------|----------------------|---------------------|
|  | None   | Little | Moderate | A Lot | Often can't do tasks |                     |
| 1. Wash self                                       | 0  | 1      | 2        | 3     | 4                    |                     |
| 2. Care for children                               | 0  | 1      | 2        | 3     | 4                    |                     |
| 3. Cook  | 0  | 1      | 2        | 3     | 4                    |                     |
| 4. Wash clothes/utensils                           | 0  | 1      | 2        | 3     | 4                    |                     |
| 5. Clean house                                     | 0  | 1      | 2        | 3     | 4                    |                     |
| 6. Participate in community development activities | 0  | 1      | 2        | 3     | 4                    |                     |
| 7. Attend meetings                                 | 0  | 1      | 2        | 3     | 4                    |                     |
| 8. Grow food                                       | 0  | 1      | 2        | 3     | 4                    |                     |
| 9. Console and assist the bereaved                 | 0  | 1      | 2        | 3     | 4                    |                     |
| 10. Other  | 0  | 1      | 2        | 3     | 4                    |                     |

## Appendix F

ID # \_\_\_\_\_

### Psychosocial questionnaire

#### A. Personal History

| Question   | Response               |
|--|------------------------|
| 1. Age?  |                        |
| 2. Male or female?   | Male (0)    Female (1) |
| 3. Where were you born?  |                        |
| 4. Where did you grow up?  |                        |
| 5. What do you do to earn money?   |                        |
| 6. <i>(If in IDP camp)</i> Do you still go back to your plot and cultivate?  | Yes    No              |
| 7. What is the highest level you reached in school?  |                        |
| 8. What year were you displaced? <i>(if relevant)</i>  |                        |
| 9. Number of times you fled fighting? <i>(if relevant)</i>   |                        |
| 10. Number of years/months living in this IDP camp <i>(if relevant)</i>  |                        |
| 11. Did you ever flee to another country to avoid the killings?  | Yes    No              |
| 12. Have you spent the night outside your home because of the killings?  | Yes    No              |
| 13. How many times?  |                        |
| 14. Are you married?   | Yes    No              |
| 15. Have you been widowed?   | Yes    No              |
| 16. <i>(For a Woman)</i> How many children have you given birth to? <i>(Or Man)</i> How many children have you fathered? |                        |
| 17. Do you still have all of them or have some died?   |                        |
| Do you have other children who are staying with you at home?   |                        |
| 18. What are three or four major problems you face in daily life?  |                        |

#### B. Social Relations

|   |                            |
|---|----------------------------|
| 19. Are there people of the other ethnicity living close to you?    | Many    Few    None        |
| <i>Please answer the following questions by providing a number.</i> |                            |
| <b>In the last two months, how many times have you . . . .</b>      | <b>Response</b> <b>N/A</b> |
| 20 . . . asked for water from a neighbor of a different             |                            |

|   |  |  |
|---|--|--|
| ethnicity?  |  |  |
| 21. . . . invited the other ethnic group into your home?  |  |  |
| 22. . . . gone to other ethnic group's house to avoid the rain?                                     |  |  |
| 23. . . . talked ironically about the suffering of the other ethnic group?                          |  |  |
| 24. . . . talked compassionately about the suffering of the other ethnic group?                     |  |  |
| 25. . . . have you talked to someone of the other ethnicity about the "Crisis" which began in 1993? |  |  |
| 26. . . . have you cultivated fields with someone from the other ethnicity?                         |  |  |
| 27. . . . have your children played with children of the other ethnicity?                           |  |  |
| 28. . . . protected someone from the other ethnic group who was being mistreated?                   |  |  |
| 29. . . . shared a meal with someone from the other ethnic group?                                   |  |  |
| 30. . . . gone to other ethnic group's house to get a drink of water?                               |  |  |
| 31. . . . freely shared your stories of how you have suffered?                                      |  |  |
| 32. . . . quarreled with your husband/wife or children?   |  |  |
| 33. . . . gone to the home of the other ethnic group and asked for burning fire?                    |  |  |
| 34. . . . informed someone of different ethnic group about a coming danger that you are aware of.   |  |  |

### C. Family relations

|  |   |            |
|--|---|------------|
| 35. Identify the closest person in your family who is of the other ethnicity. Your spouse? Siblings who have married someone of the other ethnicity? Does your spouse have siblings who have married someone of the other ethnicity? | 1) Spouse<br>2) Siblings with spouses of other ethnicity<br>3) Spouse with siblings who have married across ethnicity<br>4) Other |            |
| <i>Please answer the following questions by providing a number.</i>  |   |            |
| <b>With this relative, in the last two months, how many times have you . . . .</b>   | <b>Response</b>   | <b>N/A</b> |
| 36. . . . quarreled with them?   |   |            |
| 37. . . . talked with them about the Crisis?   |   |            |
| 38. . . . shared meals with them?  |   |            |
| 39. . . . freely shared your stories of how you suffered?  |   |            |
| 40. Would you be closer to them if they were the same ethnicity as you?  | Yes or No   |            |

**Appendix G****Demographic Questionnaire**

Date: \_\_\_\_\_ Location: \_\_\_\_\_

Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_

Where were you born? \_\_\_\_\_

What do you do to support yourself or your family?  
\_\_\_\_\_

## Appendix H

### Intervention agenda - Morning of day one

| <u>Component</u>                                 | <u>Description</u>   |
|--|--|
| Song and prayer                                  | A participant is asked to lead the group in a religious song and prayer (15 min).  |
| Opening Talk                                     | Workshop facilitators welcome the participants and give an overview of workshop (25 min).  |
| Introductions                                    | Participant introduce themselves and expresses how they hope to benefit from the workshop (20 min).  |
| Group Guidelines/Norms                           | Facilitators elicit group guidelines for behavior that will ensure participants feel safe and comfortable in the workshop (20 min).  |
| Community Building Game                          | Participants are put in groups of four and instructed to further interview and introduce each other (30 min).  |
| Break  | Break for tea (20 min)   |
| Defining Trauma (PG)<br>Concentric Circles (NPG) | Facilitator leads a discussion on the meaning of "trauma" (15 min)<br>Participants are paired and asked to disclose opinions, beliefs, and experiences to each other (20 min). |
| Causes of Trauma (PG)<br>Great Wind Blows (NPG)  | Group brainstorms possible causes of trauma (20 min).<br>An "ice breaker" in which participants reveal information about themselves (20 min).                                  |
| Symptoms of Trauma (PG)                          | The facilitator describes and discusses the symptoms of PTSD (45 min).*  |
| Projection (NPG)                                 | In cross-ethnic pairs, participants make guesses about aspects of their partner, and later learn the truth (45 min).   |
| Small Group Discussions**                        | The group gathers in groups of five to discuss what they learned in the morning session (20 min).  |

\*\*Subsequent opportunities for discussion of PTSD psychoeducation

Workshop agenda - Afternoon of day one

| <u>Component</u>  | <u>Description</u>   |
|---|--|
| Song and Prayer   | A participant is asked to lead the group in a religious song and prayer (15 min).  |
| Name Game   | Each participant chooses an "adjective name" in which their name is preceded by a positive adjective (e.g. Admirable Adrien) (35 min). |
| Consequences of Trauma (PG)**<br>Consequences of the Crisis (NPG) | In small and large group format, participants discuss how they have been affected by their (traumatic) experiences (45 min)            |
| Conclusion  | Facilitator summarizes the day and acknowledges everyone's participation (15 min).   |
| Evaluation of the Day   | The group is solicited for their feedback on each component of the day's workshop (20 min).  |

\*\*Subsequent opportunities for discussion of PTSD psychoeducation

Workshop agenda with psychoeducation - Morning of day two

| <u>Component</u>                  | <u>Description</u>   |
|-----------------------------------|--|
| Song and prayer                   | A participant is asked to lead the group in a religious song and prayer (15 min).  |
| Empty Chair Exercise              | Each participant is given a chance to speak to someone who has been important to them by directing their comments to an empty chair (90 min).                          |
| Loss, Grief, and Mourning Defined | A facilitator leads a discussion to define terms of loss, grief, and mourning in Kirundi (30 min).   |
| Personal Reflection               | In small groups, participants share experiences of loss (60 min)   |
| Break                             | Break for tea (20 min)   |
| Group Sharing of Losses           | Summaries of and comments about personal losses are discussed in the full group (45 min).  |
| Stages of Grief                   | Facilitator presents a model on the stages of grief: denial, anger, bargaining, depression, and acceptance (30 min).   |
| Healing from Grief                | A facilitator solicits ideas on how people can overcome their grief (30 min).  |
| Visioning Exercise                | Facilitator leads an exercise in which participants are asked to imagine how their lives might be different once they have moved through the stages of grief (30 min). |
| Break                             | Break for lunch (60 minutes)   |

Workshop agenda with psychoeducation - Afternoon of day two

| <u>Component</u>          | <u>Description</u>  |
|---------------------------|---|
| Song and Prayer           | A participant is asked to lead the group in a religious song and prayer (15 min).           |
| Something Valued Exercise | All participants are asked to share about one thing that they value very dearly (30 min).   |
| Different Types of Anger  | Facilitator leads a discussion on the different causes of anger (20 min).                   |
| How to Handle Anger       | Facilitator leads a discussion on how to attenuate one's anger (30 min).                    |
| Break                     | Break for tea (20 min)  |
| Anger Role Plays          | Participants practice using anger management skills in role played situations (40 min).     |
| Relaxation Exercise       | Facilitator leads a deep breathing and visualization exercise (30 min).                     |
| Closing and Evaluation    | The group is solicited for their feedback on each component of the day's workshop (20 min). |

Workshop agenda with psychoeducation - Morning of day three

| <u>Component</u>              | <u>Description</u>   |
|-------------------------------|--|
| Song and prayer               | A participant is asked to lead the group in a religious song and prayer (15 min).                            |
| Seeing Good in Others         | Facilitator gives a presentation of ways to remind ourselves to attend to the good in other people (20 min). |
| Trust Walk                    | In pairs, participants take turns leading each other blindfolded around the room and outside (30 min).       |
| Break                         | (20 min)   |
| Tree of Mistrust              | Facilitator leads a discussion on the causes and results of mistrust (25 min).                               |
| Tree of Trust                 | Facilitator leads a discussion on the causes and results of trust (25 min).                                  |
| What Can We Do to Build Trust | Facilitator solicits ideas from participants about how trust can be restored in a community (30 min).        |
| Break                         | Break for lunch (60 minutes)   |

Workshop agenda with psychoeducation - Afternoon of day three

| <u>Component</u>                     | <u>Description</u>  |
|--------------------------------------|---|
| Acceptance Circle                    |   |
| Question and Answer Period           | An unscheduled period to take questions or address related topics at the request of the group (30 min). |
| What Have We Learned                 | Each participants is given a chance to share what they have learned from the workshop (60 min).         |
| Break                                | Break for tea (20 min)  |
| Recommendations for the HROC Program | Participants make recommendations for future workshops (20 min)   |
| General Evaluation                   | Participants discuss and evaluate the contents of the workshop (20 min)                                 |
| Closing                              | Participants gather for religious song and prayer (15 min).   |