

1997

# Bosnian Civilian Survivors of War in Exile and in Bosnia: A Comparative Study

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## Recommended Citation

Matijas, Ines Lajla, "Bosnian Civilian Survivors of War in Exile and in Bosnia: A Comparative Study" (1997). *Masters Theses*. 1878.  
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**Bosnian Civilian Survivors of War in Exile and in Bosnia:  
A Comparative Study**

(title)

BY

**Ines Lajla Matijas**

1971 -

**THESIS**

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

**Masters of Clinical Psychology**

IN THE GRADUATE SCHOOL,  
EASTERN ILLINOIS UNIVERSITY  
CHARLESTON, ILLINOIS

**1997**

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING  
THIS PART OF THE GRADUATE DEGREE CITED ABOVE

**November 12, 1997**

DATE

11/18/97  
DATE

### **Acknowledgments**

The writer wishes to express her sincere appreciation to Dr. Stevan Weine and colleagues from the University of Illinois at Chicago for their cooperation and careful and competent guidance and assistance with the composition throughout the course of this study, to Dr. Keith Wilson and Dr. Ronan Bernas for their patience, availability to provide direction and diligence in assisting the writer with the composition and statistical analyses of the study, to Dr. Kirk for his enthusiasm and support, to my friends for that which I can not fully express with words, and to my family for their unconditional love, support, continual encouragement, and confidence in my ability to succeed.

## **Postman**

**We awoke this morning,  
early morning blistering through the kitchen windows,  
these women with me  
pouring coffee  
mother and daughter, my in-laws to be. . .**

**The postman visiting earlier, this day,  
carrying papers- - official papers and  
the heat got hotter,  
when the two looked at me  
to wake him.**

**I slipped through the kitchen door,  
sudden scenes of war flashed in my mind, as I creaked open the  
door to our room.**

**He slept, short breaths, quick breaths  
not flinching to the squeak of that old door,  
I'd entered and re-entered many mornings, early mornings,  
however this one to wake him.**

**The papers in my hand- - official papers  
August 28th looming in my eyes,  
like someone had given me the date of my death.**

**This day we had talked about  
in far away thoughts,  
this day we thought would never come,  
the sweat stinging my sun-burned skin,  
scorching down my back- -**

**And I woke him- slowly- quietly  
taking my time thinking that I could  
make it disappear if he just kept sleeping.**

**In the hazy wave of waking up  
he signed the papers,  
still in a dream, I suspected,  
signing this tiny little line  
that meant his life- -**

**I turned quickly back to the kitchen,  
my nightgown hooking onto the handle of  
this peeling paint old door  
and I turned to see him sleeping again.**

**Back to the kitchen,  
not knowing if he knew what he had signed,  
and I, somehow the deliverer,  
somehow wondering how I might have  
lost those papers on the way back to the kitchen.**

**Diana Matijas**

## **Bosnian Civilian Survivors of War in Exile and in Bosnia: A Comparative Study**

This study describes the psychological consequences of war for 111 female Bosnian civilians, 59 of whom are survivors in exile and 52 of whom are living in Bosnia. These participants, ages 18-23, completed anonymous self-report questionnaires which provided information about the prevalence of traumatic stress symptoms and the relationship between traumatic events experienced during the war and current symptoms of Posttraumatic Stress Disorder (PTSD). Contrary to expectations, no significant differences were found in PTSD diagnosis and PTSD severity between survivors in exile and survivors in Bosnia. No significant differences were found between groups in the frequency of reexperiencing, avoidance and hyperarousal symptoms or in the frequency and intensity of traumatic events experienced. In the sample of survivors in Bosnia, frequency and intensity of traumatic events were directly related to PTSD severity, avoidance, reexperiencing and hyperarousal. For survivors in exile frequency of traumatic events was associated with avoidance and reexperiencing, but not with hyperarousal or PTSD severity. Intensity was directly related to avoidance and reexperiencing, but not to hyperarousal and PTSD severity. The groups' differences in the relationship between traumatic events experienced and current PTSD symptoms may reflect how Bosnian civilian survivors in exile and survivors who remained in Bosnia may have different postwar experiences.

## **Introduction**

In November of 1995 the Dayton Peace Accords made provisions for the estimated 3.2 million Bosnian refugees to return to their homelands. However, many of the refugees found it difficult to return home due to the bitterness and ethnic animosity created by the war (Branson, 1995). Some Bosnians returned to their homes, but others refused to go back. Those individuals who did not return to Bosnia are faced with the challenge of integration into the places to which they fled, made more difficult as a result of their traumatization. An exploration of the prevalence of prior exposure to traumatic events and of current traumatic stress symptoms may help to better understand and assist Bosnian survivors of war.

### **Effects of War: Genocide and Trauma**

Post-traumatic stress disorder (PTSD) was known as “shell shock” during W.W.I and as “battle fatigue” during W.W.II. PTSD awareness gained prominence in the United States in the 1970’s as the mental health community sought to ameliorate the extreme postwar readjustment difficulties experienced by some Vietnam veterans. According to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), the essential feature of PTSD is the development of characteristic symptoms, such as nightmares, after an individual has been exposed to an extreme traumatic stressor involving actual or threatened serious injury or death, or any other threat to an individual’s physical entirety (American Psychiatric Association, 1994). Witnessing of the threatened death or serious injury of others can also cause symptoms of PTSD to emerge.

Three main symptoms characteristic of PTSD are avoidance, hyperarousal and reexperiencing. Individuals with PTSD may try to avoid thoughts and feelings associated

with the trauma they experienced. They may persistently attempt to avoid activities, situations, or places that remind them of the trauma. For example, Bosnians who have survived the war might withdraw from other Bosnians as a way to avoid conversations about the traumatic events they have experienced. Individuals with PTSD may reexperience their trauma by experiencing recurrent or intrusive distressing thoughts or recollections about the trauma. Some individuals may reexperience the trauma in nightmares or flashbacks. PTSD symptoms of hyperarousal include being easily startled, having intense physical reactions when reminded of the trauma (sweaty hands, heart palpitations), and difficulty falling or staying asleep.

In the past several years there has been a growing interest in learning more about trauma and healing in civilian survivors of war. This research may offer new knowledge that may not have been brought to light when researchers were exploring the effects on combatant soldiers, as in the Vietnam War. Studying PTSD in Bosnian survivors of war may also help the scientific community better understand the effects of war and genocide.

According to Grolier (1996), recent examples of genocidal behavior include the 1994 Hutu slaughter in Rwanda and the 'ethnic cleansing' in former Yugoslavia in which the Serbs uprooted Croatian and Bosnian populations from Serb-controlled parts of Bosnia by implementing systematic violence. Genocide can be defined as committing the following acts, with the intent to destroy, in whole or in part, a national, ethnical, racial or religious group: (1) killing members of the group, (2) causing serious injury to the body or mental harm to members of the group (physical and psychological torture), (3) deliberately inflicting conditions of life calculated to bring about the groups' physical destruction partially or entirely, (4) imposing measures intended to prevent births within

the group and (5) forcibly transferring children of the group to another group. Genocide or ethnic cleansing of Bosnia resulted from the direct and planned consequence of conscious policy decisions taken by the Serbian establishment in Serbia and Bosnia (Cigar, 1995).

Weine, Becker, McGlashan and Laub (1995a) conducted a descriptive study which suggested many Bosnian refugees met symptom diagnostic criteria for PTSD diagnosis following the war. In their study they described the psychiatric assessments and trauma testimonies of twenty adult Bosnian refugees ranging in age from thirteen to sixty-two, who were victims of ethnic cleansing. The twenty participants, ten male, ten female, had recently resettled in the United States. This community sample was referred from agencies managing refugee resettlement. Due to their exposure to war conditions researchers surmised these refugees were traumatized. The refugees participated in systematic, trauma-focused, clinical interviews that included standardized assessment scales, including the PTSD Symptom Scale. Interviews were conducted at the Traumatic Stress Clinic of the Yale Psychiatric Institute, and in some cases, at the refugees' homes. Clinical assessments were performed over one or two sessions, lasting between one to two hours. Clinicians assessed the refugees' PTSD symptoms and trauma severity ratings. The frequency of traumatic events correlated positively with age and PTSD severity scores were correlated with the frequency of traumatic events experienced. Sixty-five percent of the subjects met symptom diagnostic criteria for PTSD diagnosis and thirty five percent met symptom diagnostic criteria for depressive disorders and PTSD. It appears that these disorders may have developed as a result of the war because detailed histories of the subjects were obtained and indicated most of them had not experienced



developmental or psychological problems prior to the war. In fact, only one of the subjects had previous emotional problems. These findings raise the question of whether the survivors who remained in Bosnia also met diagnostic criteria for PTSD diagnosis.

In another study conducted by Weine, Becker, McGlashan, Vojvoda, Hartman and Robbins (1995b), twelve adolescent Bosnian refugees were studied during their first year in America. These participants were studied in the same manner as the participants in Weine et al's previous study (1995a). Following the assessments, results indicated that twenty-five percent of the refugees met diagnostic criteria for PTSD diagnosis and seventeen percent for depressive disorders. The relatively low rates of PTSD in this sample in comparison to Weine et al (1995a) may be an artifact of sampling error, as the sample size was small. Also, these refugees were being studied during their first year in America, so it could be that many more of these individuals would have met diagnostic criteria for PTSD with delayed onset after a longer postwar period of time. They also pointed out that these low rates may be due to normal development prior to the war, rejoining their nuclear families and lack of physical or sexual traumas. This level of adjustment may also be a reflection of adolescent resiliency. Like Weine et. al (1995a), this study also did not include the experiences of survivors who remained in Bosnia. Research on the effects of war on the civilians who have remained in their homelands seems to be limited.

### **Survivors in Exile Vs Survivors Who Have Remained In Their Homeland**

With regard to postwar adjustment, there may be important characteristics that differentiate survivors in exile (refugees) from those not living in exile. For example, refugees typically experience "uprooting problems" which are defined as problems in the way an individual's degree of self-esteem is maintained by cognitive, social, and

affective roots “interacting with the primary milieu” (Zwingmann & Pfister-Ammende, 1973). According to Zwingmann and Pfister- Ammende (1973), who first discovered and defined this phenomenon, refugees may even develop what they termed an “uprooting disorder”. They described this disorder as resulting from an abrupt severance of these roots which may lead to the development of a psychosomatic disorder, depressive illness or an anxiety neurosis (Zwingmann & Pfister-Ammende, 1973). These uprooting problems may have contributed to the difficulties experienced by the participants in Weine et al studies (1995a,1995b). Survivors who have remained in their homeland do not experience uprooting problems.

Further exploration of the experiences of the young adult survivors of the Bosnian war may be interesting because prior research on the survivors of state-sponsored violence has little to say specifically about young adult survivors, i.e., those ranging in age from eighteen through twenty-four. Typically, studies of adult traumatized individuals include adolescents and young adults in their sample, but they are not given individual attention separate from the adult population. They are just combined into one group as though we can assume their experiences are more similar than they are different. The young adults may have unique experiences we are unaware of because past research has not addressed developmental issues specific to this age group which may effect how these individuals process and cope with trauma.

Prior studies have looked at the effects of war on Cambodian adolescent and young adult survivors of war (Kinzie et al, 1986, Kinzie et al, 1989, Sack et al, 1994, Sack et al, 1995). The findings from Weine et al’s (1995b) study support prior studies on Cambodian adolescents in exile (refugees) which suggest a level of adjustment that may be a reflection of adolescent resiliency. Severely traumatized Cambodian adolescents,

assessed by Kinzie et al (1986), survived severe psychological trauma as a result of living in Khmer concentration camps for four years. Six years after they were released, researchers found that half of the adolescents met diagnostic criteria for PTSD diagnosis. Three years later, Kinzie et al (1989) found that forty-eight percent of the adolescents still suffered from PTSD and forty-one percent developed depressive disorders as well. Interestingly, researchers indicated that even though these youths displayed these symptoms, most of them were not experiencing a deterioration in functioning at work, social and school settings. This ability to not only adjust to a new environment and cope with trauma and losses, but to also be doing well in all other aspects of their lives may be reflective of adolescent resilience. If researchers continue studying youths traumatized by war, they may learn more about the affects of war and adolescent resilience and may gain knowledge that could be used to better understand and assist older generations who may have more difficulty adjusting.

Prior research conducted as a part of the Khmer Adolescent Project, a study on the traumatic effects of war on Cambodian adolescent refugees and their parents, also suggests adolescents and young adults may have unique postwar experiences. Research from this project found that twenty one percent of adolescent refugees, (a community sample of Cambodian refugees who resettled in the United States), met criteria for PTSD diagnosis (Sack et al, 1994). Thirteen percent met diagnostic criteria for major depressive disorder. A more recent study (Sack et al, 1995) from the Khmer project explored the relationship between war-related PTSD and depression across parent-adolescent generations. In this study data on one hundred and eighteen parents and adolescents was available for analysis of PTSD and major depressive diagnoses between two generations. The results indicated PTSD in the parent was directly related to PTSD in the

adolescent. The same was not true for major depressive disorder. They found PTSD in the adolescent tended to increase when both parents had a diagnosis for PTSD. When neither parent met criteria for PTSD diagnosis, thirteen percent of Khmer youths yielded PTSD diagnosis. When one parent met criteria for PTSD diagnosis, the rate increased to twenty-three percent and when both parents met criteria for PTSD diagnosis, the rate increased to forty-one percent. Sack and colleagues (1995) wonder whether certain families have a genetic susceptibility to PTSD. However, they encourage more research in this area, as no direct evidence was found to support this “genetic hypothesis”.

Sack et al (1995) also reported that sixty-two percent of the parents with PTSD disclosed an earlier onset of their symptoms compared to their adolescent offspring, of whom thirty-seven percent reported an early onset of PTSD symptoms. The study pointed out the earlier onset of PTSD in parents suggested the PTSD in the older generation was more severe than that of their adolescent offspring. The parents reported more interference in functioning at work and experienced nightmares more frequently than was true for the adolescents.

The studies available on Cambodian refugee youths have provided more information on the postwar experiences of youths. “Acculturation in the adolescent group appears to proceed relatively smoothly despite the undulating occurrence of PTSD symptoms” (Kinzie et al., 1989; Sack et al., 1995). If similar studies with Bosnian youths were pursued more information may become available on postwar experiences across generations.

### **Summary**

The genocidal war in Bosnia shattered the lives of millions of civilians. This study will look at civilian youth who survived the war in Bosnia and are living in

different environments. Fifty-nine Bosnian survivors in exile and fifty-two survivors in Bosnia participated in this study. They will complete anonymous self-report questionnaires which will provide information about the prevalence of PTSD traumatic stress symptoms and the relationship between traumatic events experienced during the war and current PTSD symptoms. One would expect to find differences in the prevalence of PTSD symptoms between the groups because of their different locations. All of these measures of survivors in exile and survivors in Bosnia may aid us in describing the psychological consequences of the Bosnian war on civilian noncombatants.

### **Hypotheses**

- 1) There will be a significantly higher percentage of PTSD diagnosis in the sample of survivors in exile. These individuals may be more traumatized because they were removed from their homeland and may have been more likely to experience forced separation from their families.
- 2) The mean rate of PTSD severity will be significantly higher in the sample of survivors in exile because they were affected by the factor of displacement, whereas the survivors in Bosnia remained in their homeland. Survivors in exile will experience problems associated with moving to a different country, such as adapting to new a new form of teaching practices, learning a new language and separation from family.
- 3) The frequency and intensity of traumatic events experienced between the survivors in exile and survivors in Bosnia will not differ because they were all exposed to conditions of war.
- 4) The frequency and intensity of traumatic events experienced will be positively associated with current PTSD symptom severity, reexperiencing symptom severity, and avoidance symptom severity in both groups.
- 5) If there are relationships between any of the variables, the correlations will not be significantly different from each other.

## **Method**

**Participants:** There were a total of 111 female, Muslim, Bosnian students, ranging in age from 18-23, participating in this study. These students were survivors of genocide, fifty-nine of whom were newly resettled refugees in Croatia and America, and fifty-two of whom remained living in their homeland, Bosnia. They were recruited through refugee resettlement agencies in Croatia, Bosnia and America. All participants had been exposed to war conditions of war, and all participants have been exposed to traumatic events. Some of the subjects experienced a death in the family, while others may have spent time in Serbian concentration camps.

**Materials:** The questionnaire used in this study was developed by researchers working under the Project of Genocide Psychiatry and Witnessing from the University of Illinois at Chicago and the Illinois Psychiatric Institute (Weine et al, 1995ab). Since the questionnaire the individuals completed was written in the Bosnian language, translation into English was completed. The questionnaire included the PTSD Symptom Scale (Foa et al, 1993) and symptoms were diagnosed using DSM-III-R criteria. Bosnians documented the frequency and intensity of traumatic events experienced by indicating how many times they were exposed to specific events and the impact these events had on them.

### **PTSD Symptom Scale and DSM-III-R Criteria**

Traumatic stress symptoms were assessed via a modification of the PTSD Symptom Scale (Foa et al, 1993). This scale contains 17 items, each rated on a 4- point scale, corresponding to the DSM-III-R criteria. This scale has high interrater and test retest reliabilities, good concurrent validity, and excellent convergent validity with the Structured Clinical Interview for DSM-III-R (Foa et al., 1993). In the questionnaire items asking whether individuals experienced PTSD symptoms were grouped into three clusters: reexperiencing, avoidance and hyperarousal. The participants responded with a “0” if the individual had not experienced the symptom, “1” if the individual experienced the symptom one time each week, “2” if the symptoms were experienced two to four times weekly and a response of “3” would indicate the individual experienced the symptom five or more times within a week. Symptoms endorsed were totaled to indicate the severity of symptoms. Reexperiencing symptom severity ranged from zero to fifteen, avoidance symptom severity ranged from zero to twenty-one and hyperarousal symptom severity ranged from zero to fifteen.

According to DSM-III-R, to meet the criteria for PTSD diagnosis, the individual must present with a minimum of one reexperiencing symptom, three avoidance symptoms and two hyperarousal symptoms (American Psychiatric Association, 1980). An individual is diagnosed with acute PTSD if the duration of the disturbance is more than one month and chronic PTSD if the duration of the disturbance is three months or more. PTSD with delayed onset is diagnosed if the onset of symptoms is at least six months after the trauma occurred. DSM-III-R criteria were used to assess whether



participants met symptom diagnostic criteria for PTSD diagnosis because the DSM-IV criteria for PTSD diagnosis indicate there must be clinically significant distress or impairment in social or occupational functioning, and this factor was not measured by this scale. Participants who responded with three symptoms of avoidance, two symptoms of hyperarousal and one symptom of reexperiencing were labeled as meeting symptom diagnostic criteria for PTSD diagnosis. PTSD severity scores, ranging from six to fifty-one, were calculated by adding all of the severity rates endorsed for each symptom. To meet diagnostic criteria for PTSD diagnosis a PTSD severity score of “6” is also required, meaning the individual has experienced a total of six symptoms (three avoidance, two hyperarousal, one reexperiencing), and each of these symptoms would also require a minimum score of at least “1” for PTSD severity. An individual will receive a PTSD severity score of fifty-one only if all seventeen symptoms were endorsed and if the highest possible severity of “3” was reported for each symptom. This would indicate the person reported experiencing all avoidance, hyperarousal and reexperiencing symptoms and indicated they experienced all of these symptoms five times or more per week. This would be viewed as an extreme score. Anything above a severity of six indicates a high rate of PTSD severity.

### **Frequency and Intensity of Traumatic Events Experienced**

A score was obtained for frequency and intensity of traumatic events experienced by totaling the individual’s responses to the twenty-one items which measured these variables. The directions indicated that each of the twenty-one items had two responses,

one for frequency and one for intensity, meaning the impact the event had on their lives. For example, item one stated “life threatening situation”. If the respondent had not experienced a life threatening situation the correct response would be “0”, “1” if it occurred one time, and “2” if it occurred more than once or always. If the impact (intensity) of the event was “no effect” the individual responded with a “0”, unknown effect- “1”, limited effect- “2”, noticeable effect- “3” or great effect- “4”. Then all of the frequency responses were summed and grouped into a “total frequency” variable, with values ranging from 0-42 , and all of the intensity responses were summed and grouped into a “total intensity” variable, with values ranging from 0-84. The frequency and intensity of traumatic events experienced scales were developed by Dr. Stevan Weine (Weine et al, 1995a, Weine et al, 1995b). The psychometric properties for these scales have not been tested.

**Procedure:** The questionnaire was administered through the universities who participated in the study, following the completion of written informed consent which can be found in Appendix A. Psychiatric professionals oversaw the completion of the questionnaires. The students completed the questionnaires in thirty minutes in their classroom settings. The items were translated into English, variables were defined, responses were coded and the data was analyzed. A key was also developed so that the results could be interpreted. The questionnaires were kept by the principal investigator and were used to compile a profile of the refugee and nonrefugee participants.

## Results

A series of t-tests for independent means were performed to compare the survivors in exile and the survivors in Bosnia on the following variables: frequency of traumatic events experienced, intensity of traumatic events experienced, PTSD severity, reexperiencing symptom severity, avoidance symptom severity and hyperarousal symptom severity. Refer to Table 1 for these results. A Chi Square analysis was conducted to see whether there was a significant difference in the prevalence of PTSD diagnosis between the two groups.

The study expected to find a significantly higher percentage of PTSD diagnosis in the sample of survivors in exile. However, both groups appeared to be equally as likely to be diagnosed with PTSD. 40.7% of the survivors in exile were diagnosed with PTSD, while 46.2% of the survivors in Bosnia were diagnosed with PTSD. A Chi Square analysis indicated these percentages were not significantly different from each other ( $\chi^2 = .33$ ,  $p = .56$ ). The refugee group reported a PTSD severity of 14.36 while the survivors in Bosnia averaged a PTSD severity of 14.12. The t-test indicated these means were not significantly different from each other ( $t = .11$ ,  $p = .909$ ).

The study expected to find a higher mean rate of PTSD severity in the sample of survivors in exile. However, Bosnians in both groups reported reexperiencing, avoidance and hyperarousal symptoms of PTSD. Survivors in exile ( $M = 3.64$ ) averaged a reexperiencing severity slightly lower than survivors in Bosnia ( $M = 4.19$ ). A t-test for independent means indicated these means were not significantly different from each

other ( $t = -.78$ ,  $p = .438$ ). Bosnian survivors in exile averaged an avoidance severity slightly higher ( $M = 5.78$ ) than the sample of survivors in Bosnia ( $M = 5.62$ ), and a t-test for independent means indicated these averages were not significantly different from each other ( $t = .19$ ,  $p = .853$ ). Survivors in exile averaged a slightly higher hyperarousal severity ( $M = 4.93$ ) than the survivors in Bosnia ( $M = 4.40$ ). Again, these differences were not statistically significant ( $t = .68$ ,  $p = .498$ ).

Both groups reported experiencing traumatic events (frequency) and both groups reported the events had an impact on them (intensity). Survivors in exile reported a mean frequency of traumatic events experienced of 11.86 and survivors in Bosnia had a mean of 10.96. A t-test for independent means indicated these means were not significantly different from each other ( $t = .74$ ,  $p = .461$ ). The survivors in exile had a mean intensity of 23.42 and the survivors in Bosnia had a mean intensity of 20.94 (the higher the mean, the greater the intensity of the traumatic event). A t-test for independent means indicated these averages were not significantly different from each other ( $t = 1.12$ ,  $p = .265$ ).

The study expected to find relationships between frequency and intensity of traumatic events experienced and PTSD severity, reexperiencing symptom severity, hyperarousal symptom severity and avoidance symptom severity. Table 2 depicts factors which were correlated with PTSD severity. In the sample of survivors in Bosnia PTSD severity was directly correlated with traumatic event intensity ( $r = .4769$ ,  $p < .001$ ), and traumatic event frequency ( $r = .5088$ ,  $p < .001$ ). In the sample of Bosnians in exile neither intensity or frequency were significantly correlated with PTSD severity ( $r = .2384$ ,  $p$

$r = .069$ , and  $r = .2195$ ,  $p = .095$ , respectively). Survivors in Bosnia's traumatic event intensity was directly correlated with reexperiencing symptom severity ( $r = .4588$ ,  $p < .001$ ), avoidance symptom severity ( $r = .3757$ ,  $p = .006$ ), and hyperarousal symptom severity ( $r = .4775$ ,  $p < .001$ ). For Bosnians in exile traumatic event intensity was significantly related to reexperiencing symptom severity ( $r = .3195$ ,  $p = .014$ ), and avoidance ( $r = .2562$ ,  $p = .050$ ) but not hyperarousal symptom severity ( $r = .0279$ ,  $p = .834$ ). For survivors in Bosnia frequency was directly associated with reexperiencing ( $r = .4668$ ,  $p < .001$ ), avoidance ( $r = .4212$ ,  $p = .022$ ) and hyperarousal ( $r = .5205$ ,  $p < .001$ ) symptom severity. Survivors in exile's frequency was directly associated with reexperiencing ( $r = .2700$ ,  $p = .039$ ) and avoidance ( $r = .2845$ ,  $p = .029$ ), but not with hyperarousal ( $r = -.0108$ ,  $p = .935$ ) symptom severity.

Three correlations were found to be significant for both groups. These included frequency of the traumatic event experienced and reexperiencing symptom severity, frequency of the traumatic event experienced and avoidance symptom severity and intensity of the traumatic event experienced and reexperiencing severity. Z tests were completed to see whether these correlations differed significantly. Results supported the hypothesis, as no significant differences were found.

Table 1

**Frequency and Intensity of Traumatic Events and PTSD Symptoms as a Function of Exile Status**

Variable	In Exile	In Bosnia
Trauma Frequency		
<u>M</u>	11.86	10.96
<u>SD</u>	5.12	7.36
Trauma Intensity		
<u>M</u>	23.42	20.94
<u>SD</u>	11.02	12.31
Overall PTSD Severity		
<u>M</u>	14.36	14.11
<u>SD</u>	9.49	12.21
Reexperiencing		
<u>M</u>	3.64	4.19
<u>SD</u>	3.14	4.13
Avoidance		
<u>M</u>	5.78	5.61
<u>SD</u>	4.49	4.85
Hyperarousal		
<u>M</u>	4.93	4.40
<u>SD</u>	3.91	4.28

Table 2

**Relation Between Frequency and Intensity of Traumatic Events Experienced During the War and Current PTSD Symptoms for Survivors in Exile and Survivors in Bosnia**

Past Trauma	Present Symptoms	Refugees	Nonrefugees
Trauma Frequency	Reexperiencing	$r = .270 *$ $p = .039$	$r = .467 *$ $p = .000$
	Avoidance	$r = .284 *$ $p = .029$	$r = .421 *$ $p = .002$
	Hyperarousal	$r = -.011$ $p = .935$	$r = .521 *$ $p = .000$
	Overall PTSD Severity	$r = .219$ $p = .095$	$r = .509 *$ $p = .000$
Trauma Intensity	Reexperiencing	$r = .319 *$ $p = .014$	$r = .459 *$ $p = .001$
	Avoidance	$r = .256 *$ $p = .050$	$r = .376 *$ $p = .006$
	Hyperarousal	$r = .028$ $p = .834$	$r = .477 *$ $p = .000$
	Overall PTSD Severity	$r = .238$ $p = .069$	$r = .477 *$ $p = .000$

\* Indicates statistical significance (  $p < .05$  )

## Discussion

Contrary to expectations, the average severity of PTSD and prevalence of PTSD diagnosis was similar for the survivors in exile and the survivors in Bosnia. This suggests that these settings may be more alike than different in terms of influencing trauma related adjustment. This is interesting because it may suggest that individuals who are almost completely removed from war conditions are as symptomatic as individuals who have remained in the aftermath of such conditions.

Relatively high rates of PTSD were found in the sample of Bosnian survivors in exile, 40.7 %. These findings support the results of other studies which also found high rates of PTSD diagnosis in Bosnian survivors living in exile: Weine et al's study (1995a) found 65% of Bosnians living in exile met symptom diagnostic criteria for PTSD diagnosis and Weine et al's study (1995b) found 25% of Bosnian survivors in exile met criteria for PTSD diagnosis. The rates of PTSD diagnosis in the present study on Bosnian youths seems congruent with PTSD rates found in previous studies.

Differences in PTSD prevalence rates between Weine et al's study (1995a), 65% PTSD diagnosis, and the present study, 40.7% PTSD diagnosis, may reflect how the passage of time, age and gender may influence these rates. If PTSD rates seem higher in Weine et al's (1995a) study, compared to the present study, it may be because the participants in Weine et al's study (1995a) were surveyed closer to the time they had fled from their homes, when their symptoms may have been more pronounced. Also, the sample used in the present study included only female participants, ranging in age from



eighteen to twenty-three. In Weine et al's study (1995a) ten of the participants were male and ten were female, ranging in age from thirteen to sixty-two. The older males who were included in Weine et al's study (1995a), may have introduced the factor of combat related trauma, which may have led to increased rates of PTSD. In the present study all participants were females. Males were not included in the study due to the complicating factor of participation in combat, which may result in higher PTSD rates. The present study attempted to isolate the factor of being in exile. Individuals who remained in Bosnia were compared to individuals who were displaced. Due to the qualitatively different experiences of the Bosnian males, including them in the present study may have turned the focus onto comparing combat vs non combat groups, which was not the purpose of the study. Further experimentation would be necessary to determine whether these PTSD prevalence rates which seem different across these groups are significantly different from each other.

Overall, past studies on PTSD in refugee youths support that this population has postwar adjustment issues which need to be addressed. Apart from Weine et al's studies (1995a,1995b), other research conducted with Cambodian adolescent refugee youth also supports relatively high rates of PTSD in traumatized adolescents. Kinzie et al (1986) found that half of the adolescents participating met symptom diagnostic criteria for PTSD diagnosis. Sack et al (1994) found twenty-one percent of the Cambodian adolescent refugees participating met symptom diagnostic criteria for PTSD diagnosis.

Overall, the reexperiencing, avoidance and hyperarousal PTSD symptoms seemed to be similar for the two groups, even though some of the individuals had been displaced from their homeland. These similarities could reflect how other factors, separate from displacement, may have an effect on the development of PTSD symptoms. To further explore this possibility researchers may wish to implement other measures, such as studying the direct relationship between displacement and PTSD symptoms, or quality of life and PTSD symptoms.

As expected, both groups reported similar ratings of frequency and intensity of traumatic events experienced. This may be because they were all exposed to war conditions. Differences in frequency and intensity of traumatic events experienced may be due to factors related to exile which were not directly detectable by the assessment scales used in the study.

The results of the correlational analyses suggest that the traumatic experiences of the survivors in Bosnia tended to be related to PTSD. Their traumatic events may be contributing to the prevalence of their PTSD symptoms because they are still reminded of their losses everyday, as they remained in the war environment. In the sample of Bosnian survivors in exile the traumatic events experienced during the war did not seem to directly affect their current mental health. PTSD severity in the refugee sample was not found to be driven by the frequency and intensity of traumatic events experienced but possibly by factors related to exile not directly detectable by the assessment scales used in this study.

Compared to the present study, past research found different relationships between PTSD severity and frequency and intensity of traumatic events experienced. In a group of twenty Bosnian survivors in exile, Weine et al's study (1995a) found that PTSD severity did correlate with the frequency of traumatic events experienced. These differences between studies were not due to the measures used because the same instruments were used in this study. Compared to Weine et al's study (1995a), the present study was conducted after a longer period of time had passed (nearly two years). It may be true that the trauma the refugees suffered was more predictable of their postwar mental health for a brief period of time. After a longer amount of postwar time, the trauma may not seem as strong because the symptoms may be masked by the "peace" they may have found after resettlement.

Z tests were completed to measure whether correlations which were found to be significant in both groups, were significantly different from each other. The significant correlations which were compared include frequency/reexperiencing and frequency/avoidance in both groups and intensity/reexperiencing and intensity/avoidance in both groups. There were no statistically significant differences. This study has shown there are differences in how traumatic events affected PTSD diagnosis. It is not yet understood to what extent these factors are related or what other factors may be influencing these findings.

### **Limitations of Current Study**

The participants in this study were not randomly selected, as they were a community sample recruited from refugee resettlement agencies. Thus, the samples used in this study may also have inherently different characteristics that influence these studies. For example, the groups may differ in ways which were not controlled for by the study, such as the participants' mental stability and emotional maturity before the war.

To improve upon the present study, researchers could also standardize the trauma scales which were used to measure the frequency and intensity of traumatic events experienced. Although participants in both groups were exposed to war conditions, differences in the types of traumatic experiences they had may be confounding variables. The present study indicated no significant differences were found in the frequency and intensity of traumatic events experienced, but did not include a measure of the duration of exposure to such events, which may also have an impact on the presence of PTSD symptoms. PTSD rates and trauma exposure were similar in Bosnians in exile and survivors who remained in Bosnia. This may be due to factors related to exile which were not directly detectable by the assessment scales used in the study and may also reflect both limitations in the cross-cultural relevance of our current diagnostic system and problems innate in the classification of PTSD.

### **Implications For Future Studies**

Future research may expand upon the present study by including noncombatant male civilians and noncombatant female civilian youth. Other measures taken during

clinical interviews may be included in addition to the self-report questionnaires so that there would be more evidence to support whether participants were over reporting or underreporting symptoms. Other areas of functioning, such as school performance, job success and overall functioning at home and in the community may be researched in future studies to see whether PTSD symptoms are interfering in other areas that contribute to quality of life. Longitudinal studies with Bosnian youths may also provide information regarding the delayed onset of PTSD. The postwar experiences of Bosnian youths and their parents could also be studied. This may provide information on generational issues similar to those which were explored with Cambodian survivors of war (Sack et al, 1995).

Future research may also want to explore whether the trauma these youths have suffered is similar to other forms of trauma psychologists are familiar with. According to the DSM-IV (American Psychiatric Association, 1994), psychologists assess for trauma and the presence of PTSD in the same manner, regardless of the nature of the traumatic event or the cultural differences that may influence postwar experiences. This lack of discrimination in the nature of the traumatic event may not yield the most accurate results in assessing for PTSD. During the war in Bosnia, rape, torture and displacement were systematically planned and enforced so the Serbians could reach their goal of annihilating an entire group of people to gain land. People should not assume the conditions of war in Bosnia were equal to the conditions in other wars without exploring

cross-cultural differences. The scientific community interested in moving towards finding answers to these questions may wish to explore these issues in future research.

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## **Appendix A**

### **University of Illinois at Chicago Consent for Participation “PTSD in Bosnian Refugee and Nonrefugee Civilians”**

**Invitation to Participate:** You are being asked to participate in a survey of Bosnian women students who have come to study in the United States (remained in Bosnian, Croatia). The information being gathered through these questionnaires will be used to learn more about how young people cope with the traumas of genocide, war, and displacement. I \_\_\_\_\_ (your name) state that I am \_\_\_\_\_ years of age and agree to participate in a research study being conducted by Dr. Weine, the principal investigator.

**Purpose of Study:** The purpose of this study is to determine the prevalence of prior exposure to traumatic events and of current rate of traumatic stress symptoms and patterns of socio-cultural adjustment in Bosnian students in America (in Bosnian, Croatia). This study looks at the relationship between variables such as exposure to violent events, cultural identification, quality of life at school, and the development of traumatic stress symptoms.

**Explanation of Procedures to be Followed:** You are being asked to complete a questionnaire that should take you less than 30 minutes. In order to assure that we get good results, we ask that you complete this questionnaire separate from your host or sponsor--without asking their assistance or without telling them your answers (because they may also be participating in a survey). The completed questionnaires should be sent in the stamped, self-addressed envelope to Steve Weine, M.D./U.I.C. Psychiatric Institute Rm. 423/1601 West Taylor Street/Chicago, IL 60612. The questionnaires will be kept by the principal investigator and used to compile a profile of the group as a whole. We plan to provide each participant with a written report of our results on the group as a whole.

**Description of Risks and Discomforts:** In the event that you are too distressed by completing the questionnaire, then you may choose to stop. In addition, if you have any questions or concerns regarding the questionnaires or what it brings up for you, then you will be able to contact either the principal investigator or the Fellowship of Reconciliation staff, who would then take appropriate measures.

**Description of Benefits:** There is no direct benefit to the individual subject for completing this questionnaire. However, by reporting our findings back to all the participants in the Bosnian Student Program, the study should increase the level of knowledge about traumatization and socio-cultural adjustment in this population.

**Disclosure of Alternatives:** We hope that you will choose to participate by completing this questionnaire and sending it to us. However, if you choose not to participate, it will in no way effect your relationship with the Fellowship of Reconciliation, the Bosnian Student Project, your school, or your sponsors.

**Confidentiality:** Your name will not be requested to appear on the questionnaire. Questionnaires will be identified by a number that the principal investigator will keep strictly confidential. We will share our results on the group as a whole with each student, sponsor, and staff participant in the program through a written report. Any professional presentations or publications that result from this study will not be revealing of individual identity but will describe the group as a whole.

**Economic Considerations:** You will receive no payment for participation in this study.

**Availability of Compensation Injury:** I understand that, in the event of physical injury resulting from this research, there is no compensation and/or payment for medical treatment from the University of Illinois at Chicago for such injury, except as may be required of the University by law.

**Right of Refusal:** Participation in this study is voluntary and that refusal to participate will involve no penalty or loss of benefits to which I am otherwise entitled. I understand that I may discontinue participation at any time without penalty or loss of benefits to which I am otherwise entitled. I also understand that the investigator has the right to withdraw me from the study at any time.

**Offer to Answer Questions:** I acknowledge that Dr. Weine has explained to me the risks involved, the need for the research, and has offered to answer any questions which I may have concerning the procedures to be followed. I freely and voluntarily consent to participate in this study. I understand that I may keep a copy of this consent form for my own information.

Dr. Stevan Weine phone#: (312)666-6500 ext. 3205, beeper: (312)413-7959 #3904

\_\_\_\_\_  
Volunteer (Sign and Date)

\_\_\_\_\_  
(Print name)

\_\_\_\_\_  
Investigator (Sign and Date)

\_\_\_\_\_  
(Print name)

\_\_\_\_\_  
Witness of Volunteer's Signature

\_\_\_\_\_  
(Print name)