

Mental Health of Somali Adolescent Refugees: The Role of Trauma, Stress, and Perceived Discrimination

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The primary purpose of this study was to examine relations between trauma exposure, post-resettlement stressors, perceived discrimination, and mental health symptoms in Somali adolescent refugees resettled in the U.S. Participants were English-speaking Somali adolescent refugees between the ages of 11 and 20 ($N = 135$) who had resettled in the U.S. Participants were administered an interview battery comprising self-report instruments that included the UCLA Posttraumatic Stress Disorder (PTSD) Index, the War Trauma Screening Scale, the Every Day Discrimination scale, the Adolescent Post-War Adversities Scale, and the Acculturative Hassles Inventory. Results indicated that cumulative trauma was related to PTSD and depression symptoms. Further, post-resettlement stressors, acculturative stressors, and perceived discrimination were also associated with greater PTSD symptoms after accounting for trauma, demographic, and immigration variables. Number of years since resettlement in the US and perceived discrimination were significantly related to depressive symptoms, after accounting for trauma, demographic, and immigration variables. Further research elucidating the relations between post-resettlement stressors, discrimination, and mental health of refugee adolescents may inform intervention development.

Keywords: refugees, adolescents, discrimination, trauma exposure

According to the 2004 Global Research Trends from the United Nations High Commissioner for Refugees, there are approximately 9.9 million refugees. Approximately half of these are youths under the age of 18 years (United Nations High Commissioner for Refugees, 2007). Many child and adolescent refugees are entering countries of resettlement with high levels of trauma exposure and significant mental health needs (Almqvist & Brandell-Forsberg,

1997; Kinzie, Sack, Angell, Manson, & Rath, 1986; Sack, Clarke, & Seeley, 1996; Sack et al., 1994). In a study of 300 children ages 5 to 18 years living in the United Kingdom, 100 of whom were refugees, more than 25% of the refugee children in the sample reported experiencing significant psychological disturbance—more than three times the national average and significantly greater than the nonrefugee children surveyed (Fazel & Stein, 2003).

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Posttraumatic stress disorder (PTSD) and depression are particularly prevalent in refugee populations. Rates of PTSD have ranged from 11.5% to 65% in samples of refugee children and adolescents from Cambodia (Hubbard, Realmuto, Northwood, & Masten, 1995; Kinzie, Sack, Angell, Clarke, & Ben, 1989; Kinzie et al., 1986; Sack, Him, & Dickason, 1999; Sack et al., 1994), Bosnia (Weine et al., 1995), Afghanistan (Mghir, Freed, Raskin, & Katon, 1995), Palestine (Khamis, 2005), and Tibet (Servan-Schreiber, Lin, & Birmaher, 1998). Additionally, one study of internally displaced Bosnian children reported alarmingly high levels of PTSD, with 94% of the sample meeting criteria for the disorder (Goldstein, Wampler, & Wise, 1997). Studies have found comparable rates of depression in child and adolescent refugee samples, with prevalence rates ranging from 11% to 47% (Heptinstall, Sethna, & Taylor, 2004; Papageorgiou et al., 2000; Savin, Sack, Clarke, Meas, & Richart, 1996; Servan-Schreiber et al., 1998; Weine et al., 1995).

Given the high prevalence rates of mental health problems within these populations, there is a great need for research examining post-resettlement factors that may contribute to, or protect

against, the development and maintenance of these mental health problems in child and adolescent refugees. While some research has shown that historical factors, such as degree of trauma exposure (Heptinstall et al., 2004; Mollica, Poole, Son, Murray, & Tor, 1997; Papageorgiou et al., 2000; Rousseau & Drapeau, 1998; Sack et al., 1996), fleeing without parents (Halcon et al., 2004), immigrating at an older age (Halcon et al., 2004), and having arrived in the country of resettlement more recently (Halcon et al., 2004), are related to higher levels of PTSD, relatively little is known about what post-resettlement factors are associated with mental health problems in refugee youths.

It is essential for the mental health field to understand how experiences following resettlement, particularly those that are amenable to change, relate to mental health problems. Stressors encountered during resettlement may directly or indirectly contribute to the development of mental illness. Under a developmental psychopathology model, an adolescent's functioning must be understood as part of a trajectory that builds on past experiences and lays the foundation for future growth (Cicchetti & Rogosch, 2002). Major events that change the balance of risk and protective factors within an adolescent's life can dramatically alter the course of an individual's development. Through this lens, exposure to trauma and forced migration can be viewed as significant risk factors influencing an adolescent's developmental trajectory. Ongoing stressors associated with resettlement may further increase risk to healthy development. Particularly given that adolescents must navigate multiple challenges related to their developmental stage, such as developing a sense of autonomy from family and a cohesive sense of self-identity (Masten & Coatsworth, 2000), the addition of stressors associated with resettlement come at a particularly critical juncture in a youth's developmental trajectory.

Pynoos and colleagues (Pynoos, Steinberg, & Piacentini, 1999) have further articulated a developmental psychopathology trauma model that elucidates how contemporary stressors may be pathogenic for youths who have experienced trauma. Under this model, traumatic reminders, related stressors, and posttraumatic symptoms interact in both the immediate (proximal) aftermath of the trauma and in the long-term (distal) aftermath. Pynoos et al.'s (1999) model emphasizes the interaction between the child and his or her environment in the emergence of symptoms after a traumatic event. From this perspective, perceived stressors in the social environment post-resettlement may function as traumatic reminders or triggers for posttraumatic symptoms.

Two bodies of literature have begun to describe post-resettlement stressors of importance for refugees. The first body of literature focused primarily on the role of post-resettlement and acculturative stressors. The second body of literature pertained to the association between the stress of perceived discrimination and mental health outcomes. Under a developmental psychopathology perspective, each of these areas of stress may contribute to the emergence of psychopathology among refugee adolescents. Stressors associated with acculturation and resettlement may exacerbate difficulties with developmental tasks such as developing autonomy and a self-identity. For instance, conflict with parents, a primary area of turmoil for adolescents (Arnett, 1999), may be heightened as a result of intergenerational differences in acculturation. Perceived discrimination may contribute to greater stress associated with developing a cohesive sense of self. Furthermore, for traumatized youths being teased or harassed due to race, ethnicity, or

religion, these factors could function as traumatic reminders. Particularly for youths who have fled a country due to persecution associated with their ethnic or religious identity, being hassled or discriminated against could be particularly detrimental to their well-being. Findings within these two areas of study are described below.

Post-Resettlement Stress, Acculturative Stress, and Mental Health

Sack and colleagues (1996) examined war trauma, resettlement stress, and recent stressful events in their study of 170 Khmer adolescents. They defined resettlement stressors as events specifically related to the process of immigrating (e.g., being unable to practice one's religion) and recent stressful events as mild stress more typically encountered in day to day life (e.g., illness; Sack et al., 1996). They found that PTSD symptoms were associated with both war trauma exposure and level of immigration-related resettlement stress. In contrast, they found that depression symptoms were associated with more recent stressful events. Thus, traumatic experiences and stressors specific to immigration may be particularly influential in the development and perpetuation of PTSD, while everyday stressors post-resettlement may be more likely to precipitate the development of depressive symptoms.

These findings were largely replicated in Heptinstall and colleagues' (2004) study of 40 refugee children resettled in London. They found that parent-reported severe financial hardship was related to higher depression scores in their children, while pre-migration trauma (i.e., violent death of family members) was associated with higher PTSD scores in the children. This link between financial stress and poorer mental health in refugees has been found in other studies as well (Steel, Silove, Bird, McGorry, & Mohan, 1999; Sundquist, Bayard-Burfield, Johansson, & Johansson, 2000). There are, however, exceptions (Sack et al., 1994; Savin et al., 1996).

Several immigration factors were examined in the only published study of mental health in Somali young adult refugees (Halcon et al., 2004). This study, examining interview data with 338 Somali and Oromo young adults living in Minnesota, found that lower levels of PTSD symptoms were associated with speaking English more fluently, leaving home at a younger age, immigrating to the U.S. at an earlier age and with a family member, and living in the U.S. longer. Again, this study largely found historical premigration factors to be associated with higher levels of PTSD symptoms.

Perceived Discrimination and Depression

The second body of literature to consider in understanding how experiences of resettlement relate to the adjustment of child and adolescent refugees focused on perceived discrimination following resettlement. There is a strong relationship between discrimination and poorer mental health outcomes, including depression and psychological distress, among minority youths (Fisher, Wallace, & Fenton, 2000; Klonoff, Landrine, & Ullman, 1999; Landrine & Klonoff, 1996; Rumbaut, 1994). However, only limited research has examined perceived discrimination and mental health outcomes in refugee populations. Perceived discrimination was associated with higher levels of depression in Southeast Asian adult

refugees in Canada (Noh, Beiser, Kaspar, Hou, & Rummens, 1999) and with psychological distress across seven different immigrant and refugee groups in Finland (Jasinskaja-Lahti, Liebkind, & Perhoniemi, 2006). In a survey of 5,264 adolescents who were either immigrants or born to immigrant parents, perceived racial discrimination was again related to higher levels of depression (Rumbaut, 1994).

Despite the robust findings relating perceived discrimination to depression and psychological distress in a variety of populations, no research has examined the role of perceived discrimination in the mental health of refugee youths. Furthermore, research has typically focused on the connection between perceived discrimination and depression (e.g., Noh et al., 1999), and no research to date has examined the impact of discrimination on the development or perpetuation of PTSD symptoms in refugee youths.

This study examined perceived discrimination and both PTSD and depression symptoms in a sample of refugee adolescents. The goal of this study is to contribute to this literature through an examination of post-resettlement stressors, discrimination, and mental health in Somali adolescent refugees resettled in the U.S. Specifically, the following hypotheses will be tested: (a) Higher PTSD and depression symptoms will be associated with greater numbers of traumatic events; (b) higher levels of post-resettlement stress (i.e., inadequacy of housing, parents not speaking English, and acculturation stressors) will be associated with greater PTSD and depression symptoms; and (c) perceived discrimination will be associated with greater PTSD and depression symptoms, even after accounting for post-resettlement stress.

Method

Participants

Recruitment

Somali adolescents between the ages of 12 and 19 years who were born outside the U.S. and had been living in the U.S. for at least 1 year were invited to participate. Participants were recruited in three New England cities (Boston, MA; Portland, ME; and Lewiston, ME). Adolescents who were not fluent in English were excluded. In instances where English fluency was questionable, interviewers first attempted to administer questionnaires from the battery that used the simplest language. If an adolescent was unable to understand the questions in those questionnaires, then the adolescent was excluded from the study.

Refugees have been described as "hidden" communities, which are difficult if not impossible to sample randomly (Spring et al., 2003). Many agencies and institutions, such as public schools, do not collect or record data by nationality. Even when data are collected, heightened fear or mistrust of authorities can lead to refugees reporting inaccurate information. In addition, not all members of a particular ethnic group arrive through the same channels, so while some may have entered the country as refugees and, accordingly, are identifiable through resettlement agencies, others may have immigrated under other mechanisms or may be residing in the U.S. without legal documentation. Particularly in the latter case, this means that random sampling of those legally defined as refugees would miss important subgroups that may share unique experiences in resettlement. In a recent study that

used probability sampling to identify immigrants from seven different ethnic groups, only 27% of Somalis responded to the survey, the lowest response rate of any of the ethnic groups surveyed and almost half the response rate of other groups (Jasinskaja-Lahti et al., 2006). Thus, even population sampling may lead to a nonrepresentative group within particularly difficult-to-access subgroups.

Therefore, in an effort to maximize participation within the Somali community we drew on several strategies that have previously been successful with refugee communities. These included establishing trust and rapport with community leaders, attending community events, hiring staff that reflected the culture of the community of study, spreading information about the study generally within the community through presentations on the local television channel and at community meetings, providing information in school lunchrooms, and receiving referrals from previous participants. This latter strategy has been noted to be particularly useful within populations in which a degree of trust is required to gain access to individuals in the group (Atkinson & Flint, 2001; Halcon et al., 2004; Spring et al., 2003).

Seventeen members of the community (11% of those approached to participate) declined participation. Reasons for refusing participation included lack of interest and parents who did not want their adolescent to be interviewed as well as one instance of not wanting to be in a study associated with mental health. The sample consisted of 135 parent-adolescent dyads.

The study used a Community-Based Participatory Research methods approach (Ellis, Kia-Keating, Yusuf, Lincoln, & Nur, 2007), which included the development of a Community Advisory Board. This advisory board helped to shape the study design and implementation; examples of how their involvement shaped the study include identifying key domains to measure in the study, translation methods for and oral administration of interviews, and the chosen recruitment strategies. In addition to engaging a Community Advisory Board, community meetings were held describing the study and seeking community consent (for a detailed description of Community-Based Participatory Research Methods used in this study, see Ellis et al., 2007).

Sample Characteristics

The sample consisted of 84 boys and 51 girls, ranging in age from 11 to 20 years. Although recruitment targeted adolescents between the ages of 12 and 19, due to conflicting reports about the age of some adolescents and the fact that in some cases exact birthdates were unknown, several participants just outside the target recruitment age range were allowed to participate. Mean age within the sample was 15.4 years. The average age of arrival in the U.S. was 10 years old (range = 0–18 years), and youths had been in the U.S. for an average of 5.4 years (range = 1–14 years). In addition, caregivers were interviewed. The majority of caregivers interviewed were female (82%). Sixty-seven percent were mothers. Slightly less than a quarter of the caregivers (24%) identified themselves as fluent in English. All members of the sample identified themselves as Somali or Somali Bantu, and 98% endorsed practicing the Muslim religion. Detailed sample characteristics are reported in Table 1.

Table 1
Sample Characteristics (N = 135) of English-Speaking Somali Refugees

Characteristic	%	n	M	SD	Range
Adolescents					
Male	62	84			
Female	38	51			
Age (years)			15.4	2.2	11–20
Age of arrival in U.S. (years)			10.0	4.0	0–18
Years spent in the U.S.			5.4	3.3	1–14
City of residence					
Boston, MA	59	79			
Portland, ME	10	14			
Lewiston, ME	31	42			
Secondary or tertiary migrants	47	63			
Arrived with primary caregiver	84	114			
Caregivers					
Male	18	24			
Female	82	110			
Relationship to adolescent					
Mother	67	90			
Father	15	20			
Aunt or uncle	7	10			
Sister	5	7			
Grandparent	4	6			
Step-mother	1	1			
English fluency					
Fluent	24	33			
Some need for an interpreter	27	37			
Always a need for an interpreter	47	64			
Missing	1	1			
Years of education			7.0	6.1	0–20
Employment					
Employed in Somalia	52	70			
Currently employed	42	42			
Region of Somalia originating from					
South	96	130			
North	2	2			
Central	2	3			
Rural	8	11			
Urban	91	123			

Procedure

Caregivers were interviewed by a Somali interviewer in Somali, and adolescents were interviewed separately by a non-Somali interviewer in English. Interviews were conducted at community centers, a hospital, or in participant homes. Written and oral consent was obtained from guardians, and written and oral assent was obtained separately from adolescents. This study was fully approved by the Boston University Medical Center Institutional Review Board. A Somali Community Advisory Board also reviewed and approved study procedures.

Interviews lasted between 1.5 and 3 hours. All caregiver instruments were translated, back-translated, and checked for accuracy. Because the Somali language is orally based, the language is highly fluid, and subtle phrasing differences are incorporated into speech depending on the audience. Given this, Somali Community Advising Board members advised that adherence to strict written translations of instrument items would likely result in awkward and/or inappropriate questions when administered orally. There-

fore, the two Somali interviewers carefully reviewed the translated instruments in Somali to ensure they understood the content but then translated orally from the original English language instruments. Adolescent interviewers administered instruments orally in English.

Measures

Mental Health

The UCLA PTSD Index (UCLA PTSD-I; Rodriguez, Steinberg, & Pynoos, 1999). The PTSD Index is a 22-item evaluator-administered paper and pencil youth self-report instrument designed to assess PTSD symptoms among children and adolescents who have experienced traumatic events. Items are rated on a 5-point frequency scale, with possible scores ranging from 0 to 76. The UCLA PTSD Index yields an overall PTSD severity score as well as PTSD severity subscales for symptoms of re-experiencing, avoidance, and increased arousal. The instrument demonstrates strong convergent validity, .70 in comparison with the PTSD Module of the Schedule for Affective Disorders and Schizophrenia for School-Age Children, Epidemiologic version, and .82 with the Child and Adolescent Version of the Clinician-Administered PTSD Scale (Rodriguez, Steinberg, Saltzman, & Pynoos, 2001). Alpha coefficients have demonstrated high internal consistency (.90; Layne, Pynoos, & Saltzman, 2001; Roussos et al., 2005), and test-retest reliability has ranged from good to excellent (Pynoos et al., 1987). This instrument has demonstrated strong psychometric properties with a subset of the sample in this study. As reported by Ellis and colleagues (2006), the instrument demonstrated high internal consistency (Cronbach's $\alpha = .85$) and strong convergent validity as assessed through bivariate correlations with the Depression Self-Rating Scale ($r = .72, p < .001$) and the War Trauma Screening Scale ($r = .59, p < .001$; Ellis, Lhewa, Charney, & Cabral, 2006).

Depression Self-Rating Scale (DSRS; Birlerson, Hudson, Buchanan, & Wolff, 1987). The DSRS is an 18-item self-report instrument used to assess depressive symptoms among children and adolescents. Items are based on a 3-point scale ranging from *never* to *most of the time* and referring to frequency in the past week. The DSRS has demonstrated high internal consistency in samples of children and adolescents (.90 and .88, respectively) and high concurrent validity (.79) when correlated with the Beck Depression Inventory (de la Pena et al., 1996; Goenjian et al., 2001). It has been used with diverse populations, including adolescents in Sweden (Ivarsson & Gillberg, 1997, Ivarsson, Lidberg, & Gillberg, 1994), Nicaragua (de la Pena, et al., 1996; Goenjian et al., 2001), and China (Cheung, 1996), as well as Bosnian refugee children exposed to war trauma (Papageorgiou et al., 2000). Internal consistency within this sample was strong (Cronbach's $\alpha = .81$).

Trauma Exposure

War Trauma Screening Scale (Layne et al., 1999b). The War Trauma Screening Scale (WTSS) is a self-report checklist of violence and adversity experienced in the context of war exposure. Out of the original 72 items, Somali cultural consultants identified 26 of the items most relevant for use with Somali adolescents. The

11 original categories of traumatic experience were preserved by including at least 1 item from each: direct physical contact with danger, witnessing violence, physical threat, deaths, harm to loved ones, material loss, displacement, threat to loved ones, separations, extreme deprivation and hardship, and involvement in hostilities. In addition, the items were adapted to assess exposure to each event occurring at any time in the adolescent's life in order to account for lifetime exposure to trauma (e.g., "Did you ever see someone who had been wounded or severely injured?") and to ascertain when the trauma occurred (i.e., during the Somali Civil War, during migration, in a refugee camp, after resettlement, or other). A count of numbers of traumas endorsed is used in analyses. Convergent validity was assessed through correlating the adolescent's War Trauma Screening Scale score with the parent report of their adolescent's exposure to trauma. Parent and adolescent report were significantly correlated ($r = .42, p < .01$). The total exposure score of the original instrument demonstrated strong internal consistency within a sample of Bosnian youths (.78; Layne et al., 1999b), and the adapted version similarly demonstrated strong internal consistency within this sample (Kuder-Richardson Formula 20 coefficient = .86).

Post-Resettlement Stressors

Adolescent Post-War Adversities Scale (Layne, Stuvland, Saltzman, Djapo, & Pynoos, 1999a). This measure is a 37-item adolescent-report inventory of common post-war life adversities including housing, financial, and interpersonal problems. Respondents are asked to respond "yes" or "no" to the question if it occurred in the past 6 months. Sample items include "During the past six months, have people you live with gotten into serious fights or conflicts with each other?" and "Has one of your parents worked long hours so you do not get to see him/her much?" Several of the original items that were not applicable to youths who had resettled away from a war zone were dropped, and 2 additional items were added based on community feedback (i.e., "Have you received bad news about a friend or a relative in Africa, such as an illness or death?" and "Have you or your family been unable to send or receive money or other communications to people back in Africa, when you wanted to?"). The modified instrument used in this study includes 23 yes-no items. A total score is created by counting the number of items endorsed, with higher scores indicating greater adversity. The modified Adolescent Post-War Adversities Scale showed strong internal consistency in this study (Cronbach's $\alpha = .73$) and showed good convergent validity based on moderate negative correlations with a measure of family support developed by Layne and colleagues (in press), the Multi-Sector Social Support Scale ($r = -.39, p < .01$), and the number of people in the home who were employed ($r = -.22, p < .05$).

English fluency of caregiver. Caregivers were asked to state whether they were fluent in English, whether they "get by," or whether they always need an interpreter. They were assigned a score of 1, 2, or 3 accordingly with higher scores indicating less fluency. Convergent validity was suggested through a significant negative correlation of this item with duration of time the adolescent had spent in the U.S. ($r = -.34, p < .01$).

Housing adequacy. Adolescents were asked to rate how adequate they felt their housing was for their family's needs on a 7-point scale.

Acculturative Stress

Acculturative Hassles Inventory—Family Hassles subscale (Vinokurov, Trickett, & Birman, 2002). The Acculturative Hassles Inventory is a measure of acculturative hassles developed to assess acculturative stressors in four life domains (school, peers, language, and family) among Soviet Jewish adolescent refugees. For the purposes of this study, only the Family Hassles subscale was used. This subscale was deemed most important by the Community Advisory Board, as it measures an area of stress particularly salient to adolescents (Arnett, 1999) and, in particular, to immigrant adolescents (Ying & Han, 2007). Items were adapted by replacing the word "Russian" with the word "Somali." The Family Hassles subscale consists of 14 items that assess the frequency and severity of an adolescent's experience with family acculturative stressors. Questions include situations such as having to translate or explain American culture to family members or the experience of parental criticism for "becoming too American" or "not being proud of your Somali heritage." The original instrument demonstrated adequate test-retest reliability: .76 for the overall frequency score, and .60 for the overall severity score (Vinokurov et al., 2002). Internal consistency was found to be strong (.75) for the Family Hassles subscale (Vinokurov et al., 2002).

We calculated internal consistency coefficients for the frequency and severity ratings to the total scale for Family Hassles. Within this sample, internal consistencies of the frequency ratings were good ($\alpha = .71$), and internal consistencies of the severity scores were excellent ($\alpha = .84$). Convergent validity was assessed by calculating the Pearson product-moment correlations correlation coefficients of the Family Hassles frequency and severity scores with the Family Support subscale of the Multidimensional Social Support Inventory. Family Hassles and Family Support were modestly negatively associated ($r = -.20$ and $r = -.22$ for the frequency and intensity scores, respectively, $p < .05$), suggesting adequate convergent validity. Family Hassles frequency and intensity scores were not significantly correlated with the Peer Support scale of the Multidimensional Social Support Inventory, suggesting good divergent validity ($r = -.07$ and $r = -.02$, respectively, *ns*). Severity ratings were used in the following analyses.

Perceived Discrimination

Every Day Discrimination (Williams, Yu, Jackson, & Anderson, 1997). This nine-item questionnaire queries adolescents about how often they experienced routine, minor acts of discrimination. Examples include "You are treated with less respect than other people," "People act as if they think you are not smart," and "You are called names or insulted." Adolescents were asked to respond on a 7-point scale, ranging from *never* to *almost every day*. Scores across all items are summed to provide a total score. The instrument has demonstrated strong internal consistency within other samples, ranging from .73 (Guthrie, Young, Williams, Boyd, & Kintner, 2002) to .88 (Williams et al., 1997). Internal consistency within this sample was strong (Cronbach's $\alpha = .81$). Convergent validity in this sample was assessed through correlations with

parent report of whether their adolescent had experienced discrimination, using the same nine items from the Every Day Discrimination (Pearson's $r = .32, p < .01$).

Statistical Methods

Data were double entered and checked for accuracy. In cases where item nonresponse led to missing data for a participant on fewer than 10% of items on a given scale, individual mean substitution was used; we substituted the mean of the valid items for that individual participant on that scale for the missing values. This method has been described as advantageous in that it uses all the information provided by an individual on a particular scale in estimating the scale's missing values (Widaman, 2006). Three percent of participants had more than 10% of the items missing on any scale. For these, the summary scores for the scale were set to missing. The remaining sample ($n = 129$) was sufficient for the planned analyses. Histograms of key variables were evaluated for normality, and one variable (War Trauma Screening Scale) was found to be moderately positively skewed. Comparisons of nonparametric and parametric correlation coefficients showed that p values were the same and that correlation coefficients were similar, suggesting robustness to the normality assumption for these analyses. No multivariate outliers were detected.

We first generated descriptive statistics for all variables of interest from the adolescent and caretaker interviews that included means and standard deviations for continuous variables and counts and percentages for categorical variables. We then computed bivariate correlations to examine the relationships between these variables and mental health (see Table 2). We calculated Pearson's r for all continuous variables and Kendall's tau b for the two dichotomous variables (gender and whether or not the youth was with his or her parents at time of arrival in the U.S.). As no independent variables were correlated more than .48, they were all retained in the multiple linear regression analyses. With the approach described by Jaccard and colleagues, predictors and covariates were entered in a single step (Jaccard, Guilamo-Ramos, Johansson, & Bouris, 2006). Two separate multiple regressions were calculated, with PTSD symptoms and depression symptoms as the dependent variables.

Results

Correlational Analyses

In investigating the first and second objectives of this study, PTSD symptoms demonstrated modest positive correlations with depressive symptoms, trauma exposure, post-war hardships, acculturative hassles, and perceived discrimination, and a significant but small negative correlation with housing adequacy. The pattern of significant correlations was similar for depression symptoms.

Multivariate Analyses

Multiple linear regressions were computed in order to examine the exploratory objective of this study. PTSD symptom severity and depression symptom severity were entered as the dependent variables. Independent variables included demographic variables (gender, age), number of traumas, immigration factors (number of years in the U.S., arrival in the U.S. with or without parents), variables related to post-resettlement stress (English fluency of caregiver, housing adequacy, post-war hardships, and acculturative hassles), and perceived discrimination.

For PTSD symptoms, the model was significant, predicting 49% of the variance in PTSD symptoms (see Table 3). An examination of beta values indicated that trauma exposure was most strongly associated with PTSD symptom severity but that post-resettlement stressors, acculturative stressors, and perceived discrimination all significantly added to the prediction of PTSD symptoms even after accounting for the variance associated with trauma and other key demographic variables. Housing adequacy was no longer significantly related to PTSD symptoms. While partial r values for trauma, resettlement stress, acculturative stress, and perceived discrimination were slightly lower than the bivariate correlation coefficients between these variables and PTSD, they remained significantly associated. After accounting for variance associated with covariates, acculturative stress and resettlement stress perceived discrimination remained significantly associated with PTSD symptoms (partial $r = .28, p < .01$). Estimates from the model are presented in Table 3.

Table 2
Bivariate Correlations Between Independent and Dependent Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. PTSD	—	.64**	.04	.02	.48**	-.11	.02	.18	-.16*	.51**	.45**	.47**
2. Depression		—	-.01	.08	.37**	-.16	.05	.14	-.25**	.36**	.35**	.42**
3. Gender			—	-.00	.05	.20**	.07	.06	.00	.12	.14	-.01
4. Age				—	.34**	.00	-.05	-.11	-.20*	.11	.11	.02
5. Trauma					—	.02	-.05	-.05	-.32**	.41**	.30**	.16
6. Years in U.S.						—	.04	-.34**	.05	.02	.30**	-.07
7. Arrived with parent							—	.07	.00	.17*	.13	.10
8. Caregiver fluency								—	-.11	.10	.07	.13
9. Housing adequacy									—	.15	-.16	-.12
10. Post-war hardships										—	.48**	.40**
11. Acculturative hassles											—	.39**
12. Perceived discrimination												—

Note. For gender, male = 0, female = 1. For arrived with parents, 0 = No, 1 = Yes. Kendall's tau bs were calculated for gender and "arrived with parents" variables. All other correlation coefficients represent Pearson's r . PTSD = posttraumatic stress disorder.
* $p < .05$. ** $p < .01$.

Table 3
Hierarchical Multiple Regression Examining Predictors of Posttraumatic Stress Disorder Symptoms (n = 129)

Model	B	SE B	β	Partial <i>r</i>
(Constant)	0.771	0.482		
Gender	-0.044	0.105	-.029	-.039
Age	-0.043	0.023	-.131	-.167
Trauma**	0.044	0.011	.320	.331
Arrive with parents	-0.133	0.135	-.068	-.090
Years in U.S.	-0.029	0.017	-.129	-.149
Housing adequacy	-0.015	0.038	-.032	-.037
Parent's fluency	0.064	0.065	.072	.090
Resettlement stress*	1.351	0.591	.214	.206
Acculturative stress*	0.227	0.101	.201	.202
Perceived discrimination**	0.217	0.067	.246	.284

Note. $R^2 = .493$, $F(10, 118) = 11.463$.

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

For depression symptoms, the model was also significant, predicting 35% of the variance in depression symptoms. Estimates from the model are presented in Table 4. Trauma was associated with depressive symptoms, but less strongly than in the PTSD regression analysis. Furthermore, perceived discrimination was the independent variable most strongly associated with depression (partial $r = .24$, $p < .01$). Number of years in the U.S. was negatively associated with depression, with more years in the U.S. being related to fewer depression symptoms. In contrast to the PTSD regression analysis, neither resettlement stress nor acculturative stress was related to depressive symptoms after accounting for covariates, immigration factors, and discrimination.

Discussion

Consistent with findings from previous research examining mental health in refugee youths and as hypothesized, cumulative trauma was related to PTSD and depression symptoms in this study of Somali adolescent refugees resettled in the U.S. Furthermore, post-resettlement stressors, acculturative stressors, and perceived discrimination were also associated with greater PTSD symptoms. More perceived discrimination and fewer years since resettlement in the U.S. were related to depression symptoms, but resettlement and acculturative stressors were not.

While trauma exposure remained the strongest predictor of PTSD within our sample, additional post-resettlement factors were also associated with PTSD symptom severity, even after the effects of trauma exposure were taken into account. Importantly, this suggests that even among severely traumatized children, post-resettlement experiences powerfully relate to the presence of PTSD symptoms. These findings echo those of Sundquist et al. (2000), who found in a national sample of immigrants from a wide range of ethnic backgrounds that social and cultural factors, including coherence, acculturation, control, and economic difficulties, were stronger risk factors for later mental health symptoms than was premigration exposure to violence. Similarly, Durakovic-Belko and colleagues (Durakovic-Belko, Kulenovic, & Dapic, 2003) found that traumatic war experiences explained 20% of the variance in PTSD symptoms of adolescents from Sarajevo, while individual and socioenvironmental factors increased prediction of

PTSD by 17%. Taken together, these findings underscore the importance of post-migration environmental factors in impacting immigrant and refugee mental health.

The finding that post-resettlement stress, acculturative stress, and perceived discrimination each significantly contributed to the prediction of PTSD symptom severity fits with the developmental psychopathology trauma model proposed by Pynoos et al. (1999). As would be expected under that model, exposure to cumulative traumatic events strongly relates to the presence of PTSD symptoms. In addition, distal factors such as acculturative stress, post-resettlement stress, and discrimination further contribute to the development or maintenance of symptoms. A refugee child who has both experienced severe trauma and who must contend with the stressors associated with resettlement may thus be at particular risk for developing PTSD symptoms. The presence of PTSD symptoms, in turn, may affect the child's ability to adjust to the new circumstances, thus compounding that child's adjustment difficulties.

In contrast, perceived discrimination was the strongest predictor of depressive symptoms within this sample. The fact that post-resettlement and acculturative stressors were not significantly related to depression symptoms suggests that depression risk factors may differ in important ways from PTSD risk factors in refugee adolescents. For instance, the developmental task of developing a cohesive sense of self may be more difficult for refugee youths experiencing discrimination related to their ethnicity, religion, or race. Discrimination may contribute to internalized negative self-images among refugee adolescents and thus may lead to depression. Further research is warranted to understand whether PTSD and depression have different pathways within refugee adolescent populations and how this might affect intervention development.

These findings highlight the importance of considering perceived discrimination when studying post-resettlement experiences of adolescent refugees. While to date literature examining post-resettlement and mental health of refugee adolescents has focused on stressors such as financial or acculturative stressors, our study suggests that perceived discrimination is strongly associated with mental health outcomes even after other stressors and historical factors have been taken into account. Studies that focus exclusively on resettlement and acculturation stressors may miss important community-level factors that could potentially impact

Table 4
Hierarchical Multiple Regression Examining Predictors of Depression Symptoms (n = 130)

Model	B	SE B	β	Partial <i>r</i>
(Constant)	0.291	0.188		
Gender	-0.005	0.041	-.009	-.011
Age	-0.004	0.009	-.039	-.044
Trauma*	0.009	0.004	.199	.187
Arrive with parents	0.021	0.053	.031	.037
Years in U.S.*	-0.015	0.007	-.198	-.200
Housing adequacy	-0.023	0.015	-.139	-.142
Parent's fluency	0.002	0.025	.006	.007
Resettlement stress	0.257	0.228	.119	.103
Acculturative stress	0.067	0.038	.175	.160
Perceived discrimination**	0.072	0.026	.238	.245

Note. $R^2 = .345$, $F(10, 119) = 6.264$. **

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

the adjustment of whole communities, such as a school or community's tolerance and acceptance of ethnic minorities.

There are several important limitations to this study. First, because the data are cross-sectional it is impossible to determine whether there is a causal relationship between post-resettlement experiences and mental health symptoms. Indeed, it is possible that having a mental illness leads to experiencing greater stress in resettlement, reporting greater stress, or perceiving or experiencing more discrimination. Longitudinal studies will be necessary to clarify the direction of influence. Second, it is important to note that PTSD and depression symptoms were measured using screening instruments rather than diagnostic interviews.

In addition, PTSD and depression symptoms were correlated in this sample. Further exploration of the comorbidity of these disorders is needed, and consideration of whether they reflect unique disorders or are variant expressions of underlying emotional distress is warranted. Finally, the sample in this study includes only Somali adolescents who are English speaking and therefore limits the generalizability of findings to other refugee cultural and age groups as well as to non-English-speaking Somalis. Not speaking English may greatly contribute to acculturative stress and the likelihood of experiencing discrimination, and thus it would be important for further work to engage this part of the population in order to fully understand how post-resettlement stress and discrimination relate to mental health outcomes.

Trauma exposure, while strongly related to the presence of PTSD, cannot be undone by a clinician. Current stressors, however, can be targets of intervention. The findings presented here suggest that further research examining the role of key socioenvironmental factors in the mental health of adolescent refugees may be important to understanding the development of both PTSD and depressive symptoms and, in due course, in informing the development of interventions targeting these disorders. If factors such as resettlement stress and acculturative stress play a role in either the development or perpetuation of PTSD symptoms, targeting change among these factors may be an important direction for clinical intervention initiatives.

In addition, these findings have important implications for program and policy development for refugee adolescents. Increasingly, public health and other social services professionals are involved in the development of services for refugee populations. Efforts aimed at improving the life conditions of recent immigrants have many clear benefits. These data suggest that, in addition to improving the quality of life of refugees, interventions and policies designed to provide financial, housing, and community stability to recent refugees may also directly impact the likelihood of the development or persistence of symptoms of PTSD. Thus, resettlement agencies and other community agencies working with refugee adolescents are uniquely poised to be able to provide programming and assistance to refugees that specifically mitigate post-resettlement and acculturative stressors known to relate to PTSD. If further research elucidates a causal relationship between resettlement stress and PTSD, resettlement assistance may come to be viewed as early intervention for mental illness.

Further research in the area of discrimination and mental health in refugee adolescents may be particularly important, as perceived discrimination was associated with both PTSD and depressive symptoms. If future research documents a causal relationship between discrimination and mental illness in refu-

gee youths, this could be an important focus of intervention. For instance, public health interventions that focus on school or community-wide understanding and acceptance of refugee youths may hold promise for minimizing risk factors across whole refugee communities.

References

- Almqvist, K., & Brandell-Forsberg, M. (1997). Refugee children in Sweden: Post-traumatic stress disorder in Iranian preschool children exposed to organized violence. *Child Abuse & Neglect, 21*, 351–366.
- Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American Psychologist, 54*, 317–326.
- Atkinson, R., & Flint, J. (2001). Accessing hidden and hard-to-reach populations: Snowball research strategies. *Social Research Update, 33*, 1–4.
- Birleson, P., Hudson, I., Buchanan, D. G., & Wolff, S. (1987). Clinical evaluation of a self-rating scale for depressive disorder in childhood (Depression Self-Rating Scale). *Journal of Child Psychology and Psychiatry, 28*, 43–60.
- Cheung, S. (1996). Reliability and factor structure of the Chinese version of the Depression Self-Rating Scale. *Educational & Psychological Measurement, 56*, 142–154.
- Cicchetti, D., & Rogosch, F. A. (2002). A developmental psychopathology perspective on adolescence. *Journal of Consulting and Clinical Psychology, 70*, 6–20.
- de la Pena, F., Lara, C., Cortes, J., Nicolini, H., Paez, F., & Almeida, L. (1996). Spanish translation and validity of Birleson's Depression Self-Rating Scale for Adolescence. *Salud Mental, 19*, 17–23.
- Durakovic-Belko, E., Kulenovic, A., & Dapic, R. (2003). Determinants of posttraumatic adjustment in adolescents from Sarajevo who experienced war. *Journal of Clinical Psychology, 59*, 27–40.
- Ellis, B. H., Kia-Keating, M., Yusuf, S. A., Lincoln, A., & Nur, A. (2007). Ethical research in refugee communities and the use of community participatory methods. *Transcultural Psychiatry, 44*, 490–512.
- Ellis, B. H., Kia-Keating, M., Yusuf, S., Lincoln, A., & Nur, A. (2007). Ethical research in refugee communities and the use of community participatory methods. *Transcultural Psychiatry, 44*, 459–481.
- Ellis, B. H., Lhewa, D., Charney, M., & Cabral, H. (2006). Screening for PTSD among Somali adolescent refugees: Psychometric properties of the UCLA PTSD Index. *Journal of Traumatic Stress, 19*, 547–551.
- Fazel, M., & Stein, A. (2003). Mental health of refugee children: Comparative study. *British Medical Journal, 327*, 134.
- Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of Youth and Adolescence, 29*, 679–794.
- Goenjian, A. K., Molina, L., Steinberg, A. M., Fairbanks, L. A., Alvarez, M. L., Goenjian, H. A., et al. (2001). Posttraumatic stress and depressive reactions among Nicaraguan adolescents after hurricane Mitch. *The American Journal of Psychiatry, 158*, 788–794.
- Goldstein, R. D., Wampler, N. S., & Wise, P. H. (1997). War experiences and distress symptoms of Bosnian children. *Pediatrics, 100*, 873–878.
- Guthrie, B. J., Young, A. M., Williams, D. R., Boyd, C. J., & Kintner, E. K. (2002). African American girls' smoking habits and day to day experiences with racial discrimination. *Nursing Research, 51*, 183–190.
- Halcon, L. L., Robertson, C., Savik, K., Johnson, D. R., Spring, M. A., Butcher, J. N., et al. (2004). Trauma and coping in Somali and Oromo refugee youth. *Journal of Adolescent Health, 35*, 17–25.
- Heptinstall, E., Sethna, V., & Taylor, E. (2004). PTSD and depression in refugee children: Association with pre-migration trauma and post-migration stress. *European Child and Adolescent Psychiatry, 13*, 373–380.
- Hubbard, J., Realmuto, G. M., Northwood, A. K., & Masten, A. (1995). Comorbidity of psychiatric diagnoses with posttraumatic stress disorder

- in survivors of childhood trauma. *Journal of the American Academy of Child & Adolescent Psychiatry*, 34, 1167–1173.
- Ivarsson, T., & Gillberg, C. (1997). Depressive symptoms in Swedish adolescents: Normative data using the Birleson Depression Self-Rating Scale (DSRS). *Journal of Affective Disorders*, 42, 59–68.
- Ivarsson, T., Lidberg, A., & Gillberg, C. (1994). The Birleson Depression Self-Rating Scale (DSRS): Clinical evaluation in an adolescent inpatient population. *Journal of Affective Disorders*, 32, 115–125.
- Jaccard, J., Guilamo-Ramos, V., Johansson, M., & Bouris, A. (2006). Multiple regression analyses in clinical child and adolescent psychology. *Journal of Clinical Child and Adolescent Psychology*, 35, 456–479.
- Jasinskaja-Lahti, I., Liebkind, K., & Perhoniemi, R. (2006). Perceived discrimination and well-being: A victim study of different immigrant groups. *Journal of Community and Applied Social Psychology*, 16, 267–284.
- Khamis, V. (2005). Post-traumatic stress disorder among school age Palestinian children. *Child Abuse & Neglect*, 29, 81–95.
- Kinzie, J. D., Sack, W. H., Angell, R., Clarke, G. N., & Ben, R. (1989). A three-year follow-up of Cambodian young people traumatized as children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 28, 501–504.
- Kinzie, J. D., Sack, W. H., Angell, R. H., Manson, S., & Rath, B. (1986). The psychiatric effects of massive trauma on Cambodian children: I. The children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 25, 370–376.
- Klonoff, E., Landrine, H., & Ullman, J. (1999). Racial discrimination and psychiatric symptoms among blacks. *Cultural Diversity and Ethnic Minority Psychology*, 5, 329–339.
- Landrine, H., & Klonoff, E. A. (1996). The Schedule of Racist Events: A measure of racial discrimination and a study of its negative physical and mental health consequences. *Journal of Black Psychology*, 22, 144–168.
- Layne, C. M., Pynoos, R., & Saltzman, W. R. (2001). Trauma/grief focused group psychotherapy: School-based postwar intervention with traumatized Bosnian adolescents. *Group Dynamics: Theory, Research and Practice*, 5, 277–290.
- Layne, C., Stuvland, R., Saltzman, W., Djapo, N., & Pynoos, R. S. (1999a). *Adolescent Post War Adversities Scale*. Unpublished instrument.
- Layne, C., Stuvland, R., Saltzman, W., Djapo, N., & Pynoos, R. S. (1999b). *War Trauma Screening Scale*. Unpublished manuscript.
- Layne, C., Warren, J. S., Hilton, S., Lin, D., Fulton, J., Katalinski, R., et al. (in press). Measuring adolescent perceived support amidst war and disaster: The Multi-Sector Social Support Inventory. In B. K. Barber (Ed.), *Adolescents and war: How youth deal with political violence*. Oxford, England: Oxford University Press.
- Masten, A. S., & Coatsworth, J. D. (2000). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist*, 53, 205–220.
- Mghir, R., Freed, W., Raskin, A., & Katon, W. (1995). Depression and posttraumatic stress disorder among a community sample of adolescent and young adult Afghan refugees. *The Journal of Nervous and Mental Disease*, 183, 24–30.
- Mollica, R. F., Poole, C., Son, L., Murray, C., & Tor, S. (1997). Effects of war trauma on Cambodian refugee adolescents' functional health and mental health status. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36, 1098–1106.
- Noh, S., Beiser, M., Kaspar, V., Hou, F., & Rummens, J. (1999). Perceived racial discrimination, depression and coping: A study of Southeast Asian refugees in Canada. *Journal of Health and Social Behavior*, 40, 193–207.
- Papageorgiou, V., Frangou-Gurunovic, A., Ioradanidou, R., Yule, W., Smith, P., & Vostanis, P. (2000). War trauma and psychopathology in Bosnian refugee children. *European Child and Adolescent Psychiatry*, 9, 84–90.
- Pynoos, R. S., Frederick, C., Nader, K., Arroyo, W., Steinberg, A., Eth, S., et al. (1987). Life threat and posttraumatic stress in school-age children. *Archives of General Psychiatry*, 44, 1057–1063.
- Pynoos, R., Steinberg, A., & Piacentini, J. C. (1999). A developmental psychopathology model of childhood traumatic stress and intersection with anxiety disorders. *Biological Psychiatry*, 46, 1542–1554.
- Rodriguez, N., Steinberg, A., & Pynoos, R. (1999). *UCLA PTSD Index for DSM-IV (Revision 1), Child version, Parent version, Adolescent version*. Los Angeles: UCLA Trauma Psychiatry Service.
- Rodriguez, N., Steinberg, A. M., Saltzman, W., & Pynoos, R. S. (2001, December). *PTSD Index: Psychometric analyses of the adolescent version*. Paper presented at the 17th Annual Meeting of the International Society for Traumatic Stress Studies, New Orleans, LA.
- Rousseau, C., & Drapeau, A. (1998). The impact of culture on the transmission of trauma: Refugees' stories and silence embodied in their children's lives. In Y. Danieli (Ed.), *International handbook of multigenerational legacies of trauma* (pp. 465–486). New York: Plenum Press.
- Roussos, A., Goenjian, A. K., Steinberg, A. K., Sotiropoulou, C., Kakaki, M., Kabakos, C., et al. (2005). Posttraumatic stress and depressive reactions among children and adolescents after the 1999 earthquake in Ano Liosia, Greece. *American Journal of Psychiatry*, 162, 530–537.
- Rumbaut, R. (1994). The crucible within: Ethnic identity, self-esteem, and segmented assimilation among children of immigrants. *International Migration Review*, 28, 748–794.
- Sack, W. H., Clarke, G. N., & Seeley, J. (1996). Multiple forms of stress in Cambodian adolescent refugees. *Child Development*, 67, 107–116.
- Sack, W. H., Him, C., & Dickason, D. (1999). Twelve-year follow-up study of Khmer youths who suffered massive war trauma as children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38, 1173–1179.
- Sack, W. H., McSharry, S., Clarke, G. N., Kinney, R., Seeley, J., & Lewinsohn, P. (1994). The Khmer Adolescent Project: I. Epidemiologic findings in two generations of Cambodian refugees. *Journal of Nervous and Mental Disease*, 182, 387–395.
- Savin, D., Sack, W. H., Clarke, G. N., Meas, N., & Richart, I. (1996). The Khmer Adolescent Project: III. A study of trauma from Thailand's site II refugee camp. *Journal of the American Academy of Child & Adolescent Psychiatry*, 35, 384–391.
- Servan-Schreiber, D., Lin, B. L., & Birmaher, B. (1998). Prevalence of posttraumatic stress disorder and major depressive disorder in Tibetan refugee children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 37, 874–879.
- Spring, M., Westermeyer, J., Halcon, L., Savik, K., Robertson, C., Johnson, D. R., et al. (2003). Sampling in difficult to access refugee and immigrant communities. *The Journal of Nervous and Mental Disease*, 191, 813–819.
- Steel, Z., Silove, D., Bird, K., McGorry, P., & Mohan, P. (1999). Pathways from war trauma to posttraumatic stress symptoms among Tamil asylum seekers, refugees, and immigrants. *Journal of Traumatic Stress*, 12, 421–435.
- Sundquist, J., Bayard-Burfield, L., Johansson, L. M., & Johansson, S.-E. (2000). Impact of ethnicity, violence and acculturation on displaced migrants: Psychological distress and psychosomatic complaints among refugees in Sweden. *The Journal of Nervous and Mental Disease*, 188, 357–365.
- United Nations High Commissioner for Refugees. (2004). *UNHCR statistical yearbook 2002: Trends in displacement, protection, and solutions*. Geneva, Switzerland: Author.
- United Nations High Commissioner for Refugees. (2007). *2006 global trends: Refugees, asylum seekers, returnees, internally displaced and stateless persons*. Geneva, Switzerland: Division of Operational Services, field information and coordination support section.
- Vinokurov, A., Trickett, E. J., & Birman, D. (2002). Acculturative Hassles Inventory: Initial scale development and validation. *Journal of Social Psychology*, 142, 425–445.
- Weine, S. M., Becker, D. F., McGlashan, T. H., Vojvoda, D., Hartman, S., & Robbins, J. P. (1995). Adolescent survivors of "ethnic cleansing":

- Observations on the first year in America. *Journal of the American Academy of Child & Adolescent Psychiatry*, 34, 1153–1159.
- Widaman, K. F. (2006). Missing data: What to do with or without them. *Monographs of the Society for Research in Child Development*, 71, 42–64.
- Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology*, 2, 335–351.
- Ying, Y.-W., & Han, M. (2007). The longitudinal effect of intergenerational gap in acculturation on conflict and mental health in southeast Asian American adolescents. *American Journal of Orthopsychiatry*, 77, 61–66.

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Call for Papers: Special Section on “Posttraumatic Stress Disorder and Trauma in Children and Adolescents”

Papers Due on or Before January 15, 2009

The *Journal of Consulting and Clinical Psychology (JCCP)* invites submission of empirical papers and scholarly reviews that focus on research pertaining to posttraumatic stress disorder (PTSD) and trauma reactions in children and adolescents. The inspiration for this section was derived, in part, from the 2008 American Psychological Association (APA) Presidential Task Force on this topic (<http://www.apa.org/about/president/initiatives.html>) and from APA resolutions on *The Psychological Needs of Children Exposed to Disasters* (http://www.apa.org/pi/cyf/res_needs.html) and on *Children’s Mental Health* (<http://www.apa.org/pi/resolution/childmentalhlth.html>).

Stress reactions resulting from different types of trauma (e.g., natural disasters, terrorism, child sexual abuse, community violence, medical trauma/injury) will be considered. Papers may focus on risk and resilience factors, including potential variations among groups (e.g., sex, ethnicity/culture, socioeconomic status, age/developmental stage); issues of comorbidity and related trauma reactions; impact on adaptive functioning in children, youths, and families; and effective prevention and treatment interventions.

Preference will be given to papers that provide clear articulation of the conceptual or theoretical basis for the variables that are selected for evaluation in the research. It is essential that papers directly discuss the following: (a) areas of research need and important “next steps” that will help guide future research, prevention, and treatment efforts, and (b) recommendations for disseminating information to stakeholders interested in helping children and their families in the aftermath of trauma, such as parents/caregivers, health-care providers, practitioners, policy makers, and government agencies. Findings are intended to help inform the next generation of studies for PTSD and trauma reactions in children and adolescents, as well as the practice of psychologists working with children, adolescents, and families.

Manuscripts must be consistent with the submission guidelines for *JCCP* (see www.apa.org/journals/ccp); papers that do not follow the guidelines may be returned without review. Papers should be submitted electronically through the Manuscript Submission Portal for *JCCP*, and authors must request consideration for the Special Section in the cover letter.

To be eligible for inclusion in the Special Section, papers must be submitted by **January 15, 2009**; early submissions are encouraged. Papers that do not meet the deadline will be considered as “regular” submissions to this journal.

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