The Relationship Among Trauma, Acculturation, and Mental Health Symptoms in Somali Refugees

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Abstract

More than 100,000 Somali refugees have resettled in the United States, creating a need for additional research about mental health needs and premigration experiences that precede resettlement. The purpose of this study was to learn more about premigration traumatic experiences, the process of acculturation following resettlement, and the relationship between premigration trauma, acculturation, and mental health. Eighty Somali refugees from two mid-sized Midwestern cities participated. It was hypothesized that acculturation would mediate the relationship between premigration trauma and mental health symptoms. The results partially supported this hypothesis, dependent upon the dimension of acculturation included in the path analysis. Unexpected relationships among the various acculturation dimensions in the model (American cultural identity, English language competency, and American cultural competency) occurred with traumatic experiences, mental health symptoms, and time in the United States. We discuss implications and directions for future research, practice, advocacy, and training.

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> **Significance of the Scholarship to the Public**
> *Somalis represent one of the largest resettled refugee groups in the United States, and it is imperative that policymakers, researchers, and clinicians alike are aware of their unique resettlement challenges. In this article, the traumatic experiences, acculturation, and mental health symptoms of eighty Somali adults from two Midwestern cities are explored. We discuss the multi-dimensional process of acculturation and the relationship to mental health symptoms.*

Refugees experience an array of pre- and postmigration stressors that may impede their ability to adjust to new countries and result in mental health disorders, including post-traumatic stress disorder (PTSD), depression, and anxiety (Birman & Tran, 2008; Fazel et al., 2005; Schweitzer et al., 2011). Common premigration traumatic events include witnessing murder, separation from a family member(s), poor health, shortage of food, torture (Bhui et al., 2003), disease, illness, lack of access to nutritious food and water (Harrell-Bond, 2000), clashes with other ethnic groups (M. Smith, 2004), and inadequate schooling, medical care, and mental health care (Médecins Sans Frontières, 2012). These premigration experiences can occur before reaching a refugee camp and while living in a refugee camp.

After resettlement, other stressors are experienced. These may include learning a new language, finding employment (Yakushko et al., 2008), discrimination in the host country, and shifting gender roles (Hadley & Patil, 2009; Mooney & Shepodd, 2009; Nilsson et al., 2008). Additionally, refugees have reported coming to their host country with mixed feelings and not feeling safe during the resettlement period (Finklestein & Solomon, 2009). The combination of pre- and postmigration stressors sometimes result in complex mental health concerns (Schweitzer et al., 2006), making acculturation to the new country challenging. Socioeconomic disadvantages and a lack of social support add to acculturative stress (Carswell et al., 2011; Ellis et al., 2010). Refugee acculturation is also dependent upon barriers that are primarily a result of problems related to the refugee resettlement process. In the United States, refugees receive minimal and temporary financial support (eligible up to 8 months; U.S. Department of State, 2019); therefore, a heavy burden is placed on refugees to obtain quick employment, learn the language of the host country (Poppitt et al., 2007), and navigate a new way of life. The degree to which acculturation plays a role in refugees' disclosure of mental health symptoms is not well-understood (Birman & Tran, 2008). In the present study, we examined the relationship between acculturation, trauma, and mental health symptoms in Somali refugees residing in the United States.

Somali Refugees

Somalis represent one of the largest refugee groups in the United States, with over 100,000 resettled since 1991 (Bridging Refugee Youth & Children's Services, 2013). Even with such a large population, they continue to face barriers accessing culturally competent primary and mental healthcare, one being the shortage of trained mental health practitioners with refugee specific cultural competencies. Refugees also describe individual psychotherapy as uncomfortable, especially when bilingual and bicultural mental health staff are unavailable (Bemak & Chung, 2017; O'Driscoll et al., 2017). Research on Somali mental health beliefs and expression is limited but necessary to inform best practices for mental health services.

To begin understanding any refugee group, it is important to learn about the conflict that resulted in their displacement. Such context helps clinicians better understand refugee resilience, coping strategies, traumatic experiences, and both strategies and barriers to acculturation. Since the mid-1980s, the war in Somalia has resulted in the forced migration of well over one million Somalis. In July 2014, an estimated 1.5 million people were internally displaced in Somalia, and at least 400,000 Somalis relocated to Kenya's largest refugee camp, Dadaab (Hammond, 2014). Approximately 10,000 refugees in this camp were third generation, meaning that they and their parents were born in the camps (Hammond, 2014). Somalis represent one of the largest refugee groups worldwide, increasing to 1.5 million individuals as of 2013 (Hammond, 2014; United Nations High Commissioner for Refugees [UNHCR], 2013). In 2016, the Kenyan government ordered the Dadaab refugee camp closed due to "national security concerns" (Bhalla, 2019). As of October 2020, this camp had not closed, though Somalis have been strongly encouraged by the Kenyan government to return to Somalia since the announcement of the pending camp closure (Bhalla, 2019; UNHCR, 2020).

The backdrop of war relates to a host of stressors, including those concretely aligned with war, such as death, poor health outcomes, and separation from family (Bhui et al., 2003). For the hundreds of thousands of Somali refugees living in camps in Kenya and Ethiopia, life in these camps is not necessarily any safer or more comfortable than in their home country (Médecins Sans Frontières, 2012; UNHCR, 2013). Many camps, like Dadaab, lack essential services (i.e., sufficient housing, food, medical supplies, and mental health services) due to a shortage of supplies and funding. Insecurity in the area surrounding Dadaab has resulted in bomb attacks and assassinations within the camp, meaning that safety is not guaranteed once refugees make it to Dadaab (Garvelink & Tahir, 2012; Médecins Sans Frontières, 2012). Refugees also report frequent looting of their supplies, sexual violence, untrained teachers, and shortages of water and clothing (Human Rights

Watch, 2013; Médecins Sans Frontières, 2012, 2019). Taken together, traumatic events and stressors associated with the conditions in refugees' countries of origin and the living conditions within the camps often contribute to an accumulation of distress and trauma.

Refugee Acculturation

The ease of the resettlement period varies due to a range of personal, social, environmental, and cultural factors. These factors may include loss of culture and identity (White, 2004) and experiences of discrimination (Ellis et al., 2010; Hadley & Patil, 2009)—all of which may add additional stress to the acculturation process. Discrimination, both overt and covert, is a stressor (Baranik et al., 2018) and there is growing empirical evidence that Somali refugees may be particularly at risk for racial and religious discrimination (Abdi, 2011; Ellis et al., 2010; Young, 2019). Sam and Berry (2006) defined these specific experiences of distress as acculturative stress. Among refugees, acculturative stress is associated with poorer mental health outcomes (Ying & Han, 2007).

Acculturation occurs at both an individual and group level. At the individual level, factors prior to resettlement include age, gender, religion, and personality. Individual factors postmigration include the degree of discrimination experienced, the amount of social support available, and the amount of time in the host culture (Berry, 1997). It is likely, for example, that an elderly Somali woman migrating alone would have a different acculturative experience than a teenage Somali boy migrating with his family. Group-level influences include characteristics of the host country, culture of origin, and any group-level changes of adapting to a new society (e.g., discrimination, speaking a new language, going to school).

The degree of acculturative stress felt is relative to one's sense of agency, rather than consequences of isolation and/or strife. This tempered matter of choice is dependent upon one's connection to community, family, religion, and general social support. Those that have more access to group-level protective factors may not experience acculturative stress. Additionally, acculturation may not be one's goal, primarily when there is strong community support. Therefore, an understanding of acculturation must include broader contextual factors and the degree to which one feels they have had a choice or agency in the acculturation process (Aroche & Coello, 2004).

In a study with Somali adolescents in the United States, greater acculturation to American culture served as a protective factor for boys experiencing mental health symptoms. For girls, however, higher Somali enculturation was a protective factor. Girls with higher levels of Somali enculturation

reported lower PTSD symptom severity than that of girls with lower Somali enculturation. For boys, lower acculturation was associated with more depression and experiences of discrimination. As in the case of Ellis et al.'s (2010) study, protective factors may vary by gender, dependent upon degrees of acculturation and enculturation. In addition, it may be essential to distinguish between enculturation to the native culture and acculturation to the culture of the resettlement country, as they could have different protective factors. In the present study, acculturation to American culture is the variable of interest.

Porter and Haslam (2005) examined 59 studies in a meta-analysis for predictors of refugee mental health. They found that children and adolescents had better mental health outcomes relative to adults. One reason for this finding is that older adults may have a challenging time learning the placement country's native language, a factor strongly linked to acculturation. Studies of refugees resettled in the United States indicate that refugees who speak English have an easier time adapting to the new culture (Berry, 1997). Thus, acculturation is an important piece of the process for refugees to integrate into a new country and community.

Language. In Somalia, English is not universally learned and only accessible to those who have received formal education. With low enrollment in school over a prolonged period of war, only about 50% of adult males and 26% of adult females (ages 15 years or older) are literate. Enrollment in primary school is as low as 25% and 6% in secondary school, with substantially higher enrollment at the secondary level for boys. Access to quality education in refugee camps is often limited due to the structural capacity to accommodate the number of students and an inadequate supply of teachers and learning materials (Centers for Disease Control and Prevention, 2018).

Once in resettlement, lack of English skills is an often-cited reason for unemployment or low-level employment. Individuals with limited English proficiency are often underemployed and disproportionately represented in physically demanding industries (Shea et al., 2007; Yakushko et al., 2008). Most places of employment do not offer language training, and refugees and immigrants are asked to work long hours, leaving little time for learning a new language (Yakushko et al., 2008). Hence, language is a considerable barrier to securing a job and attaining financial stability.

Employment. One key factor in adjusting to a new culture is finding a job or career (Yakushko et al., 2008). Refugees and immigrants often expect to find not only employment in their host country but employment that is equivalent to their skills and previous work experience. Many are unprepared for the

educational and career barriers frequently encountered in resettlement (Shea et al., 2007; Yakushko et al., 2008). An estimated 79% of Somalis in the United States are considered low-income households (defined as twice below annual poverty level), compared to 45% of refugees overall (data from 2009–2011; Capps et al., 2015).

In summary, the literature on refugee acculturation highlights a process that may increase or decrease negative mental health symptoms, depending on a myriad of post-migration experiences (e.g., social support, experiences of discrimination, and individual personality; Berry, 1997; Hadley & Patil, 2009; Poppitt & Frey, 2007). In a study of resettled Somali refugees in the United States, postmigration psychosocial difficulties moderated the relationship between premigration traumas and symptoms of depression for individuals who reported low levels of premigration traumas (Bentley et al., 2012). This finding may suggest that those exposed to more premigration stressors, are also dealing with postmigration living difficulties, and respond more strongly to these stressors than those with less trauma. Postmigration experiences and acculturation may mediate the relationship between premigration trauma and mental health symptoms. Studies comparing first-generation immigrants with second-generation Asian and Latinx immigrants provide support to investigate this relationship further (e.g., Escobar & Vega, 2000; Oquendo et al., 2001; Takeuchi et al., 2007). For example, first-generation Latinx adults reported lower levels of psychopathology than do their children and those in the mainstream population. Individuals that were most assimilated reported the worst mental health outcomes (Escobar & Vega, 2000; Oquendo et al., 2001). Pumariega and Rothe (2010) hypothesized that this might be due to the high cognitive demands and needs for adjustment, obtaining economic security, potential language acquisition or mastery, and acculturation.

Mental Health Concern and Culture Specific Expressions

Most studies examine the effects of premigration trauma on postresettlement mental health. The relationship between premigration traumas and mental health post-resettlement is complicated because traumatic experiences incurred before resettlement likely impact ones' experiences adjusting and acculturating. In a meta-analysis of the relationship between premigration trauma and mental health of refugees resettled in Western countries, 9% of adults and 11% of children reported symptoms consistent with PTSD. This rate is about 10 times greater than that of the general population (Fazel et al., 2005). In studies explicitly measuring traumatic events, as captured by the Harvard Trauma Questionnaire (Mollica et al., 1992), Somali refugees

reported experiencing a high number of traumatic events. In Bhui et al.'s 2003 study of Somali refugees in the United Kingdom, more than 50% of men and women reported experiencing at least one of the following: a shortage of food, poor health, witnessing a murder, separation from family, enforced isolation, feeling close to death, and being in a combat situation. Additionally, 41% of men reported experiencing torture.

Survivors of torture, in particular, are very likely to endorse symptoms of PTSD. In a 5-year epidemiological study by Jaranson et al. (2004) of Oromo and Somali refugees resettled in the Minneapolis/St. Paul area, 44% of the 1,134 participants met the criteria for torture exposure. Among the Somali refugees in this study ($N = 622$), 25% of Somali men endorsed experiencing torture and 47% of Somali women. The researchers also caution that the Somali men in their sample may not be representative of the experiences of male Somali internally displaced persons or the danger present for Somali men in general. Somali women, they noted, had a more difficult time fleeing their country unscathed, leaving them more susceptible to endure additional forms of trauma, including sexual and gender-based violence (Centers for Disease Control and Prevention, 2018).

Additionally, culture and gender are significant factors in the reporting of clinical disorders, a fact not unique to Somali refugees. In a 2011 study examining PTSD, depression, and somatic complaints among refugee torture survivors resettled in Finland, researchers found culture and gender differences in the reporting of mental health symptoms. Specifically, refugees from Southern Europe reported higher levels of PTSD symptoms, and refugees from the Middle East, Central Africa, and Southern Asia reported more depressive symptoms. In all cultural groups, studies have found that in general, women report more symptoms of PTSD and depression. Despite the differences in mental health symptoms between cultural groups, the reported number of traumatic experiences was not significantly different between refugee groups (Schubert & Punamäki, 2011).

Little is known about Somali refugees' thoughts about mental health and illness. In a 2013 study (Jorgenson & Nilsson, 2013) with Somali refugees, mental health was thought of in three distinct categories; one was either psychologically healthy, had *buufis* (the Somali word for problems or distress), or *waali* (the Somali word for "crazy"). These culture-specific understandings of mental health and well-being do not easily translate to diagnostic criteria used by Western mental health clinicians, potentially decreasing the validity of diagnoses and diagnostic tools for refugee groups.

Elsass (2001) also examined cultural differences, by comparing collectivist to individualistic cultures. Participants from individualistic cultures differed from collectivist cultures in their reporting of avoidance symptoms. In

order to meet PTSD criteria, individuals must report at least three of seven avoidance symptoms (American Psychiatric Association, 2013). People from collectivistic cultures may view avoidance as adaptive, whereas people from individualistic cultures may view it as a problem (Elsass, 2001). Symptoms of avoidance may possibly relate to depressive symptoms, as indicated by social withdrawal. Although not recognized as part of the diagnostic criterion related to avoidance, social withdrawal also emerged as a critical variable among Vietnamese refugees in the United States (Fawzi et al., 1997). These results reinforce the importance of considering culture and gender-specific responses to pre-migration trauma, as well as unique attitudes regarding the reporting and expression of mental health symptoms.

As the expression of distress and symptoms may be culturally dependent, researchers have argued that Western diagnostic criteria for psychological disorders may not adequately capture symptoms experienced by refugees (e.g., Fawzi et al., 1997; Lee et al., 2010; Miller et al., 2006; Montgomery & Foldspang, 2006). Barriers to reporting mental health symptoms also include unfamiliarity with Western mental health concepts and levels of acculturation, which consequently also function as barriers to receiving mental health services or proper diagnosis (e.g., Bhui et al., 2003; de Anstiss & Ziaian, 2010; Lee et al., 2010; Miller et al., 2006). Using strict diagnostic criteria may lead to missing individuals who are experiencing significant distress.

Study Purpose and Hypotheses

The purpose of this study was to gain a better understanding of how acculturation may influence Somali refugees' self-reports of mental health symptoms. The following hypotheses were tested: (a) number of traumatic experiences negatively relate to acculturation; (b) higher levels of acculturation associate with more mental health symptoms; (c) acculturation mediates between number of traumatic experiences and mental health symptoms; (d) time in the United States positively correlates with acculturation; (e) Somali women compared to men present with more mental health symptoms.

Methods

Sample

A total of 80 participants were recruited through two different social service agencies that provide support services in two mid-size Midwestern cities, along with community contacts made through connections within these social service agencies. Participants were eligible if they were at least 18 years of

age and resettled in the United States as a refugee. The average age category for participants was between 25 to 34 years old, which made up 33.8% of the sample ($n = 27$), and the range included participants in each category, from 18 to 24, to the 70 to 99-year-old category. The sample included more women than men, with 62.5% identifying as female ($n = 50$) and 37.5% as male ($n = 30$). Overall, there was a wide range of participants, from those resettled in the United States for less than one year to one participant who lived in the United States for more than 20 years. The majority of participants were employed, 57.5% ($n = 46$), and had received partial college education or completed a college degree, 36.3% ($n = 29$). The second largest group had received no formal education, 28.8% ($n = 23$), and the remaining sample received some primary school, up to completing secondary school.

The sample ($N = 80$), was less than the 100–150 minimum size suggested by Tabachnick and Fidell (2013) for structural equation modeling (SEM). Although the final sample size was smaller than standard SEM guidelines, we decided to proceed assuming there was adequate model fit in the path models. With regard to power, we were likely to err on the side of not detecting a true effect or relationship when one exists, rather than erroneously identifying an effect. In general, we were pleased with the size relative to the challenges of recruiting refugee populations.

Measures

Premigration traumatic experiences were measured using the Comprehensive Trauma Inventory-104 (CTI-104; Hollifield et al., 2006). This scale was developed to specifically assess the traumatic experiences of refugees and to improve upon the limited number of scales used for this purpose (e.g., Harvard Trauma Questionnaire; Mollica et al., 1992). The instructions directed the participants to examine the list of events that happen to people during war. Participants ranked scale items using a 5-point Likert-type severity scale from 0 (*did not happen*) to 4 (*extreme fear or threat*). The scale is scored by a sum of the number of events or a sum of the 5-point severity scores. The authors suggest that if time is of concern, people may instead mark "no, did not happen to me" or "yes, did happen to me." In their initial validation sample with Kurdish and Vietnamese refugees, the severity score difference did not contribute a richer understanding of the impact of these events beyond what is achieved using a dichotomous scoring procedure. The authors hypothesized that the lack of effects of the severity scores was because the traumatic events were already severe, rendering the rating scale less meaningful (Hollifield et al., 2006). In the present study, the scale was scored using dichotomous values in order to reduce time and difficulty for the

participants. Some participants were also rating events many years after the fact and thus severity ratings might be subject to more errors related to memory recall.

The CTI-104 has demonstrated good to excellent construct validity (Hollifield et al., 2006). The measure significantly correlated with symptoms of anxiety, PTSD, depression, impairment, and coping. Additionally, the CTI-104 significantly correlated to the Post Traumatic Symptom Scale Self-Report (PSS-SR; $r = .50$), the Hopkins Symptom Checklist Anxiety score ($r = .48$), and the Hopkins Symptom Checklist Depression score ($r = .47$; Hollifield et al., 2006). It also was strongly correlated ($r = .65$) with the Harvard Trauma Questionnaire (HTQ; Mollica et al., 1992), a measure used frequently to assess trauma among refugee populations (Rasmussen et al., 2015). The CTI-104 has not been validated with Somali refugees.

In the present study, participants endorsed a mean of 33 ($SD = 20.33$) traumatic experiences. The most commonly endorsed traumatic experiences are in Table 1. To demonstrate the severity of traumas experienced, those items endorsed by 40% or more were included. Cronbach's alpha coefficients in this study ranged from .67 to .93 on the individual subscales with an overall alpha of .97, indicating excellent reliability. The total scale score of the CTI-104 was used in the present study.

Mental health symptoms were measured with the Hopkins Symptom Checklist-25 (HSCL-25; Derogatis et al., 1974). The HSCL-25 is derived from a more extended version, 90-item version, developed initially by Parloff et al. (1954). The HSCL-25 consists of two subscales, a Depression and an Anxiety subscale. The total score is accepted as a global measure of mental health symptoms or distress.

The HSCL was developed for psychotherapy patients as a way of measuring change (Parloff et al., 1954). However, it has been used frequently with refugee populations and torture survivors, and subsequently has been translated into a variety of languages (e.g., Kleijn et al., 2001; Lhewa, et al., 2007; Mollica et al., 1987). This scale has been translated into Somali (Gerritsen et al., 2006) and validated with Somali refugee populations (Onyut et al., 2009). In the present study, the mean score on the total scale was 51.17 ($SD = 20.2$; range of 25–100). The average Cronbach's alpha for the total scale was .97, indicating excellent reliability.

To determine whether the Depression and Anxiety subscales could be used separately or as a combined score for negative mental health symptoms, a principal component analysis with an oblique rotation (Oblimin with Kaiser normalization) was conducted. The results showed a 2-factor solution, accounting for 67.73% of the variance. Rotated factor loadings showed several cross-loadings between the two subscales. The first factor loading

Table 1. Traumatic Experiences Endorsed Above 40%

Items endorsed > 40%	n	(%)
1. Heard about mass killings and people being put in mass graves	64	(80.0)
2. Fleeing or hiding from soldiers or enemies	57	(71.3)
3. Having your home, business or important personal property confiscated	57	(71.3)
4. Having to flee from your home or community because of danger	56	(70.0)
5. Seeing injured or dead animals	56	(70.0)
6. Having very little food, water, or clothing because of poverty or discrimination	56	(70.0)
7. Having to live in poor conditions (fleeing, in mountains, poor shelter, and hygiene)	55	(68.8)
8. Having to flee from your home or community because there is no work or because of other discriminations	55	(68.8)
9. Heard that children or other innocent people were injured or killed	54	(67.5)
10. Having your home (or important place like school or workplace) severely damaged or destroyed	54	(67.5)
11. Being threatened with harm or feeling like you are in serious danger	54	(67.5)
12. Being in an area of active war combat, but you were not actively participating and were not injured	54	(67.5)
13. Heard about people being abused by harsh methods	53	(66.3)
14. Thinking you would not ever be able to leave a refugee camp	52	(65.0)
15. Seeing injury or death of many people at once, or witnessing mass graves	51	(63.8)
16. Seeing dead bodies or parts of human remains	50	(62.3)
17. Having your home, school, or workplace searched or ransacked	49	(61.3)
18. Feeling afraid that you will be sent back to your country from a refugee camp	49	(61.3)
19. Helping ill or wounded people (includes refugees)	47	(58.8)
20. Having to lie to protect yourself to others (includes signing official statement to protect yourself or others)	46	(57.5)
21. Watching other people die	41	(51.3)
22. Separated from family members during fleeing or migration	41	(51.3)
23. Raising your children by yourself	40	(50.0)
24. Being forced to stop work or schooling	39	(48.8)

(continued)

Table 1. (continued)

Items endorsed > 40%	*n*	(%)
25. Seeing others being killed	38	(47.5)
26. Death of friends due to war	37	(46.3)
27. Seeing other people get seriously injured or ill because of war	37	(46.3)
28. Having bombs or gunfire go off in "safe" areas (like evacuation areas)	36	(45.0)
29. Living in the middle of war, and being forced into dual loyalties to survive	35	(43.8)
30. Death of a family member besides a young baby due to war	34	(42.5)

Note. Items endorsed in the Comprehensive Trauma Inventory-104.

included five out of 10 items from the Anxiety subscale and 13 out of 15 from the Depression subscale. Based on the results and visual assessment of the scree plot and the nature of the cross-loadings, the combined total scale score was determined appropriate versus the subscale scores.

Acculturation was measured using an adapted version of the Abbreviated Multidimensional Acculturation Scale (AMAS-ZABB; Zea et al., 2003). This scale consists of 42 items, with six subscales, and responses are rated using a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) on the cultural identity subscales and from 1 (*not at all*) to 4 (*extremely well*) for the language and cultural competence subscales.

In this study, the following subscales of the AMAS-ZABB were used, American Cultural Identity, English Language Competency, and American Cultural Competency. The American Cultural Identity subscale has six items querying how one thinks about themselves as an American, the sense of pride one feels, and the importance of being American. The English Language Competency subscale has nine items about how well one speaks and understands English in varying contexts (e.g., school, work, on the phone). The American Cultural Competency subscale includes six items about how well one knows elements of American culture, such as popular TV shows, magazines, and American history. The AMAS-ZABB also assesses enculturation. In this study, these other subscales would have assessed Somali Cultural Identity, Somali Language Competency, and Somali Cultural Competency. To reduce the number of items included in the overall questionnaire, we omitted these subscales. In the present study, the mean score on the total scale was 56.24 (*SD* = 14.01; range = 22–84). Cronbach's alpha coefficients in this study ranged from .95 to .97 on the individual subscales with an alpha of .92

for the total scale, indicating excellent reliability. The total score and each subscale score was used in the present study. A principal component analysis with an oblique rotation (Oblimin with Kaiser normalization) was conducted in order to confirm that the use of individual subscales in addition to the total scale score was appropriate for this sample. The results showed a 3-factor solution, accounting for 83.89% of the variance, provided further evidence of internal consistency, and justified the use of both the total scale score and individual subscales.

Post-traumatic stress symptoms were measured using the PTSD Symptom Scale-Self Report (PSS-SR; Foa et al., 1993). This scale is 17 items and may be scored as (a) continuous, (b) based on severity (ordered), or (c) dichotomous (PTSD vs. no PTSD). In the present study, this scale was scored based on severity, using a scale with scores ranging from 0 to 3 (0 = *not at all*; 1 = *once per week*; 2 = *2–4 times per week*; 3 = *5 or more times per week*). There are three symptom subscales with the following internal consistency values in the initial validation study: re-experiencing ($\propto$ = .78), avoidance ($\propto$ = .80), and arousal ($\propto$ = .82). Internal consistency for the total scale score was excellent in the validation study ($\propto$ = .91) and in a subsequent study of a refugee population ($\propto$ = .95; Hollifield et al., 2006). In the present study, Cronbach's alpha was .91 for the total scale, indicating excellent reliability, and the total score was used for this measure.

Study participants completed a demographic form detailing their age, sex, time in the United States, education, marital status, number of children, and employment status. This form was translated into the Somali language and was also available in English, depending upon preference.

Procedure

This study commenced following institutional review board approval. Participants were recruited using a snowball technique through refugee resettlement programs and organizations that provide services to refugees. In studies with hard to reach groups such as refugees and immigrants, the snowball method is commonly used (Birman & Tran, 2008; Ellis et al., 2010). Two Somali community advocates from these Midwestern cities assisted both authors significantly throughout the process. The first author, K. C. J., is a European American female, and the second author, J. E. N., is a European female with dual Swedish and American citizenship. The survey was administered in both group and individual formats. All measures were available in English and Somali languages and an interpreter was provided to assist with survey completion and ensure informed consent of all participants. The questionnaire was translated into the Somali language and back translated into

English to ensure translation accuracy, and a professional translation service (ALTA Language Services, n.d.) for health and government documents was used. Two Somali community advocates that assisted with study recruitment also reviewed the questionnaire for accuracy.

Participants could also take the survey online. Both Somali and English versions were available via SurveyMonkey. Online participants were recruited via Facebook and through community members who emailed a survey link to interested friends and family. The majority of surveys completed online had an interpreter present. This was due to our Somali community advocates helping with recruitment and their preference towards the convenience of online format versus paper surveys.

Results

Preliminary Analysis

Table 2 shows the correlations among demographic and study variables. To determine whether the data was missing completely at random (MCAR), Little's MCAR test was conducted. Results showed that $\chi^2 = 4,158.56$, $p = 1.000$, indicating that data statistically satisfied the requirements to be considered MCAR. To input missing data across the sample, the expectation-maximization algorithm in SPSS was used.

Ten participants were deleted for excessive missing data (not completing at least one entire measure or more). One participant was removed for intentionally marking responses without reading. The most commonly skipped measure was the PSS-SR, the final measure in the questionnaire. A missing data analysis was conducted for the remaining sample ($N = 80$), and 1.58% were missing at an item level. The pattern of data and individual items with 5% or more missing were analyzed. Only on one item, a question on the CTI-104 was a potential systematic pattern of missing data. Eleven participants (13.6%) skipped the question, "Heard about people being abused by harsh methods." This may indicate some confusion about that item or perhaps the vagueness of the term "harsh," compared to other items on this particular measure.

Prior to cleaning the data for random responding, a chi-square analysis was also conducted to assess demographic differences between those who took the questionnaire online ($n = 59$) and those who took a paper version ($n = 32$). An important note is that our community advocates/interpreters assisted at least half of those that took the questionnaire online. Therefore, mode of survey delivery was blurred between those online or in-person participants, because a community advocate assisted many of the online survey takers. Survey

Table 2. Correlations for all Variables of Interest

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age	—	.11	.75**	.37**	.01	-.07	-.36**	.28*	.40**	-.23*	.02	.35**	.40**	.31**	-.40**	-.25*
2. Sex		—	-.43	-.10	.17	.28*	.39**	-.11	-.38**	.27*	.17	-.30**	-.42**	-.38**	.38**	.43**
3. No. of children			—	.46**	-.04	-.15	-.43**	.39**	.50**	-.18	-.01	.42**	.46**	.38**	-.33**	-.30**
4. Marriage				—	-.11	.05	-.20	.23*	.18	-.24	.00	.14	.19	.11	-.27*	-.27
5. Time in U.S.					—	.4**	.47**	-.22	-.30**	.38**	.05	-.21	-.33	-.26*	.48**	.44**
6. Employment						—	.47**	.00	-.31**	.37**	-.05	-.26*	-.33**	-.124	.42**	.37**
7. Education							—	-.27*	-.47**	.55**	.15	-.40**	-.49**	-.32**	.72**	.55**
8. CTI-104								—	.43**	.08	.23*	.50**	.36**	.12	-.04	.13
9. HSCL-25									—	-.20	.06	.95**	.98**	.38**	-.40**	-.23*
10. AMAS-21										—	.06	-.14	-.22*	.22	.89**	.86**
11. PSS-17											—	.05	.06	-.13	.11	.10
12. Anxiety												—	.87**	.26*	-.31**	-.11
13. Depression													—	.44**	-.44**	-.29**
14. American cultural ID														—	-.17	-.17
15. English language															—	.82**
16. American cultural comp																—

Note. n = 80; CTI-104 = Pre-migration Trauma; HSCL-25 = Hopkins Symptoms Check List, combined Anxiety and Depression scores; AMAS-21 = Abbreviated Multidimensional Acculturation Scale; PSS-17 = post-traumatic stress disorder symptoms; Anxiety = Anxiety subscale of HSCL-25; Depression = Depression subscale of HSCL-25; ID = identity.
*p < .05. **p < .01.

delivery also blurred the line between those that took the survey in Somali language and English language. Due to the presence of an interpreter for all paper surveys and nearly all online questionnaires, we did not assess for demographic differences. It was impossible to distinguish between those who had completed the survey independently and those who received assistance. Online questionnaire takers were more likely to have lived in the United States for less than five years (66%) compared to paper questionnaire takers who had lived in the United States for at least five or more years (70%). Online takers were more likely to be unemployed and looking for work (40.68% vs. 21.88%) or unemployed and not looking for work (18.64% vs. 3.13%). Although the differences in employment status were statistically significant, the two groups were combined due to the recruitment tactics used.

Path Model

The hypothesized path model was assessed using the maximum likelihood estimation method with the statistical software program, AMOS 24 (Arbuckle, 2014). The hypothesized model is depicted in Figure 1. Model fit was evaluated by the chi-square (χ^2) test, comparative fit index (CFI), standardized root-mean-square-residual (SRMR), the root-mean-square error of approximation (RMSEA) with a 90% confidence interval (CI), and the Akaike Information Criterion (AIC) index. According to Kline (2011), models have a good fit under the following conditions: (a) χ^2 nonsignificant (do not reject the null hypothesis), (b) CFI greater than .95, (c) SRMR $<$ .08, (d) RMSEA $\leq$ .05 for good, $\leq$ .08 for adequate, $\geq$.10 poor fit, and (e) the lowest AIC when comparing fit between non-nested models.

Due to the highly correlated subscales of the HSCL-25 and results of the principal component analysis, the total score was tested in the model for fit, rather than individual subscales, depicted in Figure 1. Model fit statistics were χ^2 (3) = 5.94, p = .11, CFI = .92, SRMR = .08, RMSEA = .11, 90% CI [.00, .24], AIC = 29.94. The fit was fair, as indicated by the nonsignificant chi-square and the SRMR within the recommended value; however, the CFI and mixed RMSEA statistics suggest that fit might still be improved or may be indicative of low power due to the sample size. See Table 3 for unstandardized and standardized path coefficients, variances, and R^2 values.

Exploratory Modified Path Models Acculturation

After examining significant scale and subscale correlations (see Table 2), we identified some unique significant relationships for further exploration. Specifically, American Cultural Identity score was positively correlated with
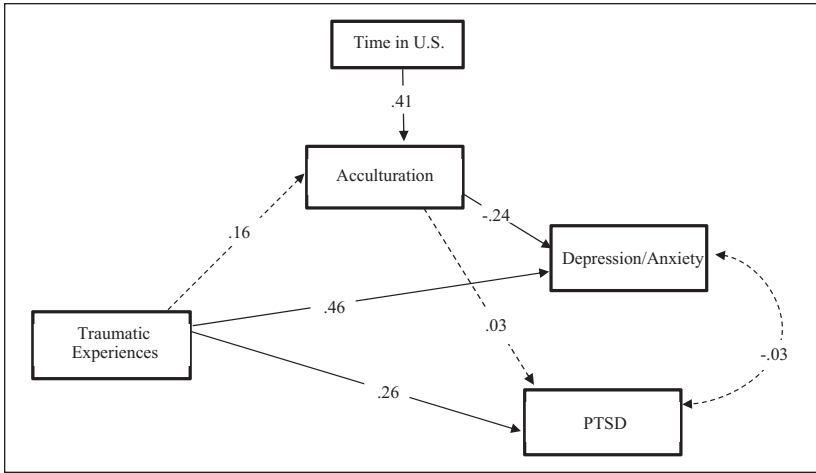
Figure 1. Modified path model with HSCL-25 total score.
Note. Rectangles are measured variables. Solid lines represent paths that are statistically significant (*p* < .05); dashed lines represent nonsignificant paths. Parameter estimates are reported as standardized.

the Depression and Anxiety scores, English Language Competency score was positively correlated with the Depression and Anxiety scores, and the American Cultural Competence score was negatively correlated with both the Depression and Anxiety scores. Another interesting finding was time in the United States and American Cultural Identity score negatively was correlated. Therefore, we tested the AMAS-21 subscales in the model to examine the relationship to mental health symptoms (with HSCL-21 total score and the PSS).

Exploratory Model A. The acculturation scale measured in Model A was the American Cultural Identity subscale. Fit statistics for this model were χ^2 (3) = 6.06, *p* = .11, CFI = .91, SRMR = .08, RMSEA = .11, 90% CI [.00, .24], AIC = 30.06. The fit indices gave fair results. The nonsignificant chi-square, the relatively small AIC, suggests adequate fit, although the RMSEA was mediocre. See Table 4 for unstandardized and standardized path coefficients, variances, and R^2 values.

Exploratory Model B. A second exploratory path model was tested for model fit with the second acculturation subscale, English Language Competency. Fit statistics for this model were χ^2 (3) = 4.00, *p* = .26, CFI = .98, SRMR =.07,

Table 3. Parameter Estimates of the Hypothesized Model

	Direct path coefficients			Indirect path coefficients		
Path	Unstandardized (SE)	Standardized		Variable	Unstandardized (SE)	r
AMAS ← CTI	0.11 (0.07)	.16		CTI ↔ HSCL	−0.02 (0.23)	.08
AMAS ← YearsUS	3.34 (0.81)***	.41		CTI ↔ PSS	0.00 (0.00)	.24
HSCL ← AMAS	−0.33 (0.14)**	−.24			Variances	
HSCL ← CTI	0.44 (0.10)***	.45		Variable	Unstandardized (SE)	R^2
PSS ← AMAS	0.01 (0.05)	.03		YearsUS	3.01 (0.48)***	.00
PSS ← CTI	0.08 (0.04)*	.25		CTI	408.34 (64.57)	.00
PSS ← HSCL	−0.01 (0.04)	−.04		AMAS	59.64 (25.24)***	.19
				HSCL	301.70 (47.70)***	.24
				PSS	42.61 (6.74)***	.06

Note. $N = 80$. AMAS = Abbreviated Multidimensional Acculturation Scale-21; CTI = Comprehensive Trauma Inventory-104; YrsUS = Years in the United States; HSCL = Hopkins Symptom Checklist-25; PSS = Post-traumatic Stress Scale.
*$p < .05$. **$p < .01$. ***$p < .001$.

213

Table 4. Parameter Estimates of Exploratory Path Model A

	Direct path coefficients			Indirect path coefficients		
Path	Unstandardized (SE)	Standardized		Variable	Unstandardized (SE)	r
CultID ← CTI	0.02 (0.03)	.07		CTI ↔ HSCL	.04 (0.03)	.12
CultID ← YearsUS	−0.76 (0.34)*	−.24		CTI ↔ PSS	−0.01 (0.00)	.29
HSCL ← CultID	1.21 (0.35)***	.34			Variances	
HSCL ← CTI	0.38 (0.10)***	.39		Variable	Unstandardized (SE)	R^2
PSS ← CultID	−0.21 (0.14)	−.17		YearsUS	3.05 (0.49)***	.00
PSS ← CTI	0.08 (0.04)*	.25		CTI	3.05 (2.49)***	.00
PSS ← HSCL	0.01 (0.04)***	.02		CultID	27.69 (4.41)***	.06
				HSCL	277.97 (44.23)***	.28
				PSS	41.94 (6.67)***	.08

Note. $N = 80$. CultID = American Cultural Identity subscale; CTI = Comprehensive Trauma Inventory-104; YearsUS = Years in the United States; HSCL = Hopkins Symptom Checklist-25; PSS = Post-traumatic Stress Scale.
*$p < .05$. **$p < .01$. ***$p < .001$.

RMSEA = .06, 90% CI [.00, .21], AIC = 28.00. The fit indices indicate the best overall model fit of all the models explored. The nonsignificant chi-square, the relatively small AIC, the CFI above .95, the SRMR below .08, and the RMSEA fit within the 90% CI suggest an overall great model fit. See Table 5 for unstandardized and standardized path coefficients, variances, and R^2 values.

Exploratory Model C. A final exploratory path model was tested for model fit with the third acculturation subscale, American Cultural Competency. Fit statistics for this model were χ^2 (3) = 7.21, p = .07, CFI = .97, SRMR = .08, RMSEA = .13, 90% CI [.00, .26], AIC = 31.21. The fit indices give overall adequate results. The nonsignificant chi-square, the relatively small AIC, the CFI above .95, the SRMR at .08, suggest adequate model fit, although the RMSEA is mediocre. See Table 6 for unstandardized and standardized path coefficients, variances, and R^2 values.

Main Analyses

Hypotheses 1 and 2

Results showed that traumatic experiences do not significantly predict acculturation (β = .16, p =.10). However, 19% of the variance in acculturation in the model can be accounted for by traumatic experiences and time in the United States. Results also indicated that greater acculturation was significantly associated with less depression and anxiety (β = -.24, p = .02), but did not significantly correlate with symptoms of PTSD (β = .03, p =.71). Traumatic experiences, acculturation, and time in the United States explained 24% of the variance in depression and anxiety, as measured by the HSCL-25 total score.

Hypothesis 3

Hypotheses 1 and 2 respectively were tested to provide the basis to test acculturation as a mediator between traumatic experiences, symptoms of PTSD, depression, and anxiety. Specifically, we hypothesized that as acculturation level increased, symptoms of PTSD, depression, and anxiety would also increase. To assess for mediation, the indirect effects between the predictor to the mediator and the mediator to outcome were compared to the direct effect of the predictor to the outcome. According to Kline (2011), mediation is inferred when indirect paths are significant. As stated previously, the direct effects of traumatic experience to acculturation was nonsignificant and the direct effects of acculturation to depression, anxiety, and PTSD were only

Table 5. Parameter Estimates of Exploratory Path Model B

	Direct path coefficients			Indirect path coefficients		
Path	Unstandardized (SE)	Standardized		Variable	Unstandardized (SE)	r
Lang ← CTI	0.03 (0.04)	.07		CTI ↔ HSCL	0.01 (0.04)	.57
Lang ← YearsUS	2.46 (0.49)***	.49		CTI ↔ PSS	−0.00 (0.00)	.04
HSCL ← Lang	−0.89 (0.21)***	−.39			Variances	
HSCL ← CTI	0.41 (0.09)***	.42		Variable	Unstandardized (SE)	R^2
PSS ← Lang	0.10 (0.09)	.12		YearsUS	3.01 (0.49)***	.00
PSS ← CTI	0.08 (0.04)*	.23		CTI	405.00 (64.44)***	.00
PSS ← HSCL	0.00 (0.05)	.01		Lang	56.61 (9.01)***	.25
				HSCL	262.26 (41.73)***	.31
				PSS	42.49 (6.76)***	.08

Note. $N = 80$. CTI = Comprehensive Trauma Inventory-104; Lang = English Language Competency subscale; YearsUS = Years in the United States; HSCL = Hopkins Symptom Checklist-25; PSS = Post-traumatic Stress Scale.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 6. Parameter Estimates of Exploratory Path Model C

Direct path coefficients			Indirect path coefficients		
Path	Unstandardized (SE)	Standardized	Variable	Unstandardized (SE)	r
CultComp ← CTI	0.07 (0.03)**	.23	CTI ↔ HSCL	−0.04 (0.03)	.51
CultComp ← YearsUS	1.64 (0.33)***	.48	CTI ↔ PSS	0.00 (0.01)	.25
HSCL ← CultComp	−0.97 (0.33)**	−.30		Variances	
HSCL ← CTI	0.46 (0.10)***	.47	Variable	Unstandardized (SE)	R^2
PSS ← CultComp	0.07 (0.13)	.07	YearsUS	3.05 (0.49)***	.00
PSS ← CTI	0.08 (0.04)	.24	CTI	404.99 (64.44)***	.00
PSS ← HSCL	−0.01 (0.04)	−.03	CultComp	25.99 (4.14)***	.28
			HSCL	289.69 (46.01)***	.25
			PSS	42.49 (6.82)***	.06

Note. N = 80. CTI = Comprehensive Trauma Inventory-104; CultComp = American Cultural Competency subscale; YearsUS = Years in the United States; HSCL = Hopkins Symptom Checklist-25; PSS = Post-traumatic Stress Scale.
*p < .05. **p < .01. ***p < .001.

significant between acculturation and depression and anxiety. To evaluate the direct effect of the predictor to the outcome, the standardized path coefficients from traumatic experiences to PTSD and depression and anxiety were examined. Results indicated that traumatic experiences significantly predicted each of these mental health outcomes (PTSD: $\beta = .25$, $p = .04$; depression and anxiety: $\beta = .45$, $p = .01$). Indirect effects were estimated via bootstrapping with the PROCESS macro (Hayes, 2016). The nonsignificant indirect effects from the predictor to the mediator and outcomes indicated that acculturation, measured by the total scale score, did not serve as a mediator between traumatic experiences and mental health outcomes in this study.

Hypothesis 4

Hypothesis 4 predicted a significant positive relationship between time spent in the United States and acculturation. The results indicated a significant positive relationship between time since resettlement in the United States and the acculturation measure ($\beta = .41$, $p = .01$). This provided some support for the assumption that acculturation is partially a function of time, and that other factors (presumably English language comfort/acquisition, cultural competency, and cultural identity) play a significant role in one's ability to acculturate.

Hypothesis 5

Hypothesis 5 predicted a significant negative correlation between gender and mental health symptoms, indicating that women endorsed more mental health symptoms. The results indicated a significant negative relationship between sex and anxiety ($r = -.30$, $p = .01$) and depression ($r = -.42$, $p = .00$). There was not a significant relationship between sex and PTSD ($r = -.17$, $p = .13$).

Post Hoc Analyses

To gain a more indepth understanding of the role of acculturation, trauma, and mental health symptoms, we examined the different dimensions of acculturation separately.

American Cultural Identity

Traumatic experiences did not significantly predict American Cultural Identity ($\beta = .07$, $p = .52$). However, level of American cultural identity did significantly predict both depression and anxiety ($\beta = .335$, $p = .01$) but not PTSD ($\beta = -.168$, $p = .15$). Additionally, results indicated that 6.4% of the

variance in American cultural identity can be explained by traumatic experiences and time in the United States, 28.2% of the variance in depression and anxiety (HSCL-25 total score) can be explained by traumatic events, time in United States, and American cultural identity combined. Lastly, 8.5% of the variance in PTSD can be explained by traumatic experiences, American cultural identity, and time in the United States.

English Language Competency

Traumatic experiences did not significantly predict English language competency ($\beta = .07$, $p = .47$), although English language competency did significantly predict depression and anxiety ($\beta = -.39$, $p = .01$). English language competency did not significantly predict PTSD ($\beta = .12$, $p = .30$). Since the path from traumatic experiences to English language competency was also nonsignificant, we ruled this out as a potential mediator. In this model, 25.0% of the variance in English language competency was explained by traumatic experiences and time in the United States and 31% of the variance in depression and anxiety (HSCL-25 combined score) was explained by the previous predictors (traumatic experiences, time in the United States, and English language competency). Similarly, previous predictors in the model (traumatic experiences, time in the United States, and English language competency) explained 8.0% of the variance in PTSD symptoms.

American Cultural Competency

Traumatic experiences did significantly predict American cultural competency ($\beta = .23$, $p = .02$) and American cultural competency significantly predicted depression and anxiety ($\beta = -.30$ $p = .01$), though not PTSD ($\beta = .07$, $p = .58$). Traumatic experiences also significantly predicted depression and anxiety ($\beta = .47$, $p = .01$) and the direct path from traumatic experiences to PTSD was nearly significant ($\beta = .24$, $p = .06$). These results indicate that American cultural competency partially mediated the relationship between traumatic experiences and depression and anxiety, as measured by the HSCL-21. American cultural competency explained 27.8% of the variance in the model, depression and anxiety explained 24.5%, and PTSD explained 6.4% of the variance, as indicated by squared multiple correlations.

Discussion

This study examined the role of acculturation in the relationship between traumatic experiences and mental health symptoms (PTSD, depression, and

anxiety). The results partially supported hypothesis 3, the role of accultura-tion as a mediator, and were further expanded upon in the post hoc analyses. When acculturation was used as a total score measure, it did not significantly mediate the relationship between traumatic experiences and mental health symptoms measured by the combined scores of Depression and Anxiety or PTSD. Individually, however, both traumatic experiences and degree of acculturation predicted depression and anxiety. Although acculturation as a global measure did not mediate the relationship between traumatic experi-ences and depression and anxiety, the results echo that of previous research on the dose-response nature of how trauma predicts poor mental health out-comes (Schweitzer et al., 2011).

As a global measure, the findings indicate that the more acculturated the participants were, the less likely they were to experience depression and anxiety. Acculturation as separated by dimensions, however, painted a slightly different picture of the acculturation process for Somali refugees and the expression of mental health symptoms. First, acculturation, as mea-sured by American Cultural Competency, partially mediated the relationship between traumatic experiences and depression and anxiety, meaning that as the individual begins to understand American culture and history, they report less depression and anxiety. Also important to note, is that time in the United States positively correlated with American cultural competency, suggesting that the longer people have lived in the United States, the more knowledge-able they felt about American culture, including American history, television shows, and political leaders. Particularly for Somalis who had received no or little formal education prior to resettlement, learning about political leaders and American history would be needed to assist them in their acculturation process.

English language competency, measured by how well one speaks and understands English in different contexts (i.e., on the phone, with strangers, at school or work), was not predicted by traumatic experiences. It may be the number of trauma experiences per se does not impact the ability to learn a second language, but that resources, both cognitive and those related to access (such as money, a school or community center, instructors, and trans-portation), have a greater impact on learning and practicing a new language. English language competency was also related to fewer symptoms of depres-sion and anxiety, which is in line with previous findings (Porter & Haslam, 2005). To help explain why this may be the case, time in the United States was again positively predictive of the acculturation dimension, English lan-guage competency, meaning that those who indicated higher English compe-tency had lived in the United States for a more extended period of time. Time can be a good indicator for opportunities to practice and access English

language learning resources, resulting in better English speaking and listening abilities.

American cultural identity, measured by items about how one thinks and feels related to being American and part of the U.S. culture, was not predicted by amount of traumatic experiences. Curiously, time lived in the United States negatively predicted American cultural identity, suggesting that the participants may initially have felt more American earlier in the resettlement process as compared to those who had lived in the Unites States for a longer time. This finding is of particular interest as it may suggest that specific post-migration experiences such as experiences with discrimination or harassment, education, employment, and community (whether one is resettled near a sizeable Somali community or in an area with fewer Somalis) negatively impact one's sense of being American. As acculturative stress potentially increases, it does not only affect mental health (Ying & Han, 2007) but also decreases a sense of belonging to the United States. Furthermore, participants who reported greater American cultural identity also reported more depression and anxiety. At first glance, this would lend some support to our initial hypotheses that as acculturation increased mental health symptoms would increase. However, given our results in how the various acculturation dimensions bear out differently for those who have lived in the United States a longer time, with varying degrees of trauma, we recommend a cautious interpretation. Since those who are newer to the United States likely have not acculturated in other meaningful ways (such as a broader understanding of history, politics, or media, and perhaps communicating in English), this finding may indicate that American cultural identity was not representative of acculturation as a more global, multi-dimensional construct. Rather, American cultural identity could be more reflective of an initial sense of excitement and hope via resettlement and the idealized notion of "The American Dream."

Interestingly, PTSD did not relate to acculturation in any of the tested models, nor did it relate to depression or anxiety. Yet number of traumatic events predicted PTSD, although not as strongly as depression and anxiety. These findings may suggest that neither DSM-IV or DSM-5 diagnostic criteria, as measured by items in the PSS-17, provide an adequate fit for Somalis who have experienced trauma and otherwise report symptoms related to depression and anxiety, nor is it a good measure of PTSD for Somali refugees. Other collectivist, cross-cultural comparisons (Elsass, 2001; Norris & Aroian, 2007) highlight avoidance as active coping, making PTSD diagnosis less likely because such symptoms of avoidance would go unreported, as the individual may not view them as problematic or particularly noteworthy. Although this cross-cultural PTSD research was not with Somali refugees, collectivist values are likely applicable to Somali refugees. More research is

needed to discern potential culture-specific differences in symptom presentation that otherwise reflect what clinicians view as PTSD but do not currently fit diagnostic criteria.

As an additional proxy measure for acculturation, we examined whether time spent in the United States served as a significant predictor. In our study, those who lived in the United States for a shorter period reported feeling more American or had higher scores on the American Cultural Identity subscale. It may be that many refugees reported significant pride in their new identity as an American immediately following resettlement. It is possible this sense of pride and identity diminishes over time, as the realities of finding employment, learning a new language and culture, and working through previous trauma set in. Combined with the real experiences of discrimination that are more prevalently experienced by Somali refugees in the United States, and are echoed across other research (e.g. Abdi, 2011; Ellis et al., 2010; Young, 2019), it seems reasonable to expect that American Cultural Identity might diminish, especially for those who reported high levels near their initial arrival.

Finally, as hypothesized, Somali women reported more symptoms of depression and anxiety than Somali men. These findings are on par with a 2011 study (Schubert & Punamäki, 2011) of Somali refugees resettled in Finland, with women reporting more depressive symptoms, although not PTSD symptoms. Another similarity between the two studies is that the traumatic events experienced were not significantly different between men and women. Notably, there was no difference between men and women in terms of number of traumatic experiences and PTSD scores.

Limitations

There are many barriers to conducting research with refugee populations. These barriers include, but are not limited to, the validation of measures and translations, availability of an interpreter, access to communities, trust as a researcher within these populations, literacy rates, familiarity with surveys—specifically Likert-type ratings—and time. It took participants between 40 to 90 min to complete the study, with data collected over a span of 5 months. All in-person administrations required an interpreter and this was true for many who took the survey online. The unique nature of our snowball sampling made it impossible to compare preference for survey format (online or paper in-person). Although this helped increase sample size, it is a noteworthy limitation in understanding how survey format relates to acculturation and/or language preference. Participants had questions about wording, the meaning of items, and mentioned a few times that they found the items difficult to answer because they brought back unsettling memories.

Additionally, the sample size was lower than the minimum for path analysis recommended by Kline (2011). During data collection, we quickly realized that obtaining a sample of at least 200 people without significantly more resources and cooperation with other partner organizations would be impossible. These aforementioned barriers made obtaining a large sample size challenging, although this challenge is consistent with research on refugee populations more generally. With such difficulties obtaining an adequately large sample size, researchers are less likely to detect a true effect using SEM. Future researchers considering hypotheses that would utilize a path analysis should collaborate across multiple cities, teams, and/or universities when possible to expand their recruitment and engagement power.

Another limitation of this study was the difference between measures in response formats. Each of the measures evaluating mental health symptoms and acculturation used different question stems and rating scales, and this may have influenced responses. For example, on the HSCL-25, participants rated symptoms during the past month and answered 25 concise phrases or words about possible symptoms related to anxiety and depression. On the AMAS-21, participants again responded to a short sentence or a few words about their acculturation, but with two different rating scales. One rating scale measured agreement with American Cultural Identity, while another rating scale measured English ability and American Cultural Competency in terms of mastery. Lastly, the PSS-SR-17 scale evaluates symptoms of PTSD within the last 2 weeks and participants must respond to complete sentences that at face value seem more challenging compared to the other measures. Compared to the other measures, the PSS-SR-17 was the most difficult to understand for participants. Additionally, the difference in the response scales between measures may have caused confusion and led to under-reporting of symptoms, particularly towards the end of the survey. Future researchers may consider this limitation and attempt to streamline their measures to make them simpler to understand and standardize the response scales. It may have added to the study to incorporate a measure to assess somatic symptoms, which may have provided a noteworthy dimension of symptoms compared to using both the HSCL-21 and the PSS-SR-17 and may have been easier to understand.

Implications for Research, Practice, Advocacy, and Education/Training

The findings of this study highlight many questions for future research. The process of acculturation and its multi-dimensions should be examined in further detail, particularly since the results of this study indicate that the process

is complex for Somali refugees. It would be useful to understand acculturation and mental health through a longitudinal approach. Although challenging in nature, a longitudinal study would provide a more precise look at the acculturation process for a unique but large refugee group in the United States.

The impact of variables related to acculturative stress needs to be studied in more detail. Specific variables such as language, employment, experiences with discrimination and/or harassment, whether one lives in or near a large Somali community, and access to resources that provide support and/or buffer the challenges inherent to adjustment would be important to tease out and examine for potential unique effects on the acculturation process. Each of the acculturation dimensions measured in this study related uniquely with the main variables of interest: depression and anxiety, traumatic experiences, and time lived in the United States. Additional research should involve going beyond the scope of mental health diagnoses contained within the DSM-5 to examine the effect of discrimination over time as it relates to other variables, such as health care access, social support, health care beliefs, mental health literacy, and resilience.

During the data collection process from September 2016 to January 2017, many Somalis voiced a change in how welcome they felt in the United States. They cited subtle, but perceptible shifts in behavior by other Americans towards them. Those who had lived in the United States for several years and new arrivals both made statements indicating discomfort. Specifically, some participants noted an increase in comments made about their head coverings (if female), about not belonging in the United States (and comments suggesting they should leave), and a general fear about what is to come. These comments increased somewhat following the U.S. presidential election in November 2016, which occurred about halfway through data collection. However, participants also noted an increase in such outward comments and feelings of discomfort before the election. Participants indicated initial apprehension to participate in our research given these experiences and general distrust, although they did participate due to their relationship with the researcher and/or interpreter and after learning about the study rationale. Therefore, the effect of history is a significant limitation and consideration in contemporary research with refugees. Qualitative research on the aforementioned experiences of apprehension, a decreased sense of belonging, changes felt in a political climate regarding refugee resettlement, prejudicial attitudes towards Muslims or those perceived to be Muslim, and a more general reflection on acculturation over time would be fruitful, providing additional research questions to examine quantitatively. Researchers may also examine the construct of racial battle fatigue, a concept originating from the specific psychosocial stress response from the experience of being a member of a racially oppressed

group on a historically White college campus (e.g., Franklin et al., 2014; W. A. Smith, 2004). This construct may be useful in application with refugees to analyze the effects of perceived discrimination, psychosocial stress, and the relationship with acculturation. In this vein, research should inform advocacy initiatives on behalf of those who have no choice but to relocate to a place where they will undoubtedly encounter hostile attitudes and policies.

A limitation of our study was the use of Western instruments with Somali refugees. Critics of the bio-medical model, mainly when applied to cross-cultural groups, may take issue with applying diagnoses or using assessments with refugee groups when such diagnoses and assessments have not been thoroughly tested and validated with a specific refugee population. However, this criticism highlights an ethical dilemma for refugee service providers in that mental health professionals must identify mental health problems within the context of diagnostic categories via informal and formal assessments to garnish resources and support for refugees (Watters, 2001). Such criteria and diagnoses are most often necessary for reimbursement of services and employed to monitor clinical progress. Therefore, without such tools and standards, refugees may not be screened for mental health services or deemed ineligible for service reimbursement. Future research should focus on validating and improving these tools, while advocacy initiatives could free up funding that would allow holistic, culturally responsive treatments that are untied to diagnoses. Regardless of the tools used, training should focus on culture-specific mental health symptom response patterns, so that clinicians may adequately evaluate and provide services to refugee clients.

This study builds upon existing research in the area of refugee mental health following resettlement and paints a broader picture of the types of familiar trauma for Somali refugees. Mental health professionals are served by a better understanding of the experiences Somali refugees may encounter before resettlement and, in turn, should tailor services to meet their unique needs. This study expands on what is known about the process of acculturation specific to Somali refugees. The multi-dimensional model of acculturation has not previously been used with Somali refugees and revealed a process that is potentially influenced by experiences related to acculturative stress, time in the United States, and premigration trauma.

We also highlighted the significant number of traumatic experiences of Somali refugees. More than half of the participants endorsed items such as "being threatened with harm or feeling like you are in serious danger," "seeing dead bodies or parts of human remains," and "separated from family members during fleeing or migration." With additional research, we may learn whether one of these experiences is more salient as a predictor for distress or dysfunction. For example, future research may examine potential

differences in mental health symptoms depending on whether individuals experienced trauma directly or vicariously. In the present study, we did not distinguish between direct traumatic experiences such as "seeing others being killed" ($n = 34$) or vicarious traumatic experiences such as "heard about mass killings and people being put in mass graves" ($n = 68$).

Understanding symptoms as related to a specific trauma, or several traumas, as in the case with this population, is essential to determine the appropriate treatment. Broadly, communication with other professionals, in terms of symptoms of diagnoses, is vital for purposes such as prescribing medications, making educational accommodations, billing for services, and determining eligibility for specific programming. Clinicians, clinical supervisors, advocates, and researchers' alike benefit from additional context of the specific traumatic experiences of Somali refugees when conducting assessments, writing treatment plans, writing policy, developing measures and curriculum, and interpreting research results. Likewise, community stakeholders also benefit from training on mental health literacy, as their role is vital in facilitating access of crucial resources to refugee communities.

Conclusion

It is evident that more research is required to delineate the process of acculturation for Somali refugees. Their experience in the United States is unique, with people resettled over 30 years ago and new arrivals ongoing. This history creates rich cultural enclaves that lend additional social support, but may also make Somalis a target for discrimination and scapegoating, particularly in light of recent policy and political shifts under the Trump administration. The resettlement process itself is often traumatic, and Somalis have experienced significant traumas both before and in refugee camps. It is imperative that we make good on our promise to refugees in resettlement—who come to the United States seeking healthy, safe, and secure futures—as a partnering country with the UNHCR. As counseling psychologists, wrapped in our identity are the tenets of social justice, diversity, and advocacy, all of which are central to addressing the complex needs of refugees worldwide.

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References

Abdi, C. (2011). The newest African-Americans?: Somali struggles for belonging. *Bildhaan: An International Journal of Somali Studies*, *11*(12), 90–107. https://digitalcommons.macalester.edu/bildhaan/vol11/iss1/12

ALTA Language Services. (n.d.). https://www.altalang.com/translation-services/

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Arbuckle, J. L. (2014). *Amos* (Version 23.0) [Computer Program]. Chicago: IBM SPSS.

Aroche, J., & Coello, M. J. (2004). Ethnocultural considerations in the treatment of refugees and asylum seekers. In Routledge (Ed.) *Broken Spirits* (pp. 53–67). Taylor & Francis Books.

Baranik, L. E., Hurst, C. S., & Eby, L. T. (2018). The stigma of being a refugee: A mixed-method study of refugees' experiences of vocational stress. *Journal of Vocational Behavior*, *105*, 116–130. https://doi.org/10.1016/j.jvb.2017.09.006

Bemak, F., & Chung, R. C.-Y. (2017). Refugee trauma: Culturally responsive counseling interventions. *Journal of Counseling & Development*, *95*(3), 299–308. https://doi.org/10.1002/jcad.12144

Bentley, J., Thoburn, J., Stewart, D., & Boynton, L. (2012). Post-migration stress as a moderator between traumatic exposure and self-reported mental health symptoms in a sample of Somali refugees. *Journal of Loss and Trauma*, *17*(5), 452–469. https://doi.org/10.1080/15325024.2012.665008

Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology: An International Review*, *46*(1) 5–34. https://doi.org/10.1111/j.1464-0597.1997.tb01087.x

Bhalla, N. (2019, March 29). Kenya orders closure of Dadaab refugee camp this year, according to leaked U.N. document. *Reuters*. https://www.reuters.com/article/us-kenya-refugees-somalia/kenya-orders-closure-of-dadaab-refugee-camp-this-year-according-to-leaked-u-n-document-idUSKCN1RA1FN

Bhui, K., Abdi, A., Abdi, M., Pereira, S., Dualeh, M., Robertson, D., Sathyamoorthy, G., & Ismail, H. (2003). Traumatic events, migration characteristics and psychiatric symptoms among Somali refugees. *Social Psychiatry and Psychiatric Epidemiology*, *38*(1), 35–43. https://doi.org/10.1007/s00127-003-0596-5

Birman, D., & Tran, N. (2008). Psychological distress and adjustment of Vietnamese refugees in the United States: Association with pre- and postmigration factors. *American Journal of Orthopsychiatry*, *78*(1), 109–120. https://doi.org/10.1037/0002-9432.78.1.109

Bridging Refugee Youth & Children's Services. (2013). *Refugee families from Somalia*. Office of Head Start National Center on Cultural and Linguistic Responsiveness. http://brycs.org/documents/upload/somali-cultural-backgrounder.pdf

Capps, R., Newland, K., Fratzke, S., Groves, S., Auclair, G., Fix, M., & McHugh, M. (2015). *The integration outcome of U.S. refugees: Successes and challenges*. Migration Policy Institute.

Carswell, K., Blackburn, P., & Barker, C. (2011). The relationship between trauma, post-migration problems and the psychological well-being of refugees and asylum seekers. *International Journal of Social Psychiatry*, *57*(2), 107–119. https://doi.org/10.1177/0020764009105699

Centers for Disease Control and Prevention. (2018, October 15). Somali refugee health profile. https://www.cdc.gov/immigrantrefugeehealth/pdf/Somali-Refugee-Health-Profile.pdf

de Anstiss, H., & Ziaian, T. (2010). Mental health help-seeking and refugee adolescents: Qualitative findings from a mixed-methods investigation. *Australian Psychologist*, *45*(1), 29–37. https://doi.org/10.1080/00050060903262387

Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science*, *19*(1), 1–15. https://doi.org/10.1002/bs.3830190102

Ellis, H. B., MacDonald, H. Z., Klunk-Gillis, J., Lincoln, A., Strunin, L., & Cabral, H. J. (2010). Discrimination and mental health among Somali refugee adolescents: The role of acculturation and gender. *American Journal of Orthopsychiatry*, *80*(4), 564–575. https://doi.org/10.1111/j.1939-0025.2010.01061.x

Elsass, P. (2001). Individual and collective traumatic memories: A qualitative study of post-traumatic stress disorder symptoms in two Latin American localities. *Transcultural Psychiatry*, *38*(3), 306–316. https://doi.org/10.1177/136346150103800302

Escobar, J., & Vega, W. (2000). Mental health and immigration's three A's: Where are we and where do we go from here? *Journal of Nervous and Mental Disorders*, *188*(11), 736–740.

Fawzi, M., Pham, T., Lin, L., Nguyen, T. V., Ngo, D., Murphy, E., & Mollica, R. (1997). The validity of posttraumatic stress disorder among Vietnamese refugees. *Journal of Traumatic Stress*, *10*(1), 101–108. https://doi.org/10.1002/jts.2490100109

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: A systematic review. *Lancet*, 365(9467), 1309–1314. https://pubmed.ncbi.nlm.nih.gov/15823380/

Finklestein, M., & Solomon, Z. (2009). Cumulative trauma, PTSD and dissociation among Ethiopian refugees in Israel. *Journal of Traumatic Dissociation*, *10*(1), 38–56. https://doi.org/10.1080/15299730802485151

Foa, E. B., Riggs, D. S., Dancu, C. V., & Rothbaum, B. O. (1993). Reliability and validity of a brief instrument for assessing post-traumatic stress disorder. *Journal of Traumatic Stress*, *6*(4), 459–473. https://doi.org/10.1002/jts.2490060405

Franklin, J.D., Smith, W.A., & Hung, M. (2014). Racial battle fatigue for Latina/o students: A quantitative perspective. *Journal of Hispanic Higher Education*, *13*(4), 303–322. https://doi.org/10.1177/1538192714540530

Garvelink, W. J., & Tahir, F. (March 1, 2012). *The Dadaab refugee complex: A powder keg and it's giving off sparks*. Center for Strategic and International Studies.

http://csis.org/publication/dadaab-refugee-complex-powder-keg-and-its-giving-sparks

Gerritsen, A. A., Bramsen, I., Devillé, W., van Willigen, L. H. M., Hovens, J. E., & van der Ploeg, H. M. (2006). Physical and mental health of Afghan, Iranian, and Somali asylum seekers and refugees living in the Netherlands. *Social Psychiatry and Psychiatric Epidemiology*, *41*(1), 18–26. https://doi.org/10.1007/s00127-005-0003-5

Hadley, C., & Patil, C. (2009). Perceived discrimination among three groups of refugees resettled in the USA: Associations with language, time in the USA, and continent of origin. *Journal of Immigrant and Minority Health*, *11*(6), 505–512. https://doi.org/10.1007/s10903-009-9227-x

Hammond, L. (2014). *Somali refugee displacements in the near region: Analysis and recommendations*. Paper for the UNHCR Global Initiative on Somali Refugees. https://www.unhcr.org/55152c699.pdf

Harrell-Bond, B. (2000). *Are refugee camps good for children?* (Working Paper No. 29). Cairo: American University in Cairo, Forced Migration and Refugee Studies. https://www.unhcr.org/3ae6a0c64.pdf

Hayes, A. (2016). *PROCESS macro* [Computer software]. http://www.processmacro.org/ index.html

Hollifield, M., Warner, T. D., Jenkins, J., Sinclair-Lian, N., Krakow, B., Eckert, V., Karadaghi, P., & Westermeyer, J. (2006). Assessing war trauma in refugees: Properties of the Comprehensive Trauma Inventory-104. *Journal of Traumatic Stress*, *19*(4), 527–540. https://doi.org/10.1002/jts.20137

Human Rights Watch. (2013, March 26). *Somalia: Protect displaced people at risk*. https://www.hrw.org/news/2013/03/26/somalia-protect-displaced-people-risk

Jaranson, J. M., Butcher, J., Halcon, L., Johnson, D. R., Robertson, C., Savik, K., Spring, M., & Westermeyer, J. (2004) Somali and Oromo refugees: correlates of torture and trauma history. *American Journal of Public Health*. *94*(4), 591–598. https://doi.org/10.2105/ajph.94.4.591

Jorgenson, K. C., & Nilsson, J. E. (2013). *Mental health literacy, supports, and barriers to services in a Somali refugee community* [Unpublished doctoral dissertation].

Kleijn, W. C., Hovens, J. E., & Rodenbug, J. J. (2001). Posttraumatic stress symptoms in refugees: assessments with the Harvard Trauma Questionnaire and the Hopkins symptoms Checklist-25 in different languages. *Psychological Reports*, *88*(2), 527–532. https://doi.org/10.2466/pr0.2001.88.2.527

Kline, R. B. (2011). *Methodology in the Social Sciences. Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.

Lee, H. Y., Lytle, K., Yang, P. N., & Lum, T. (2010). Mental health literacy in Hmong and Cambodian elderly refugees: A barrier to understanding, recognizing, and responding to depression. *International Journal of Aging and Human Development*, *71*(4), 323–344. https://doi.org/10.2190/AG.71.4.d

Lhewa, D., Banu, S., Rosenfeld, B., & Keller, A. (2007). Validation of a Tibetan translation of the Hopkins Symptom Checklist 25 and the Harvard Trauma Questionnaire. *Assessment*, *14*(3), 222–230. https://doi.org/10.1177/1073191106298876

Médecins Sans Frontières. (2019, November 18). *Shut out and forgotten, refugees in Dadaab appeal for dignity*. http://msf.org/forgotten-refugees-kenya-dadaab-camps-appeal-dignity

Médecins Sans Frontières. (2012, June). *Dadaab: Shadows of lives*. http://www.msf.org/sites/msf.org/files/old-cms/fms/article-documents/2012-06-14_kenya_dadaab_shadows_of_lives_ENG.pdf

Miller, K. E., Omidian, P., Quraishy, A. S., Quraishy, N., Nasiry, M. N., Nasiry, S., Karyar, N. M., & Yaqubi, A. A. (2006). The Afghan symptom checklist: A culturally grounded approach to mental health assessment in a conflict zone. *American Journal of Orthopsychiatry*, *76*(4), 423–433. https://doi.org/10.1037/0002-9432.76.4.423

Mollica, R. F., Caspi-Yavin, Y., Bollini, P., Truong, T., Tor, S., & Lavelle, J. (1992). The Harvard Trauma Questionnaire. Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. *Journal of Nervous and Mental Disease*, *180*(2), 111–116.

Mollica, R. F., Wyshak, G., de Marneffe, D., Khuon, F., & Lavelle, J. (1987). Indochinese versions of the Hopkins Symptom Checklist-25: a screening instrument for the psychiatric care of refugees. *American Journal of Psychiatry*, *144*(4) 497–500. https://doi.org/:10.1176/ajp.144.12.1567

Montgomery, E., & Foldspang, A. (2006). Validity of PTSD in a sample of refugee children: Can a separate diagnostic entity be justified? *International Journal of Methods in Psychiatric Research*, *15*(2), 64–74. https://doi.org/ 10.1093/eurpub/ckm073

Mooney, J., & Shepodd, G. (2009, March). Ethnomed Somali Cultural Profile. https://ethnomed.org/culture/somali/somali-cultural-profile

Nilsson, J. E., Brown, C., Russell, E. B., & Khamphakdy-Brown, S. (2008). Acculturation, partner violence, and psychological distress in refugee women from Somalia. *Journal of Interpersonal Violence*, *23*(11), 1654–1663. https://doi.org/10.1177/0886260508314310

Norris, A. E., & Aroian, K. J. (2008). Avoidance symptoms and assessment of posttraumatic stress disorder in Arab immigrant women. *Journal of Traumatic Stress*, *21*(5), 471–478. https://doi.org/10.1002/jts.20363

O'Driscoll, J. V., Serneels, G., & Imeraj, L. (2017). A file study of refugee children referred to specialized mental health care: From an individual diagnostic to an ecological perspective. *European Child and Adolescent Psychiatry*, *26*(11), 1331–1341. https://doi.org/10.1007/s00787-017-0981-3

Onyut, L., Neuner, F., Ertl, V., Schauer, E., Odenwald, M., & Elbert, T. (2009). Trauma, poverty and mental health among Somali and Rwandese refugees living in an African refugee settlement—an epidemiological study. *Conflict and Health*, *3*(6). https://doi.org/10.1186/1752-1505-3-6

Oquendo, M., Ellis, S., Greenwald, S., Malone, K., Weissman, M., & Mann, J. (2001). Ethnic and sex differences in suicide rates relative to major depression in the United States. *American Journal of Psychiatry*, *158*(10), 1652–1658. https://doi.org/10.1176/appi.ajp.158.10.1652

Parloff, M. B., Kelman, H. C., & Frank, J. D. (1954). Comfort, effectiveness, and self-awareness as criteria of improvement in psychotherapy. *American Journal of Psychiatry*, *111*(5), 343–352. https://doi.org/10.1176/ajp.111.5.343

Poppitt, G., & Frey, R. (2007). Sudanese adolescent refugees: Acculturation and acculturative stress. *Australian Journal of Guidance & Counselling*, *17*(2), 160–181. https://doi.org/10.1375/ajgc.17.2.160

Porter, M., & Haslam, N. (2005). Predisplacement and postdisplacement factors associated with mental health of refugees and internally displaced persons: A meta-analysis. *Journal of the American Medical Association*, *294*(5), 602–612. https://doi.org/10.1001/jama.294.5.602

Pumariega, A. J., & Rothe, E. (2010). Leaving no children or families outside: The challenges of immigration. *American Journal of Orthopsychiatry*, *80*(4), 505–515. https://doi.org/10.1111/j.1939-0025.2010.01053.x

Rasmussen, A., Verkuilen, J., Ho, E., & Fan, Y. (2015). Posttraumatic stress disorder among refugees: Measurement invariance of Harvard Trauma Questionnaire Scores across global regions and response patterns. *Psychological Assessment*, *27*(4), 1160–1170. https://www.doi.org/10.1037/pas0000115

Sam, D. L., & Berry, J. W. (Eds.). (2006). *The Cambridge Handbook of Acculturation Psychology*. Cambridge University Press.

Schubert, C., & Punamäki, R. L. (2011). Mental health among torture survivors: Cultural background, refugee status, and gender. *Nordic Journal of Psychiatry*, *65*(3) 175–182. https://doi.org/10.3109/08039488.2010.514943

Schweitzer, R., Brough, M., Vromans, L., & Asic-Kobe, M. (2011). Mental health of newly arrived Burmese refugees in Australia: Contributions of pre-migration and post-migration experience. *Australian & New Zealand Journal of Psychiatry*, *45*(4), 299–307. https://doi.org/10.3109/00048674.2010.543412

Schweitzer, R., Melville, F., Steel, Z., & Lacherez, P. (2006). Trauma, post-migration living difficulties, and social support as predictors of psychological adjustment in resettled Sudanese refugees. *Australian & New Zealand Journal of Psychiatry*, *40*(2), 179–187. https://doi.org/10.1080/j.1440-1614.2006.01766.x

Shea, M., Winnie Ma, P-W, & Yeh, C. J. (2007). Development of a culturally specific career exploration group for urban Chinese immigrant youth. *The Career Development Quarterly*, *56*(1), 62–73. https://doi.org/10.1002/j.2161-0045.2007.tb00020.x

Smith, M. (2004). Warehousing refugees: A denial of rights, a waste of humanity. *World Refugee Survey*. US Committee for Refugees. https://sswm.info/sites/default/files/reference_attachments/SMITH%202004%20Warehousing%20Refugees.pdf

Smith, W. A. (2004). Black faculty coping with racial battle fatigue: The campus racial climate in a post-civil rights era. In D. Cleveland (Ed.), *A long way to go: Conversations about race by African American faculty and graduate students at predominately White institutions* (pp. 171–190). Peter Lang.

Tabachnick, B., & Fidell, L. (2013). *Using multivariate statistics*. (6th ed.). Pearson.

Takeuchi, D. T., Alegria, M., Jackson, J. S., & Williams, D. R. (2007). Immigration and mental health: Diverse findings in Asian, Black, and Latino populations.

American Journal of Public Health, *97*(1), 11–12. https://doi.org.10.2105/AJPH.2006.1039

United Nations High Commissioner for Refugees. (2013, October 1). *UNHCR says it is "stretched to the limit" by the rising number of refugees*. http://www.unhcr.org/524ae6179.html

United Nations High Commissioner for Refugees. (2020). *Kenya: Figures at a glance*. https://www.unhcr.org/ke/figures-at-a-glance

U.S. Department of State. (2019). *Report to Congress on proposed refugee admissions for FY* 2020. https://www.state.gov/reports/report-to-congress-on-proposed-refugee-admissions-for-fy-2020/

Watters, C. (2001). Emerging paradigms in the mental health care of refugees. *Social Science & Medicine*, *52*(11), 1709–1718. https://doi.org/10.1016/S0277-9536(00)00284-7

White, J. (2004). *Post traumatic stress disorder: The lived experiences of immigrant, refugee, and visible minority Women*. Prairie Women's Health Centre of Excellence.

Yakushko, O., Backhaus, A., Watson, M., Ngaruiya, K., & Gonazalez, J. (2008) Career development concerns of recent immigrants and refugees. *Journal of Career Development*, *34*(4), 362–396. https://doi.org/10.1177/0894845308316292

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*(1), 61–66. https://doi.org/10.1037/0002-9432.77.1.61

Young, Y. (2019). "Making do" in the land of opportunity—a qualitative exploration of the economic integration of refugees in Utah. *Journal of International Migration and Integration*. (21)*2*, 611–631. https://doi.org/10.1007/s12134-019-00673-0

Zea, M. C., Asner-Self, K. K., Birman, D., & Buki, L. P. (2003). The abbreviated multidimensional acculturation scale: Empirical validation with two Latino/Latina samples. *Cultural Diversity and Ethnic Minority Psychology*, *9*(2), 107–126. https://doi.org/10.1037/1099-9809.9.2.107

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