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The Impact of Acculturation Style and Acculturative Hassles on the Mental Health of Somali Adolescent Refugees

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Abstract

Refugee adolescents often immigrate to a new society because of experiences of persecution and trauma, which can have profound effects on their mental health. Once they immigrate, many refugees experience stressors related to resettlement and acculturation in the new society. The current study examined relationships among acculturation styles and hassles and the well-being of young refugees as well as the role of gender. Data were collected from 135 young refugees (M_{age} = 15.39, *SD* = 2.2; 62% male) from Somalia resettled in the United States The findings from our study indicate that in addition to trauma history, acculturative hassles and acculturation style impact the wellbeing of Somali refugee adolescents. These findings indicate the need to understand both past experiences as well as current challenges. Potential areas for intervention are discussed.

Keywords

acculturation; acculturative hassles; adolescents; mental health; refugees

Introduction

There are currently close to 300,000 forcibly displaced individuals (including refugees and asylum seekers) in the United States [1], and 35-40% are under the age of 18 [2]. In 2013 69,930 refugees arrived in the US with Somalis being the fourth largest group [3]. The unique health challenges of refugees have been well documented [4-7]. Refugees often arrive to the host communities having fled violence and traumatic events and often disproportionately experience PTSD and depression [8-11]. Immigration itself brings additional burdens associated with acculturation for adolescents including disrupted social

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networks, struggles to fit in, language barriers, and conflict with parents and caregivers. These factors interact with adolescent development and shape adolescents' experiences of acculturation and their wellbeing.

Rates of trauma exposure and PTSD are elevated in refugee populations. A meta-analysis of 181 studies with adult refugees from 40 countries found that the average prevalence of PTSD was 30.6%, and the average prevalence of depression across surveys was 30.8% [12]. Increased prevalence of PTSD and depression has also been found among Somali patients (ages 18 to 30) at an urban outpatient clinic [13].

Acculturation has been described as a dynamic process in which groups and individuals experience cultural and psychological change [14]. Common components of acculturation involve learning a new language, norms, and customs, and becoming familiar with the mainstream culture. Berry posits the existence of four styles of acculturation based on one's relationships to their “heritage” culture/identity and the “host” culture [14, 15]. Low levels of both maintenance of heritage culture/identity, and relationships with the host groups, create a process of marginalization. Maintaining high levels of heritage culture/identity while pursuing low levels of relationships with host society creates separation. Alternatively, low levels of maintenance of heritage culture/identity and high involvement in host society is described as assimilation, while high levels of both heritage culture/identity and of host culture is described as integration.

Acculturation, Acculturation Style, Acculturative Stress and Mental Health Outcomes

Studies examining the relationships between acculturation and mental health yield diverse findings suggesting that the acculturation experiences are influenced by individual, family and contextual factors in ways that impact mental health outcomes. For example, Korean immigrants [16] and Muslim immigrants [17] who report lower acculturation to U.S. culture also report higher rates of depression. However, Latino immigrants who were more acculturated toward mainstream American culture were more likely to experience depressive symptoms compared to those who were acculturated to their native culture [18]. For Latino adolescents, acculturation, specifically integration or identification with mainstream US culture, has been associated with a number of poor mental health outcomes including increased rates of alcohol and substance use [19, 20, 21] and depressive symptoms [22]. A protective effect of maintaining Latino culture on internalizing symptoms has also been reported for girls [22]. However, studies of acculturation styles of ethnically diverse adolescents have demonstrated that integration was related to fewer mental health symptoms [23]. Similarly, a study comparing immigrant adolescents with native-born Israeli adolescents found that in general, immigrant youth exhibited lower wellbeing than native-born adolescents. More specifically however, assimilated immigrant youth reported higher mental health issues than adolescent immigrants who were integrated [24].

One important contextual factor is the voluntary nature of immigration. The literature on adolescent refugees, and other non-voluntary immigrants, and mental health outcomes is limited; however recent work by Nakash and colleagues examining Eritrean and Sudanese asylum seekers in Israel demonstrated that the assimilation was related to increased levels of depressive symptoms [25]. A study with refugees from Eastern Europe found a more

complex relationship between acculturation and wellbeing. Greater acculturation to US culture among refugee young adults was related to depression only when parents' acculturation to US culture was low; this was not the case when parents' acculturation to US culture was high [26]. A study by Birman and colleagues found that acculturation both to the native culture and to the host culture were related to mental health of Former Soviet refugees but in different ways [27]. Acculturation to American culture was positively related to life satisfaction because of its effects on occupational success, while acculturation to their native Russian culture was related to life satisfaction because of social support from their co-ethnic social network [27].

Finally, age at migration has been found to be an important factor in understanding acculturation and the impact of acculturation on health and well-being [28, 29, 30, 31]. Adolescent immigrants and refugees often serve as “bridges” within families across cultures. Children who immigrate under the age of twelve are often described as being of generation 1.5, although there is a lack of agreement as to at what ages migration must occur to be generation 1.5 with Rumbaut [32] suggesting these are children aged 6-12 and Harker [29] defining the generation as adolescents who immigrated before the age of 5.

Stressful experiences resulting from the acculturation process are cumulatively known as acculturative stress [33, 34] and include experiences such as conflicts related to language barriers, clothing, the extent of participation in the host culture, and experiences of discrimination [8, 14, 34]. While not inherently negative [23], acculturative hassles and acculturative stress more generally have been found to be strongly associated with poor mental health among numerous immigrant and refugee groups leading to depression [18, 31, 35, 36], anxiety [37, 38, 39], and PTSD [40]. Acculturation and particularly acculturation style may have a particularly salient impact on the relationship between the experience of acculturative stress and mental health outcomes.

As with many refugee groups, research with Somali refugees has primarily focused on their experiences of trauma and PTSD, with very few studies examining the acculturation experiences and the role this experience may play as a potential moderator of health outcomes. Somalis report high levels of exposure to war-related and other types of trauma. In a Canadian community sample 169 adults (age range 18-62, $M = 29.2$, $SD = 11.3$), 79% of adults experienced trauma and multiple traumatic events as well as higher depression scores compared to a community sample of older Euro-Caucasians and a sample of university students [41].

In a previous study we examined the relationships among acculturation, experiences of discrimination and mental health outcomes. We found no significant differences in acculturation between boys and girls, however, girls' connections to their Somali culture served as protective factor against discrimination [8]. Here we build on that work and ask three questions to increase our understanding of the impact of acculturative hassles/stress and acculturation style on mental health outcomes among Somali refugee adolescents:

1. Are acculturative hassles associated with worse PTSD symptoms and depression symptoms? Is there a moderating effect for gender on this relationship?

2. Does the degree to which Somali refugee adolescents experience acculturative hassles differ by acculturation style?

3. Does the association between acculturative hassles and mental health (PTSD and depression symptoms) differ by acculturation style?

Methods

Procedures

Data for the current study were drawn from a larger study that examined stigma and PTSD in refugee adolescents. Participants were recruited in three New England cities using snowball sampling. To be eligible to participate, young individuals had to be of Somali descent, born outside of U.S and lived in the U.S. for at least a year, and fluent in English language. The study used a Community-Based Participatory Research methods approach [42], and was reviewed and approved by the Institutional Review Board. Participants were recruited through study personnel staffing tables in lunchrooms of local schools, and community leaders and participants were asked to refer other potential participants to the study. Written consent was obtained from both the adolescents' guardians in their native language and from the adolescents themselves. All interviews were conducted in English. Adolescents who were not fluent in English were excluded from the study. In instances where English fluency was a concern, 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.

Participants

A total of 135 Somali refugee adolescents participated in the study. The average age was 15.4 years (range: 11-20, $SD = 2.2$). Although recruitment initially included 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. Adolescents were on average 10 years old (range 0-18 years) when they arrived to the United States ($M = 9.98$, $SD = 3.99$) and had lived in the US for about 5 years ($M = 5.40$, $SD = 3.32$, range: 1-14 years) prior to participating in our interview. The majority of adolescents (72.7%) had been in a refugee camp, 76% of whom were there for more than 2 years.

Measures

Acculturation—Acculturation was assessed using the Behavioral Acculturation scale from the Language, Identity and Behavioral Acculturation Measure, adapted for Somalis [43]. It consists of 18 items, 9 of which assess one's acculturation to the host (American) culture and the remaining 9 items assess acculturation to one's native (Somali) culture. [8]. Items are rated on a 4-point Likert-type scale ranging from 0 = *not at all* to 3 = *very much*. For the current study, the Cronbach's alpha for the American acculturation subscale was 0.75, and for the Somali acculturation subscale was 0.71. We assigned each participant into groups using a sample mean split for each acculturation group (to Somali culture and to American

culture) based on the following framework: those who scored high on Somali culture and American culture were assigned to ‘integrated’ group; high on Somali culture but low on American culture to ‘separated’ group, high on American culture but low on Somali culture to the ‘assimilated’ group; and low on both Somali and American culture were categorized as ‘marginalized’ [14]. The distribution was similar across all groups (marginalized (20.7%), assimilated (25.2%), separated (26.7%) and integrated (27.4%)).

Acculturative hassles—Acculturative hassles were measured using the Family Hassles subscale of the Acculturative Hassles Inventory [44]. This subscale consists of 14 items assessing the frequency and severity of an adolescent's experiences with family acculturative stressors such as having to translate or explain American culture to family members, or the experience of parental criticism for “becoming too American”. The questions ask if the hassles occurred, and if so, how much of a problem it was (1 = *not at all* to 4 = *a very big hassle*). The Cronbach's alpha for the frequency of hassles in the current study was 0.71, and for the severity of hassles was 0.84.

Trauma—The *War Trauma Screening Scale* (WTSS) [45]), a self-report checklist examining experiences of violence and adversity in the context of war exposure was used. From the original 72-items, Somali cultural consultants, who were part of our research team, identified 26 items most relevant for use with Somali adolescents. The consultants were community leaders who themselves lived through the war and could identify items most relevant for Somali adolescents, keeping in mind the length of the questionnaire. In addition, the original measure contains 11 domains of traumatic experiences, and our consultants aimed to preserve those domains, making sure to choose at least one item from each domain. The scale has demonstrated strong internal consistency within this sample. For the current study, a total count of numbers of traumas endorsed is used in analyses.

Posttraumatic Stress Disorder (PTSD)—The UCLA PTSD index (PTSD-I) [46] was used to assess PTSD. The scale consists of 22 items used to assess PTSD symptoms and the degree to which that symptom posed a problem for them in the past month. Items are scored on a 5-point scale from 0 = *none* to 4 = *most*. The final score was computed by averaging the items, and the scale had a high reliability in the current study ($\alpha = 0.86$).

Depressive mood—Depressive mood was assessed using the Depression Self-rating Scale (DSRS) [47]. The scale consists of 18 items, asking participants to choose the answer that best describes how they felt during the past week. Answer responses are on a 3-point scale, ranging from 0 = *never* to 2 = *most of the time*. The scale has been used with Somali refugees previously [8]. The scores were computed by averaging the 18 items. The Cronbach's alpha for the current study was .81.

Analysis

The internal consistency of the scales for acculturation, acculturative hassles, PTSD symptoms, and depressive mood was assessed using Cronbach's alpha. Bivariate associations among the main study variables were examined using Pearson's correlation coefficient. Differences among the acculturation style groups on key study variables (age, years in the

US, gender, severity of acculturative hassles, depressed mood, and PTSD symptoms) were assessed using logistic regression (for gender) or analysis of variance (for continuous variables); if the overall group effect was significant, pairwise group comparisons were made using Tukey's correction to adjust for multiple comparisons. The association between each study variable and outcome was assessed using univariate linear regression models. For each outcome, a forward-selection model building procedure was used to identify the most parsimonious model; main effects and pairwise interactions among the study variables were considered for inclusion in the model building procedure. In the univariate and multivariable models, analysis of model residuals and fitted values were used to check for violations of the linear regression model assumptions; no violations were found (data not shown). All analyses were conducted with IBM SPSS, Version 22 [48].

Results

Pearson correlations among study variables are presented in Table 1; trauma and severity of acculturative hassles were both found to be associated with PTSD and depressed mood symptoms ($p<0.0001$ for all). Descriptive statistics for study variables are presented overall and by acculturation style in Table 2. Participants in the marginalized and separated groups (both low American identification) had spent significantly less time in the US than those in the assimilated and integrated groups ($p<0.01$ for all). In addition, the assimilated group reported significantly greater severity of hassles than the separated group ($p=0.0427$).

Table 3 presents univariate models for PTSD and depressed mood symptoms. Age, gender, and years in the US were not significantly associated with either outcome. Greater trauma was associated with higher average PTSD symptoms ($\beta=0.479$, $p<0.001$) and higher depressed mood symptoms ($\beta=0.374$, $p<0.001$). A higher severity of acculturation hassles was also associated with higher average PTSD symptoms ($\beta=0.452$, $p<0.001$) and higher depressed mood symptoms ($\beta=0.347$, $p<0.001$). Finally, no significant differences were found between acculturation style groups on PTSD symptoms or depressive mood symptoms after adjustment for multiple comparisons, though the marginalized group reported an average depressive mood symptom score 0.16 points higher than the integrated group ($p=0.0519$).

Next, we used a forward-selection model building procedure to find the most parsimonious model for each outcome. The best fitting model for PTSD symptoms consisted of years in the US, trauma, severity of acculturation hassles, acculturation style, and the severity by acculturation style interaction (Table 4). All else equal, a one year increase in time in the US was associated with a 0.05 point decrease in the average PTSD symptom score ($p=0.0036$). All else equal, a one unit increase in the number of traumas endorsed on the WTSS was associated with a 0.04 point increase in the average PTSD symptom score ($p<0.0001$). For participants in the integrated group, a one point increase in the average severity of acculturation hassles was associated with a 0.33 point increase in the average PTSD symptom score ($p=0.0178$), all else equal. Similarly, a one point increase in the average severity of acculturation hassles was associated with a 0.94 ($p<0.0001$) and 0.41 ($p=0.0033$) point increase in the average PTSD symptom score for subjects in the marginalized and assimilated groups, respectively.

Finally, the best fitting model for depressed mood symptoms consisted of age, trauma, severity of acculturation hassles, acculturation style, and the age by trauma interaction (Table 5). At the average age of our sample (15.38 years), a one unit increase in the number of traumas endorsed on the WTSS was associated with a 0.02 point increase in the average depressive mood symptom score ($p<0.0001$), all else equal; the negative parameter estimate for the age by trauma interaction indicates that this association is less pronounced in older participants. All else equal, a one point increase in the average severity of acculturation hassles is associated with a 0.13 point increase in the average depressed mood symptom score ($p<0.0001$). Finally, all else equal, subjects in the marginalized group reported significantly higher levels of symptoms of depression than subjects in the assimilated and integrated groups ($p=0.0057$ and p=0.0007, respectively); similarly, subjects in the separated group reported significantly higher levels of symptoms of depression than subjects in the assimilated and integrated groups ($p=0.0277$ and $p=0.0045$, respectively). No other group differences were significant.

Discussion

Refugees face many challenges as they resettle in host communities, including to their mental health and wellbeing. Our examination of the role of acculturative hassles and acculturation style of Somali adolescents demonstrates that these factors, above and beyond trauma history, impact PTSD symptoms and depression. We examined three primary study questions. First, we found that severity of acculturative hassles was associated with higher levels of both PTSD symptoms and depression symptoms in our sample. In addition, we found that there is not a moderating effect of gender in these data. Secondly, the severity of acculturative hassles does in fact vary by acculturative style. Finally, we see a significant interaction between severity of hassles and acculturation style on PTSD symptoms, indicating that the effect of hassles is more detrimental to marginalized subjects than those in other acculturative groups.

These findings demonstrate that Somali adolescents experience acculturative hassles, and that the severity of hassles is associated with symptoms of both depression and PTSD. These factors are important to understand as we work to support mental health and well-being in host communities. Our findings indicate that varying mental health symptoms, here those of PTSD and depression, are best understood in relation to different sets of stressors. As expected, PTSD symptoms are strongly associated with trauma, and those who endorsed a marginalized acculturation style showed the strongest association between severity of acculturative hassles (i.e., acculturative stress) and PTSD. These findings suggest that efforts focusing on reducing acculturative hassles and other acculturative stressors would positively impact the mental health of refugees. They also suggest that special attention might be paid to the marginalized group, who feel a lack of connection to both the host and Somali communities.

Trauma was associated with worse symptoms of depression, as expected, and older age was found to attenuate the relationship between trauma and depression symptoms. The marginalized and separated groups reported higher depression symptom levels than the assimilated and integrated groups, suggesting that having an acculturative style that excludes

participation in the host culture or both the host culture and Somali culture has a potential negative effect of not feeling a sense of identification, and it may create additional challenges.

Limitations

The snowball sampling drawn upon in this study limits the generalizability of the results. Also, findings may not generalize to other resettlement communities where host and/or refugee community characteristics may differ. In addition, the cross-sectional nature of this study does not allow for causal understanding of acculturative stress, acculturative style and mental health; while our conclusion discusses the possible importance of acculturative stress and style in relation to mental health, it is also possible that youth with greater mental health problems tend to feel alienated from the host culture and thus symptoms may drive acculturative style and stress. Further longitudinal work is needed to examine the causal nature of these relationships.

Conclusions

Acculturative stress and acculturation style, in addition to trauma, are important predictors of mental health among Somali refugee adolescents. This suggests that not only historical events but present adjustment, style of acculturation and family acculturative stress of adolescent refugees are important areas of study and potential areas for intervention. While events of the past cannot be changed, social connection with host communities can be fostered, and acculturative stressors in the family mitigated. Examining what types of interventions could mitigate family acculturative stress (e.g., parent language courses or cultural brokering support for families as they navigate systems) may potentially alleviate not only family stress but adolescent mental health symptoms. Some refugee youth mental health interventions target acculturative and family stress in addition to trauma symptoms (e.g. Trauma Systems Therapy for Refugees) [39, 9]. Findings from this paper suggest that this may indeed be an important mechanism for promoting mental health. In addition, the experience of acculturative hassles has a greater impact on the mental health (PTSD symptoms) of those in the marginalized group, and thus efforts that promote social connectedness, to both the host and the Somali community, may benefit adolescent mental health. Practitioners working with Somali youth may benefit from assessing youth cultural identification, and youth and family stress.

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Table 1

Correlations

	1	2	3	4	5	6	7	8	9	10
1. Adolescent age	-									
2. Duration in US (in years)	-.004	-								
3. Marginalization	.093	-.255**	-							
4. Assimilation	-.071	.218*	-.297**	-						
5. Separation	.085	-.226**	-.308**	-.350**	-					
6. Integration	-.100	.244**	-.314**	-.357**	-.371**	-				
7. Trauma	.344**	.018	-.039	.045	.072	-.079	-			
8. Severity of hassles	.111	.301**	-.122	.184*	-.187*	.114	.298**	-		
9. PTSD symptoms	.020	-.111	-.035	.081	.033	-.079	.479**	.452**	-	
10. Depressed mood	.083	-.158	.159	-.057	.113	-.201*	.374**	.347**	.641**	-

** $p < 0.01$,

* $p < 0.05$

Table 2

Variable	Overall sample (N = 135)	Marginalized (N = 28)	Assimilated (N = 34)	Separated (N = 36)	Integrated (N = 37)	Sig. differences between groups (Effect Size)*
Age	15.38 (2.21)	15.79 (2.35)	15.11 (2.10)	15.69 (2.23)	15.03 (2.18)	No differences
Gender (% female)	37.8%	25%	44.1%	33.3%	45.9%	No differences
Years in US	5.40 (3.32)	3.75 (2.46)	6.64 (3.37)	4.16 (2.86)	6.72 (3.36)	A>M (0.96), S (0.80) I>M (0.99), S (0.82)
Trauma	6.44 (5.35)	6.03 (5.61)	6.85 (4.92)	7.08 (6.52)	5.76 (4.26)	No differences
Severity of hassles	0.73 (0.65)	0.57 (0.59)	0.92 (0.76)	0.52 (0.34)	0.84 (0.71)	A>S (0.69)
PTSD symptoms	0.93 (0.73)	0.88 (0.77)	1.03 (0.77)	0.97 (0.78)	0.84 (0.59)	No differences
Depressed mood	0.29 (0.25)	0.37 (0.27)	0.26 (0.24)	0.34 (0.25)	0.21 (0.20)	No differences

*Significant differences have an adjusted p-value < 0.05; Tukey's adjustment was made for multiple comparisons. Cohen's *d* is reported as the measure of effect size for continuous variables. No group differences were found for the categorical variable, gender.

Table 3

Univariate Models for Posttraumatic Stress Disorder and Depressed Mood Symptoms

	Posttraumatic Stress Disorder Symptoms				*Depressed Mood Symptoms*			
	B	**SE *B***	***β***	***R-Square***	***B***	**SE *B***	***β***	***R-Square***
Age	0.007	0.029	0.020	<0.001	0.009	0.010	0.083	0.007
Female	0.056	0.132	0.037	0.001	0.003	0.044	0.007	<0.001
Years in US	-0.025	0.019	-0.111	0.012	-0.012	0.006	-0.158	0.025
Trauma	0.066	0.011	0.479***	0.230	0.017	0.004	0.374***	0.140
Severity of hassles	0.512	0.089	0.452***	0.204	0.134	0.032	0.347***	0.120
Acculturation style				0.011				0.061
Integrated	--	--	--	--	--	--	--	--
Marginalized	0.042	0.185	0.023		0.157	0.061	0.258	
Assimilated	0.194	0.175	0.116		0.056	0.058	0.099	
Separated	0.132	0.173	0.081		0.127	0.057	0.227	

*** $p < 0.001$,

** $p < 0.01$,

* $p < 0.05$

Table 4
Multivariable Model for Posttraumatic Stress Disorder Symptoms

	B	**SE *B***	***β***
Years in US	-0.051	0.017	-0.229**
Trauma	0.043	0.010	0.319***
Severity of hassles	0.330	0.137	0.291*
Acculturation style			
Integrated	--	--	--
Marginalized	0.049	0.155	0.027
Assimilated	0.101	0.140	0.061
Separated	0.079	0.155	0.048
Severity*Integration	--	--	--
Severity*Marginalization	0.611	0.229	0.234**
Severity*Assimilation	0.084	0.189	0.044
Severity*Separation	0.001	0.320	0.000
R-square	0.425		
Adjusted R-square	0.382		
Model F	9.938***		

*** $p < 0.001$,

** $p < 0.01$,

* $p < 0.05$

Table 5
Multivariable Model for Symptoms of Depressed Mood

	B	**SE *B***	***β***
Age	-0.015	0.009	-0.137
Trauma	0.018	0.004	0.378***
Severity of hassles	0.129	0.031	0.333***
Acculturation style			
Integrated	--	--	--
Marginalized	0.214	0.054	0.352***
Assimilated	0.028	0.050	0.049
Separated	0.178	0.052	0.313***
Age*Trauma	-0.004	0.002	-0.181*
R-square	0.331		
Adjusted R-square	0.293		
Model F	8.82***		

*** $p < 0.001$,

** $p < 0.01$,

* $p < 0.05$