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Immigrant Trauma and Mental Health Outcomes Among Latino Youth

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Abstract

While research has demonstrated an association between trauma and mental health, this study examined the association between trauma experienced premigration, during migration, and postmigration, and current mental health status among Latino youth aged 12–17 years old living in the US for < 3 years. Participants reported traumatic events experienced in their home country, during migration, and after settling in the US. Regression models examined trauma experienced at each stage of the migration process predicting current levels of depression, anxiety, and post-traumatic stress disorder. Two-thirds of youth experienced at least one traumatic event, 44% experienced an event once, and 23% experienced two or more traumatic events during migration. Trauma experienced at different migration stages was associated with distinctive mental health outcomes. It is essential that access to culturally sensitive assessment and treatment services be available to ensure transition to a healthy adulthood.

Keywords

Trauma; Latino; Youth; Mental health; Immigrant

Introduction

Exposure to violence and other stressful life experiences of immigrant Latino families likely differ from those experienced by US-born Latinos. Phases of the migration process, *premigration, during migration*, and *postmigration*, have specific risks and exposures that may differentially impact youth mental health outcomes [28]. Among unaccompanied youth from Central America, premigration involves the sometimes-forced decision to migrate from war-related violence and drugs [2, 24]. During migration youth may be exposed to violence and without existing familial support [18, 33]. Postmigration, immigrant youth may have extended stays in detention centers, subsequent unstable living situations, reunifying with parents and family members that immigrated years before, and confronting challenges of acculturation, daily stressors, and other types of traumatic events, all of which are related to poor mental health out-comes [32, 38].

Studies that have examined exposure to trauma during migration have found a direct relationship with a range of mental health outcomes [14, 15, 24], although results are mixed. Some studies find a higher risk for posttraumatic stress disorder (PTSD), depression, conduct disorder, and substance use, while results from other studies indicate no difference between immigrant adolescents and their US born peers [3, 8, 12, 27]. These studies largely focused on the impact of premigration exposure to trauma. Greater attention needs to be paid to the trauma immigrant youth experience during migration and after resettlement.

Latino immigrant families also face unique challenges that affect their ability and willingness to seek assistance—especially mental health services [1, 31]. For example, many Latino immigrants in the Langley Park, MD community are in varying stages of documentation, and therefore may not qualify for certain health services. Exacerbated by a dearth of local services, access to appropriate care is challenging due to language barriers, long waiting lists, insufficient income, and limited public transportation. Evidence-based interventions are available for children exposed to trauma that aim to improve mental health outcomes in the context of the family's culture and preferences [21, 34]. Interventions will give affected youth the opportunity to regain a sense of safety and ultimately recover from the effects of exposure to trauma.

Although the paucity of empirical evidence and theory precluded a priori hypotheses, the expectation is that Latino youth experiencing traumatic events will demonstrate poorer current mental health status than those that did not experience traumatic events during any phase of the migration process, and that the mental health impact will vary by the migration phase. Examination of the phase-specific trauma on the impact on mental health will highlight the specific needs of this high-risk, understudied, and underserved subpopulation. The purpose of this study was to assess trauma experiences among immigrant Latino youth across multiple times: (a) prior to migrating from their home country, (b) during migration, and (c) in the US after resettling (see [13], for a discussion of these domains). Current levels of symptomatology of PTSD, anxiety, and depression were assessed to examine the impact of the traumatic experience among Latino immigrant youth. Youth experiencing trauma exposure during different phases of migration may require tailored mental health services.

Methods

Participants

A convenience sample (n = 104) of Latino youth aged 12–17 years old that have been living in the US for 3 or fewer years were approached for participation in this pilot study. Locally based Spanish-speaking field staff identified potential participants and implemented the survey. Strategies for sampling respondents included the use of existing networks with community partners, service providers, and decades of experience living and working in the Langley Park, MD community.

Participants (N = 101) were born in El Salvador (41%), Guatemala (47%), and Honduras (13%). The respondents were 59% male, mean age 15.4 years, 33% lived with both parents, 30% lived with their mother only, 12% lived with their father only, and 26% lived with neither parent; 12% were currently not in school, 24% in middle school and the remainder in

high school. The mean length of time in the US was 1.3 years and ranged from 0.1 to 3 years, the upper limit being a selection criteria to minimize recall bias. The distribution by demographic variables are displayed in Table 1.

Data Collection

After parental informed consent and participant assent in the home, all youth elected to complete the survey in Spanish using an iPad. The survey included valid and reliable scales to assess traumatic experiences and current mental health symptoms. On average the survey took 20 min to complete at which time each participant was provided a $25 gift card.

Measures

When available, validated Spanish scales were utilized. If scales were not available in Spanish, they were translated and back-translated by project staff following NIH guidelines. The Traumatic Events Screening Inventory for Children (TESI-C; [7]), a 14-item scale, was modified to assess when the traumatic events occurred: prior to migrating to the US, during migration, or after settling in the US. Youth could affirm that an event occurred during each time as well as multiple events within any time. Interrater reliability for the TESI-C has been reported to be very good, ranging from 0.73 to 1.0 [29]. The mean number of events experienced during each phase of the migration processes was the exposures of interest.

Mental Health Outcomes

Depressive symptoms were assessed using a Spanish translation of the patient health questionnaire modified for teens, the PHQ-9-Spanish [37]. In this sample, the observed internal consistency for the PHQ-9 was $\alpha = 0.84$. Responses to questions were summed so a higher score indicated experiencing more depressive symptoms. Overall anxiety, as well as subscales of separation, social phobia, obsessive compulsive, panic, physical injury fears, and generalized anxiety, were assessed using the 38-item Spanish Version of the Spence Children's Anxiety Scale (SCAS) [19, 36]. A total anxiety score was calculated by summing all 38 items. In this sample, the observed internal consistency for the Spanish-SCAS was $\alpha = 0.94$. The 17-item Spanish translation of the Child PTSD Symptom Scale (CPSS) [17], corresponding to the DSM-IV criteria, was used to produce a PTSD symptom score by summing all items, with high internal consistency reliability ($\alpha = 0.94$). The psychometrics for the Spanish version of the CPSS were recently examined and found to have good internal consistency reliability ($\alpha = 0.88$) and moderate construct validity [25].

Demographic variables included gender (male = 1), age (12–17), current education level (classified as not in school, middle school, or high school), country of birth (classified as El Salvador, Guatemala, or Honduras), years in the US (screener question ranging from 0.1 to 3 years), and current family status (living with both parents, mother only, father only, or neither parent). Indicator variables were created and used for categorical variables; age and years in US were treated as continuous variables.

Data Analysis Plan

The distribution of demographic variables, means for the number of traumatic events at each phase of the migration process, and means for each mental health outcome were produced.

Statistical differences by demographics were examined using Chi square tests for categorical variables and correlations for continuous variables to identify potential confounders. Correlations between continuous exposures and outcomes were also examined. Three linear regression models were fit for each mental health outcome separately but in the same manner. Demographics were entered first, followed by trauma exposure during each of the three phases of migration, and then other mental health outcomes representing comorbid disorders. Unstandardized regression coefficients (and standard errors) as well as model fit statistics are reported by staged model. The SAS 9.4 software was used for all analyses [30]. This research was reviewed and approved by the GWU Institutional Review Board (IRB# 111139).

Results

Overall, two-thirds of those surveyed experienced at least one traumatic event. Of those, 59% reported that the event occurred in their home country, 20% reported experiencing the event during migration, and 18% reported an event since arriving in the US. Furthermore, 44% experienced an event once, 14% during two stages, and 9% experienced a traumatic event during each stage of the migration. Experiencing a natural disaster (39%), a serious injury/accident (34%), and witnessing violence (21%) were the most common exposures in the home country. Experiencing (7%) and witnessing physical assault (7%) were most common traumas while migrating. The most common traumas reported after settling in the US were witnessing violence (5%) and experiencing a serious accident or injury (5%).

The mean number of trauma exposures experienced during premigration, during migration, and after resettling in the US as well as measures of the three mental health (PTSD, anxiety, and depression) outcomes are also displayed in Table 1 overall, and by each demographic variable. For age and years in the US, both continuous variables, the correlations with the continuous exposures and outcomes are displayed. All differences were significant at $p < .05$. Males and youth currently living with their father only in the US reported significantly higher number of traumatic events during migration; youth currently living with both parents reported significantly fewer traumatic events during migration. Youth not in school reported significantly higher PTSD symptoms, and those in middle school significantly lower. Females and youth born in Honduras reported significantly higher anxiety symptoms. There was also a significant positive correlation ($r = 0.21$) between age and anxiety level. No other bivariate effects were significant.

Correlations between mean levels of trauma exposure during different stages of migration and total anxiety, depression, and PTSD were examined. There were significant positive correlations between trauma experienced pre-migration and during the migration process ($r = 0.23$, $p < .05$) as well as during migration and post-migration ($r = 0.62$, $p < .001$). There were significant positive correlations between all three mental health outcomes ($p < .001$) indicating a high degree of co-morbidity. Significant correlations were also observed between exposure to trauma during migration and post migration and PTSD ($r = 0.40$, $p < .001$) and depression ($r = 0.31$, $p < .01$). A significant correlation was observed between experiencing trauma premigration and anxiety ($r = 0.28$, $p < .01$).

Table 2 displays the unstandardized ordinary least-squares linear regression coefficients (and standard errors) estimated from the staged models of PTSD, anxiety, and depression separately, as well as fit statistics. Trauma experienced in home country (premigration) was significantly related to total anxiety disorder ($b = 1.15$, $p < .01$), after adjusting for trauma exposure at other stages and comorbid mental health measures. Trauma experienced after resettling in the US ($b = 1.87$, $p < .05$) was significantly related to PTSD, but was attenuated and no longer significant after adjusting for comorbid disorders. Trauma experienced during any stage of migration did not independently predict depression after adjusting for demographics; PTSD and anxiety were significantly related to depression.

Discussion

This analysis examines the impact of traumatic experiences through different stages of the migration process on current mental health symptomatology. Results support the hypothesis that exposure to traumatic events at different stages in this process is associated with differential health outcomes, even after adjusting for multiple traumatic exposures and/or comorbid disorders. In addition, the higher level of traumatic exposures youth experience in their home country prior to immigrating to the US helps explain the motivation to immigrate, but also the potential hazards from which they are fleeing. Immigrant Latino youth experience different types of trauma after arriving in the US. Co-morbid mental health issues require special attention when access to complete assessments and treatment resources are weak at best. Culturally and linguistically appropriate educational material about potential mental health outcomes due to trauma experienced should be available for both youth and parents that have recently immigrated to the US.

The inherent complexities of war, political unrest, and community violence (e.g., gang-related) may involve multiple traumas including loss of loved ones, deprivation, exposure to violence, and displacement, each of which may compound the effects of subsequent resettlement and acculturative stressors [4, 23]. Results from this study indicate the relationship between trauma experienced during different stages of the migration and mental health outcomes are inconsistent. While some findings replicate prior research concerning the relative importance of postmigration factors among traumatized immigrant subpopulations that have experienced trauma at other times for PTSD, even after adjusting for comorbid symptomatology [6, 16, 35]. In a divergence from prior research results indicate premigration trauma was associated with higher levels of anxiety. Thus, our results do not support the conclusion from others that proximal stressors associated with resettlement are more salient for treatment of immigrant youth [5, 6]. These findings support the thesis that differential patterns of trauma exposure across the migration process indicate the need for specialized mental health treatment [22].

Like research in other countries, immigrant youth in this study report pervasive histories of trauma indicative of a high-risk population in need of specialized mental health services that appropriately address the complex histories as well as their current needs [20]. Developing interventions for immigrant youth that balance treatment of past trauma with current resettlement and acculturative stressors (e.g., housing, employment, health care) within the context of a new language and culture is a challenge [16]. Findings support the importance

of a comprehensive clinical assessment and treatment for youth that have experienced a broad range of traumas during the migration process. In addition, to mitigate poor mental health outcomes, assessment-driven, flexibly tailored, multilevel interventions that cover the range of traumas experienced by this subpopulation must be implemented in creative and engaging ways [10, 20]. Empirical evidence from these subpopulations is still limited, thus further research is needed to develop and evaluate strategies for assessing and treating mental health issues that appropriately respond to the diversity of immigrants to the US. To ensure results are representative of the population, future studies we will utilize a two-stage randomized cluster sampling methodology that has been successfully implemented in prior large community-based surveys (see [9]).

Results of this analysis are subject to some limitations that must be considered. First, all measures were self-reported, thus given the recent arrival in the US and lack of familiarity with community, it is assumed that both exposures (traumatic experiences) and outcomes are likely underreported. Second, it is common for those experiencing trauma to exhibit comorbid anxiety and depressive symptoms, and that a portion of those affected develop chronic PTSD [26]. Third, although all surveys were psychometrically validated in Spanish, there are likely to be cultural differences in conceptualizing mental health that may also lead to attenuated effects. Finally, the diversity of immigrant groups in the sample prohibited systematic validation of measures for all cultural groups. Given the small sample size, comparisons between youth born in El Salvador, Guatemala, or Honduras were not possible, nor was assessment of subtypes of anxiety. Further research is needed to understand distinct clinical presentations and specific needs.

Health policies in this area should include multisector and context-specific mental health programs to address mental health issues among immigrant youth, particularly at the time of arrival, to assess health status and to refer youth to the appropriate services. Early and effective interventions that consider socio-cultural, ethnic, linguistic, other contextual variables, and that are furthermore family-centered, can help the healing process for immigrant Latino youth that are experiencing poor mental health. This will also impact costs associated with treatments and improve mental health during adolescence critical for future health and social relations in adulthood [11].

Conclusions

Latino youth that have migrated to the US from countries with a history of political and social violence have multiple traumatic experiences. Few studies of immigrants have empirically demonstrated the link between exposure to traumatic events at different stages of the immigrant process and current mental health symptoms. This study supports the need for assessment of trauma experienced across the immigrant process to understand the context and determinants of PTSD, anxiety and depression among recently arrived immigrant Latino youth. The need for culturally sensitive diagnostic and treatment services in immigrant communities to ensure a positive transition to healthy adulthood is merited.

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Table 1

Demographics by time of traumatic exposure and mental health outcomes

Demographic Variables	**% (n)**	**HOME Mean (s.d.)**	**IMM Mean (s.d.)**	**IN US Mean (s.d.)**	**PTSD Mean (s.d.)**	**ANX Mean (s.d.)**	**DEP Mean (s.d.)**
Range		0–14	0–8	0–8	0–38	0–76	0–20
Overall		2.60 (3.46)	0.60 (1.56)	0.50 (1.35)	6.10 (8.49)	29.33 (17.72)	3.97 (4.69)
Gender							
Male	59.4 (60)	2.85 (3.61)	0.87 (1.94)	0.55 (1.47)	5.74 (8.09)	25.28 (15.71)	3.84 (4.57)
Female	40.6 (41)	2.24 (3.25)	0.22 (0.53) *1*	0.44 (1.16)	6.58 (9.10)	35.07 (18.97) *1*	4.15 (4.91)
Origin of birth							
El Salvador	40.6 (41)	2.44 (3.61)	0.27 (0.74)	0.34 (0.94)	5.00 (6.50)	29.59 (14.64)	3.75 (4.13)
Guatemala	46.5 (47)	2.60 (3.44)	0.87 (1.97)	0.53 (1.54)	6.35 (9.61)	26.07 (17.89)	3.76 (5.31)
Honduras	12.9 (13)	3.15 (3.31)	0.69 (1.65)	0.92 (1.66)	8.67 (9.81)	39.85 (22.72) *1*	5.39 (4.07)
Current education[a]							
Not in school	12.2 (12)	2.33 (2.27)	0.50 (1.17)	0.42 (1.16)	10.20 (12.28) *1*	29.46 (22.56)	5.46 (7.05)
Middle school	23.5 (23)	2.22 (3.34)	1.00 (2.26)	0.69 (1.77)	3.91 (5.23) *1*	23.96 (15.62)	3.09 (3.68)
High school	64.3 (63)	2.83 (3.76)	0.51 (1.33)	0.48 (1.24)	6.47 (8.70)	31.23 (17.07)	4.08 (4.60)
Currently living with							
Both parents	32.7 (33)	1.97 (3.38)	0.18 (0.53) *1*	0.30 (0.98)	5.00 (8.58)	25.82 (14.92)	3.50 (4.52)
Mother only	29.7 (30)	2.87 (3.74)	0.53 (1.33)	0.70 (1.80)	6.44 (9.60)	32.04 (19.69)	4.11 (4.92)
Father only	11.9 (12)	2.75 (3.02)	1.25 (2.93) *1*	0.42 (1.00)	6.67 (6.71)	29.75 (23.22)	4.17 (4.30)
Neither parent	25.7 (26)	3.04 (3.50)	0.92 (1.72)	0.58 (1.30)	6.92 (7.98)	30.69 (16.23)	4.31 (5.03)
	Mean (s.d.)	Correlations					
Age	15.4 (1.7)	0.11	− 0.11	− 0.09	0.06	0.21 *1*	0.11
Range	12–17						
Years in US	1.3 (0.8)	− 0.12	0.18	0.11	0.11	0.06	0.15
Range	0.1–3.0						

N = 101

[a] missing data on three cases

[1] $p < .05$

Table 2

Unstandardized OLS regression coefficients with (standard errors) estimating staged models of PTSD, anxiety and depression

Demographic	PTSD			Anxiety			Depression		
Variables	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Gender	1.41 (1.91)	2.17 (1.75)	0.48 (1.29)	11.72 (3.59)[2]	12.84 (3.46)[3]	10.72 (2.90)[3]	0.46 (1.04)	0.82 (1.00)	− 1.18 (0.71)
Country of origin	1.56 (1.23)	0.96 (1.12)	0.76 (0.75)	1.64 (2.34)	0.45 (2.25)	0.05 (1.85)	0.29 (0.68)	− 0.00 (0.64)	− 0.26 (0.42)
Education	− 1.11 (1.51)	− 1.23 (1.36)	− 0.06 (0.94)	0.70 (2.80)	0.20 (2.65)	2.61 (2.26)	− 0.70 (0.80)	− 0.82 (0.76)	− 0.72 (0.52)
Lives with	0.63 (0.89)	0.00 (0.84)	0.15 (0.57)	1.77 (1.68)	1.20 (1.65)	1.53 (1.37)	0.15 (0.49)	− 0.15 (0.48)	− 0.33 (0.32)
Age	0.42 (0.64)	0.65 (0.59)	− 0.10 (0.40)	1.68 (1.20)	1.68 (1.16)	1.53 (1.37)	0.40 (0.35)	0.55 (0.34)	0.24 (0.22)
Years in US	1.23 (1.13)	0.52 (1.07)	− 0.47 (0.73)	1.50 (2.10)	1.58 (2.07)	0.31 (0.98)	0.92 (0.61)	0.61 (0.60)	0.47 (0.40)
HOME		0.22 (0.25)	− 0.03 (0.18)		1.28 (0.49)[2]	1.15 (0.42)[2]		0.07 (0.14)	− 0.07 (0.10)
IMM		0.98 (0.72)	0.34 (0.49)		0.60 (1.45)	− 0.70 (1.19)		0.56 (0.42)	0.16 (0.27)
IN US		1.87 (0.75)[1]	0.93 (0.51)		2.12 (1.51)	0.05 (1.28)		0.74 (0.43)	− 0.08 (0.29)
PTSD						0.52 (0.27)			0.34 (0.05)[4]
ANX			1.07 (0.16)[4]						0.08 (0.02)[2]
DEP			0.09 (0.05)			1.49 (0.46)[2]			
R^2	0.05	0.26	0.67	0.15	0.27	0.56	0.05	0.18	0.67
F (df)	(6, 84) = 0.80	(9, 81) = 3.1[2]	(11, 79) = 14.7[4]	(6, 89) = 2.7[1]	(9, 86) = 3.5[3]	(11, 79) = 9.04	(6,88) = 0.8	(9, 85) = 2.0[1]	(11, 79) = 14.7[4]

[1] $p < .05$

[2] $p < .01$

[3] $p < .001$

[4] $p < .00010$