Received: 4 February 2021 | Revised: 2 September 2021 | Accepted: 5 September 2021

DOI: 10.1002/jts.22768

RESEARCH ARTICLE

Depressive symptoms among recent Latinx immigrants in South Florida: The role of premigration trauma and stress, postimmigration stress, and gender

Vicky Vazquez[1,2] | **Patria Rojas**[1,2] | **Miguel Ángel Cano**[1,3] | **Mario De La Rosa**[1,4] | **Eduardo Romano**[5] | **Mariana Sánchez**[1,2]

[1] Center for Research on U.S. Latino HIV/AIDS and Drug Abuse (CRUSADA), Robert Stempel College of Public Health and Social WorkFlorida International University, Miami, Florida, USA

[2] Department of Health Promotion and Disease Prevention, Robert Stempel College of Public Health and Social WorkFlorida International University, Miami, Florida, USA

[3] Department of Epidemiology, Robert Stempel College of Public Health and Social WorkFlorida International University, Miami, Florida, USA

[4] School of Social Work, Robert Stempel College of Public Health and Social WorkFlorida International University, Miami, Florida, USA

[5] Pacific Institute for Research and Evaluation (PIRE), Beltsville, Maryland, USA

Correspondence
Vicky Vazquez, Department of Health Promotion and Disease Prevention, Robert Stempel College of Public Health and Social Work, Florida International University, 11200 SW 8th Street, AHC5-411, Miami, FL 33199, USA.
Email: vvazq031@fiu.edu

This study was supported by an S21 Endowment Grant (i.e., Florida International University–Health Disparities Initiative; S21MD010683) from the National Institute on Minority Health and Health Disparities of the National Institutes of Health (NIH) The parent study was supported by the National Institute on Alcohol Abuse and

Abstract

In the past decade, recent Latinx immigrants (RLIs) from South and Central America have arrived in the United States seeking asylum from countries affected by war, political upheaval, and high crime and poverty rates. The premigration stress and trauma they experience are further compounded by postimmigration stress due to discrimination, lack of access to health care, and financial instability. Evidence suggests RLIs who experience such stress and trauma have an increased risk of developing depressive symptoms. We examined the combined effect of premigration stress and trauma and postimmigration stress on postimmigration depressive symptoms; we also explored the moderating effect of gender. Hierarchical multiple regression and moderation analyses were conducted on a cross-sectional sample of 540 young adult RLIs (age range: 18–34 years, 50.2% men) in South Florida. Higher levels of postimmigration stress, $\beta = .37$, $p < .001$, were associated with increased postimmigration depressive symptoms. No significant associations emerged between premigration stress and trauma and postimmigration depressive symptoms. Moderation analyses revealed no significant interaction effect of gender. Post hoc analyses indicated that country/region of origin moderated the relation between postimmigration stress and depressive symptoms such that the association was stronger among Venezuelan, $\beta = 1.51$, $p < .001$; other South American, $\beta = 1.06$, $p < .001$; and Central American/Mexican RLIs, $\beta = 1.38$, $p < .001$, compared with Caribbean RLIs, $\beta = .45$, $p = .122$. These findings suggest that interventions focused on addressing postimmigration stress early in the immigration process can potentially lower subsequent depressive symptoms among RLIs.

Alcoholism of the NIH (R01AA025720). The authors have no conflicts of interest to disclose.

INTRODUCTION

Over the past decade, there has been a shift in Latinx immigration patterns to the United States, indicating steep increases in South and Central American immigrants. In particular, the rates of immigrants arriving from the South American country of Venezuela have increased 75%, whereas rates of immigrants coming from the Central American country of Guatemala have increased by 37% (Noe-Bustamante, 2019). Many of these immigrants arrive seeking asylum from political upheaval and devastatingly high rates of crime and poverty in their country of origin (Clauss-Ehlers, 2019). In addition, these individuals arrive in the United States amidst a tension-filled sociopolitical climate with changing immigration policies and advancing negative rhetoric surrounding Latinx immigration (Ornelas et al., 2020). As such hostile conditions persist, the need to navigate experiences of premigration stress and trauma is further compounded by postimmigration stressors, including discrimination, language barriers, lack of access to health care, fears of immigration status, and financial instability (Alegría et al., 2017). The combined effects of the stressful and traumatic conditions Latinx immigrants experience throughout their migratory journey are likely to exacerbate social, environmental, and systemic disparities associated with adverse mental health in this population (Garcini et al., 2016).

The findings from previous studies have shown that Latinx immigrants exposed to the compounding conditions of pre- and postimmigration stress and trauma are at an increased risk of developing mental health problems. Among adult Latinx immigrants of mostly Mexican descent and living in the United States for a duration of time, premigration traumatic experiences due to war and political and institutional violence were shown to be associated with postimmigration mental illness (Sangalang et al., 2018). In addition, postimmigration stress due to threats of deportation and anti-immigrant sentiments was shown to increase their risk of mental distress. In a sample of Latinx immigrants of mostly Mexican descent in the United States, premigration stressors (e.g., trauma exposure, high poverty levels, a stressful move) along with postimmigration experiences (e.g., entering the United States without documentation, racial/ethnic discrimination) were shown to contribute to the development of depressive symptoms (Ornelas & Perreira, 2011). Similar findings were illustrated in the National Latino and Asian American Study (NLAAS), which included Latinx immigrants exposed to trauma and stress before and after immigration who had been living in the United States for an extended period (Li & Anderson, 2015).

Evidence suggests that immigrants who endure stress after immigrating to the United States are at an increased risk of experiencing depression (Jannesari et al., 2020); the risk is even higher for immigrants living in the country for less than 10 years (Alegría et al., 2017). However, existing research on the interrelations of stress and trauma among Latinx immigrants has been conducted mostly among Mexican immigrants residing in the United States for an extended period of time. Far less is known about the dynamics of the combined effects of these conditions among foreign-born recent Latinx immigrants (RLIs) of South and Central American or Caribbean descent. With depression having emerged as the leading cause of disability worldwide and a major contributor to the total health burden (World Health Organization, 2020), addressing the co-occurring factors that contribute to depression among vulnerable populations, such as young adult RLIs, should be of precedence in public health research.

Furthermore, among adults in the United States, the prevalence of depression has been found to be highest among young adults (U.S. Department of Health and Human Services, 2019). As such, existing research has highlighted the importance of examining the factors that influence depressive symptoms in this age group (Potochnick & Perreira, 2010; Schubert et al., 2017; Toro et al., 2018). During this developmental period, individuals undergo transient maturational processes (e.g., independence, starting careers, navigating relationships, starting families) that are influenced by their biological and environmental risk factors (Schubert et al., 2017). Environmental risk factors, such as the immigration-related stressors Latinx immigrants in the United States are forced to cope with postmigration, have been found to increase the risk of depressive symptoms among young adults (Potochnick & Perreira, 2010). In addition to these stressors, young adult Latinx immigrants are exposed to filial responsibilities they may perceive to be unfair while identifying as a minority group member during important developmental years, both of which can increase their compounded susceptibility to depressive symptoms (Schubert et al., 2017; Toro et al., 2018). This may be particularly relevant for this population due to the emphasis their culture places on familism, which includes maintaining close family ties and

heeding family obligations. However, most studies examining depressive symptoms among young adults have not included RLI samples from diverse origins. The current study aimed to fill this gap by examining the influence of premigration stress and trauma and postimmigration stress on postimmigration depressive symptoms in young adult RLIs from South American, Central American, and the Caribbean.

Theoretical framework

Based on the theoretical underpinnings of acculturation, the reciprocal interaction of stressful and traumatic experiences that individuals encounter during the immigratory process to the United States can be attributed to the concept of "acculturative stress." The acculturative stress framework has been well documented in the literature as a theoretical approach to better understanding how stress caused by the immigratory process impacts an immigrant's mental health (Berry, 2001). Sam and Berry (2010) asserted that acculturation consists of a shared process between two cultures, requiring both phases of assimilation and maintenance. During this integrative process of adjusting to a new culture, any form of loss results in acculturative stress (Cervantes et al., 1991). These acculturative stressors may be due to financial and language barriers, lack of access to health care, unemployment, loss of social ties, discrimination, documentation status, and the political climate (Caplan, 2007). In conjunction with these stressors, Caplan (2007) affirmed the need to consider contextual variables (e.g., ethnicity and gender) that shed light on premigration experiences and differential exposures to stress.

Cabassa's (2003) framework on acculturation considers the context of premigration experiences to better understand the mechanisms that affect an immigrant's adaption to the United States. This framework specifies the importance of acknowledging the lived experiences prior to immigration, including both societal- and individual-level factors. Societal factors include the political, economic, and social environments to which immigrants are exposed in their country of origin. Individual factors include demographic characteristics before immigrating to the United States, reasons for immigration, and loss of significant others. Based on Cabassa's framework, the current study examined how both premigration and postimmigration factors influence differential depressive symptoms among RLIs in the United States. Specifically, we considered the social, economic, and political stressors and trauma in addition to factors such as gender and socioeconomic status. Hence, both previously discussed frameworks guided the current study in its exploration of the associations between premigration stress and trauma and postimmigration stress on postimmigration depressive symptoms among RLIs of diverse national origins, with consideration given to the potentially moderating role of gender.

Premigration experiences

Our review of the literature on Latinx immigrants helped us to identify factors throughout the migration process that predispose Latinx immigrants to common mental health problems In particular, previous research has suggested that premigration experiences are linked to elevated mental distress among Latinx immigrants (Garcini et al., 2016). Additionally, existing studies have indicated that the types of premigration stress Latinx immigrants experience vary by ethnicity (Keller et al., 2017; Ornelas & Perreira, 2011; Revollo et al., 2011). For example, in a sample of Mexican RLIs living in North Carolina, Ornelas and Perreira (2011) found that those exposed to high levels of poverty or stressful experiences before immigrating to the United States were more likely to report depressive symptoms. Among Spanish immigrants, Revollo et al. (2011) found that acculturative stress related to homesickness and psychosocial stress was associated with depression. Furthermore, in a study conducted among RLIs from mostly Central American countries, Keller et al. (2017) found that 83% of participants immigrants cited violence as the reason they fled their country, and 90% of the sample reported being afraid to return to their native country; among these RLIs exposed to premigration trauma, 24% met the diagnostic criteria for depression.

The premigration trauma RLIs experience in their country of origin may include any incidence of psychological or physical violence (Centers for Disease Control and Prevention [CDC], 2015). According to Caplan (2007), premigration traumatic experiences due to violence and political disarray may cause forced migration, which, in turn, heightens one's level of perceived stress. Such an elevated awareness of stress due to premigration experiences may be more apparent among RLIs compared with other immigrants. RLIs who migrate from Venezuela and Central America to the United States have a history of forced migration due to political and economic crises, which can result in trilateral migration trauma (Clauss-Ehlers, 2019). Clauss-Ehlers (2019) asserted that all phases of the immigratory process, including premigration experiences of trauma caused by a sudden move and postmigration stress in a host country, interact and intensify the overall burden of these experiences. Even more, exposure to ongoing stress following migration may reactivate trauma-related symptoms an individual experienced premigration (Peña-Sullivan, 2020).

Notably, previous studies have also recognized the prevalence of posttraumatic stress disorder (PTSD) among Latinx immigrants exposed to traumatic experiences and elevated levels of stress in their country of origin (Keller et al., 2017; Ramos et al., 2016; Sangalang et al., 2018). In a sample of RLIs arriving in the United States from Central America, approximately 32.5% reported symptoms of PTSD in response to the violence and persecution they experienced (Keller et al., 2017). Although an examination of PTSD outcomes was outside of the scope of the present study, it should be noted that once in the United States, Latinx immigrants are further exposed to postimmigration stressors that not only increase their risk of depressive disorders but also can contribute to PTSD (Sangalang et al., 2018).

Postimmigration stress

After immigration, Latinx immigrants undergo stress due to documentation status, pervasive fear of deportation, social isolation, and perceived racial discrimination, all of which are associated with common mental health difficulties such as depression (Li, 2016; Lorenzo-Blanco & Schwartz, 2020; Ornelas et al., 2020; Schwartz et al., 2018; Torres et al., 2018). In a sample of Mexican immigrants with undocumented status, participants who reported a history of trauma exposure were more likely to meet the criteria for clinically significant psychological distress after immigrating to the United States compared with non–trauma-exposed participants (Garcini et al., 2017). Having an undocumented immigration status predisposes immigrants to become members of marginalized, low-income communities and diminishes their access to affordable health care services that can help them cope with these traumatic events. Without specialized mental health care, undocumented immigrants are at an increased risk of adverse mental health symptoms (Ornelas et al., 2020).

In addition to uncertainty and concern regarding documentation status, RLIs experience sudden changes in language, exposure to discrimination, and acculturative stress, which places them at an increased risk of depression (Alegría et al., 2017). Contrary to the immigrant paradox hypothesis cited in previous literature (Alegría et al., 2017), findings from recent studies conducted among Mexican immigrants have demonstrated that immigrants who arrived in the United States in 2015 or later suffer from significantly poorer mental health compared with immigrants who have resided in the United States for a longer period (Gearing et al., 2020). Newly arrived immigrants experience the immediate changes caused by the restrictive immigration policies and intensifying anti-immigrant rhetoric, thereby placing them at a higher risk of adverse mental health outcomes. Yet, little is known about these associations among RLIs from diverse countries of origin and whether these risk factors and their associations with depressive symptoms differ by gender.

Existing literature suggests that the level of acculturative stress and psychological well-being Latinx immigrants experience can differ by gender (Alegría et al., 2017; Garcini et al., 2016; Ramos-Sánchez, 2020). Compared with Latinx immigrant men, Latinx immigrant women are more likely to report depressive symptoms (Garcini et al., 2016). Previous studies have found that during the acculturative process, women generally experience higher levels of perceived stress (Caplan, 2007). This increased perception of stress can lead to changes in levels of mental distress levels, resulting in depression (Caplan, 2007). Alegría et al. (2017) reported that RLI women who experienced stressors due to documentation status and ethnic discrimination had an increased risk of depression compared with their male counterparts. Additionally, the fear of deportation imposed by stringent immigration policies in the United States can further exacerbate the myriad forms of stress Latinx immigrant women experience; indeed, Latinx women have been shown to have an increased risk of mental distress (Ramos-Sánchez, 2020). To better alleviate the compounded suffering that RLIs experience, it is critical that these pronounced acculturative stressors be addressed by considering the aforementioned contextual domains that contribute to their impact.

To expand upon the current literature on mental health disparities among Latinx immigrants, the current study was conducted to elucidate the distinctive mental health conditions RLIs experience during their immigration process to the United States. Recommendations for future research practices have noted the need to evaluate the health impact of the social factors at different stages of migration (Ornelas et al., 2020). Although limited, previous research has examined the contextual challenges of stressful and traumatic experiences throughout the immigration process among Mexican immigrants or immigrants who have resided in the United States for longer periods. Existing research has also recognized the co-occurrence of both PTSD and depression stemming from these traumatic and stressful experiences among Latinx immigrants in the United States (Keller et al., 2017; Ramos et al., 2017; Sangalang et al., 2018). There remains a need to examine the compounding effect that premigration stress and trauma and postimmigration stress have on depressive symptoms in foreign-born RLIs of diverse national origins. Additionally, little is known about how gender may impact these associations.

The aim of the present study was twofold. We first aimed to examine the combined effect of premigration stress and trauma and postimmigration stress on postimmigration depressive symptoms in a sample of adult

RLIs. In addition, we aimed to examine the moderating effect of gender on these associations. We hypothesized that (a) higher levels of premigration stress and trauma and postimmigration stress would be positively associated with postimmigration depressive symptoms and (b) the association between premigration stress and trauma and postimmigration stress and postimmigration depressive symptoms would be stronger for women compared with men. To our knowledge, this was the first study to examine the combined effect of premigration stress and trauma and postimmigration stress on postimmigration depressive symptoms in a sample of young adult RLIs while considering the moderation effects of gender on this association.

METHOD

Participants

The sample consisted of 540 ($n = 271$ men, $n = 269$ women) RLIs who were recruited for the present study through collaborative partnerships between a research center at a public university and community-based agencies serving immigrants in South Florida (SFL). Purposive and snowballing sampling methods were used to recruit participants. Referrals were obtained from community-based agencies in Miami-Dade County (MDC) in SFL that provide legal services to refugees, asylum seekers, and other documented and undocumented immigrants. In addition to these referrals, recruitment efforts were conducted by a community health worker (CHW) at locations often frequented by RLIs in MDC, including local Latinx festivals, health fairs, soccer fields, social service agencies, and health care facilities.

To be eligible for study inclusion, individuals were required to (a) have been living in the United States for 1 year or less, (b) be between 18 and 34 years of age, (c) have immigrated from a Spanish-speaking Latin American country, (d) self-identify as a man or woman, (e) have authorized or unauthorized immigration status, (f) be living for the first time in the United States, (g) be willing to participate in a 2-year study, (h) be willing to provide corroborative sources in the United States and their country or region of origin, and (i) currently reside in and plan to stay in MDC for at least 2 years.

Procedure

Data for the current study represent a secondary data analysis of baseline data from a larger parent longitudinal study examining pre-to-post immigration drinking and driving trajectories among young adult RLIs in SFL who were early in the immigration process. Baseline data were collected between 2018 and 2019 through face-to-face interviews. Study data were collected and managed using the Research Electronic Data Capture (REDCap). Informed consent was obtained from all study participants prior to study enrollment. A questionnaire was administered by trained bilingual research staff using a tablet computer; each interview lasted approximately 1.5 hr. All surveys were conducted in Spanish and completed at a confidential, safe location agreed upon by both the interviewer and participant. Each participant received a cash incentive of $50 (USD). The interviews were audio-recorded and reviewed for quality assurance by trained research staff. Data were protected following the Protection of Human Subjects guidelines and the study protocol was reviewed and approved by the Social and Behavioral Institutional Review Board of the Florida International University (FIU) in SFL.

Measures

Sociodemographic characteristics

A self-report questionnaire was used to collect information sociodemographic characteristics. Variables included gender (0 = woman, 1 = man); age (18–34 years); educational attainment (1 = high school or less, 2 = some training after high school, 3 = bachelor's degree or higher); monthly income level (0 = $999 or less, 1 = $1,000–$1,999, 2 = $2,000–$2,999, 3 = $3,000 or more); employment status (1 = employed, 2 = not employed); marital status, which was recoded as a binary variable (0 = single [single, divorced, separated or widowed], 1 = not single [in a relationship or married]); immigration status, which was recoded as a binary variable (0 = undocumented [without papers, expired visa], 1 = documented [permanent resident, student visa, dependent on someone else's visa, asylum, temporary resident, temporary work visa, tourist visa, temporary protected immigrant)]; country or region of origin (0 = Venezuela, 1 = other South American country, 2 = Central America or Mexico, 3 = Caribbean), and months in the United States (0–12 months).

Premigration stress

Premigration stress was assessed using five items from the Premigration Stress subscale of the 73-item Hispanic Stress Inventory–2 (HSI-2), Immigrant Version (Cervantes et al., 2016). The self-report Premigration Stressors subscale includes items on the frequency and appraisal of stressors Latinx individuals experience before immigrating to the United States. The scale has demonstrated satisfactory internal consistency and expert-based content and concurrent validity (Cervantes et al., 2016) and shown good

psychometric properties in Latinx samples. Participants were asked to endorse whether they had experienced a particular stressor, with responses scored as 0 for "no" and 1 for "yes." If a participant endorsed a stressor, they were asked to respond to a follow-up question regarding how stressful they perceived that experience to be, scoring answers on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*extremely*). A sum composite score of the frequency ratings (i.e., sum) and appraisal ratings (i.e., mean) was calculated (range: 1–10), with higher scores reflecting higher levels of premigration stress. As directed by the scale developers, stress frequency items that were not endorsed were coded as 1 (*not at all stressful*) for the appraisal score. In the present sample, Cronbach's alpha for the HSI-2 Premigration Stress subscale was .85.

Premigration trauma

Premigration trauma was measured using one item from the two-item Immigration Trauma Scale to assess the occurrence of psychological or physical violence before immigrating to the United States. The scale is informed by the CDC's Guidelines for Mental Health Screening (2015) for newly arrived refugees. Participants responded either "no" (0) or "yes" (1) to the following question: "Did you leave your country because of violence or because of threats to the health and safety of yourself or your family?" A response of "yes" was used to indicate the presence of premigration trauma.

Postimmigration stress

Postimmigration stress was assessed using four subscales from the self-report HSI-2: Immigration-Related Stress (nine items), Health Access Stress (eight items), Discrimination (11 items), and Language-Related Stress (nine items). These subscales are used to assess the frequency and perception of stressors experienced by Latinx after immigrating to the United States. The scale has demonstrated satisfactory internal consistency as well as expert-based content and concurrent validity and has been used in Latinx samples (Cervantes et al., 2016). Participants were first asked whether they had experienced a particular stressor, with responses scored as 0 for "no" and 1 for "yes." If an individual endorsed a stressor, they then rated their perception of how stressful that stressor or event was, scoring responses on a Likert scale ranging from 1 (*not at all*) to 5 (*extremely*). A sum composite score of the frequency (i.e., sum) and appraisal items (i.e., mean) was calculated (range: 1–57), with higher scores reflective of higher levels of stress. As directed by the scale developers, stress frequency items that were not endorsed were coded as 1 (*not at all stressful*). In the present sample, Cronbach's alpha for the HSI-2 Immigration-Related Stress, Health Access Stress, Discrimination, and Language-Related Stress subscales were .81, .87, .81, and .81, respectively.

Postimmigration depressive symptoms

The 10-item self-report Center for Epidemiological Studies–Depression scale (CES-D-10) was used to assess symptoms of depression. Participants were asked to rate items based on past-week symptom frequency, scoring answers on a 5-point Likert scale ranging from 0 (*rarely or none of the time*) to 3 (*all the time*). CES-D sum scores range from 0 to 30, with scores of 16 or higher indicating probable clinical depression and higher scores reflecting more severe depressive symptoms. The scale has demonstrated high internal consistency, good test–retest repeatability with RLIs, and has been validated with other self-report measures of depression as well as clinical ratings of depression (Radloff, 1977). In the present sample, Cronbach's alpha for the CES-D-10 was .82.

Data analysis

We used IBM SPSS (Version 27) to perform all three stages of the statistical analysis. First, a preliminary data analysis was conducted using descriptive statistics across all variables. Second, hierarchical multiple regression (HMR) was conducted to determine the extent to which the primary exposure variables (i.e., premigration stress and trauma and postimmigration stress), influenced the outcome variable (i.e., postimmigration depressive symptoms). Predictor variables were grouped and entered into the HMR model in the following order to assess if certain variables predicted depressive symptoms in conjunction with the other predictors: Sociodemographic variables (i.e., gender, age, educational attainment, monthly income level, marital status, immigration status, country or region of origin, months in the United States) were entered in the first block, premigration stress and trauma were entered into the second block, and postimmigration stress was entered into the third block. It should be noted that categorical variables were entered into the model as dummy-coded variables (i.e., 0 or 1) using a reference group. The variance of the outcome variable of postimmigration depressive symptoms was calculated by the variance of each predictor variable added to the model using R^2 change. Standardized beta coefficients from the final model were examined, with p values less than .05 indicating statistical significance. Post hoc follow-up

analyses were also conducted to examine how each of the four postimmigration stress subscales independently predicted depressive symptoms in the model.

In the final step, moderation analyses were conducted using SPSS PROCESS macro (Version 3.5; Hayes, 2018) to examine the interaction effects of gender on (a) premigration stress, (b) premigration trauma, and (c) postimmigration stress on postimmigration depressive symptoms. A moderation analysis used 10,000 bootstrap iterations and was tested by (a) performing a multiple regression to replicate the variance explained by all the predictor variables included in the HMR model, (b) estimating interaction terms between gender and the predictor variables (i.e., Premigration Stress x Gender, Premigration Trauma x Gender, Postimmigration Stress x Gender), and (c) estimating conditional effects for each respective interaction term in relation to postimmigration depressive symptoms. Each of the moderation analyses controlled for the sociodemographic variables used in the HMR. The PROCESS macro uses listwise deletion to handle any missing data, and the most missing data on any variable was small (n = 15). A one-way analysis of variance (ANOVA) was conducted for any significant interaction to test for group differences by applying a Bonferroni test for multiple comparisons, with p values less than .05 indicating statistical significance. Post hoc moderation analyses were conducted to test potential interaction effects of significant sociodemographic variables from the HMR (i.e., country or region of origin, monthly income level, and educational attainment) on the respective associations between postimmigration stress and depressive symptoms. Variables were entered using the multicategorical variable option in PROCESS, and interaction terms (i.e., Postimmigration Stress x Other South American Country, Postimmigration Stress x Central American/Mexican, Postimmigration Stress x the Caribbean) were automatically computed with a reference coding group (e.g., Venezuela). Significant findings are reported in the results herein.

RESULTS

The mean participant age was 27.46 years (SD = 5.01; range: 18–34 years), and all individuals had immigrated to SFL within the past 12 months. The average duration of time each participant lived in the U.S. was 6 months. Overall, 67.0% (n = 360) of the participants met the clinical threshold for depressive symptoms. The study sample represented recent immigrants from Venezuela (29.3%, n = 158), other South American countries (33.3%, n = 180), Central American countries and Mexico (26.7%, n = 144), and the Caribbean (10.6%, n = 57). Approximately 81.6% (n = 436) of the participants were documented, 18.4% (n = 98) were undocumented, 39.1% (n = 211) had a high school diploma or less, 23.7% (n = 128) had completed some training after college, and 36.9% (n = 199) had a bachelor's degree or higher. Regarding monthly income level, participants reported the following: 25.2% (n = 136) earned $999 or less, 36.9% ($n$ = 199) earned $1,000–$1,999, 23.3% (n = 126) earned $2,000–$2,999, and 13.1% (n = 71) earned $3,000 or more. Additional demographic characteristics, stratified by gender, can be found in Table 1. Bivariate correlations between variables are reported in Table 2.

HMR analysis

Table 3 displays the results from the HMR analysis. The results indicated a significant positive association between postimmigration stress and depressive symptoms. No significant associations were found between premigration stress and trauma and postimmigration depressive symptoms. Approximately 21.1% of the cumulative variance of postimmigration depressive symptoms could be attributed to all predictor variables entered in the regression model. For Block 1, the sociodemographic variables accounted for 8.1% of the variance in depressive symptoms. Block 2 included premigration stress and trauma and accounted for 11.6% of the variance in depressive symptoms. Block 3 included postimmigration stress and explained 21.1% of the variance in depressive symptoms. Standardized beta coefficients from the final regression model showed statistically significant associations between depressive symptoms and having a bachelor's degree or higher, having a monthly income of $3,000 or more, and being from the Caribbean.

The results of the post hoc follow-up analyses of the effects of the HSI-2 postimmigration stress subscales revealed that the inclusion of immigration-related stress in addition to the sociodemographic variables and premigration stress and trauma accounted for 18.1% of the variance in postimmigration depressive symptoms, R^2 = .18, $F(16, 508) = 7.03$, $p < .001$. The addition of stress related to health care access accounted for 19.4% of the variance in depressive symptoms, R^2 = .19, $F(17, 507) = 7.20$, $p < .001$. The inclusion of stress related to discrimination accounted for 21.8% of the variance in depressive symptoms, R^2 = .22, $F(18, 506) = 7.82$, $p < .001$, and the addition of language-related stress accounted for 21.9% of the variance in depressive symptoms, R^2 = .22, $F(19, 505) = 7.46$, $p < .001$. Scores on HSI-2 postimmigration stress subscales related to immigration, β = .20, $p < .001$; health care access, β = .10, p = .041; and discrimination, β = .17, $p < .001$, were statistically related to depressive symptoms.

TABLE 1 Descriptive statistics for study variables

Variable	Women ($n = 269$)				Men ($n = 271$)				χ^2	t	N	df
	n	%	M	SD	n	%	M	SD				
Employment status												
Employed	155	58.3			175	64.6			2.25		537	1
Unemployed	111	41.7			96	35.4						
Educational attainment												
High school or less	96	36.0			115	42.4			2.56		538	2
Some training after high school	65	24.3			63	23.2						
Bachelor's degree or higher	106	39.7			93	34.3						
Monthly income level (USD)												
≤ $999	70	26.6			66	24.5			10.10*		532	3
$1,000–$1,999	112	42.6			87	32.3						
$2,000–$2,999	49	18.6			77	28.6						
≥ $3,000	32	12.2			39	14.5						
Marital status												
Single	145	54.1			141	52.2			0.19		538	1
Not single	123	45.9			129	47.8						
Immigration status									2.27		534	1
Documented	208	79.1			228	84.1						
Undocumented	55	20.9			43	15.9						
Country/region of origin												
Venezuela	90	33.5			68	25.2			10.53*		539	3
Other South American country	93	34.6			87	32.2						
Central America or Mexico	56	20.8			88	32.6						
Caribbean	30	11.2			27	10.0						
Premigration trauma exposure												
Yes	178	66.7			185	68.3			0.16		538	1
No	89	33.3			86	31.7						
Age (years)			27.19	5.09			27.73	4.91	−1.25		537	
Months in the United States			6.43	3.15			5.90	3.27	1.89		537	
Premigration stress (HSI-2)			3.26	2.27			2.83	2.08	2.26*		537	
Postimmigration stress (HSI-2 subscales)			12.74	7.28			12.51	8.12	0.35		537	
Immigration-related			4.62	3.11			4.66	3.29	−0.16		537	
Health access			2.22	2.01			2.27	2.37	0.01		537	
Discrimination			2.22	2.37			2.27	2.41	−0.23		537	
Language-related			3.67	2.68			3.35	2.77	1.37		537	
Postimmigration depressive symptoms (CES-D-10)			19.05	5.89			18.06	5.43	2.04*		537	

Note: HSI = Hispanic Stress Inventory; CES-D-10 = Center for Epidemiological Studies Depression scale (10 items).
*$p < .05$; **$p < .01$.

Moderation analysis

The results of the moderation analyses showed no significant interaction effects for gender. Post hoc moderation analyses demonstrated that there were significant interaction effects by country or region of origin for the association between postimmigration stress and depressive symptoms. Country or region of origin accounted for 1.4% of the variance in depressive symptoms, $\Delta R^2 = .01$, $F(3, 520) = 3.07$, $p = .028$, for the association between postimmigration stress and depressive symptoms. As shown in Figure 1, the conditional effects of postimmigration stress by country or region of origin indicated significant positive associations among RLIs from Venezuela, $\beta = 1.51$, $p < .001$; other South American countries, $\beta = 1.06$, $p < .001$; and Central America and Mexico, $\beta = 1.38$, $p < .001$, but not the Caribbean, $\beta = .45$, $p = .122$. The results of the one-way ANOVA indicated that there was a statistically significant

TABLE 2 Bivariate correlations for variables used in regression analyses

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Depressive symptoms	–	.40**	.08*	.16**	.03	−.11	−.06	−.06	−.17**	.13**	.01	−.07*
2. Postimmigration stress		–	.13**	.28**	.05	.00	−.30*	−.01	−.23**	.06	.10*	.01
3. Premigration trauma			–	.25**	.03	−.26**	.00	.11**	.00	.15**	.07	.02
4. Premigration stress				–	−.02	−.04	−.06	.02	−.08*	.05	.08*	−.09*
5. Months in the United States					–	.06	−.07	.06	.11**	.03	.12**	−.08*
6. Country/region of origin						–	−.10*	−.04	−.11**	−.22**	.10**	.10*
7. Immigration status							–	.02	.12**	.14**	−.06	.06
8. Marital status								–	.07*	.20**	.37**	.02
9. Monthly income level									–	.03	−.06	.08*
10. Educational attainment										–	.35**	−.06
11. Age											–	.05
12. Gender												–

Note: $N = 525$. $^{*}p < .05$; $^{**}p < .01$.

difference between groups, $F(3, 534) = 3.35$, $p = .019$. The Bonferroni test revealed that postimmigration depressive symptoms were statistically significantly higher for RLIs from Venezuela ($M = 19.09$, $SD = 5.56$), $p = .017$, and other South American countries ($M = 18.92$, $SD = 5.77$), $p = .027$, compared with those from Central America and Mexico ($M = 18.38$, $SD = 5.79$) and the Caribbean ($M = 16.47$, $SD = 4.99$). There was no statistically significant difference between RLIs from Central America and Mexico and the Caribbean, $p = .186$. Additionally, no significant interaction effects emerged for education or income.

DISCUSSION

The present study explored the interrelations among premigration stress and trauma, postimmigration stress, and depressive symptoms in young adult RLIs while considering the potential moderating effect of gender. As hypothesized, the findings indicate that higher levels of postimmigration stress were associated with higher levels of depressive symptoms. Contrary to our hypotheses, no significant association emerged between premigration stress and trauma and postimmigration depressive symptoms, and moderation analyses revealed no significant interaction by gender.

The study results partially supported our hypothesis regarding an expected positive association between postimmigration stress and depressive symptoms. However, there was no support for our hypotheses that premigration stress and trauma and postimmigration depressive symptoms would be positively, significantly associated and that this association would be strong among female RLIs compared with male RLIs. Previous research has indicated that many immigrants forced to migrate from their home country due to political or economic instability experience heightened emotional distress (Garcini et al., 2017; Li & Anderson, 2016; Ornelas et al., 2020; Sangalang et al., 2018). However, premigration stress and trauma did not appear to be significantly associated with postimmigration depressive symptoms in the present sample. One possible explanation for these results is that the recent immigrants exposed to premigration stress and trauma may have experienced depressive symptoms in their home country and not the United States. As a result, more recent influences of postimmigration stress (e.g., discrimination, language barriers, lack of access to health care, fears due to immigration status, financial instability, and loss of social support) and sociodemographic factors (e.g., income) may have had a more immediate influence. Another reason for these results is that RLIs may not have experienced high degrees of symptom severity in their home country. Previous studies have documented the prevalence of PTSD among Latinx immigrants exposed to stressors in their countries of origin along with elevated depression levels (Keller et al., 2017; Ramos et al., 2017; Sangalang et al., 2018). For the present study, participants did not report high levels of exposure to premigration stress, but 67.0% of the sample met the clinical cutoff for postimmigration depressive symptoms. As a result, other factors that were not assessed in the present study, such as PTSD symptoms, may have influenced the elevated depression levels in this sample. Future studies should explore levels of premigration stress and PTSD and their associations with postimmigration depressive symptoms among RLIs.

As hypothesized, the present results indicate that postimmigration stress significantly predicted postimmigration depressive symptoms. In particular, the combined effect of postimmigration stress was driven mostly by

TABLE 3 Regression coefficients from the final model predicting post-immigration depressive symptoms

Variable	*B*	*SE*	*β*
Block 1			
Gender			
Women		Ref.	
Men	−0.58	0.46	−.05
Age	−0.05	0.05	−.05
Educational attainment			
High school or less		Ref.	
Some training after high school	1.11	0.59	.09
Bachelor's degree or higher	1.28*	0.58	.11*
Monthly income level (USD)			
≤ $999	0.18	0.58	.01
$1,000–$1,999		Ref.	
$2,000–$2,999	−0.48	0.59	−.04
≥ $3,000	−1.54*	0.73	−.09*
Marital status			
Single		Ref.	
Not single	−0.84	0.49	−.08
Months in the United States	0.09	0.07	.05
Immigration status			
Documented	0.79	0.62	.06
Undocumented		Ref.	
Country/region of origin			
Venezuela	−0.28	0.64	−.02
Other South American country		Ref.	
Central America or Mexico	−0.41	0.59	−.03
Caribbean	−2.42**	0.81	−.13**
$R^2 = .08$, $F(13, 511) = 3.45$***			
Block 2			
Premigration Stress	.16	.11	.06
Premigration Trauma			
Yes	.06	.53	.01
No		Ref.	
$\Delta R^2 = .03$, $F(2, 509) = 7.27$***			
$R^2 = .11$, $F(15, 509) = 4.04$**			
Block 3			
Postimmigration stress	1.08***	.13	.37***
$\Delta R^2 = .10$, $F(1, 508) = 67.20$***			
$R^2 = .21$, $F(16, 508) = 8.48$***			

Note: $N = 525$. Total $R^2 = 21.1\%$.
*$p < .05$; **$p < .01$; ***$p < .001$.

immigration-related stress (e.g., documentation status, fear of deportation), followed by stress related to discrimination and health care access. The proximal environmental, social, and societal postimmigration stressors RLIs face are likely related to postimmigration depressive symptoms because of the intensified current emotional toll of these existing challenges. Specifically, societal stress due to documentation status and perceived discrimination may cause RLIs to become socially excluded due to the anti-immigrant sentiment in the United States. As noted in a study conducted among Venezuelan RLIs in SFL, historical positive perceptions of affluent RLIs may change the way new waves of RLIs with lower income levels are received (Schwartz et al., 2018). Additionally, without documents for authorized entry, RLIs may not be eligible to receive health care coverage for mental health services that may help them cope with this stress. Such difficulties may result in increased psychological distress during the process of adapting to a new host country in addition to high levels of stigma associated with seeking mental health services, both of which can lead to depressive symptoms. Consistent with previous research (Alegría et al., 2017; Garcini et al., 2016; Li, 2016; Revollo et al., 2011; Sangalang et al., 2019), these findings suggest immigration stress is positively associated with depressive symptoms in the postimmigration context among Latinx immigrants. It should be noted that although there was a significant association between postimmigration stress and depressive symptoms, overall, participants did not endorse high levels of postimmigration stress. This can be attributed to the fact that SFL has a well-established immigrant-receiving community with cultural and linguistic support for RLIs. Future research should examine these associations in less established immigrant-receiving communities while also addressing the stigma among RLIs that surrounds seeking mental health services.

Contrary to our expectations, gender did not alter the effect of postimmigration stress on depressive symptoms. Based on prior work demonstrating that Latina immigrant women exposed to acculturative stress report higher levels of depressive symptoms compared to their male counterparts (Alegría et al., 2017; Garcini et al., 2016; Ramos-Sánchez, 2020), we posited that gender would interact with these conditions. However, women included in these previous samples reported higher levels of socioeconomic disadvantage due to low educational attainment compared to the women in the present sample, who had higher levels of educational attainment. This is likely due to the large number of Venezuelan RLIs in the present sample, as RLIs from Venezuelan immigrants tend to have the highest rates of education compared with other Latinx subgroups in the United States (Noe-Bustamante et al., 2020). Additionally, the lack of an interaction effect between gender and postimmigration stress on depressive symptoms suggests that other contextual factors may impact this association, such as income level, country or region of origin, and documentation status. Post hoc tests showed that country or region of origin moderated the association between postimmigration stress and depressive symptoms such that

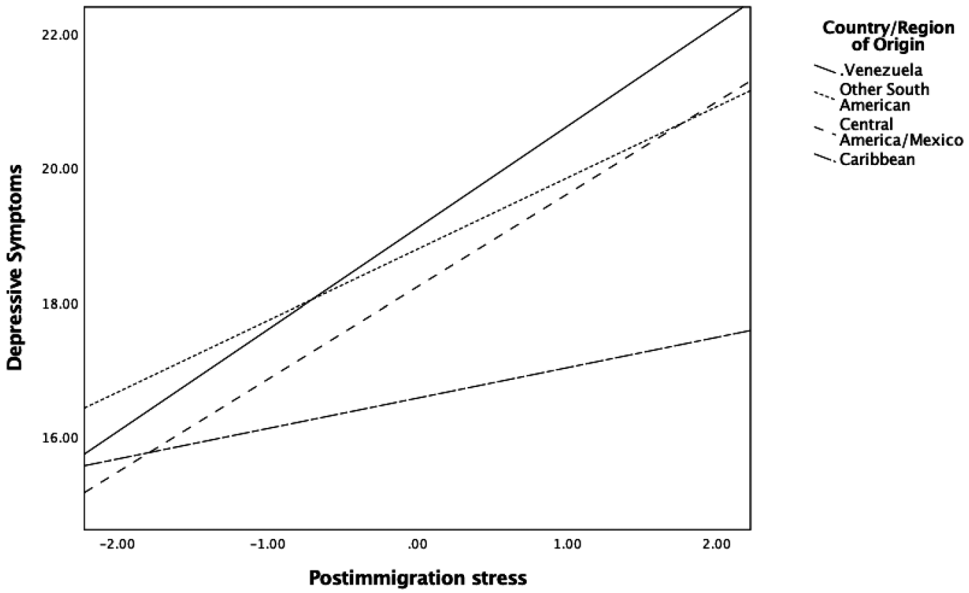

FIGURE 1 Moderation analysis, by country or region of origin. *Note*: Two-way interaction with country or region of origin moderating the association between postimmigration stress and depressive symptoms

compared with RLIs from the Caribbean, most of whom were from Cuba, stronger effects were observed for RLIs from Venezuela, other South American countries, Central America, and Mexico. These results are not surprising given that Cubans are currently less likely to experience forced migration than immigrants from Venezuela and Central America (Claus-Ehlers, 2019). Venezuelans and Central Americans who undergo forced displacement as a result of the political, economic, and criminal violence in their country are more vulnerable to the lack of protection and security that an immigration status imposes. Consequently, higher levels of exposure to stressors while departing and migrating from one's country of origin, coupled with relocation-related stressors, can lead to elevated depressive symptoms. Moreover, examining the potential mechanism that adherence to gender roles has on the association between postimmigration stress and depressive symptoms may explain potential differences in outcomes in this population. Prior work among Latinx populations has demonstrated that adherence to gender roles increases the effect of stressors on depressive outcomes (Acosta et al., 2020). Components of Latinx gender roles may cause negative cognitive emotional regulatory practices during the process of coping with stress and depressive symptoms (Nuñez et al., 2016). Future studies are needed to examine the role that adherence to gender roles plays in the association between postimmigration stress and depressive symptoms among RLIs across diverse national origins.

Overall, the present study contributes to the limited literature available on the association between premigration trauma and stress and postimmigration stress on depressive symptoms among RLIs in SFL. First, our analysis focused exclusively on the contextual challenges experienced by RLIs of both documented and undocumented status. By focusing on RLIs, the impact of the early transitional period to the United States can be considered as a factor in their overall mental well-being. Second, our analysis was based on a sample population about whom little data currently exist with regard to premigration experiences. The present study's focus on premigration experiences among Latinx immigrants of diverse origins provides information that reflects potential hardships to which immigrants are exposed in their home country.

The present results should be interpreted in light of the study's limitations. First, the cross-sectional nature of the study did not allow us to assess causality. Thus, future studies should employ a longitudinal study design to consider the temporal effect of stress and trauma on depressive symptoms. Second, the use of purposive and snowball sampling methods to recruit RLIs in SFL does not ensure a representative sample. More research is needed with samples representative of other immigrant populations in less established immigrant-receiving communities (e.g., Maryland or Virginia) in the United States. Third, the measures used relied on self-report data, which can lead to response bias. Fourth, participants were asked to recount premigration experiences, introducing the possibility of recall bias. However, the recency of immigration maximized participants' capacity to collect accurate data. Fifth, the parent study did not account for any coping resources that may have influenced depression outcomes. Additionally, the assessments of trauma exposure included in the parent study did not account for trauma type or severity. Future studies in this population should take inventory

of the specific coping resources used and the specificity of trauma exposure to better understand how these factors may influence depressive symptoms. Finally, because the parent study only included data on postimmigration depressive symptoms, there was no way to test the immediate outcomes of premigration trauma and stress. Forthcoming studies should collect data on premigration depressive symptoms and conduct a longitudinal analysis of the influence of trauma and stress on depressive symptoms.

Despite these limitations, the current study provides fundamental knowledge on the combined effect of premigration stress and trauma and postimmigration stress on depressive symptoms in young adult RLIs and sheds light on the sociocultural mechanisms that immigration-related stress and trauma have on the prevalence of mental health disparities among RLIs in SFL. The present findings can be used to identify modifiable targets for psychosocial and structural behavioral interventions for RLIs. Clinicians, including social workers, counselors, and nurses who work with patients in immigrant-receiving communities, should screen for pre- and postimmigration stress. Considering stress experienced before and after immigration can aid in the development of comprehensive and culturally sensitive mental health programs that help RLIs build the coping skills they need to adapt to these conditions. Previous research has suggested that higher levels of resilience may help counteract the use of maladaptive emotion regulation strategies that cause depressive symptoms among Latinx immigrants in SFL (Cano et al., 2020). Further, findings from this study can be used to provide immigration policy reform recommendations that focus on allocating funding for the surveillance of these conditions as well as for community resources in immigrant-receiving communities. Recommendations should be made with a focus on educated RLIs early in their immigration process who have limited access to affordable and culturally tailored resources.

OPEN PRACTICES STATEMENT

The study reported in this article was not formally preregistered. The data nor the materials have been available on a permanent third-party archive. Any requests for data or materials can be sent via email to the lead author at vvazq031@fiu.edu.

ORCID

Vicky Vazquez https://orcid.org/0000-0003-3209-397X

REFERENCES

Acosta, L. M., Andrews, A. R., Canchila, M. N. A., & Ramos, A. K. (2020). Testing traditional machismo and the gender role strain theory with Mexican migrant farmworkers. *Hispanic Journal of Behavioral Sciences*, *42*(2), 215–234. https://doi.org/10.1177/0739986320915649

Alegría, M., Álvarez, K., & Dimarzio, K. (2017). Immigration and mental health. *Current Epidemiology Reports*, *4*(2), 145–155. https://doi.org/10.1007/s40471-017-0111-2

Berry, J. W. (2001). A psychology of immigration. *Journal of Social Issues*, *57*(3), 615–631. https://doi.org/10.1111/0022-4537.00231

Cabassa, L. (2003). Measuring acculturation: Where we are and where we need to go. *Hispanic Journal of Behavioral Sciences*, *25*(2), 127–146. https://doi.org/10.1177/0739986303025002001

Cano, M. Á., Castro, F. G., De La Rosa, M., Amaro, H., Vega, W. A., Sánchez, M., Rojas, P., Ramírez-Ortiz, D., Taskin, T., Prado, G., Schwartz, S. J., Córdova, D., Salas-Wright, C. P., & De Dios, M. A. (2020). Depressive symptoms and resilience among Hispanic emerging adults: Examining the moderating effects of mindfulness, distress tolerance, emotion regulation, family cohesion, and social support. *Behavioral Medicine*, *46*(3–4), 245–257. https://doi.org/10.1080/08964289.2020.1712646

Caplan, S. (2007). Latinos, acculturation, and acculturative stress: A dimensional concept analysis. *Policy, Politics, & Nursing Practice*, *8*(2), 93–106. https://doi.org/10.1177/1527154407301751

Centers for Disease Control and Prevention. (2015). *Domestic mental health screening guidelines immigrant and refugee health*. https://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/mental-health-screening-guidelines.html

Cervantes, R. C., Fisher, D. G., Padilla, A. M., & Napper, L. E. (2016). The Hispanic Stress Inventory–Version 2: Improving the assessment of acculturation stress. *Psychological Assessment*, *28*(5), 509–522. https://doi.org/10.1037/pas0000200

Cervantes, R. C., Padilla, A. M., & Snyder, N. S. D. (1991). The Hispanic Stress Inventory: A culturally relevant approach to psychosocial assessment. *Psychological Assessment*, *3*(3), 438–447. https://doi.org/10.1037/1040-3590.3.3.438

Clauss-Ehlers, C. S. (2019). Forced migration among Latinx children and their families: Introducing trilateral migration trauma as a concept to reflect a forced migratory experience. *Journal of Infant, Child, and Adolescent Psychotherapy*, *18*(4), 330–342. https://doi.org/10.1080/15289168.2019.1686742

Garcini, L. M., Murray, K. E., Zhou, A., Klonoff, E. A., Myers, M. G., & Elder, J. P. (2016). Mental health of undocumented immigrant adults in the United States: A systematic review of methodology and findings. *Journal of Immigrant & Refugee Studies*, *14*(1), 1–25. https://doi.org/10.1080/15562948.2014.998849

Garcini, L. M., Peña, J. M., Gutierrez, A. P., Fagundes, C. P., Lemus, H., Lindsay, S., & Klonoff, E. A. (2017). One scar too many:" The associations between traumatic events and psychological distress among undocumented Mexican immigrants. *Journal of Traumatic Stress*, *30*(5), 453–462. https://doi.org/10.1002/jts.22216

Gearing, R. E., Washburn, M., Torres, L. R., Carr, L. C., Cabrera, A., & Olivares, R. (2020). Immigration policy changes and the mental health of Mexican-American immigrants. *Journal of Racial and Ethnic Health Disparities*, *8*(3), 579–588. https://doi.org/10.1007/s40615-020-00816-5

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis a regression-based approach* (2nd ed.). Guilford Press.

Jannesari, S., Hatch, S., Prina, M., & Oram, S., (2020). Post-migration social–environmental factors associated with mental health problems among asylum seekers: A systematic review. *Journal of*

Immigrant Minority Health, *22*(5), 1055–1064. https://doi.org/10.1007/s10903-020-01025-2

Keller, A., Joscelyne, A., Granski, M., & Rosenfeld, B. (2017). Pre-migration trauma exposure and mental health functioning among Central American migrants arriving at the U.S.Border. *Plos One*, *12*(1), e0168692. https://doi.org/10.1371/journal.pone.0168692

Li, M., & Anderson, J. G. (2015). Pre-migration trauma exposure and psychological distress for Asian American immigrants: Linking pre- and post-migration contexts. *Journal of Immigrant Minority Health*, *18*(4), 728–739. https://doi.org/10.1007/s10903-015-0257-2

Li, M. (2016). Pre-migration trauma and post-migration stressors for Asian and Latino American immigrants: Transnational stress proliferation. *Social Indicators Research*, *129*(1), 47–59. https://doi.org/10.1007/s11205-015-1090-7

Lorenzo-Blanco, E. I., & Schwartz, S. (2020). Being a Latina/o immigrant parent in the United States: Links with parents' and adolescents' mental health and health risk behaviors. In *Mental and behavioral health of immigrants in the United States* (pp. 113–133). Elsevier Academic Press.

Noe-Bustamante, L. ((2019). September 16). *Key facts about U.S. Hispanics and their diverse heritage*. https://www.pewresearch.org/fact-tank/2019/09/16/key-facts-about-u-s-hispanics/

Noe-Bustamante, L., Flores, A., & Shah, S. ((2020). January 3). *Facts on Latinos of Venezuelan origin in the U.S. Pew Research Center's Hispanic Trends Project*. https://www.pewresearch.org/hispanic/fact-sheet/u-s-hispanics-facts-on-venezuelan-origin-latinos/

Nuñez, A., González, P., Talavera, G. A., Sánchez-Johnsen, L., Roesch, S. C., Davis, S. M., Arguelles, W., Womack, V. Y., Ostrovsky, N. W., Ojeda, L., Penedo, F. J., & Gallo, L. C. (2016). Machismo, marianismo, and negative cognitive-emotional factors: Findings from the Hispanic community health study/study of Latinos sociocultural ancillary study. *Journal of Latina/o Psychology*, *4*(4), 202–217. https://doi.org/10.1037/lat0000050

Ornelas, I. J., & Perreira, K. M., (2011). The role of migration in the development of depressive symptoms among Latino immigrant parents in the USA. *Journal of Social Science Medicine*, *78*(8), 1169–1177. https://doi.org/10.1016/j.socscimed.2011.07.002

Ornelas, I. J., Yamanis, T. J., & Ruiz, R. A. (2020). The health of undocumented Latinx immigrants: What we know and future directions. *Annual Review of Public Health*, *41*(1), 289–308. https://doi.org/10.1146/annurev-publhealth-040119-094211

Peña-Sullivan, L. (2020). The "wrong kind" of immigrants: Pre-migration trauma and acculturative stress among the undocumented Latinx community. *Clinical Social Work Journal*, *48*(4), 351–359. https://doi.org/10.1007/s10615-019-00741-z

Potochnick, S. R., & Perreira, K. M. (2010). Depression and anxiety among first-generation immigrant Latino youth. *Journal of Nervous & Mental Disease*, *198*(7), 470–477. https://doi.org/10.1097/nmd.0b013e3181e4ce24

Radloff, L. S. (1977). The CES-D scale. *Applied Psychological Measurement*, *1*(3), 385–401. https://doi.org/10.1177/014662167700100306

Ramos, Z., Fortuna, L. R., Porche, M. V., Wang, Y., Shrout, P. E., Loder, S., McPeck, S., Noyola, N., Toro, M., Carmona, R., & Alegría, M. (2016). Posttraumatic stress symptoms and their relationship to drug and alcohol use in an international sample of Latino immigrants. *Journal of Immigrant and Minority Health*, *19*(3), 552–561. https://doi.org/10.1007/s10903-016-0426-y

Ramos-Sánchez, L. (2020). The psychological impact of immigration status on undocumented Latinx women: Recommendations for mental health providers. *Peace and Conflict: Journal of Peace Psychology*, *26*(2), 149–161. https://doi.org/10.1037/pac0000417

Revollo, H. W., Qureshi, A., Collazos, F., Valero, S., & Casas, M. (2011). Acculturative stress as a risk factor of depression and anxiety in the Latin American immigrant population. *International Review of Psychiatry*, *23*(1), 84–92. https://doi.org/10.3109/09540261.2010.545988

Sam, D. L., & Berry, J. W. (2010). Acculturation: When individuals and groups of different cultural backgrounds meet. *Perspectives on Psychological Science*, *5*(4), 472–481. https://doi.org/10.1177/1745691610373075

Sangalang, C. C., Becerra, D., Mitchell, F. M., Lechuga-Peña, S., Lopez, K., & Kim, I. (2018). Trauma, post-migration stress, and mental health: A comparative analysis of refugees and immigrants in the United States. *Journal of Immigrant and Minority Health*, *21*(5), 909–919. https://doi.org/10.1007/s10903-018-0826-2

Schubert, K. O., Clark, S. R., Van, L. K., Collinson, J. L., & Baune, B. T. (2017). Depressive symptom trajectories in late adolescence and early adulthood: A systematic review. *Australian & New Zealand Journal of Psychiatry*, *51*(5), 477–499. https://doi.org/10.1177/0004867417700274

Schwartz, S. J., Salas-Wright, C. P., Pérez-Gómez, A., Mejía-Trujillo, J., Brown, E. C., Montero-Zamora, P., Meca, A., Scaramutti, C., Soares, M. H., Vos, S. R., Javakhishvili, N., & Dickson-Gomez, J. (2018). Cultural stress and psychological symptoms in recent Venezuelan immigrants to the United States and Colombia. *International Journal of Intercultural Relations*, *67*, 25–34. https://doi.org/10.1016/j.ijintrel.2018.09.001

Toro, R. I., Schofield, T. J., Calderon-Tena, C. O., & Farver, J. A. M. (2018). Filial responsibilities, familism, and depressive symptoms among Latino young adults. *Emerging Adulthood*, *7*(5), 370–377. https://doi.org/10.1177/2167696818782773

Torres, S. A., Santiago, C. D., Richards, M., & Kaufka Walts, K. (2018). Immigration policy, practices, and procedures: The impact on the mental health of Latino youth and families. *The American Psychologist*, *73*(7), 843–854. https://doi.org/10.1037/amp0000184

U.S. Department of Health and Human Services. (2019). *Major depression*. https://www.nimh.nih.gov/health/statistics/major-depression

World Health Organization. (2020). *Depression: Key facts*. https://www.who.int/news-room/fact-sheets/detail/depression

How to cite this article: Vazquez, V., Rojas, P., Cano, M. Á., De La Rosa, M., Romano, E., Sánchez, M. (2021). Depressive symptoms among recent Latinx immigrants in South Florida: The role of premigration trauma and stress, postimmigration stress, and gender. *Journal of Traumatic Stress*, 1–13. https://doi.org/10.1002/jts.22768