



Psychosocial stress, bicultural identity integration, and bicultural self-efficacy among Hispanic emerging adults

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Abstract

Most studies on psychosocial stress among Hispanics have focused on risk factors. To better understand psychosocial stress among this population, this study aimed to examine components of bicultural identity integration and bicultural self-efficacy, that may be associated with lower psychosocial stress among Hispanic emerging adults (ages 18–25). This aim was tested on a cross-sectional sample of Hispanic emerging adults ($M_{age} = 21.30$, $SD = 2.09$) that included 200 participants (Arizona $n = 99$, Florida $n = 101$). The sample included men ($n = 98$) and women ($n = 102$). Most participants were US-born (70%), college students (69.5%), and of Mexican heritage (44%). Standardized coefficients from a hierarchical multiple regression model indicate that higher levels of the bicultural harmony component of bicultural identity integration ($\beta = -0.26$, $p < 0.001$) and the social groundedness component of bicultural self-efficacy ($\beta = -0.23$, $p < 0.01$) were associated with lower levels of psychosocial stress. To our knowledge, this is the first study to examine components of bicultural identity integration and bicultural self-efficacy and their respective associations with psychosocial stress among any racial/ethnic group. Thus, more studies are needed to replicate our findings to determine if bicultural identity integration and bicultural self-efficacy should be considered in psychosocial stress interventions for Hispanics.

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CONFLICT OF INTEREST

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Keywords

Hispanic emerging adults; bicultural competence; bicultural identity integration; bicultural self-efficacy; biculturalism; Latino; psychological stress; psychosocial stress; young adults

1 | INTRODUCTION

Psychosocial stress, also referred to as psychological stress, is the degree to which a person perceives that a situation exceeds their ability to cope (Cohen & Janicki-Deverts, 2012). Psychosocial stress (hereinafter simply referred to as stress) is a construct that can fluctuate quickly in response to a specific event (e.g., taking an exam) or change gradually in response to cumulative stimuli that can diminish the ability to cope (Barbosa-Leiker et al., 2013; Cambron, et al., 2019). Stress is highly correlated with symptoms of depression and anxiety; therefore, it has been suggested that these three constructs may form part of a broader construct (psychological distress; Henry & Crawford, 2005). However, confirmatory factor analyses have indicated that stress is quantitatively distinct from symptoms of depression and anxiety, and conceptually it has been proposed that stress is distinct because unlike symptoms of depression and anxiety, stress takes into account the appraisal of an event(s) (Cohen, Kamarck, & Mermelstein, 1983; Henry & Crawford, 2005; Taylor, 2015).

Cross-sectional research has found that higher self-reports of stress in the past week were associated with lower life satisfaction and longitudinal research indicates that chronic stress is a determinant of multiple chronic diseases (Buser & Kearney, 2017; Cohen & Janicki-Deverts, 2012). Considering the adverse effects of stress, more research is needed to identify sociocultural factors that may ameliorate stress among Hispanics (inclusive of Latino/Latina/Latinx) because this population may experience high levels of stress across the life course due to disproportionate exposure to adversity and sociocultural stressors (Brondolo et al., 2017). Stress among Hispanics during *emerging adulthood* (ages 18–25) may warrant further considerations because emerging adults tend to report higher levels of stress compared to other adult age groups (Cohen & Janicki-Deverts, 2012). Some reasons being that emerging adults experience significant life transitions, high levels of instability, and often take on new and challenging developmental tasks (Arnett, 2000). Furthermore, it is not uncommon for emerging adults who are Hispanic or of other racial/ethnic minority groups to explore and develop a cultural identity while navigating through the cultural expectations of the heritage culture (e.g., Hispanic culture) and the receiving culture (e.g., US culture) that may not be compatible in some instances (Benet-Martinez & Haritatos, 2005; David, Okazaki, & Saw, 2009; LaFromboise, Coleman, & Gerton, 1993); therefore, acting as another potential source of stress. Accordingly, this study aimed to examine if distinct domains of biculturalism are associated with stress among Hispanic emerging adults.

2 | BICULTURALISM

Biculturalism is broadly conceptualized as the level of comfort and proficiency an individual has with their respective heritage culture (e.g., Hispanic culture) and receiving culture (e.g., US culture; Schwartz & Unger, 2010). Theories on biculturalism propose that individuals with higher levels of biculturalism are more likely to have better mental health (e.g., lower

symptoms of depression and anxiety) because they are more adaptive in responding to the demands of the social environment (Nguyen & Benet-Martinez, 2013; Schwartz & Unger, 2010). Indeed, from a developmental perspective, a bicultural identity has been proposed to serve as a ‘steering mechanism’ for decisions and actions individuals take within a particular sociocultural context (Meca, Eichas, Schwartz, & Davis, 2019). The hypothesized link between biculturalism and mental health has been empirically supported by a meta-analysis (Nguyen & Benet-Martinez, 2013). Furthermore, from a clinical perspective, biculturalism is a promising construct because extant evidence-based interventions for Hispanic adolescents have demonstrated that components of biculturalism can be enhanced (Bacallao & Smokowski, 2005). However, a limitation of this field is that biculturalism is frequently estimated mathematically using measures of behavioural acculturation that primarily assess language use and preference (Basilio et al., 2014; Nguyen & Benet-Martinez, 2013). The proposed study differs from this commonly used method by directly measuring participants’ perceived levels of biculturalism in three distinct domains: cognitive biculturalism, affective biculturalism and behavioural biculturalism.

2.1 | Bicultural identity integration

An indicator of biculturalism that may be relevant to stress among Hispanics is *bicultural identity integration*, an individual’s cognitive and affective manner of organizing their cultural identities (Nguyen & Benet-Martinez, 2013). Whereas *bicultural blendedness* is a cognitive indicator that encompasses perceived integration of two cultures, ranging from compartmentalization to blendedness, *bicultural harmony* is an affective indicator of bicultural identity integration that encompasses the perceived compatibility of two cultures and ranges from conflict to harmony (Huynh, Benet-Martínez, & Nguyen, 2018; Schwartz & Unger, 2010). To our knowledge, associations among components of bicultural identity integration and stress have not been empirically examined. However, among Hispanic emerging adults, higher bicultural harmony and bicultural blendedness were both associated with lower depressive symptoms—a construct closely related to stress (Schwartz et al., 2019). Yet, in a multi-ethnic sample of college students, bicultural blendedness was not associated with depressive symptoms (Tikhonov, Espinosa, Huynh, & Anglin, 2019).

2.2 | Bicultural self-efficacy

Another indicator of biculturalism is *bicultural self-efficacy*, one’s perceived confidence to function effectively both within the receiving culture and the heritage culture (David et al., 2009; LaFromboise et al., 1993). Bicultural self-efficacy is conceptualized to encompass multiple components, two of these components are social groundedness and role repertoire. *Social groundedness* is the level of confidence an individual has in establishing social networks in both the receiving (e.g., US culture) and heritage cultures (e.g., Hispanic culture; David et al., 2009). It is hypothesized that the ability to establish and maintain social networks in both cultures improves a person’s capacity to cope with the demands of living in a bicultural society (LaFromboise et al., 1993). *Role repertoire* refers to the level of confidence in using or learning culturally appropriate behaviours when interacting with the receiving culture and/or the heritage culture (David et al., 2009). It is hypothesized that a greater range of role repertoire facilitates positive interactions and reduces conflict, with both cultural groups (LaFromboise et al., 1993).

Our review of the literature did not find any published studies that have examined associations among components of bicultural self-efficacy and stress. However, studies conducted with multi-ethnic samples found that higher levels of social groundedness and role repertoire, as well as a composite score of bicultural self-efficacy, were associated with lower depressive symptoms (David et al., 2009). Also, a study among Hispanic college students found that higher social groundedness was associated with lower depressive symptoms; however, role repertoire was not associated with depressive symptoms (Carrera & Wei, 2014).

2.3 | Present study

The following hypotheses were proposed. First, higher levels of bicultural blendedness and bicultural harmony will be associated with lower levels of stress. Second, higher levels of social groundedness and role repertoire will also be associated with lower stress.

3 | METHOD

3.1 | Procedure and participants

The present study was approved by the Institutional Review Board of Florida International University and participants provided informed consent to participate. The data are from a cross-sectional study with a sample of 200 participants from the *Project on Health among Emerging Adult Latinos* (Project HEAL). Quota sampling was used to recruit participants in Maricopa County, Arizona and Miami-Dade County, Florida using various recruitment strategies (e.g., in-person, posting flyers, targeted emails). Inclusion criteria for participants included being ages 18–25, self-identifying as Hispanic or Latina/o, currently living in one of the two study sites, and able to read English. Exclusion criteria were currently being pregnant or breastfeeding. All measures/items in the survey were in English, the survey took approximately 50 min to complete, and participants were compensated with a \$30 electronic Amazon gift card. More details on the procedures are published elsewhere (Cano et al., 2020).

3.2 | Measures

3.2.1 | Demographic variables—The following variables were included as dichotomous covariates: gender, study site, partner status, nativity, Hispanic heritage group, student status and employment status. Age and financial strain (1 = *has more money than needed*, 2 = *just enough money for needs* and 3 = *not enough money to meet needs*) was also included as a covariate.

3.2.2 | Stress—The 4-item *Short Form Perceived Stress Scale* (PSS-4) is a global measure of stress that assesses the degree to which general life situations are appraised as stressful in the past 30 days (Cohen et al., 1983; Taylor, 2015). This measure does not assess stress that is linked to a specific event(s). The four items are, ‘How often have you felt that you were unable to control the important things in your life?’ ‘How often have you felt confident about your ability to handle your personal problems?’ ‘How often have you felt that things were going your way?’ and ‘How often have you felt difficulties were piling up so high that you could not overcome them?’ A five-point Likert-type scale (0 = *never*, 4 =

very often) was used for all the items. The positively phrased items were reverse-scored, responses for all the items were summed and higher scores indicate higher stress.

3.2.3 | Bicultural Identity Integration—An abbreviated version of the *Bicultural Identity Integration Scale-Version 2* was used to measure components of bicultural identity integration (Huynh et al., 2018). The bicultural blendedness component was measured with the corresponding subscale using items 11, 12, 14 and 15. A sample item for bicultural blendedness is, ‘I feel part of a combined cultural that is a mixture of Hispanic and American’. The bicultural harmony component was measured with the corresponding subscale using the reverse score of items 5, 7, 8 and 10. A sample item for bicultural harmony is, ‘I feel that Hispanic and American cultural orientations are incompatible’. Both subscales use a five-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*). Higher mean scores for each subscale indicate higher levels of bicultural blendedness and bicultural harmony, respectively.

3.2.4 | Bicultural Self-efficacy—The *Bicultural Self-efficacy Scale* was used to measure two components of bicultural self-efficacy, social groundedness and role repertoire (David et al., 2009). Social groundedness was measured with the corresponding 7-item subscale. A sample item is, ‘I have an extensive network of mainstream Americans as well as an extensive network of people from the same heritage culture as myself. Role repertoire was measured with the corresponding 3-item subscale. A sample item is, ‘I am confident that I can learn new aspects of both the mainstream American culture and my heritage culture’. Both subscales use a 9-point Likert-type scale (1 = *strongly disagree*, 9 = *strongly agree*). Higher sum scores indicate higher levels of bicultural self-efficacy for each respective subscale.

3.3 | Statistical analysis plan

Univariate analyses (e.g., chi-square test or t-test) and bivariate correlations were conducted for all study variables. The main effects of the predictor variables on stress were estimated using hierarchical multiple regression (HMR). Predictor variables were entered into the HMR model in a specified order so that each block of predictors contributed to the explanatory variance of the outcome variable (i.e., stress) after controlling for the variance explained by the previous block of variables (Cohen, Cohen, West, & Aiken, 2003).

4 | RESULTS

The following are the frequencies and proportions for all the categorical demographic variables: *gender* (male = 98 [49%], female = 102 [51%]), *study site* (Florida = 101 [50.5%], Arizona = 99 [49.5%]), *nativity* (immigrant = 60 [30%], nonimmigrant = 140 [70%]), *Hispanic heritage group* (Mexican = 88 [44.0%], other Hispanic heritage = 112 [66.0%]), *partner status* (single = 142 [71%], has a partner = 58 [29%]), *student status* (current college student = 139 [69.5%], non-college student = 61 [30.5%]) and *employment status* (unemployed = 43 [21.5%], employed = 157 [78.5%]). Means, standard deviations, bivariate correlations and Cronbach’s alpha reliability coefficient are reported in Table 1. Compared to a nationally representative sample of emerging adults in the US (Cohen & Janicki-

Deverts, 2012), levels of stress in our sample are slightly higher, but appear to be within a typical range.

Results indicate that 31.6% of the variance in stress was explained by all the predictor variables entered into the HMR model. The first predictor block included demographic variables and explained 20.4% of the variance in stress, $R^2 = 0.204$, $F(9, 187) = 5.31$, $p < 0.001$. The second block added components of bicultural identity integration which explained 8.0% of the variance in stress $R^2 = 0.080$, $F(2, 185) = 10.28$, $p < 0.001$. The third and final block added components of bicultural self-efficacy which explained 3.3% of the variance in stress $R^2 = 0.033$, $F(2, 183) = 4.43$, $p < 0.01$. Table 2 presents all the regression coefficients from the HMR model.

5 | DISCUSSION

Our first hypothesis was partially supported and higher levels of bicultural harmony were associated with lower levels of stress. This finding is consistent with other research that examined depressive symptoms as an outcome (Huynh, Nguyen, & Benet-Martinez, 2011; Tikkonov et al., 2019). An explanation for this finding is that individuals who feel that their heritage culture and receiving culture are compatible may experience less sociocultural stressors such as cultural isolation and cultural rejection (Tikkonov et al., 2019). Thus, bicultural harmony may mitigate perceptions and experiences of social and cultural stressors, and in turn, lead to lower levels of stress. In addition, higher levels of bicultural harmony may increase perceptions of cultural congruity, the fit between an individual's respective cultures and the environment, which has been linked to better mental health (Cano, Castillo, Castro, de Dios, & Roncancio, 2014) and may allow for effective utilization of behavioural repertoires across cultural streams for dealing with stress (Meca et al., 2019). In contrast, bicultural blendedness was not associated with stress. This null finding has been found in other studies that examined the association between bicultural blendedness and symptoms of depression and anxiety (Tikkonov et al., 2019). Although both bicultural blendedness and bicultural harmony, may help an individual navigate through demands of a bicultural social environment, bicultural blendedness may be more strongly linked to sociocultural adaptation while bicultural harmony is more strongly linked to mental health (Huynh et al., 2018; Meca et al., 2019; Schwartz & Unger, 2010).

Our second hypothesis was also partially supported because social groundedness was associated with lower stress; however, the association between role repertoire and stress was not statistically significant. It is possible that higher social groundedness was associated with lower stress because it facilitates the ability to develop wider social networks that enhance social support which in turn may help prevent or reduce levels of stress (Cohen, 2004). Considering the limited research on specific components of bicultural self-efficacy, it is difficult to develop an explanation for our null finding regarding role repertoire. However, it has been suggested that some components of bicultural self-efficacy may be more important than others in relation to mental health (LaFromboise et al., 1993). For instance, a study found that out of six bicultural self-efficacy components, only social groundedness and cultural knowledge were associated with depressive symptoms (Carrera & Wei, 2014).

5.1 | Limitations

Some limitations include the use of non-probability sampling and self-report measures. Second, components of bicultural identity integration were measured with abbreviated scales, and the examination of bicultural self-efficacy was limited to two components. Also, the Bicultural Self-efficacy scale is a limitation because it does not directly reference ‘Hispanics’; thus, it is susceptible to a broader interpretation of the ‘heritage culture’. Third, the PSS-4 is a limitation because it does not fully capture the complexity of stress and the psychometric properties are weaker compared to longer versions of the PSS. Fourth, the cross-sectional study design is a limitation because components of bicultural identity integration, components of bicultural self-efficacy and stress can change across time—particularly stress. Fifth, the survey was solely available in English limiting its generalizability to less acculturated Hispanics. Lastly, the study may have been underpowered given recommendations that regression models include 20–25 participants for each estimated parameter; however, a more liberal rule of thumb suggests that 5–10 participants for each variable are sufficient (Jenkins & Quintana-Ascencio, 2020).

6 | CONCLUSION

To our knowledge, this is the first study to examine behavioural, cognitive and affective domains of biculturalism in relation to stress among Hispanics or any other racial/ethnic group.

Although the development of biculturalism often begins in adolescence, it is important to examine domains of biculturalism during emerging adulthood because this life-stage affords more autonomy to interact in social environments that are bicultural or reflect the receiving culture to a greater degree (Basilio et al., 2014; Cano et al., 2014; Meca et al., 2019). Considering our research design, it is worth specifying that domains of biculturalism may not be reducing stress but, rather enhancing an individual’s capacity to adapt to the adverse effects of proximal predictors of stress (e.g., acculturation stress). To examine this notion, studies could investigate if domains of biculturalism moderate/buffer the adverse effects of sociocultural stressors. Also, to better understand the links between domains of biculturalism and stress, longitudinal studies could examine if biculturalism promotes the use of coping resources/strategies (e.g., social support/problem engagement) that function as mediators in relation to stress.

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TABLE 1

Bivariate correlations, means, standard deviations, and Cronbach's alpha ($n = 200$)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Gender	-0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Study site	0.17*	0.05	-	-	-	-	-	-	-	-	-	-	-	-
4. Partner status	0.24**	0.01	0.07	-	-	-	-	-	-	-	-	-	-	-
5. Nativity	0.08	0.14*	0.34**	-0.01	-	-	-	-	-	-	-	-	-	-
6. Hispanic heritage	0.23**	0.02	0.86**	0.06	0.32**	-	-	-	-	-	-	-	-	-
7. Student status	0.30**	-0.01	0.02	0.01	-0.11	0.01	-	-	-	-	-	-	-	-
8. Employment status	0.27**	0.05	0.40**	0.09	0.16*	0.37**	0.24**	-	-	-	-	-	-	-
9. Financial strain	-0.02	0.09	0.07	0.03	0.02	0.06	-0.19**	0.02	-	-	-	-	-	-
10. Bicultural blendedness	0.04	-0.18*	-0.11	-0.01	-0.12	-0.10	0.06	-0.16*	-0.17*	-	-	-	-	-
11. Bicultural harmony	-0.02	0.10	-0.11	-0.11	0.18*	-0.05	0.05	0.06	-0.04	-0.20**	-	-	-	-
12. Social groundedness	0.05	-0.16*	-0.22**	-0.15*	-0.09	-0.17*	0.16**	-0.06	-0.12	0.14*	0.42**	-	-	-
13. Role repertoire	0.11	-0.08	-0.02	0.03	0.14	0.02	-0.14*	-0.14*	-0.02	-0.04	0.31**	0.44**	-	-
14. Psychosocial stress	-0.06	0.20**	0.13	-0.09	0.22**	0.10	-0.26**	-0.15*	0.22**	-0.33**	0.01	-0.27**	0.09	-
<i>M</i>	21.30	-	-	-	-	-	-	-	2.30	3.99	3.23	45.30	21.26	6.83
<i>SD</i>	2.09	-	-	-	-	-	-	-	0.59	0.94	0.98	10.54	3.95	2.96
α	-	-	-	-	-	-	-	-	-	0.89	0.86	0.92	0.77	0.70

Note: *Variable coding*: gender (0 = male, 1 = female), study site (0 = Florida, 1 = Arizona), partner status (0 = single, 1 = has a partner), nativity (0 = immigrant, 1 = non-immigrant), Hispanic heritage group (0 = other Hispanic heritage, 1 = Mexican heritage), student status (0 = current college student, 1 = non-college student), employment status (0 = unemployed, 1 = employed).

Abbreviations: *M*, mean; *SD*, standard deviation; α , Cronbach's alpha reliability coefficient.

* $p < 0.05$,

** $p < 0.01$.

TABLE 2

Hierarchical multiple regression model predicting psychosocial stress ($n = 200$)

Variable	Model 1		Model 2		Model 3	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
<i>Block 1</i>						
Age	0.08	0.10	0.06	0.11	0.10	0.10
Gender	0.98	0.39	0.17**	0.76	0.38	0.38
Study site	0.95	0.76	0.16	0.87	0.74	0.72
Partner status	-0.54	0.44	-0.08	-0.58	0.42	0.42
Nativity	0.89	0.46	0.14*	0.87	0.45	0.45
Hispanic heritage	-0.11	0.75	-0.02	-0.15	0.72	0.71
Student status	-1.25	0.46	-0.20**	-1.14	0.44	0.45
Employment status	-1.41	0.53	-0.20**	-1.71	0.51	0.52
Financial strain	0.80	0.33	0.16**	0.59	0.32	0.32
<i>Block 2</i>						
Bicultural blendedness	-	-	-	-0.19	0.21	0.23
Bicultural harmony	-	-	-	-0.90	0.20	0.20
<i>Block 3</i>						
Social groundedness	-	-	-	-	0.07	0.02
Role repertoire	-	-	-	-	0.11	0.06

Note: $R^2 = 20.4\%$ for Block 1, R^2 change = 8.0% for Block 2, R^2 change = 3.3% for Block 3. *Variable coding:* gender (0 = male, 1 = female), study site (0 = Florida, 1 = Arizona), partner status (0 = single, 1 = has a partner), nativity (0 = immigrant, 1 = non-immigrant), Hispanic heritage group (0 = other Hispanic heritage, 1 = Mexican heritage), student status (0 = current college student, 1 = non-college student), employment status (0 = unemployed, 1 = employed).

Abbreviations: *b* = unstandardized coefficient, *SE* = standard error, β = standardized coefficient.

* $p < 0.05$,

** $p < 0.01$,

*** $p < 0.001$.