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Decoding acculturative stress and psychological distress in Mexican immigrant women: insights from a path mediation analysis

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Abstract

Background This study investigates acculturative stress and its impact on psychological distress among Mexican immigrant women in the United States, with a particular focus on contextual factors shaping these acculturative stress experiences. It also seeks to provide actionable insights to address Mexican immigrant women's mental health needs.

Methods Using the data from a total of 257 Mexican immigrant women in the National Latino Asian American Survey (NLAAS), path analysis was conducted to examine the relationships between acculturative stress, psychological distress, and various contextual factors.

Results Acculturative stress was found to significantly contribute to psychological distress among Mexican immigrant women. Key factors affecting acculturative stress include contentment with the decision to move to the United States, English language proficiency, experiences of racial discrimination, difficulties associated with visiting family abroad, religiosity, and age at immigration. Critical determinants of psychological distress in the studied cohort, according to the results, are *familismo* values and racial discrimination.

Conclusion The results of this study underscore the need to consider contextual factors in understanding and addressing acculturative stress and psychological distress among Mexican immigrant women. Practical and policy implications include the necessity to develop culturally sensitive interventions, enhance educational opportunities, improve access to mental health services, and implement anti-discrimination policies. By adopting these strategies, mental health professionals and policymakers can foster resilience, wellbeing, and successful integration of Mexican immigrant women in the U.S. society.

Keywords Acculturative stress, Mexican immigrant women, Discrimination, Mental health, Family values, Cultural sensitivity

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Introduction

In recent The United States has experienced a dramatic demographic shift in recent decades, particularly with the growing presence of Latino immigrants, predominantly from Mexico. As of 2021, the Latino population stands at 62.5 million, making up nearly one-fifth of the U.S. population [1]. Mexican immigrants account for approximately 36% of this population, underscoring their significant role in shaping the country's demographic landscape [2]. With projections indicating that by 2050, Latinos will constitute one-quarter of the U.S. population, it is essential to understand the challenges Mexican immigrant women face, particularly the stress of acculturation and its effects on mental health.

Mexican immigrant women encounter multiple stressors that intensify acculturative stress—defined as the psychological strain associated with adapting to a new culture. Socioeconomic instability, precarious immigration status, and increased vulnerability to gender-based violence complicate their efforts to secure stable employment and expose them to labor exploitation. Language barriers further restrict access to well-paying jobs and essential services, while the constant threat of deportation adds another layer of anxiety, especially for undocumented women [3, 4]. Racial and ethnic discrimination in the workplace, healthcare settings, and public spaces increase isolation, compounding their marginalization [5]. Family separation, whether due to financial or immigration barriers, further exacerbates their emotional distress and isolation [6].

Despite these challenges, Mexican immigrant women exhibit remarkable resilience, often showing better-than-expected health and mental health outcomes—a phenomenon referred to as the Hispanic Health/Mental Health Paradox [7–9]. Cultural values such as *familismo* (family loyalty), *comunidad* (community solidarity), *compadrazgo* (godparenting relationships), *respeto* (respect), and *la fe y la fuerza* (faith and strength) provide strong community support, which mitigates the negative effects of acculturation [10–12]. These cultural frameworks help buffer stress, allowing these women to navigate and overcome the many obstacles they face.

However, the role of these protective cultural constructs in shaping resilience and mental health outcomes has not been fully explored. Discrimination, economic hardship, and family separation continue to exacerbate acculturative stress, creating the need for a deeper understanding of the intersection between these stressors and resilience [13, 14]. This study seeks to fill that gap by examining how contextual factors contribute to acculturative stress and psychological distress in Mexican immigrant women. Using the Social Determinants of Health (SDOH) framework and resilience theory, we investigate both the direct and indirect relationships between

acculturative stress, psychological distress, and factors such as *familismo*, religiosity, and satisfaction with the decision to migrate. By investigating these dynamics, this study aims to provide actionable insights for addressing mental health disparities and developing culturally sensitive interventions that can enhance the well-being and resilience of Mexican immigrant women in the U.S.

Theoretical framework

This article employs two complementary frameworks to analyze the factors influencing health outcomes and coping mechanisms among Mexican immigrant women: the Social Determinants of Health (SDOH) and resilience theory [15]. The SDOH framework examines how social and economic conditions, beyond biological factors and healthcare access, shape health outcomes. Critical determinants include socioeconomic status, education, employment, and social support networks. For Mexican immigrant women, stressors such as limited educational opportunities, labor exploitation, restricted job prospects, and undocumented status contribute to heightened acculturative stress, undermining both economic stability and well-being [16, 17]. Resilience theory, in contrast, focuses on how individuals adapt and thrive under adverse circumstances. Previous research identifies key elements of resilience, including positive relationships, self-efficacy, a sense of purpose, and effective coping strategies [18, 19]. Mexican immigrant women have been found to rely on social support, cultural traditions, bicultural skills, and self-care practices to manage and mitigate the negative impacts of acculturation stress [20–22].

By integrating SDOH and resilience theory, this article examines the extent to which social conditions intensify acculturative stress and how resilience factors counteract these pressures, promoting positive adaptation and mental well-being. This dual framework not only identifies the sources of acculturative stress but also examines the pathways through which resilience mitigates its impact. By focusing on both external pressures and internal coping mechanisms, the article offers a holistic understanding of how Mexican immigrant women navigate the complexities of acculturation, contributing to a broader understanding of mental health outcomes in this population. This integrated approach underscores the need for policies and interventions that address both the structural challenges and personal resilience strategies that shape their experiences.

Literature review

Acculturative stress

Acculturative stress is a complex and multidimensional concept, central to understanding the mental health challenges faced by Mexican immigrant women. Defined as

the psychological strain resulting from adapting to a new culture, acculturative stress encompasses a wide range of emotional, social, and economic pressures [6]. Previous research consistently links acculturative stress to mental health issues such as depression, anxiety, and social isolation [23]. Mexican immigrant women often face heightened stress due to intersecting cultural, legal, and socioeconomic barriers that compound the acculturative experience [16, 17].

One of the most significant contributors to acculturative stress is the disruption of family dynamics, which are central to Mexican immigrant women's social support networks. Hovey and Magaña emphasize that family dysfunction and inadequate social support predict psychological distress, highlighting how strained familial relationships exacerbate isolation and stress [6]. This underscores the critical need for interventions that strengthen family cohesion and address the erosion of these support systems during the acculturation process. The breakdown of family unity under these stressors highlights a key aspect of acculturative stress: the transformation or loss of culturally ingrained sources of emotional security. Central to this discussion is the cultural construct of *familismo*, a value system that prioritizes family loyalty, interconnectedness, and reciprocity [24]. *Familismo* extends beyond familial bonds, influencing behaviors such as shared child-rearing, financial support, and collective problem-solving. While *familismo* often acts as a protective factor, reinforcing psychological resilience, it can also introduce stress under certain conditions. For example, the expectation to prioritize family needs over individual ones may lead to emotional exhaustion, particularly when compounded by labor exploitation and economic hardship [17]. Although *familismo* has been linked to positive outcomes such as reduced stress, lower substance abuse, and increased community ties, it can intensify feelings of obligation and guilt, especially for women separated from their families due to immigration barriers [24].

Additional sociocultural factors exacerbate acculturative stress. Language barriers, for instance, limit access to resources and employment opportunities, contributing to social marginalization and isolation [25]. Discrimination based on race, ethnicity, and immigration status intensifies these stressors, disrupting social integration and creating barriers to forming supportive networks [5, 26]. These experiences of exclusion have long-term consequences, as discrimination undermines both physical and emotional security, exacerbating stress among Mexican immigrant women [13, 14, 27–29]. Cultural conflicts, particularly within families, also add to acculturative stress. As Mexican immigrant women navigate the tension between maintaining their cultural heritage and assimilating into U.S. norms, intergenerational conflicts

emerge. These conflicts often revolve around differing expectations related to gender roles, parenting, and cultural practices, adding further strain [30, 31]. Immigration-related challenges, including family separation and legal status concerns, further compound acculturative stress. Evidence shows that fear of deportation and legal vulnerability not only increase stress but also exacerbate economic insecurity, creating a cycle of distress that is difficult to break [4, 17, 32]. These legal and economic barriers restrict access to vital resources and perpetuate feelings of instability, contributing to the overall burden of acculturative stress.

The multifaceted nature of acculturative stress among Mexican immigrant women reveals the intricate interplay between cultural values, external pressures, and individual coping mechanisms. While constructs like *familismo* provide critical emotional support, they can also introduce additional stress, particularly when external factors such as discrimination, legal challenges, and language barriers heighten vulnerability. Understanding these dynamics is essential for developing interventions that address both the psychological and social dimensions of acculturative stress, ultimately promoting mental health and resilience among this population.

Resilience and coping mechanisms

Acculturative stress poses significant risks to the mental well-being of Mexican immigrant women, increasing the likelihood of depressive symptoms, anxiety disorders, and other psychological consequences [6]. However, a range of coping mechanisms has been identified that can mitigate these negative outcomes, fostering resilience in the face of adversity. Key strategies include the utilization of social support networks, the preservation of cultural traditions, access to mental health services and the development of bicultural skills [33–35]. These mechanisms collectively form a critical framework for promoting well-being and reducing the psychological toll associated with the acculturation process.

Social support has consistently been identified as one of the most vital protective factors in mitigating acculturative stress. Emotional support from family, friends, and community groups plays a critical role in providing a sense of belonging and strengthening resilience [36]. The social bonds formed within these networks offer emotional validation and practical assistance, making it easier for individuals to navigate the challenges of living in a new culture. In addition, involvement in peer support systems, particularly those embedded in cultural and religious communities, further reinforces a sense of belonging and solidarity. These community-based engagements provide not only empathy and understanding but also an opportunity to reaffirm cultural identity, which is crucial

for maintaining mental stability in the face of acculturation pressures [20, 24, 37].

Equally important is the preservation of cultural traditions, which serves as a key source of stability and identity during the acculturation process. Mexican immigrant women who remain connected to their cultural heritage often experience a stronger sense of self and continuity, which helps buffer against the disorienting effects of acculturation. Cultural traditions, when shared within the family or larger community, reinforce resilience by fostering intergenerational ties and collective cultural pride. These practices provide a form of psychological grounding that can counterbalance the feelings of alienation or displacement that are often associated with adjusting to a new cultural environment [24].

Access to culturally appropriate mental health services is another crucial factor in managing acculturative stress. Services such as psychotherapy or counseling, when tailored to address the specific cultural context of Mexican immigrant women, provide targeted interventions that help individuals develop practical coping strategies. These services are not only beneficial for addressing immediate psychological distress but also for helping women navigate long-term challenges related to their immigrant status [38]. Finally, the development of bicultural skills, including language proficiency and an understanding of social norms, further enhances adaptability. Mexican immigrant women who are able to successfully navigate both their home culture and the dominant culture in their new environment tend to experience reduced levels of stress and greater psychological well-being [22, 39].

Together, these coping mechanisms—social support, cultural preservation, mental health services, and bicultural skills—form an integrated framework that enables Mexican immigrant women to manage the complex pressures of acculturation. By fostering resilience and reducing the psychological impact of stressors, these strategies provide a path toward improved mental health and well-being. It is essential that future interventions and policy approaches are designed to strengthen these protective factors, ensuring that Mexican immigrant women have the resources and support needed to thrive in their new environments.

Hypotheses

Based on the literature review, the two major hypotheses tested in this study are as follows:

H1a-d Racial discrimination, English proficiency, difficulties visiting family abroad, age at immigration and religiosity will significantly exacerbate acculturative stress.

H2a-b *Familismo* and contentment with the decision to migrate will reduce psychological distress.

Methods

Data collection

We used the data from the National Latino Asian American Study (NLAAS) [36], a nationally representative survey designed to investigate mental health and wellbeing of Latino and Asian American populations in the United States. The NLAAS is part of the Collaborative Psychiatric Epidemiology Surveys (CPES), which also includes the National Survey of American Life and the National Comorbidity Survey Replication. The NLAAS was conducted from 2002 to 2003 using a complex sampling design to ensure representation across different subgroups of Latinos and Asian Americans. Interviews were administered in English, Spanish, Cantonese, Mandarin, Tagalog, and Vietnamese by trained bilingual interviewers. Since the NLAAS collected extensive data on demographic characteristics, social context, mental health status, and acculturative stress, it is one of the most comprehensive sources of information on Latino and Asian American mental health. The NLAAS dataset comprises a total of 4,649 participants, including 2,554 Latinos and 2,095 Asian Americans [36]. The participants were required to be 18 years or older at the time of data collection, of Latino or Spanish origin, and proficient in both English and Spanish [36].

For the present analysis, we focused specifically on a sample of 257 Mexican immigrant women in the NLAAS. This study was approved by three Internal Review Board Committees: Cambridge Health Alliance, the University of Washington, and the University of Michigan [36].

Demographic characteristics of the sample

Demographic characteristics of the sample analyzed in the present study are summarized in Table 1. Regarding marital status, 55.6% were married or cohabiting, 27.6% were divorced, separated, or widowed, and 16.7% had never been married. With regard to geographic distribution, 57.6% resided in the South, and 52.2% immigrated at ages 18–34 years old. Religiosity varied, with 27.3% frequently attending religious services, 27.7% sometimes, 18.1% rarely, and 26.9% never.

Furthermore, two thirds of the sample (66.5%) had 0–11 years of education, while one fifth (19.9%) had completed 12 years of education. Concerning employment, half of the respondents (50.8%) were employed full-time. Further detail on the demographic characteristics of the sample, including immigration age, age at the time of taking the survey, U.S. region of residence, religiosity, years in the U.S and so forth is provided in Table 1.

Table 1 Descriptive statistics of Mexican immigrant women (N = 257) categorical variables

Characteristic	%
Marital status (%)	
Married/cohabiting	55.6
Divorced/separated/ widowed	27.6
Never married	16.7
Region (%)	
Northeast	3.9
Midwest	5.4
South	57.6
West	33.1
Immigration age (%)	
<12 years	24.5
12–17 years	16.7
18–34	52.2
35+	6.2
Religiosity (%)	
Often	27.3
Sometimes	27.7
Rarely	18.1
Never	26.9
Education (%)	
0–11 years	66.5
12 years	19.9
13–15 years	8.8
>16 years	4.7
Employment (%)	
Full-time employed	50.8
Unemployed	49.2
Happy with the U.S. move (%)	
Yes	92.6
No	6.2
Years in the U.S. (%)	
Born in the U.S.	0
<5 years	19.1
5–10 years	16.7
11–20 years	32.7
≥ 20 years	30.7
Visiting family difficulties (%)	
No relatives abroad	1.9
Not at all difficult	23.0
Not very difficult	10.9
Somewhat difficult	26.5
Very difficult	37.7

Measures

Acculturative stress was measured using a 9-item scale from the National Latino and Asian American Study (NLAAS) [37]. The scale's internal consistency was high (Cronbach's $\alpha=0.88$). The items, originally from the Mexican American Prevalence and Service Survey [38], were designed to measure experiences of psychosocial stress among the Hispanic population. The respondents were asked about the frequency of various stress-related

experiences, such as feeling guilty about leaving family or friends in their country of origin, limited contact with family and friends, difficulty interacting due to language barriers, being questioned about legal status, fear of deportation when accessing social or government agencies, and avoidance of health services due to concerns related to immigration and naturalization services (INS). Response choices ranged from 0 (never) to 3 (often), with higher scores indicating greater acculturative stress.

Psychological distress was assessed using Kessler's Psychological Distress Scale (K10). In this study, we used K10 as a proxy for general psychological distress levels among foreign-born Latinas. This measure is widely recommended for its simplicity and validity in assessing psychological distress [39]. K10 consists of 10 questions about the levels of general anxiety and depression experienced in the past 30 days, including statements such as "During the last 30 days, how often did you feel tired out for no good reason?" and "During the last 30 days, how often did you feel so depressed that nothing could cheer you up?" Due to missing variables, only 7 items were used in this study. The internal consistency of this modified scale was high (Cronbach's $\alpha=0.85$) [40].

Racial discrimination was evaluated using three items from the NLAAS, with an internal consistency of Cronbach's $\alpha=0.81$. The items, taken from the Detroit Area Study [37], concerned the frequency of routine experiences of unfair treatment. The respondents answered questions such as how often people disliked them because of their race/ethnicity, how often they were treated unfairly due to their race/ethnicity, and whether they had seen friends mistreated because of their race/ethnicity. Response options ranged from 1 (never) to 4 (very often).

Familismo was measured using a 5-point scale congruent with the values reported in Latino cultures and described in several previous studies (e.g [41]). The items included statements such as "Family members respect each other," "The family shares values," and "Things work well as a family". Internal consistency for this sample was high (Cronbach's $\alpha=0.80$).

One-construct items

Immigration age was recorded as the age at which the respondent first arrived in the United States. This was categorized into four groups: less than 12 years, 13–17 years, 18–34 years, and older than 34 years. Years in the U.S. was an ordinal variable with responses categorized as less than 5 years, 5–10 years, 11–20 years, and more than 20 years. Contentment with the decision to move to the U.S. was measured by asking the respondents if they were content with their decision to move to the U.S. (yes/no). Difficulties in visiting family abroad were measured by asking the study participants how difficult it was

for them to visit their family in their country of origin. Responses ranged from 1 (not at all difficult) to 4 (very difficult), with an additional option for respondents who had no relatives abroad.

Statistical analyses

To estimate causal relationships between contextual factors, acculturative stress, and psychological distress, we ran mediation path analysis using the MPLUS software (version 8.10) [42]. Categorical variables were transformed into binary variables, while dichotomous variables were retained. Only covariates based on theory [43] or previous research on acculturative stress were included. Regression assumptions, including linearity, homoscedasticity, and multicollinearity, were assessed. Cases with over 10% missing data were excluded. Correlation and analysis of variance were run to examine relationships between covariates and dependent variables. A specification search [44] explored a better-fitting model, guided by modification indices (MI). The MPLUS software automatically calculated indirect effects. Model fit was evaluated using the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean residual (SRMR). The maximum likelihood method (MLR) was used for non-normal data, with standard errors approximating those obtained through bootstrap methods. Baseline models were cross-validated using holdover cross-validation. Interactions between contextual factors in predicting acculturative stress were examined using the Stata fitnit software (version 17). Continuous and ordinal variables were treated as continuous and mean-centered before testing interactions. Categorical variables were transformed into dichotomous variables to mitigate collinearities. No significant interactions were found.

Conceptual framework and model justification

Acculturative stress was conceptualized as a mediator explaining how contextual factors (contentment with the decision to move to the U.S., racial discrimination, English skills, visiting family abroad difficulties, age at immigration, and religiosity) affect psychological distress among Mexican immigrant women. According to Baron and Kenny, a mediator variable explains the relationship between independent and dependent variables, aligning with our hypothesis and path analysis results [45]. Although variables such as religious comfort, *familismo*, and family abroad difficulties could act as moderators, theoretical foundations and prior research suggest that these variables exert their effects through acculturative stress [46–49].

Table 2 Descriptive statistics of Mexican immigrant women ($N=257$) continuous variables

Variables	M	SD	Range
Acculturative stress	10.61	2.27	8–16
Age	36.32	13.09	18–81
<i>Familismo</i>	35.89	4.78	19–40
Psychological distress	10.28	4.56	7–35
Racial discrimination	5.59	2.36	3–12
English skills	4.68	2.69	3–12

Table 3 Direct and indirect standardized parameter estimates of path models-contextual factors, acculturative stress, and psychological distress among Mexican immigrant women ($N=257$)

Contextual factors	B (Error)
Psychological Distress	
Acculturative stress	0.40(0.05)**
<i>Familismo</i>	-0.31(0.08)**
Acculturative Stress	
Contentment with decision to move to U.S.	-0.49(0.05)**
Racial discrimination	0.29(0.05)**
English skills	-0.16(0.04)**
Visiting family abroad difficulties	0.49(0.10)**
Age at immigration	0.67(0.28)**
Religiosity	0.38(0.10)**
Indirect Effects	
Racial discrimination	0.16(0.08)*

Note. ** $p < 0.01$, * $p < 0.05$

Mexico: $\chi^2=4.33$ DF=7 $p=0.74$ RMSEA=0.01 (0.01/0.62) CFI/TLI=1.00/1.048

Results

Overall, Mexican immigrant women reported high levels of acculturative stress ($M=36.32$, $SD=13.09$) and psychological distress ($M=10.28$, $SD=4.56$). They experienced racial discrimination ($M=5.59$, $SD=2.36$) and had lower English skills ($M=4.68$, $SD=2.69$). The cultural value of *familismo* showed a mean score of 35.89 ($SD=4.78$) (see Table 2).

Furthermore, the results of path analysis revealed that several factors influenced acculturative stress and psychological distress among Mexican immigrant women (see Table 3; Fig. 1). Higher English proficiency ($b = -0.16$, $p < 0.001$) and greater contentment with the decision to move to the U.S. ($b = -0.49$, $p < 0.001$) were associated with lower levels of acculturative stress. Conversely, difficulties visiting family abroad ($b = 0.49$, $p < 0.001$), experiences of racial discrimination ($b = 0.29$, $p < 0.001$), older age at immigration, and higher religiosity ($b = 0.16$, $p < 0.001$) were linked to higher acculturative stress. Psychological distress was dictated by two significant factors: while a stronger commitment to *familismo* ($b = -0.31$, $p < 0.001$) was associated with lower psychological distress, higher levels of acculturative stress ($b = 0.40$, $p < 0.001$) corresponded to greater psychological distress. The results of our analysis also revealed that acculturative

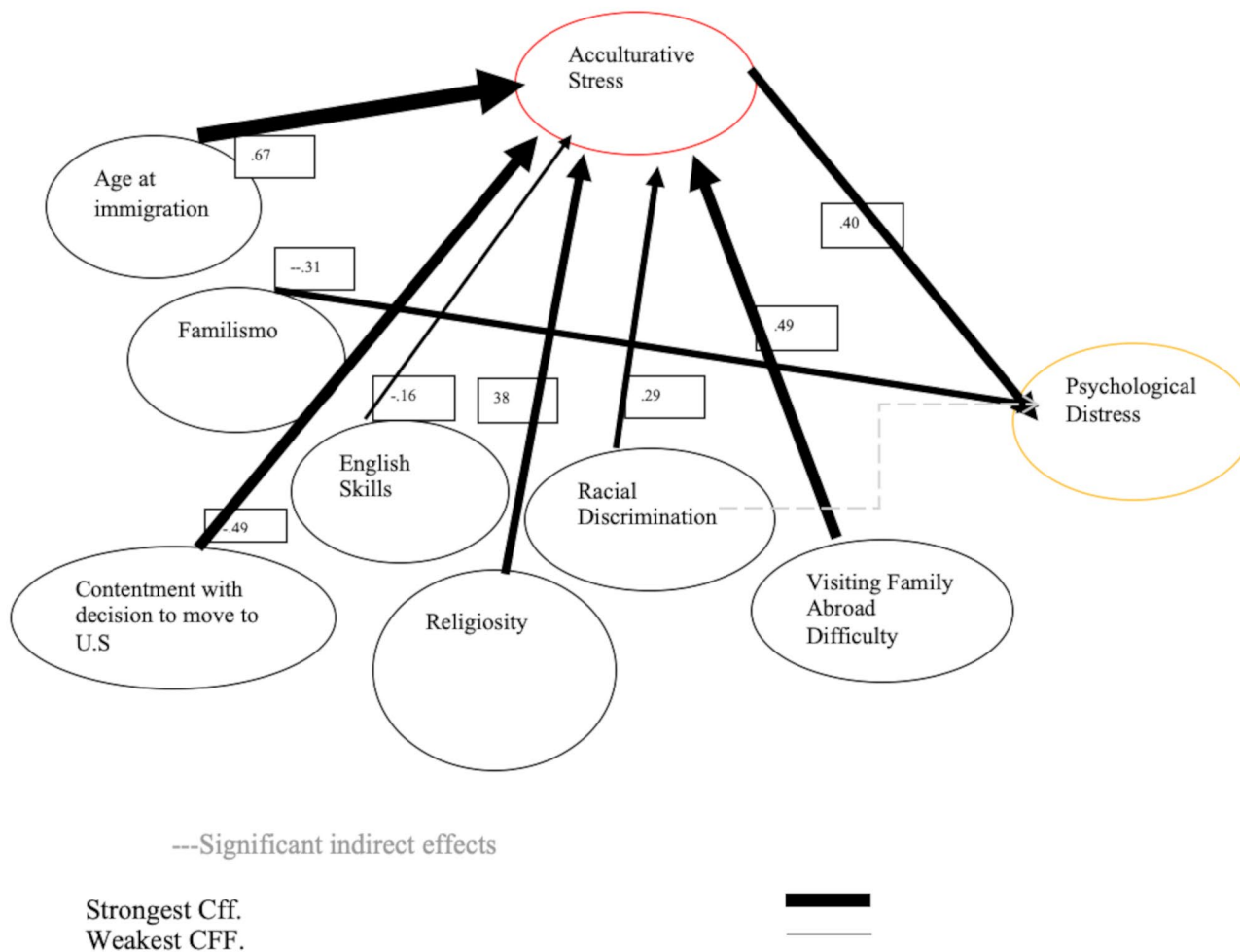


Fig. 1 Internal and external contextual factors, acculturative stress and psychological distress among Mexican immigrant women

Note: The fig. 1 illustrates the findings of the path analyses examining the influence of contextual factors on acculturative stress and psychological distress. The thickness of the lines represents the coefficient values, with denser lines indicating stronger impact. The results clearly demonstrate that diverse contexts affect both acculturative and psychological distress

stress mediates the relationship between racial discrimination and psychological distress. Increased experiences of racial discrimination led to higher acculturative stress, which, in turn, was associated with elevated psychological distress.

Discussion

This study investigated the relationships between contextual factors, acculturative stress, and psychological distress among Mexican immigrant women, utilizing Mediation Path Analysis grounded in the Social Determinants of Health (SDOH) framework and resilience theory [47, 49]. We tested two primary hypotheses:

1. **H1:** Contextual factors such as racial discrimination, English proficiency, difficulties visiting family abroad, age at immigration and religiosity would significantly exacerbate acculturative stress.

2. **H2:** Familismo and contentment with the decision to migrate would reduce acculturative stress and psychological distress.

The results demonstrated partial support for both hypotheses. H1 predicted that racial discrimination, English proficiency, difficulties visiting family abroad, age at immigration, and religiosity—would significantly influence acculturative stress. The findings of this study support these hypothesis. Specifically, racial discrimination, difficulties visiting family abroad, older age at immigration and religiosity were all found to significantly increase acculturative stress, consistent with existing literature that emphasizes the toll of systemic stressors on immigrant populations. Conversely, English proficiency was found to significantly decrease acculturative stress, which supports the idea that language skills are critical

in facilitating social integration and accessing resources, thus mitigating the psychological strain of acculturation.

H2 posited that familismo and contentment with the decision to migrate would reduce psychological distress. The results fully supported this hypothesis. Familismo was found to be a significant protective factor, reducing psychological distress among Mexican immigrant women. This confirms the importance of strong family ties and familial support in buffering emotional burdens, consistent with the cultural emphasis on family cohesion in Latino communities. Similarly, contentment with the decision to migrate was associated with lower levels of psychological distress, suggesting that personal agency and satisfaction with life choices play crucial roles in fostering psychological resilience. Interestingly, while familismo helped reduce psychological distress, it did not significantly affect acculturative stress. This finding suggests that while strong family bonds provide emotional support, they may not directly mitigate structural challenges like discrimination, economic hardship, or difficulties accessing resources.

Research implications

The results provide a nuanced understanding of how various contextual factors, such as racial discrimination, English proficiency, difficulties visiting family abroad, and religiosity, affect acculturative stress, as well as how *familismo* and contentment with the decision to migrate influence psychological distress experienced by Mexican immigrant women in the United States. Each of these factors offers valuable insights that can help develop more targeted interventions to reduce mental health burden in this cohort. The relationship between acculturative stress and psychological distress demonstrates the pressing need for further investigation into the mechanisms by which acculturative stress exacerbates mental health issues. While previous research [6, 50] has documented the broad impact of acculturative stress on immigrant populations [51], there remains a gap in understanding which aspects of acculturative stress (whether related to legal status, language barriers, or social exclusion) are most predictive of psychological distress in Mexican immigrant women.

In our results, *familismo* was found to significantly buffer psychological distress; however, no significant association was observed between *familismo* and acculturative stress. This finding suggests that, while familial support may help to alleviate individual-level psychological burdens, it may not be sufficient to mitigate the broader structural challenges associated with acculturation. Accordingly, in future research, it would be meaningful to explore the buffering hypothesis of social support [52], which posits that emotional and instrumental resources from family reduce the impact of stressors

related to personal well-being, but may not influence systemic stressors. Doing so would also contribute to the literature by clarifying whether other forms of social capital, such as community networks or formal support services, can mitigate systemic pressures linked to acculturation, including legal difficulties, racial discrimination, or socioeconomic barriers [53].

Furthermore, the significant negative association that the results revealed between contentment with the decision to migrate and acculturative stress provides a direction for exploring psychological resilience strategies in migrant populations. Building on previous research [4, 49] which highlighted the importance of personal agency and satisfaction in the migration decision, future qualitative studies could investigate how interventions aimed at enhancing personal agency can foster resilience among immigrants.

According to our results, racial discrimination was shown to have both a direct and indirect effects on psychological distress via acculturative stress. This finding aligns with several previous studies [13, 14], that identified a pervasive impact of discrimination on immigrants' mental health. Yet, more research is needed in this area, specifically with regard to the mechanisms of discrimination that lead to psychological distress (e.g., hypervigilance and chronic stress) and how different types of discrimination (e.g., based on immigration status, language, or accent) uniquely contribute to acculturative stress. In addition, our finding about the important role of English proficiency in reducing acculturative stress suggests that language skills play a critical role in facilitating social integration and improving access to resources. This result is well aligned with previous evidence showing that improved language skills can promote better access to mental health services, employment, and social support systems, ultimately contributing to psychological wellbeing [32, 47].

Finally, our finding that religiosity is associated with increased acculturative stress highlights an area that warrants further exploration. This association may reflect the difficulties encountered by immigrants in reconciling traditional religious practices with the norms and values of their host country, though counters the claim that increased religiosity is associated with increased community support [32]. Accordingly, future research should examine the role of religious institutions in the acculturation process and investigate how they can either facilitate or hinder immigrants' adjustment to a new cultural environment.

Implications for practice

The findings of this study provide important implications for mental health practices and interventions targeting Mexican immigrants. Specifically, our findings

highlight potential areas where targeted interventions could be developed to address both acculturative stress and psychological distress, including but not limited to those focused on increasing language proficiency, providing community support, and managing discrimination. Considering the unique challenges that Mexican immigrant women face during the acculturation process, mental health professionals must develop cultural competency preparing them to work with this cohort [50]. For instance, the strong association between *familismo* and reduced psychological distress highlights to the importance of using family-based interventions in mental health practice. These interventions should focus on enhancing familial support systems while addressing the specific cultural and familial dynamics affecting mental wellbeing. Additionally, integrating family members into the therapeutic process may offer a more holistic approach to addressing individual mental health issues, as familial support is a critical component of Mexican immigrant women's coping strategies [53].

The results also highlight the need for interventions targeting acculturative stress. Given that acculturative stress significantly contributes to psychological distress, mental health professionals should consider developing culturally sensitive programs addressing the key stressors identified in this study, such as language barriers, discrimination, and difficulties visiting family abroad. While these interventions must be tested for efficacy, our findings suggest that reducing barriers to visiting family abroad or improving access to language education programs could alleviate sources of stress. Such programs could focus on helping immigrants maintain strong ties to their cultural heritage while equipping them with the tools necessary to more effectively navigate their new environment [50].

Furthermore, the strong relationship between racial discrimination and acculturative stress suggests that interventions should also focus on anti-discrimination initiatives. Mental health professionals could collaborate with community organizations and policy advocates to develop programs aimed at reducing discrimination in both public and private settings, such as workplaces, schools, and healthcare facilities. Particularly effective in this context could be trauma-informed care models that acknowledge the long-term impacts of discrimination and stress and promote safety, empowerment, and healing [48].

Finally, although religiosity was found to be associated with increased acculturative stress, this does not imply that religious practices are inherently harmful to mental health. Instead, our finding rather suggests that religious institutions and faith-based organizations could play a more active role in supporting immigrant women through the acculturation process. Accordingly, mental

health professionals working with religious communities should consider integrating faith-based approaches into mental health care so as to provide support well aligned with the cultural and spiritual needs of their clients. To this end, future interventions could explore the ways to modify spiritual counseling and support groups within religious communities to better help immigrants manage acculturative stress while maintaining their religious identity [32].

Limitations

The present study has several limitations. First, the data used in this study (through the NLAAS) were collected over two decades ago. Since then, the Latino population in the U.S. has experienced demographic shifts, evolving socio-economic conditions, and changing policy landscapes. These factors compromise generalizability of our findings to the present situation. For instance, substantial population growth among Latinos, shifting public attitudes, and ongoing immigration debates in recent years could have altered the extent and nature of experienced discrimination and acculturative stress. Second, the cross-sectional design of this study limits our ability to establish causal relationships or observe temporal dynamics. The ordering of constructs in our model relies on theoretical foundations and existing literature, which may have introduced bias. Although cross-validation was employed to enhance parameter stability, the complex causal relationships among contextual factors and outcome variables cannot be definitively established.

Addressing these limitations in further research would provide a more comprehensive understanding of the mental health challenges and resilience strategies of Latina immigrant women in the current socio-political climate. Additionally, there is a need for qualitative studies to explore the nuanced experiences of Mexican immigrant women. In the studied context, qualitative research can provide more in-depth insights into the personal and cultural contexts that shape acculturative stress and psychological distress, thereby offering a richer understanding of the unique challenges and resilience strategies within the studied cohort.

Conclusion

The present study provides valuable insights into the relationships between contextual factors, acculturative stress, and psychological distress among Mexican immigrant women in the United States. Our focus on specifically on Mexican immigrant women, a subgroup of the Latino population, revealed their unique experiences, challenges, and potential disparities in mental health outcomes. The use of data from the National Latino and Asian American Study (NLAAS), despite being collected over two decades ago, offers a robust and diverse baseline

to understand the distinct circumstances faced by Mexican immigrant women.

This study also highlighted the intersectionality of various factors, such as cultural background, immigration experiences, and gender dynamics. By focusing on these complex interrelations, the study contributes to a more nuanced understanding of the psychological challenges faced by this population, as well as offers broader implications for their overall wellbeing.

The results of this study also offer meaningful practical implications. Specifically, understanding contextual factors contributing to psychological distress and acculturative stress among Mexican immigrant women is critical for the development of effective mental health interventions. By addressing key stressors such as discrimination, promoting family support, improving language proficiency, and fostering contentment with the migration decision, mental health professionals can enhance Mexican immigrant women's well-being and resilience as they navigate the acculturation process. Future research should focus on exploring protective factors, such as community networks and cultural identity, and work toward developing culturally sensitive interventions tailored to the unique needs of this population.

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Author contributions

I have solely contributed to the analysis, writing and researching and completed all parts of research for this article.

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Data availability

The National Latino and Asian American (NLAAS) data are publicly available at <https://www.massgeneral.org/monganinstitute/centers/dru/research/past/nlaas>.

Declarations

Ethics approval and consent to participate

The study was approved by three Internal Review Board Committees: Cambridge Health Alliance, the University of Washington, and the University of Michigan.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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References

1. U.S. Census Bureau. American community survey (ACS). 2022. <https://www.census.gov/programs-surveys/acs>. Accessed 11 Oct 2024.
2. Pew Research Center. Increasing presence: exploring Mexican immigrant women in the United States. 2022. <https://www.pewresearch.org>. Accessed 11 Oct 2024.
3. Wright BL. Immigration and mental health: Mexican migrant farmworkers. University Press of America; 2011.
4. Bekteshi V, Bellamy J. Adapting for Well-Being: examining acculturation strategies and Mental Health among Latina immigrants. *Social Sci*. 2024;13(3):138. <https://doi.org/10.3390/socsci13030138>.
5. Urzúa A, Caqueo-Urizar A, Henríquez D, Williams DR. Discrimination and health: the mediating effect of acculturative stress. *Int Environ Res Public Health*. 2021;18(10):5312.
6. Hovey JD, Magaña C. Exploring the mental health of Mexican migrant farm workers in the Midwest: psychosocial predictors of psychological distress and suggestions for prevention and treatment. *J Psychol*. 2022;136(5):493–513. <https://doi.org/10.1080/00223980.209605546>.
7. Franzini L, Ribble JC, Keddie AM. Understanding the hispanic paradox. *Ethn Dis*. 2001;11(3):496–518.
8. Deroose KP, Escarce JJ, Lurie N. Immigrants and health care: sources of vulnerability. *Health Aff*. 2007;26(5):1258–68. <https://doi.org/10.1377/hlthaff.26.5.1258>.
9. Vargas Bustamante A, Fang H, Rizzo JA, Ortega AN. Heterogeneity in health insurance coverage among US latino adults. *J Gen Intern Med*. 2009;24(Suppl 3):561–6. <https://doi.org/10.1007/s11606-009-1069-7>.
10. Viruell-Fuentes EA, Miranda PY, Abdulrahim S. More than culture: structural racism, intersectionality theory, and immigrant health. *Soc Sci Med*. 2012;75(12):2099–106. <https://doi.org/10.1016/j.socscimed.2011.12.037>.
11. Portes A, Rumbaut RG. Immigrant America: a portrait. 3rd ed. University of California Press; 2006.
12. Treadway S. Cultural schemas as cultural capital: the Fuerza and flexibility of latino family values. WWU Graduate School Collection. Western Wash Univ. 2017. <https://cedar.wvu.edu/wwuet/556>
13. Earnshaw VA, Rosenthal L, Lewis JB, Stasko EC, Tobin JN, Lewis TT, Ickovics JR. Maternal experiences with everyday discrimination and infant birth weight: a test of mediators and moderators among young, urban women of color. *Ann Behav Med*. 2013;45(1):13–23.
14. Cobb CL, Meca A, Branscombe NR, Schwartz SJ, Xie D, Zea MC, Fernandez CA, Sanders GL. Perceived discrimination and well-being among unauthorized hispanic immigrants: the moderating role of ethnic/racial group identity centrality. *Cult Divers Ethn Minor Psychol*. 2019;25(2):280–87. <https://doi.org/10.1037/cdp0000227>.
15. Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. *Public Health Rep*. 2014;129(Supplement 2):19–31. <https://doi.org/10.1177/003335491412915206>.
16. Flippen CA, Kim E. Immigrant context and opportunity: new destinations and socioeconomic attainment among asians in the United States. *Ann Am Acad Polit Soc Sci*. 2015;660(1):175–98.
17. Patler C, Laster Pirtle W. From undocumented to lawfully present: do changes to legal status impact psychological wellbeing among latino immigrant young adults? *Soc Sci Med*. 2018;199:39–48. <https://doi.org/10.1016/j.socscimed.2017.03.009>.
18. Batista-Morales NS. Review of the book *Forgotten citizens: deportation, children, and the making of American exiles and orphans* by L. H. Zayas. *Migr Stud*. 2018;6(3):468–70. <https://doi.org/10.1093/migration/mnx063>
19. Knight GP, Carlo G. Prosocial development among Mexican American youth. *Child Dev Perspect*. 2012;6(3):258–63. <https://doi.org/10.1111/j.1750-8606.2012.00233.x>.
20. Lusk MW, Terrazas S, Caro J, Chaparro P. Resilience, faith, and social supports among migrants and refugees from Central America and Mexico. *J Spiritual Ment Health*. 2019;23(2):1–22. <https://doi.org/10.1080/19349637.2019.1620668>.
21. Lemus-Way MC, Johansson H. Strengths and resilience of migrant women in transit: an analysis of the narratives of central American women in irregular transit through Mexico towards the USA. *J Int Migr Integr*. 2000;21:745–63. <https://doi.org/10.1007/s12134-019-00690-z>.
22. Heilemann MV, Lee KA, Kury FS. Strengths and vulnerabilities of women of Mexican descent in relation to depressive symptoms. *Nurs Res*. 2002;51(3):175–82. <https://doi.org/10.1097/00006199-200205000-00006>.
23. Hovey JD, King CA. Acculturative stress, depression, and suicidal ideation among immigrant and second-generation latino adolescents. *J Am Acad Child Adolesc Psychiatry*. 1996;35(9):1183–205.

24. Heilemann MV, Lee KA, Kury FS. Strength factors among women of Mexican descent. *Midwest Nurs Res Soc.* 2005;27(8). <https://doi.org/10.1177/0193945905279777>.
25. Callister LC, Beckstrand RL, Corbett C. Postpartum depression and help-seeking behaviors in immigrant hispanic women. *J Obstet Gynecol Neonatal Nurs.* 2011;40(4):440–49.
26. Bekteshi V, Kang SW. Contextualizing acculturative stress among latino immigrants in the United States: a systematic review. *Ethn Health.* 2020;25(6):897–914. <https://doi.org/10.1080/13557858.2018.1469733>.
27. Flores E, Tschann JM, Dimas JM, Bachen EA, Pasch LA, de Groat CL. Perceived discrimination, perceived stress, and mental and physical health among mexican-origin adults. *Hisp J Behav Sci.* 2008;30(4):401–24.
28. Torres L, Ong AD. A daily diary investigation of latino ethnic identity, discrimination, and depression. *Cultur Divers Ethnic Minor Psychol.* 2010;16(4):561–68.
29. Campos B, Kim HS. Incorporating the cultural diversity of family and close relationships into the study of health. *Am Psychol.* 2017;72(6):543–54.
30. Taylor ZE, Larsen-Rife D, Conger RD, Widaman KF. Familism, interparental conflict, and parenting in mexican-origin families: a cultural–contextual framework. *J Marriage Fam.* 2012;74(2):312–27.
31. Marrs Fuchsel CL. Yes, I feel stronger with more confidence and strength: examining the experiences of immigrant Latina women (ILW) participating in the Si, yo Puedo Curriculum. *J Ethnogr Qual Res.* 2014;9(2):161–82.
32. Bekteshi V, Van Hook M, Levin J, Wan Kang S, Van Tran T. Social work with latino immigrants: contextual approach to acculturative stress among Cuban, Mexican and Puerto Rican women. *Br J Soc Work.* 2017;47(2):447–66. <https://doi.org/10.1093/bjsw/bcw003>.
33. Salgado de Snyder VN. Factors associated with acculturative stress and depressive symptomatology among married Mexican immigrant women. *Psychol Women Q.* 1987;11(4):475–88. <https://doi.org/10.1111/j.1471-6402.1987.tb00919.x>.
34. Arredondo P. Creating a pathway for cultural empowerment. *Couns Psychol.* 2016;44(8):1212–35. <https://doi.org/10.1177/0011000016683943>.
35. Mendias EP, Clark MC, Guevara EB. Women's self-perception and self-care practice: implications for health care delivery. *Int J Womens Health.* 2001;22(3):299–312. <https://doi.org/10.1080/07399330120078>.
36. Alegria M, Takeuchi D, Canino G, Duan N, Shrout P, Meng X-L, Vega W, Zane N, Vila D, Woo M, et al. Considering context, place, and culture: the national latino and Asian American study. *Int J Methods Psychiatr Res.* 2004;13:208–20.
37. Williams DR, Yu Y, Jackson JS, Anderson NB. Racial differences in physical and mental health: socioeconomic status, stress, and discrimination. *J Health Psychol.* 1997;2:335–51.
38. Vega WA, Kolody B, Aguilar-Gaxiola S, et al. Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican americans in California. *Arch Gen Psychiatry.* 1998;55(9):771–78.
39. Furukawa T, Kessler R, Slade T, Andrews G. The performance of the K6 and K10 screening scales for psychological distress in the Australian National Survey of Mental Health and Well-Being. *Psychol Med.* 2003;33:357–62.
40. Kessler RC, Berglund P, Demler O, et al. The epidemiology of major depressive disorder: results from the National Comorbidity Survey replication (NCS-R). *JAMA.* 2003;289(23):3095–105. <https://doi.org/10.1001/jama.289.23.3095>.
41. Felix-Ortiz M, Newcomb M, Myers H. A multidimensional measure of cultural identity for latino and Latina adolescents. *Hisp J Behav Sci.* 1994;16:99–115.
42. Muthén B. Statistical and substantive checking in growth mixture modeling. *Psychol Methods.* 2003;8(4):369–77.
43. Berry JW. Immigration, acculturation, and adaptation. *Appl Psychol.* 1997;46:5–34.
44. Schumacker RE, Lomax RG. A beginner's guide to structural equation modeling. 2nd ed. Lawrence Erlbaum Associates; 2004.
45. Baron RM, Kenny DA. The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *J Pers Soc Psychol.* 1986;51:1173–82.
46. Hovey JD. Religion and suicidal ideation in a sample of latin American immigrants. *Psychol Rep.* 1999;85(1):171–7.
47. Cohen S, Wills TA. Stress, social support, and the buffering hypothesis. *Psychol Bull.* 1985;98(2):310–57. <https://doi.org/10.1037/0033-2909.98.2.310>.
48. Finch BK, Kolody B, Vega WA. Perceived discrimination and depression among mexican-origin adults in California. *J Health Soc Behav.* 2000;41:295–313.
49. Brabeck KM, Cardoso JB, Chen T, Bjugstad A, Capps R, Capoverde E, Trull A. Discrimination and PTSD among Latinx immigrant youth: the moderating effects of gender. *Psychol Trauma: Theory Res Pract Policy.* 2022;14(1):11–9. <https://doi.org/10.1037/tra0001126>.
50. Torres L, Rollock D. Acculturative distress among hispanics: the role of acculturation, coping, and intercultural competence. *J Multicult Couns Dev.* 2004;32(3):155–67. <https://doi.org/10.1002/j.2161-1912.2004.tb00368.x>.
51. Cervantes RC, Gattamorta KA, Berger-Cardoso J. Examining difference in immigration stress, acculturation stress and mental health outcomes in six Hispanic/Latino nativity and regional groups. *J Immigr Minor Health.* 2018;21:14–20.
52. Hovey JD, Magaña C. Acculturative stress, anxiety, and depression among Mexican immigrant farmworkers in the Midwest United States. *J Immigr Minor Health.* 2000;2:119–31. <https://doi.org/10.1023/A:1009556802759>.
53. Torres L, Ong AD. A daily diary investigation of latino ethnic identity, discrimination, and depression. *Cultur Divers Ethnic Minor Psychol.* 2010;16(4):561–8. <https://doi.org/10.1037/a0020652>.

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