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Cultural Stress, Parenting Practices, and Mental Health Among Mexican-Origin Mothers and Adolescents: A Dyadic Approach

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Extensive research on the Family Stress Model demonstrated the negative indirect impacts of parental cultural stress on adolescents' mental health via disrupted parenting. However, limited attention has been paid to testing how adolescents' cultural stress could affect parents' mental health through adolescent-reported parenting. According to Family Systems Theory, the family serves as an interdependent system, suggesting that adolescents' cultural stress can spill over and negatively influence parenting and their parents' mental health. Furthermore, prior studies have largely neglected the bidirectional link between parenting and mental health within the Family Stress Model. Thus, this study examined the associations among cultural stress, parenting (i.e., maternal warmth and hostility), and their mental health (i.e., anxiety and depressive symptoms) in mother–adolescent dyads across two waves. Participants included 595 mothers ($M_{age} = 38$) and adolescents (54% female, $M_{age} = 12$) as dyads. The actor-effect results revealed that Mexican-origin mothers' and adolescents' cultural stress at Wave 1 (W1) were related to their own mental health at Wave 2 (W2) via their self-reported parenting at W1. Moreover, mothers' and adolescents' cultural stress at W1 were associated with their self-reported parenting at W2 through their self-reported mental health at W1. Partner-effect results indicated that mothers with higher levels of cultural stress at W1 were likely to report anxiety at W1, which may in turn influence adolescents' perceptions of more maternal hostility at W2. This study provides implications for family-based intervention programs that aim to both foster parenting and promote mental health outcomes in Mexican-origin mothers and their adolescents.

Public Significance Statement

This study examines the associations between cultural stress, parenting, and mental health among Mexican-origin mothers and adolescents over time using actor–partner mediation models. It also explores the bidirectional relationship between parenting and mental health within the framework of the Family Stress Model. The findings have important implications for interventions aimed at improving mental health outcomes for mothers and adolescents while fostering positive parenting practices in the context of cultural stress experiences.

Keywords: family stress model, cultural stress, parenting, mental health, mother–adolescent dyads

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The data are available upon reasonable request from the authors. This article's data will not be deposited. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. The authors declare no competing interests. This research was supported through awards to Su Yeong Kim from the National Science Foundation, Division of Behavioral and Cognitive Sciences (Grants 1651128 and 0956123); National Institute on Minority Health and Health Disparities, National Institutes of Health (Grants 1R21MD012706-01A1 and 3R21MD-012706-02S1); Eunice Kennedy Shriver National Institute of Child Health and Human Development (Grant 5R03HD060045-02); Russell Sage Foundation (Grant 2699); Spencer Foundation (Grant 10023427); Hogg Foundation for Mental Health (Grant JRG-102); and Office of the Vice President for Research and Creative Grant and Special Research Grant from the University of Texas at Austin; College of Natural Sciences Catalyst Grant from the University of Texas at Austin; and Eunice Kennedy Shriver National Institute of Child Health and Human Development grant (Grant 2P2CHD042849-21A1) awarded to the Population Research Center at The University of Texas at Austin.

continued

Cultural stress, defined as stress arising from discriminatory experiences and conflicts between the host culture and immigrant-origin individuals' heritage culture (Lorenzo-Blanco et al., 2016), is prevalent among Latino immigrant families in the United States. In 2020, approximately 40% of Latinos in the United States reported experiencing cultural stress (e.g., being criticized for speaking Spanish in public and called offensive names; Lopez et al., 2018). As the largest subgroup of Latinos in the United States, Mexican immigrant families represent a large, at-risk ethnic minority population whose cultural stress (e.g., discrimination) may negatively impact youth development (A. Benner, 2017; Park et al., 2018). Additionally, in light of the alarming rise in anti-immigrant sentiment in the United States in recent decades (Hooghe & Dassonneville, 2018), exploring the role cultural stress plays in immigrant families is imperative. The recently extended Family Stress Model (FSM) posits that parental cultural stress may negatively impact their youths' mental health outcomes (e.g., depressive symptoms and anxiety) through negative parenting (i.e., hostile interactions, decreased warmth; Calzada et al., 2019; Masarik & Conger, 2017).

Yet, gaps remain in the existing literature on the FSM. First, Family Systems Theory (Cox & Paley, 2003) views the family as an interconnected and interdependent system where the behaviors, emotions, and experiences of one member may affect and are influenced by others in the family. That is to say, adolescents' cultural stress may spill over into parenting (adolescent-reported and mother-reported), potentially impacting their mothers' mental health negatively, as family members mutually influence one another. Indeed, few existing studies investigated how adolescents' cultural stress may influence their mothers' mental health through the mediating role of parenting practices. Second, cultural stressors can negatively affect the dyads of Mexican-origin adolescents and mothers, not only by adversely impacting mental health via disrupting parenting, but also by shaping parenting behaviors and perceptions through their mental health. Thus, it is necessary to account for the bidirectional associations between parenting and mental health within the FSM. To address the limitations mentioned, the present study, applying an actor–partner interdependence model approach and focusing on mother–adolescent dyads, investigates (a) whether mothers' and adolescents' cultural stress may not only indirectly influence their own mental health (i.e., actor effect) through the mediating role of parenting (adolescent-reported and mother-reported), but may also spill over to influence each other's mental health (i.e., partner effect) through parenting (adolescent-reported and mother-reported); and (b) whether mothers' and adolescents' cultural stress may not only indirectly influence mother- and/or adolescent-reported parenting (i.e., actor effect) through the mediating role of mother and/or adolescent mental health, but may also spill over to influence mother- and/or adolescent-reported parenting (i.e., partner effect) through each other's mental health.

Cultural Stress and Mental Health

Actor-Effect Associations Between Cultural Stress and Mental Health

Cultural stressors are detrimental to their own mental health outcomes among adolescents and adult populations (Meca & Schwartz, 2024). For example, prior literature has investigated the actor effects of Mexican-origin mothers' cultural stress on their own mental health. Mexican-origin mothers exposed to high levels of cultural stress are more likely to report greater anxiety, depressive symptoms, and poorer well-being (Nair et al., 2021; Piña-Watson et al., 2015; Preciado & D'Anna-Hernandez, 2017). Moreover, adolescents' experiences of cultural stress (e.g., discrimination) were positively associated with increased internalizing symptoms such as anxiety (Nair et al., 2013) and depressive symptoms (A. D. Benner et al., 2018). Given that mothers' and adolescents' deleterious mental health may put them at risk for worse outcomes later in life (e.g., worsened psychological adjustment and impaired social competence; Clayborne et al., 2019; Preciado & D'Anna-Hernandez, 2017), further investigation on the role of cultural stress on Mexican-origin mothers' and adolescents' mental health is warranted.

Partner-Effect Associations Between Cultural Stress and Mental Health

According to Family Systems Theory (Cox & Paley, 2003), the family is an interdependent system where one family member's experiences can affect other family members through their reciprocal interactions. Thus, mothers' and adolescents' cultural stress may spill over to their interactions with each other to negatively influence each other's mental health. Consequently, previous studies have also begun to identify partner effects between mothers' and adolescents' cultural stress and their mental health (Calzada et al., 2019). Some studies found that parents' discriminatory experiences were associated with Latinx youth's depressive symptoms (Huynh et al., 2021; Park et al., 2018). That is, adolescents who are exposed to or learning about their parents' discriminatory experiences may perceive the world as a more hostile and unchangeable environment, negatively influencing their depressive symptoms.

Adolescents' cultural stress may also spill over to impact their mothers' mental health. When immigrant mothers witness or learn about their adolescents encountering adversity or discrimination from the host culture, they may experience heightened concern and empathy, which can evoke feelings of helplessness, especially if they feel limited in their ability to protect their children from such challenges (Titzmann & Gniewosz, 2018). This sense of shared vulnerability can contribute to increased psychological distress of immigrant mothers, which may negatively impact mothers' mental health outcomes. Indeed, Huynh et al. (2021) found discrimination

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experiences reported by youth (i.e., Latinx, Asian, and European Americans) were positively related to parents' marijuana use. It may be that mothers may be particularly attuned to their adolescents' encounters with discrimination and feel particularly helpless in protecting their children from it, which could result in increased psychological stress and substance use in mothers.

Cultural Stress, Parenting, and Mental Health

Actor-Effect Associations Between Cultural Stress, Parenting, and Mental Health

While there is emerging evidence for actor and partner effects between Mexican-origin mothers' and adolescents' cultural stress and their mental health outcomes (A. Benner, 2017; Piña-Watson et al., 2015), the mechanism through which cultural stress affects mental health outcomes is still understudied. Family functioning (e.g., parenting) may be a potential mediator in the relationship between cultural stress and mental health (Meca & Schwartz, 2024). Prior research has shown that higher levels of maternal cultural stress are related to more mother-reported negative parenting (hostility; Hou et al., 2017) and less positive parenting (warmth; Zeiders et al., 2015), which may in turn worsen mothers' mental health. Indeed, when immigrant mothers are exposed to a variety of cultural stressors, their ability to regulate their emotions is negatively impacted, which makes it more difficult for mothers to exhibit positive parenting toward their children (Hu et al., 2019; Miao et al., 2018). Consequently, Mexican-origin mothers may exhibit more negative parenting (e.g., decreased sensitivity and harsh parenting), which could undermine mothers' confidence in their parenting ability, increase mothers' psychological distress, and thus negatively impact mothers' mental health (Galvan et al., 2022).

The association between Mexican-origin adolescents' cultural stress and their own mental health may also be mediated by parenting. For instance, perceptions of discrimination may influence adolescents' experiences within family contexts, such as their perceptions of parenting (Coll et al., 1996). Past research indicated that adolescents experiencing high levels of discrimination reported decreases in positive parenting (Dotterer & Lowe, 2015). Dotterer and Lowe (2015) posited this may be because adolescents' discriminatory experiences lead to more intense negative arousal, such as negative emotions (Lunkenheimer et al., 2020), potentially causing adolescents to view their parents as less supportive. Less supportive parenting, in turn, is consistently associated with negative mental health in adolescents (Lorenzo-Blanco et al., 2016).

Partner-Effect Associations Between Cultural Stress, Parenting, and Mental Health

Considering the interdependence of mother–adolescent dyads within the family system (Cox & Paley, 2003), mothers' and adolescents' cultural stress may spill over to their interactions (e.g., parenting) with each other to negatively influence each other's mental health. Therefore, it is essential to investigate the associations between cultural stress, parenting, and mental health in a mother–adolescent dyadic context. The Actor–Partner Interdependence Mediation Model (APIMeM; Kenny et al., 2006) is a methodological approach, providing a theoretical foundation to understand mediating effects in a dyadic context as well as to examine the mutual influences of a person's own effects (i.e., actor effect) and a person's variables affecting a partner (i.e., partner effect).

Partner Effects From Mothers' Cultural Stress to Adolescents' Mental Health. The mediating role of parenting has been demonstrated in the link between mothers' cultural stress and adolescents' mental health. Based on the tenets of the FSM (Masarik & Conger, 2017), parents' cultural stress likely impacts compromised family functioning (e.g., increased negative parenting), which can spill over to negatively influence youth mental health (Calzada et al., 2019). Though the FSM has been extensively applied to Mexican-origin families, the spillover effects of mothers' cultural stress on adjustment via parenting practices have been primarily demonstrated for children (Calzada et al., 2019), with few studies on Mexican-origin adolescents. Compared with children, Mexican-origin adolescents from immigrant families are more involved in their family system, often serving as language brokers (Song et al., 2022) and are thus more aware of and more likely to be affected by their mothers' cultural stress (Liu et al., 2011). More importantly, adolescence is a critical developmental period for identity formation (Erikson, 1968) and brain development (Dziura et al., 2023). Given this, understanding the impact of maternal cultural stress on adolescent mental health is essential.

Partner Effects From Adolescents' Cultural Stress to Mothers' Mental Health. Additionally, there are no studies, to our knowledge, examining how Mexican-origin adolescents' cultural stress may impact mothers' mental health through maternal parenting. Based on Family Systems Theory (Cox & Paley, 2003), adolescents' experiences or behaviors may also influence their mothers' parenting practices toward them. Thus, adolescents experiencing high cultural stress may perceive their mothers' behavior and attitudes toward them more negatively (Dotterer & Lowe, 2015). Furthermore, mothers may feel less confident in their parenting ability as their adolescents respond less positively to their parenting, which may negatively influence mothers' mental health (Galvan et al., 2022). The present study included both mother-reported and adolescent-reported maternal warmth and maternal hostility, which allows the present study to account for potential reporting differences between mothers and adolescents and provide a more detailed depiction of parenting practices within mother–adolescent dyads (Hou et al., 2018).

Bidirectionality Between Parenting and Mental Health Within the FSM

The reciprocal associations between parenting and mental health within the FSM were not adequately considered in the past literature. In other words, cultural stress could indirectly influence mental health via parenting, and conversely, cultural stress may also have an indirect effect on parenting via mental health. Past studies have shown the bidirectional relationship between parenting and mental health. For example, mothers experiencing poor mental health are more likely to use harsh parenting (e.g., yelling, verbal hostility), are less likely to utilize positive parenting strategies, and have low-quality interactions with their children (Murry et al., 2022). Given this, it is essential to recognize the bidirectional influences between parenting and mental health in Mexican-origin mothers and adolescents to gain a more comprehensive understanding of the mother–adolescent interplay within the FSM. Building upon the well-established links between cultural stressors and mental health and the bidirectional

associations between mental health and parenting, the present study proposes that both mothers' and adolescents' cultural stress may indirectly influence maternal parenting (mother-reported and adolescent-reported) via their mental health. Additionally, cultural stress may also indirectly affect the mental health of both mothers and adolescents through maternal parenting (mother-reported and adolescent-reported).

Measurements of Cultural Stress

Considering the multidimensional construct of cultural stress (Meca & Schwartz, 2024), the present study operationalized cultural stress as a latent construct encompassing discrimination (ethnic discrimination and ethnic group discrimination) and feelings of disconnection from the United States (e.g., cultural estrangement and foreigner stress). This study included two primary forms of interpersonal discrimination, core aspects of cultural stress, faced by the Mexican-origin population: ethnic discrimination (unfair treatment based on race/ethnicity) and ethnic group discrimination (perceived institutional barriers based on ethnic group membership). Two aspects related to social connectedness of cultural stress were also included: cultural estrangement (i.e., one's feelings of disconnection from the U.S. culture) and foreigner stress (i.e., one's feelings of being perceived as a foreigner because of ethnic minority status or speaking English with an accent; Armenta et al., 2013). These two elements involve the difficulties and challenges related to adapting to a new culture (Romero & Roberts, 2003; Schwartz et al., 2015).

Previous studies have examined cultural stress indicators and mental health, yet they have not specifically addressed both the interpersonal and social connectedness aspects of cultural stress or considered these experiences in a multidimensional way. Discrimination and feelings of disconnection from the U.S. society are common in immigrant families' adaptation process (Sirin et al., 2020). For Mexican-origin adolescents, the increased desire to connect with peers during adolescence can create disconnection stress, especially when peer norms differ from family or cultural values, potentially affecting long-term development. Mexican immigrant mothers, as primary caregivers, may also experience social connection stressors, such as cultural differences, isolation, and lack of extended family support, impacting their mental health. This study, therefore, centers on the interpersonal and social connectedness aspects of cultural stress most relevant to Mexican immigrant mothers and adolescents in their cultural adaptation.

The Present Study

Informed by the FSM (Conger et al., 2010) and Family Systems Theory (Cox & Paley, 2003), this study examined the associations among cultural stress, parenting, and mental health in Mexican-origin mother–adolescent dyads using APIMeM (Kenny et al., 2006). Two actor effects were examined: (a) whether mothers' cultural stress affects their own mental health through mother-reported parenting and (b) whether adolescents' cultural stress affects their own mental health through adolescent-reported parenting. Two partner effects were also examined: (a) whether mothers' cultural stress spills over to negatively impact adolescents' mental health through mother-reported and/or adolescent-reported parenting and (b) whether adolescents' cultural stress spills over to negatively impact mothers' mental health through mother-reported and/or adolescent-reported parenting. Additionally, to test the bidirectionality between parenting and mental health, the present study examines these variables in two sequences at different timepoints (Wave 1 (W1) parenting → Wave 2 (W2) mental health; W1 mental health → W2 parenting). Specifically, the study investigates two APIMeMs: (a) W1 cultural stress → W1 parenting → W2 mental health; (b) W1 cultural stress → W1 mental health → W2 parenting. By examining these associations, the present study contributes to theories (the FSM and Family Systems Theory) by providing a clearer understanding of how cultural stress affects Mexican-origin mothers' and adolescents' mental health within a dyadic context and potential coping strategies for mothers and adolescents.

Method

Participants and Procedure

Data were collected from a two-wave longitudinal study of 604 Mexican-origin families from a metropolitan city in central Texas (W1: 2012–2015; W2: 2013–2016). Participating adolescents in W1 were in sixth to eighth grades with an age range from 11.00 to 15.00 years old. The adolescents included were 54% female ($N = 326$), and 76% ($N = 459$) of the adolescents were born in the United States of the 604 families, and 595 mother–adolescent dyads (adolescents: $M_{age} = 12$ years old, range = 11–15 years old; mothers: $M_{age} = 38$ years old, range = 27–62 years old) were included in the present study. At W1, the majority (81.4%) of the annual household income was $30,001–$40,000 and below (i.e., 9.9% [$10,000 or under $10,000], 22.9% [$10,001–$20,000], 32.8% [$20,001–$30,000], 15.8% [$30,001–$40,000]). Approximately 67% of mothers had the highest educational level of middle school or below; 26.6% attended some high school, completed high school, or received technical/vocational training; and 6.3% completed community college or university. Families were recruited through presentations at schools, public records, and community recruitment efforts. If the parents were of Mexican origin and had an adolescent who translated for at least one of the parents, then the family was qualified for participation. A family visit was scheduled where parents provided informed consent, adolescents provided informed assent, and both parents and adolescents completed questionnaires. The questionnaires were presented in Spanish and English simultaneously, and bilingual interviewers read the questions aloud to the participants in their preferred language while recording the responses on a laptop computer. The English questionnaires were prepared by translating the items to Spanish and then back translating the items to English. Two waves of data were collected using the procedure outlined above. Families were compensated $60 after completing W1 and $90 after completing W2. Procedures were approved by the institutional review board at the University of Texas at Austin.

Measures

Cultural Stress

The measures of cultural stress included ethnic discrimination, perceived ethnic group discrimination, cultural estrangement, and foreigner stress. Indicators for cultural stress were measured separately for mothers and adolescents at W1. *Ethnic discrimination* at W1 used nine items identical to the chronic daily discrimination scale (Kessler et al., 1999) except for the phrase "*because I am*

Mexican": "I am treated with less respect than other people *because I am Mexican.*" The rating scales (i.e., daily and ethnic discrimination) ranged from 1 (*never*) to 4 (*frequently*) with a higher mean score indicating higher levels of cultural stress (ethnic discrimination: α_{mother} = .89; $\alpha_{adolescent}$ = .88). *Perceived ethnic group discrimination* was measured at W1 using three items adopted from a subscale of the Scale of Ethnic Experience (Malcarne et al., 2006), such as "Mexicans are often criticized in the U.S." *Cultural estrangement* was assessed at W1 using four items adapted from the Cultural Estrangement Inventory (Cozzarelli & Karafa, 1998), including items such as "I feel as though most U.S. Americans do not understand me." *Foreigner stress* was assessed at W1 using three items adopted from a previous study (Kim et al., 2018), including items such as "When people look at me, they see a foreigner." The rating scales (i.e., perceived ethnic group discrimination, feeling like a misfit, and foreigner stress) ranged from 1 (*strongly disagree*) to 5 (*strongly agree*) with a higher mean score indicating higher levels of cultural stress (perceived ethnic group discrimination: α_{mother} = .77; $\alpha_{adolescent}$ = .83; cultural estrangement: α_{mother} = .73; $\alpha_{adolescent}$ = .77; foreigner stress: α_{mother} = .71; $\alpha_{adolescent}$ = .77).

Maternal Parenting Practices

Maternal parenting practices (i.e., maternal warmth and maternal hostility) were assessed at W1 and W2 using survey items adapted from the Iowa Youth and Families Project (Conger et al., 1995; Ge et al., 1996). Parenting practices were reported by mothers and adolescents separately. *Maternal warmth* was measured using seven items, including items such as "[Did you] listen carefully to your child's point-of-view (what he/she thinks)?" for mothers and "[Did your mother] let you know she really loves you?" for adolescents. The rating scale ranged from 1 (*never*) to 7 (*always*), with a higher mean score indicating higher levels of maternal warmth (W1: α_{mother} = .79; $\alpha_{adolescent}$ = .91; W2: α_{mother} = .80; $\alpha_{adolescent}$ = .92). *Maternal hostility* was measured using six items, including items such as "[Did you] argue with your child whenever you disagree about something?" for mothers and "[Did your mother] get into a fight or argument with you?" for adolescents. The rating scale ranged from 1 (*never*) to 7 (*always*), with a higher mean score indicating higher levels of maternal hostility (W1: α_{mother} = .83; $\alpha_{adolescent}$ = .84; W2: α_{mother} = .82; $\alpha_{adolescent}$ = .85).

Mental Health

Mental health (i.e., anxiety and depressive symptoms) was measured at W1 and W2, separately for mothers and adolescents. *Depressive symptoms* using 20 items from the Center for Epidemiologic Studies Depression Scale (Radloff, 1997) included items such as "I was bothered by things that I am usually not bothered by." The rating scale ranged from 1 (*rarely or none of the time*) to 4 (*most or all of the time*), with a higher mean score indicating higher levels of depressive symptoms (W1: α_{mother} = .88; $\alpha_{adolescent}$ = .83; W2: α_{mother} = .88; $\alpha_{adolescent}$ = .84). *Anxiety* was measured using four items adopted from prior studies (Reynolds & Richmond, 1997; Spitzer et al., 2006), including items such as "[Have you been] worrying about what is going to happen." The ratings scale ranged from 1 (*not at all*) to 4 (*nearly every day*), with a higher mean score indicating higher levels of anxiety (W1: α_{mother} = .81; $\alpha_{adolescent}$ = .75; W2: α_{mother} = .84; $\alpha_{adolescent}$ = .82).

Covariates

Covariates included in this study were adolescents' age, gender, nativity (U.S.-born or foreign-born), family socioeconomic status (SES), and maternal education level. Family income was reported on an 11-point scale in increments of $10,000 ranging from 1 (*10,000 or under*) to 11 (*110,001 or more*). Maternal education levels were measured using an 11-point scale, ranging from 1 (*no formal schooling*) to 11 (*finished a graduate degree*).

Analysis Plan

All analyses were conducted using Mplus 8.6 (Muthén & Muthén, 1998–2017). Missing data were handled using full information maximum likelihood estimation. First, two sets of latent confirmatory factor analyses, including four indicators (i.e., *ethnic discrimination*, *perceived ethnic group discrimination*, *cultural estrangement*, and *foreigner stress*), were conducted separately for mothers and adolescents. Second, the direct associations between cultural stress and mental health and between cultural stress and parenting were examined in Mexican-origin mothers and adolescents. Third, the APIMeM was utilized to test the mediating role of parenting in the association between cultural stress and mental health and to investigate the mediating role of mental health in the link between cultural stress and parenting within Mexican-origin mother–adolescent dyads. A total of four APIMeM models were tested with each examining maternal warmth and maternal hostility separately. The significant pathways in the APIMeM were evaluated using a bootstrapping technique with 5,000 samples. Bootstrapped 95% confidence intervals (CI) excluding zero indicated that the effect and parameters were statistically significant. The correlation and descriptive information among key study variables are presented in Supplemental Table S1. Study materials and analysis codes are available upon request.

Transparency and Openness

The data are available upon reasonable request from the authors.

Results

Measurement Model of Cultural Stress

The measurement model for mothers' cultural stress demonstrated good model fit: $\chi^2(2)$ = .24, p = .64, root-mean-square error of approximation = .03, 90% CI [.00, .09], comparative fit index) = 1.00. The factor loadings of the latent maternal cultural stress were .57 (ethnic discrimination), .46 (foreigner stress), .48 (cultural estrangement), and .49 (ethnic group discrimination). The measurement model for adolescents' cultural stress also indicated good model fit: $\chi^2(1)$ = 2.7, p = .35, root-mean-square error of approximation = .05, 90% CI [.00, .13], comparative fit index = 1.00. The factor loadings of the latent adolescent cultural stress were .52 (ethnic discrimination), .69 (foreigner stress), .79 (cultural estrangement), and .37 (ethnic group discrimination).

Cultural Stress and Mental Health

Significant direct links without mediators were observed between W1 cultural stress profiles and W2 mental health among Mexican-origin mothers and adolescents. For *actor effects*, mothers with higher levels of cultural stress at W1 tended to report higher levels of anxiety ($\beta = .37$, $p < .001$) and depressive symptoms ($\beta = .29$, $p < .001$) at W2. Similarly, adolescents experiencing higher levels of cultural stress at W1 are more likely to report increased levels of anxiety ($\beta = .24$, $p < .001$) and depressive symptoms ($\beta = .25$, $p < .001$) at W2. No partner effects were observed.

Cultural Stress, Parenting, and Mental Health

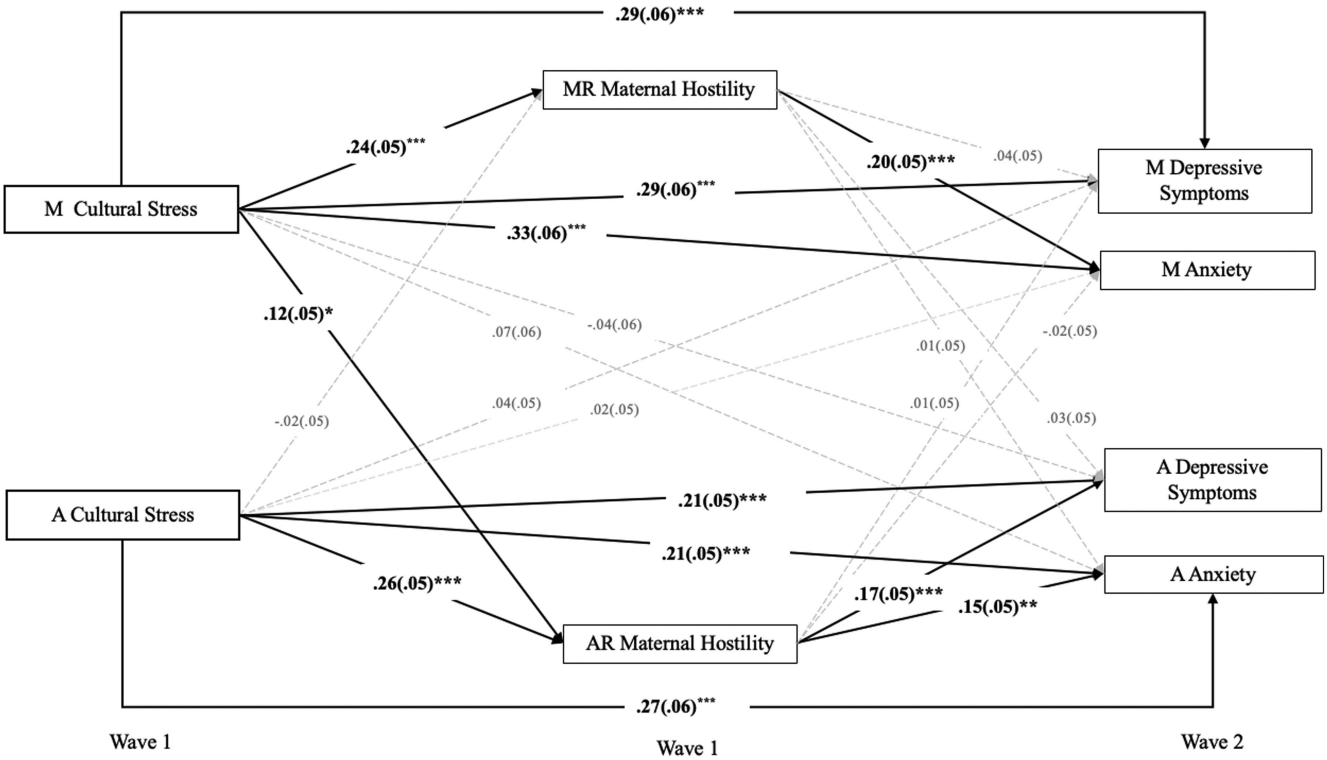
In the mediation models (cultural stress → parenting → mental health), significant direct associations between W1 cultural stress and W1 parenting were observed (Figures 1 and 2). For *actor effects*, mothers experiencing high levels of cultural stress tend to report more hostility ($\beta = .24$, $p < .001$; Figure 1). Adolescents with higher levels of cultural stress tend to perceive more maternal hostility ($\beta = .26$, $p < .001$; Figure 1) and less maternal warmth ($\beta = -.17$, $p = .002$; Figure 2). For partner effects, when mothers experience high cultural stress, adolescents are more likely to perceive more maternal hostility ($\beta = .12$, $p = .046$; Figure 1) from mother–child interactions. Other pathways linking cultural stress to parenting within mother–adolescent dyads were nonsignificant.

Additionally, significant direct associations between W1 parenting and W2 mental health were observed. The *actor-effect* result with mother-reported hostility reveals that mothers with higher levels of hostility were likely to report higher levels of maternal anxiety ($\beta = .20$, $p < .001$; Figure 1). The actor-effects results with adolescent-reported maternal hostility (Figure 1) show that adolescents perceiving higher levels of hostility were more likely to have higher depressive symptoms ($\beta = .17$, $p < .001$) and anxiety ($\beta = .15$, $p = .002$). For adolescent-reported maternal warmth (Figure 2), adolescents perceiving higher levels of W1 maternal warmth were more likely to have lower levels of W2 depressive symptoms ($\beta = -.26$, $p < .001$) and anxiety ($\beta = -.15$, $p = .002$). These findings suggest that positive parenting may be beneficial to adolescent mental health, whereas negative parenting (i.e., hostility) may be harmful to both adolescent and maternal mental health. The partner effects and other associations between W1 parenting and W2 mental health were not significant.

The Mediating Role of Parenting

Maternal Hostility. The mediating role of W1 maternal hostility emerged in the link between W1 cultural stress and W2 mental

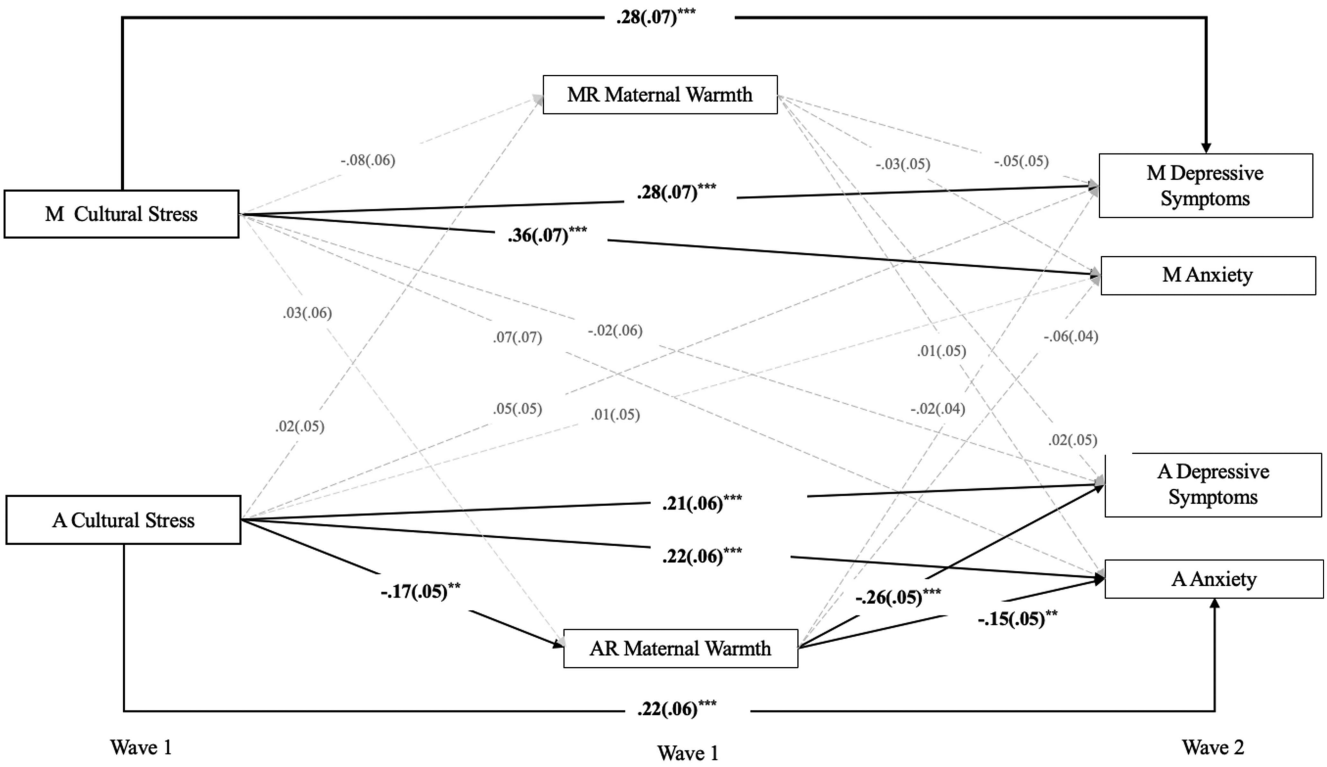
Figure 1
The Mediating Role of Maternal Hostility in the Link Between Cultural Stress and Mental Health



Note. Standardized coefficients with standard errors are presented. Coefficients presented in bold indicate statistically significant paths. M = mother; A = adolescent; MR = mother-reported; AR = adolescent-reported.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Figure 2

The Mediating Role of Maternal Warmth in the Link Between Cultural Stress and Mental Health



Note. Standardized coefficients with standard errors are presented. Coefficients presented in bold indicate statistically significant paths. M = mother; A = adolescent; MR = mother-reported; AR = adolescent-reported.
** $p < .01$. *** $p < .001$.

health, separately for mothers and adolescents (Table 1). In mothers, the actor-effect results reveal that mothers' high cultural stress at W1 was positively related to mothers' anxiety at W2 through their self-reported hostility at W1 ($\beta = .05$, $p = .005$). Specifically, mothers experiencing high levels of cultural stress tend to engage in more hostile parenting at W1, which in turn contributes to higher levels of maternal anxiety at W2. In adolescents, indirect actor effects were found in the association between W1 cultural stress and W2 mental health. Adolescents' cultural stress at W1 was positively associated with adolescents' depressive symptoms ($\beta = .05$, $p = .003$) and anxiety ($\beta = .04$, $p = .01$) at W2 through adolescent-reported maternal hostility at W1. Specifically, adolescents experiencing more cultural stress at W1 tend to perceive more maternal hostility at W1, which may consequently increase their anxiety and depressive symptoms at W2. No indirect partner effects were observed.

Maternal Warmth. In adolescents, indirect actor effects were observed in the links between W1 adolescents' cultural stress and W2 mental health through adolescent-reported maternal warmth (anxiety: $\beta = .02$, $p = .03$; depressive symptoms: $\beta = .04$, $p = .006$; Table 2). Specifically, adolescents with higher levels of cultural stress tend to perceive less maternal warmth at W1, which may consequently increase their anxiety and depressive symptoms at W2. No mediating effects of warmth were found in the associations between cultural stress and mothers' mental health, nor were any mediating effects of warmth observed in the partner-effect associations.

Cultural Stress and Parenting

Significant direct links without mediators were observed between W1 cultural stress profiles and W2 parenting among Mexican-origin mothers and adolescents. Specifically, the results of actor effects show that mothers reporting higher levels of cultural stress at W1 tend to have high levels of hostility ($\beta = .27$, $p < .001$) at W2. In adolescents, adolescents reporting high cultural stress at W1 tend to perceive less maternal warmth ($\beta = -.14$, $p = .008$) and more maternal hostility ($\beta = .26$, $p < .001$) at W2. No partner effects were observed.

Cultural Stress, Mental Health, and Parenting

In the mediation models (cultural stress → mental health → parenting), significant direct associations between W1 cultural stress profiles and W1 mental health were observed (Figures 3 and 4). For actor effects, mothers with high levels of cultural stress at W1 were positively associated with their own anxiety ($\beta = .47$, $p < .001$) and depressive symptoms ($\beta = .44$, $p < .001$) at W1. Similarly, adolescents with higher levels of cultural stress at W1 were positively associated with their own anxiety ($\beta = .45$, $p < .001$) and depressive symptoms ($\beta = .39$, $p < .001$) at W1. No partner effects were observed between W1 cultural stress and W1 mental health within mother–adolescent dyads.

Table 1
The Mediating Role of Maternal Hostility in the Link Between Cultural Stress and Mental Health

Mediation pathway	Indirect β [95% CI]	Direct β [95% CI]	Total β [95% CI]
Actor effects			
W1 M cultural stress → W2 M anxiety	**.05**** [.02, .07]	**.33***** [.22, .45]	**.38***** [.27, .48]
W1 M cultural stress → W1 MR maternal hostility → W2 M anxiety	**.05**** [.02, .07]		
W1 M cultural stress → W1 AR maternal hostility → W2 M anxiety	−.002 [−.02, .01]		
W1 A cultural stress → W2 A anxiety	**.04*** [.01, .07]	**.21***** [.11, .31]	**.25***** [.15, .35]
W1 A cultural stress → W2 A anxiety	**.04*** [.01, .07]		
W1 A cultural stress → W1 MR maternal hostility → W2 A anxiety	.000 [−.002, .002]		
W1 A cultural stress → W2 A depressive symptoms	**.04**** **[.02, .07]**	**.21***** [.11, .31]	**.25***** [.15, .35]
W1 A cultural stress → W1 AR maternal hostility → W2 A depressive symptoms	**.05**** **[.02, .07]**		
W1 A cultural stress → W1 MR maternal hostility → W2 A depressive symptoms	−.001 [−.004, .003]		
Partner effects			
W1 M cultural stress→ W2 A anxiety	.02 [−.01, .05]	.07 [−.05, .18]	.09 [−.02, .20]
W1 M cultural stress → W1 AR maternal hostility → W2 A anxiety	**.02**+ [.00, .04]		
W1 M cultural stress → W1 MR maternal hostility → W2 A anxiety	.003 [−.02, .03]		
W1 M cultural stress → W2 A depressive symptoms	**.03**+ [.001, .06]	−.04 [−.16, .08]	−.01 [−.12, .10]
W1 M cultural stress → W1 AR maternal hostility → W2 A depressive symptoms	**.02**+ [.001, .04]		
W1 M stress → W1 MR maternal hostility → W2 A depressive symptoms	.01 [−.01, .03]		

Note. Standardized coefficients of significant indirect paths are presented. Coefficients presented in bold indicate statistically significant paths. The model fit was acceptable, $\chi^2(109) = 246.31$, $p < .01$, CFI = .90, RMSEA = .050, 90% CI [.04, .05], SRMR = .04. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; CI = confidence interval; W1 = Wave 1; M = mother; W2 = Wave 2; MR = mother-reported; AR = adolescent-reported; A = adolescent.
$^{+}p > .05$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Additionally, significant direct associations between W1 mental health and W2 parenting were observed. Specifically, the actor-effect results of Mexican-origin mothers reveal that W1 mother anxiety was positively associated with mother-reported hostility (β = .18, p = .003; Figure 3). Adolescent depressive symptoms were positively associated with adolescent-reported maternal hostility (β = .30, $p < .001$; Figure 3) but negatively linked to adolescent-reported maternal warmth (β = −.36, $p < .001$; Figure 4). Furthermore, a positive partner effect was observed between W1 maternal anxiety and W2 adolescent-reported maternal hostility (β = .15, p = .01; Figure 3), suggesting that maternal anxiety may relate to adolescents perceiving heightened levels of hostile parenting later.

The Mediating Role of Mental Health

Maternal Mental Health. For actor effects, mother's mental health functioned as a mediator in the indirect association between W1 cultural stress and W2 mother-reported hostility (Table 3). Mothers experiencing high cultural stress at W1 are more likely to report hostility in their parenting at W2 through their increased anxiety at W1 (β = .08, p = .007). That is, mothers with higher levels of *cultural stress* tend to have more anxiety at W1, which may result in more hostile parenting toward their children at W2.

For partner effects, there was an indirect association between W1 mothers' cultural stress and W2 adolescent-reported maternal hostility, mediated by W1 maternal anxiety (Table 3). Mothers

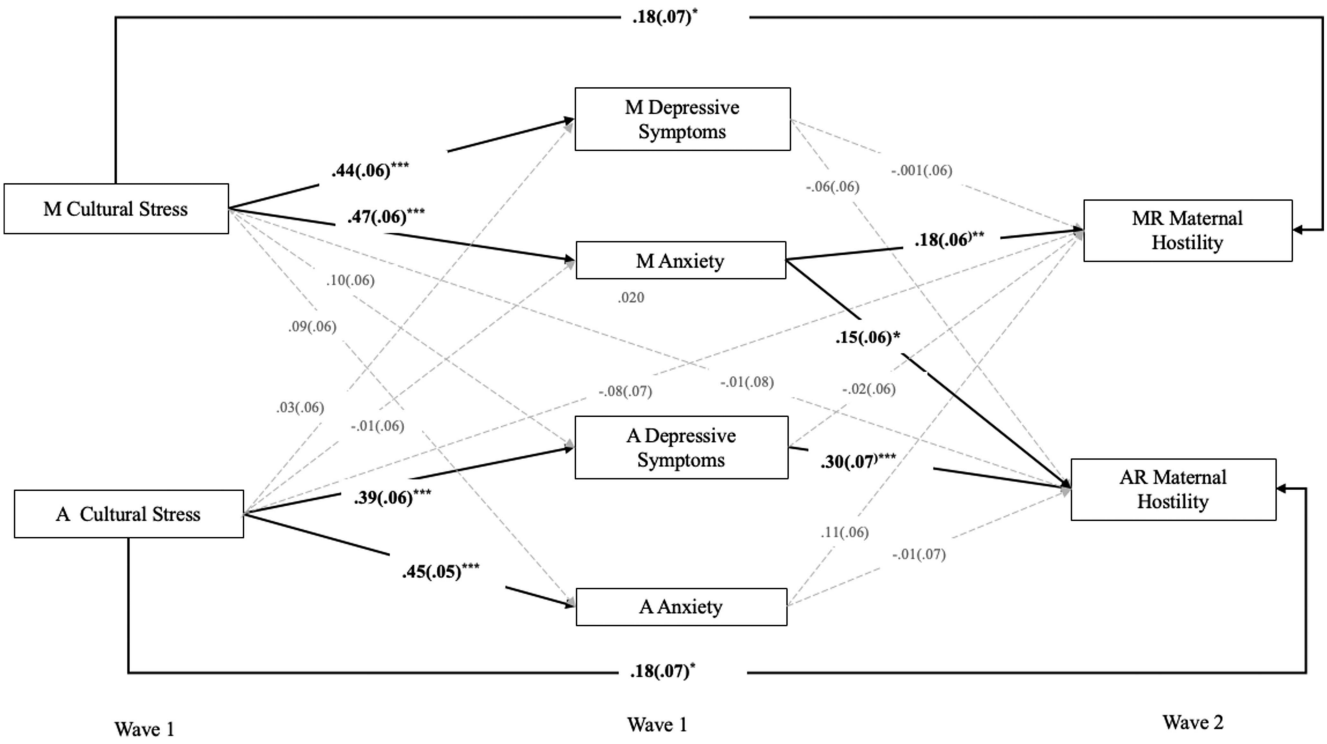
Table 2
The Mediating Role of Maternal Warmth in the Link Between Cultural Stress and Mental Health

Mediation pathway	Indirect β [95% CI]	Direct β [95% CI]	Total β [95% CI]
Actor effects			
W1 A cultural stress → W2 A anxiety	**.02*** [.002, .05]	**.22***** [.10, .34]	**.24***** [.13, .36]
W1 A cultural stress → W1 AR maternal warmth → W2 A anxiety	**.02*** [.002, .05]		
W1 A cultural stress → W1 MR maternal warmth → W2 A anxiety	.000 [−.01, .01]		
W1 A cultural stress → W2 A depressive symptoms	**.04**** [.01, .07]	**.21***** [.10, .32]	**.25***** [.14, .37]
W1 A cultural stress → W1 AR maternal warmth → W2 A depressive symptoms	**.04**** [.01, .07]		
W1 A cultural stress → W1 MR maternal warmth → W2 A depressive symptoms	.001 [−.01, .01]		

Note. Standardized coefficients of significant indirect paths are presented. Coefficients presented in bold indicate statistically significant paths. The model fit was very good, $\chi^2(109) = 215.68$, $p < .01$, CFI = .92, RMSEA = .04, 90% CI [.03, .05], SRMR = .04. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; CI = confidence interval; W1 = Wave 1; A = adolescent; W2 = Wave 2; AR = adolescent-reported; MR = mother-reported.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Figure 3

The Mediating Role of Mental Health in the Link Between Cultural Stress and Maternal Hostility



Note. Standardized coefficients with standard errors are presented. Coefficients presented in bold indicate statistically significant paths. M = mother; A = adolescent; MR = mother-reported; AR = adolescent-reported.
* $p < .05$. ** $p < .01$. *** $p < .001$.

reporting high cultural stress at W1 are more likely to show W2 adolescent-reported hostility through maternal anxiety symptoms at W1 ($\beta = .07$, $p = .02$). These findings indicate that high cultural stress experienced by mothers may relate to more anxiety, which potentially leads to increased perceptions of hostility in parent–child interactions from their children's standpoint.

Adolescent Mental Health. For actor effects, adolescent mental health functioned as a mediator in the indirect links between W1 cultural stress and W2 adolescent-reported maternal hostility (Table 3). Specifically, adolescents with higher levels of cultural stress at W1 were more likely to show adolescent-reported hostility at W2 through their depressive symptoms ($\beta = .12$, $p < .001$) at W1. That is, adolescents with higher *levels of cultural stress* tend to have more depressive symptoms at W1, which may increase their perceptions of maternal hostility at W2.

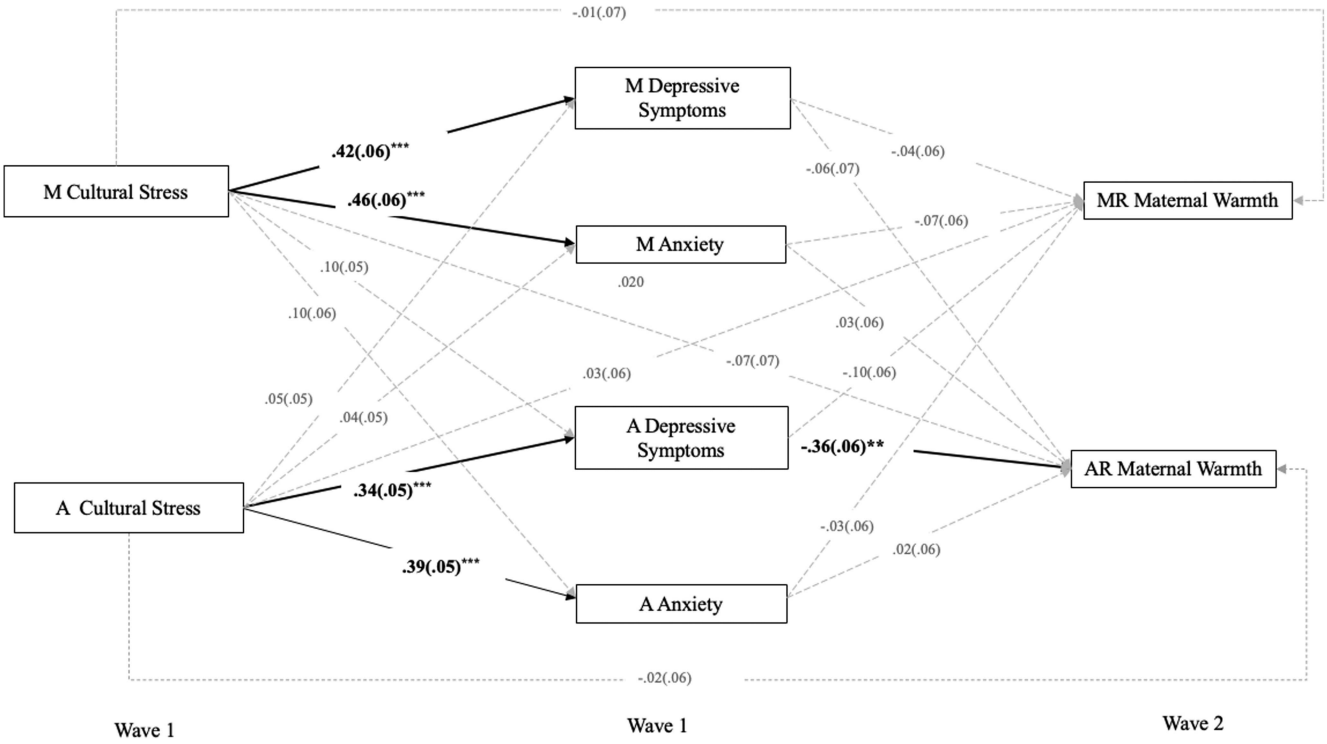
Additional actor effects were found in the indirect association between W1 cultural stress and W2 adolescent-reported maternal warmth (Table 4). Specifically, adolescents with high cultural stress at W1 were more likely to show lower adolescent-reported warmth at W2 through their depressive symptoms ($\beta = -.12$, $p < .001$) at W1. In other words, adolescents reporting higher levels of cultural stress tend to have more depressive symptoms at W1, which may consequently undermine their perceptions of maternal warmth at W2. No partner effects of warmth as a mediator were found in the indirect associations between cultural stress and parenting.

Discussion

Cultural stress is consistently associated with poor mental health outcomes in Mexican-origin mothers and adolescents (Calzada et al., 2019; Martin Romero et al., 2022). Despite this, the investigation of multidimensional aspects of cultural stress indicators and the mechanisms through which cultural stress impacts individuals' mental health among mother–adolescent dyads, as well as the bidirectional associations between parenting and mental health within the FSM, are understudied (Park et al., 2018). Contributing to the theoretical frameworks of the FSM (Conger et al., 2010) and Family Systems Theory (Cox & Paley, 2003), this study advances the literature by examining the mediating role of parenting (i.e., maternal warmth and maternal hostility) in the association between cultural stress and mental health and by investigating the mediating role of mental health in the link between cultural stress and parenting within mother–adolescent dyads, utilizing APIMeMs. Results demonstrated the mediating role of parenting in the link between W1 cultural stress and W2 mental health, as well as the mediating role of mental health in the association between W1 cultural stress and W2 parenting within mother–adolescent dyads. These findings suggest

Figure 4

The Mediating Role of Mental Health in the Link Between Cultural Stress and Maternal Warmth



Note. Standardized coefficients with standard errors are presented. Coefficients presented in bold indicate statistically significant paths. M = mother; A = adolescent; MR = mother-reported; AR = adolescent-reported.
** $p < .01$. *** $p < .001$.

the bidirectional associations between parenting and mental health within the FSM. Future interventions are encouraged to focus on family-centered and dyadic approaches to addressing cultural stress, promotive positive parenting as well as improving mental health outcomes among Mexican-origin families.

Pathways of Cultural Stress, Parenting Practices, and Mental Health

In line with prior studies (Piña-Watson et al., 2015; Preciado & D'Anna-Hernandez, 2017), this study finds actor effects, where mothers' and adolescents' cultural stress at W1 is negatively associated with their own mental health (i.e., anxiety and depressive symptoms) at W2. These findings contribute to past literature on cultural stress (Meca & Schwartz, 2024) by utilizing a multidimensional perspective on cultural stress (i.e., ethnic discrimination, group ethnic discrimination, cultural estrangement, and foreigner stress) to capture the adverse impacts of cultural stress on the mental health outcomes of immigrant-origin mothers and their children. Moreover, these results underscore the importance of addressing and mitigating cultural stress within Mexican-origin families to promote their overall well-being.

Contrary to prior studies (Huynh et al., 2021; Park et al., 2018), this research did not identify partner effects in the associations between cultural stress and mental health within mother–adolescent dyads. One possible reason is that previous research focused solely on the effects of discrimination (e.g., Huynh et al., 2021; Park et al., 2018), whereas this study primarily focused on investigating multidimensional aspects of cultural stress by employing a latent construct. Future studies are encouraged to investigate individual dimensions of cultural stress to better understand the nuanced influences of each cultural stress within the model (Meca et al., 2019). Additionally, the nonsignificant partner effect may suggest the presence of an underlying mechanism not tested in the current investigation within the interdependent family system, highlighting an area for further exploration (e.g., identity development and family functioning; Meca & Schwartz, 2024).

The Mediating Role of Parenting

Building upon the existing literature, our actor-effect findings reveal that maternal hostility plays a mediating role in the link between cultural stress and mental health among Mexican-origin mothers. Indeed, mothers experiencing higher levels of cultural stress may engage in more negative parenting (White et al., 2009), leading to less positive interactions with their children. This, in turn, may undermine mothers' confidence in their parenting ability, subsequently negatively impacting maternal mental health (Epkins & Harper, 2016). Further, the results of indirect actor effects in Mexican-origin adolescents highlight the role of cultural stress (e.g., discrimination) and family process (e.g., parenting) in child development (Coll et al., 1996). This aligns with findings that higher

Table 3

The Mediating Role of Mental Health in the Link Between Cultural Stress and Maternal Hostility

Mediation pathway	Indirect β [95% CI]	Direct β [95% CI]	Total β [95% CI]
Actor effects			
W1 M cultural stress → W2 MR maternal hostility	**.09**** [.03, .16]	**.18**** [.03, .33]	**.28***** [.16, .40]
W1 M cultural stress → W1 M depressive symptoms → W2 MR maternal hostility	−.001 [−.06, .05]		
W1 M cultural stress → W1 M anxiety → W2 MR maternal hostility	**.08**** [.02, .15]		
W1 M cultural stress → W1 A depressive symptoms → W2 MR maternal hostility	.002 [−.01, .01]		
W1 M cultural stress → W1 A anxiety → W2 MR maternal hostility	.01 [−.01, .03]		
W1 A cultural stress → W2 AR maternal hostility	**.11***** [.06, .18]	**.18*** [.10, .30]	**.29***** [.19, .40]
W1 A cultural stress → W1 A depressive symptoms → W2 AR maternal hostility	**.12***** [.07, .17]		
W1 A cultural stress → W1 A anxiety → W2 AR maternal hostility	−.002 [−.05, .05]		
W1 A cultural stress → W1 M depressive symptoms → W2 AR maternal hostility	−.002 [−.01, .01]		
W1 A cultural stress → W1 M anxiety → W2 AR maternal hostility	−.001 [−.02, .01]		
Partner effects			
W1 M cultural stress → W2 AR maternal hostility	**.07*** [.01, .14]	−.01 [−.15, .15]	.07 [−.04, .18]
W1 M cultural stress → W1 M depressive symptoms → W2 AR maternal hostility	−.03 [−.07, .02]		
W1 M cultural stress → W1 M anxiety → W2 AR maternal hostility	**.07*** [.02, .13]		
W1 M cultural stress → W1 A depressive symptoms → W2 AR maternal hostility	.03 [−.002, .13]		
W1 M cultural stress → W1 A anxiety → W2 AR maternal hostility	.00 [−.01, .01]		

Note. Standardized coefficients of significant indirect paths are presented. Coefficients presented in bold indicate statistically significant paths. The model fit was satisfactory, $\chi^2(120) = 262.68$, $p < .01$, CFI = .91, RMSEA = .05, 90% CI [.04, .05], SRMR = .04. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; CI = confidence interval; W1 = Wave 1; M = mother; W2 = Wave 2; MR = mother-reported; A = adolescent; AR = adolescent-reported.
* $p < .05$. ** $p < .01$. *** $p < .001$.

levels of cultural stress (e.g., discrimination) may facilitate youth's negative perceptions of maternal parenting (Dotterer & Lowe, 2015), which may then result in increased adolescent depressive symptoms and anxiety (Lorenzo-Blanco et al., 2016). Overall, this study contributes to the literature on cultural stress in Mexican immigrant families (Meca & Schwartz, 2024) by being among the first to examine the mediating role of parenting in the relationship between mothers' and adolescents' cultural stress and their own mental health by considering dyads of Mexican-origin mothers and adolescents.

Echoing the FSM (Masarik & Conger, 2017), the partner-effect results demonstrate that when their mothers experience higher cultural stress at W1 (Borre & Kliewer, 2014; Miao et al., 2018), adolescents are likely to perceive more hostile parenting at W1. In turn, the more negative maternal parenting adolescents perceive at W1, the more likely they are to exhibit higher levels of depressive symptoms and anxiety at W2 (Calzada et al., 2019; Galvan et al., 2022; Thomas et al., 2018; Zeiders et al., 2015). These findings align with the broader literature on the FSM, which suggests that cultural stress, such as discrimination, may trigger negative emotion, mental exhaustion, and heightened reactivity to adverse life events (Murry et al., 2022). These results also imply that adolescents may be sensitive to their mothers' cultural stress, which can subsequently affect their mental well-being through their perceptions of how they are being parented. Nonetheless, it is important to note that the indirect effects between mothers' cultural stress and mental health were only marginally significant when adolescent-reported maternal

Table 4

The Mediating Role of Mental Health in the Link Between Cultural Stress and Maternal Warmth

Mediation pathway	Indirect β [95% CI]	Direct β [95% CI]	Total β [95% CI]
Actor effects			
W1 A cultural stress → W2 AR maternal warmth	**−.12***** [−.18, −.05]	−.02 [−.14, .11]	**−.13*** [−.25, −.01]
W1 A cultural stress → W1 A depressive symptoms → W2 AR maternal warmth	**−.12***** [−.18, −.07]		
W1 A cultural stress → W1 A anxiety → W2 AR maternal warmth	−.07 [−.04, .06]		
W1 A cultural stress → W1 M depressive symptoms → W2 AR maternal warmth	−.003 [−.02, .01]		
W1 A cultural stress → W1 M anxiety → W2 AR maternal warmth	.001 [−.01, .01]		

Note. Standardized coefficients of significant indirect paths are presented. Coefficients presented in bold indicate statistically significant paths. The model fit was good, $\chi^2(107) = 249.05$, $p < .01$, CFI = .91, RMSEA = .05, 90% CI [.04, .06], SRMR = .04. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; CI = confidence interval; W1 = Wave 1; A = adolescent; W2 = Wave 2; AR = adolescent-reported; M = mother.
* $p < .05$. *** $p < .001$.

hostility was included as the intervening mechanism. This may suggest that other potential mediators in the pathway between cultural stress and mental health may be at play. Future research should examine additional mediators, such as parent–child conflict (Lee et al., 2024) or identity development (Meca et al., 2022).

In contrast to the hypothesis, no significant partner effects were observed from adolescents' cultural stress to maternal parenting and mothers' mental health outcomes. This may be because parents are not consistently aware of their adolescents' cultural stress (Park et al., 2018). Adolescents may choose not to share these experiences to avoid placing an additional burden on their parents. Furthermore, a lack of communication may also contribute to this reluctance, leading adolescents to shoulder the weight themselves. Consequently, adolescents' cultural stress is less likely to influence their mothers' parenting and mental health. Our findings have identified potential preventive intervention targets for Mexican American parents and youth. Specifically, we offer guidance on the complexities of racial discrimination for developmental processes among Mexican American youth, demonstrating potential sequences in which exposure to cultural stress (e.g., discrimination) may have the propensity to affect later development and adjustment.

Pathways of Cultural Stress, Mental Health, and Parenting

This study is among the first to examine the bidirectional associations between parenting and mental health within mother–adolescent dyads under the FSM, specifically investigating whether mental health mediates the relationship between cultural stress and parenting in the context of the family system. Findings on indirect actor effects reveal that mothers experiencing elevated cultural stress tend to report higher levels of anxiety, which in turn is associated with greater mother-reported hostility. In parallel, adolescents facing high cultural stress may exhibit increased depressive symptoms, adversely influencing their perceptions of maternal warmth/hostility. Integrating the actor-effect findings across pathways from cultural stress to parenting and mental health, these results provide critical evidence for bidirectional associations between parenting and mental health. That is, mothers' or adolescents' cultural stress may spill over into one's own self-reported parenting, subsequently influencing their own mental health independently, or they may individually impact their own mental health first and then spill over into one's own self-reported parenting later.

The findings on indirect partner effects indicate that mothers experiencing high levels of cultural stress may report increased anxiety, potentially leading to adolescents perceiving their parenting as more hostile. This complements the marginally significant indirect partner effect from mothers' cultural stress to adolescents' mental health through adolescent-reported maternal hostility. Taken together, these findings underscore the importance of examining the links from Mexican-origin mothers' cultural stress to adolescents' mental health from a family systems perspective, which provides strong evidence for the bidirectional relationship between parenting and mental health within the FSM. This indicates that mothers' cultural stress can spill over, detrimentally impacting either adolescent-reported hostility or mothers' anxiety within mother–adolescent dyads. Future intervention programs aimed at strengthening coping strategies for reducing Mexican-origin mothers' and adolescents' cultural stress could potentially improve both positive parenting and mental health. Additionally, the present study solely considers the bidirectional dynamics between parenting and mental health, leaving the potential bidirectionality of cultural stress unexamined in the models. Investigating the reciprocal links among cultural stress, parenting, and mental health in future studies—possibly using methods like the Cross-Lagged Panel Model (Zyphur et al., 2020)—could deepen our understanding of the dynamics among key variables within the FSM.

Limitations and Directions for Future Research

Despite the advances in the present study, some limitations are worth noting. First, the study's participants of Mexican-origin mothers and adolescents were of low SES and were all from Central Texas, where there is a high concentration of Latinos. The generalizability of our findings may be limited as study findings may not apply to Mexican-origin families of high SES or in areas with a low concentration of Latinos. Future studies should focus on Mexican-origin populations of different SES and in different areas of the United States. Second, this study has a limited scope of parenting practices by examining maternal warmth and hostility only. Future studies should expand the scope of parenting to include other important parenting indices, such as inductive reasoning and cultural socialization in Mexican-origin families (Kim et al., 2019), to further uncover the mechanisms between cultural stress and mental health outcomes in Mexican-origin families. Third, this study only focuses on Mexican-origin mothers and adolescents, neglecting the significance of fathers' involvement in adolescent outcomes (Gassman-Pines & Skinner, 2018). Future studies are encouraged to investigate the relationships between cultural stress, parenting practices, and mental health outcomes within father–adolescent dyads. Last, this study was limited to only two waves of data. Future research should aim to employ multiwave longitudinal studies to gain a more comprehensive understanding of these associations. Furthermore, this study did not include objective measures of parenting, which may limit the ability to fully capture maternal parenting. Future research could benefit from utilizing observational/experimental approaches to provide a more comprehensive understanding of the parent–adolescent interactions within the context of cultural stress (Hou et al., 2018). Additionally, this study is limited by not fully examining the multidimensional aspects of cultural stress, such as bicultural stress (Meca & Schwartz, 2024), into the latent construct of cultural stress measurement. Future research should expand on these dimensions to capture the construct of cultural stress more comprehensively.

Conclusion

The present study builds upon past literature by investigating the influence of cultural stress on mental health via parenting among Mexican-origin mother–adolescent dyads. By applying the APIMeMs, this study underscores the importance of considering the dyadic relationship among mothers' and adolescents' cultural stress, parenting, and their mental health outcomes. These findings have important implications for interventions and programs that aim to benefit the mental health outcomes among mothers and adolescents while enhancing positive parenting practices and promoting parent–child interactions in the context of cultural stress experiences.

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