Sociocultural Influences on the Association Between Negative Romantic Experiences and Psychological Maladjustment in Mexican Adolescents

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The goal of this study was to examine whether cultural values (familismo, female virginity) and gender moderated the associations between negative romantic experiences and psychological maladjustment (depressive, anxiety symptoms) in a sample of Mexican adolescents. Self-report survey data were collected from 973 adolescents (M = 15.14 years old; 56% girls) in Mexico. Findings revealed more depressive and anxiety symptoms among adolescents who reported more negative romantic experiences. These associations were stronger for female adolescents reporting greater beliefs of familismo and female virginity. Mental health practitioners may consider negative romantic experiences and cultural values when working with Mexican adolescents.

Mexican adolescents suffer from a high prevalence of untreated mental health problems (Benjet, Borges, Medina-Mora, Zambrano, & Aguilar-Gaxiola, 2009), which often leads to high rates of suicidal ideation, substance abuse, and risky behaviors (Cheref et al., 2015; Waller et al., 2006). In adolescence, negative romantic experiences (i.e., rejection, betrayal, jealousy, conflict, lack of intimacy) have been linked to psychological maladjustment. However, most of these studies have been conducted in the United States (Moosmann & Roosa, 2015). No studies, to the best of our knowledge, have examined this relationship with adolescents in Mexico, a country that has strong gender and cultural norms regarding dating and low access to mental health services for adolescence (Benjet et al., 2009; Halgunseth, Espinosa-Hernandez, & Van Duzor, 2014; Tatum, 2014). This study adds to the literature on adolescent romantic relationships by investigating aspects of Mexican culture (i.e., familismo, views of female virginity) that may exacerbate or buffer the association between negative romantic experiences and mental health problems among male and female Mexican youth.

Adolescents’ meaning-making of romantic experiences and their implications for adolescent psychological adjustment depends largely on the context in which adolescents are embedded (Collins, 2003; Helms, Supple, & Proulx, 2011; Huston, 2000). In Mexico, cultural values such as familismo (i.e., family obligation and loyalty) and the importance of female virginity (i.e., no female sexual activity until marriage) are strongly endorsed and shape the unique familial expectations, pressures, and practices that adolescents in Mexico experience, such as seeking approval (permiso) from families before entering into a dating relationship (Espinosa-Hernandez, Vasilenko, & Bámaca-Colbert, 2016; Halgunseth et al., 2014; Raffaelli & Ontai, 2004). However, little is known about the roles these cultural values play in the psychological adjustment of Mexican adolescents who experience negative romantic relationships.

Why Study Mexican Adolescents?

Mexico provides an important context from which to study adolescent romantic relationships and adolescent adjustment. Compared to the United States,
Mexico provides lower access to mental health services for adolescents (Benjet et al., 2009). Also, Mexico endorses strong cultural, gender, and age norms regarding dating and marriage starting in adolescence (Halgunseth et al., 2014). La quinceañera or los quince años is a widely practiced tradition in Mexico in which girls who turn 15 are presented formally to society as eligible for marriage (Tatum, 2014). Societal and familial pressure to date and get married is stronger for adolescents in Mexico than in the United States, and adolescent dating in Mexico is often expected to end in marriage, particularly for females (Halgunseth et al., 2014; Raffaelli, Kang, & Guarini, 2012). Thus, it is possible that Mexican adolescents may become especially distressed when their romantic relationships end or when they experience other negative romantic events such as betrayal and conflict. The distress that is experienced within the context of negative romantic experiences may be particularly high for females, who may feel the greatest pressure to marry in Mexico.

Theoretical Frameworks

Collins’s (2003) and the developmental-contextual (Chen & Rubin, 2011) frameworks of adolescent romantic relationships guide our understanding of negative romantic experiences in Mexico. Within his framework, Collins (2003) identifies quality as one of five important features of adolescent romantic relationships. Quality is defined as the degree to which romantic relationships are advantageous for the adolescent. He explains that low-quality relationships characterized by antagonism and high conflict are linked to negative adolescent adjustment, whereas high-quality relationships defined by high nurturance and intimacy are associated with positive adolescent adjustment.

Both Collins’s (2003) and the developmental-contextual (Chen & Rubin, 2011) perspectives clarify that age and contextual factors (e.g., cultural norms, values, beliefs, and world views) influence the timing, shape, and quality of adolescent romantic relationships and the impact these relationships have on adolescent well-being. Cultural beliefs, such as familismo, provide guidelines for Mexican adolescents’ attitudes and behaviors, and help them make meaning of romantic relationship experiences that may influence their psychological well-being. In interviews, Mexican adolescents (M age = 14.8, range 14–16) explained that it is customary for adolescents to formally introduce (presentar) their romantic partners (novios/as) early in the dating relationship (el noviazgo) and that their parents are asked permission, implicitly or explicitly, to date during this meeting. Parents would give their permission (dio su permiso) based on whether they approved of the romantic partner’s family and the characteristics of the partner (Halgunseth et al., 2014). Also, as previously mentioned, la quinceañera is an example of how age and cultural norms shape the timing of romantic relationship experiences for Mexican adolescents.

Negative Romantic Experiences and Psychological Adjustment

Though many romantic experiences during adolescence are positive, a considerable number of adolescents have reported negative romantic experiences (Moosmann & Roosa, 2015). Negative romantic experiences are often characterized by perceptions of high conflict, rejection, exclusion, and antagonism (La Greca & Harrison, 2005), as well as perceptions of a lack of intimacy and relationship satisfaction (Moosmann & Roosa, 2015). Adolescents’ negative romantic experiences may incite romantic breakups or may even occur within contexts of romantic relationship dissolution. Negative romantic experiences may also act as a precursor to the dissolution of romantic relationships. Rohner (1980, 2014) has argued that feelings of rejection in the context of a romantic relationship go against one’s biological need to be accepted and cared for by significant others and can have an adverse effect on one’s psychological adjustment.

In the United States, empirical studies support Collins’s (2003) framework, which asserts that higher quality romantic relationships are more advantageous for adolescent psychosocial development. In previous studies, negative romantic relationship experiences have been associated with poor adolescent psychological adjustment in ethnic minority samples that include Latinos (La Greca & Harrison, 2005; Moosmann & Roosa, 2015; Vujeva & Furman, 2011). Moosmann and Roosa (2015) found that Mexican American adolescents (M age = 17.86, SD = .45) in lower quality romantic relationships reported lower self-esteem and more externalizing symptoms than adolescents in higher quality romantic relationships. Lower quality romantic relationships were characterized by high conflict, high views of traditional gender role values, and low relationship intimacy. In their sample (67% Latino) of adolescents (ages 14–19), La Greca and Harrison (2005) defined negative romantic relationships as conflict, criticism, exclusion, dominance, and pressure in relationships. Their findings...
indicated that negative romantic relationships predicted more social anxiety for Latino adolescents, but not for non-Latino, White adolescents; and more depressive symptoms for non-Latino, White adolescents than Latino adolescents. Thus, negative romantic relationship experiences may have negative implications for adolescents’ psychosocial well-being, and these implications may be influenced by cultural factors.

Cultural Values

The developmental-contextual (Chen & Rubin, 2011) and Collins’s (2003) frameworks explain that research on adolescents’ romantic experiences should consider the cultural context in which these experiences occur, including the influence of cultural values. Consideration of values may promote a greater understanding of Mexican adolescents’ perceptions of their romantic relationship experiences and their implications for psychosocial adjustment (Moosmann & Roosa, 2015). Two values that are strongly endorsed within Mexico are familismo and female virginity (Espinosa-Hernandez et al., 2016; Milbrath, Ohlson, & Eyre, 2009; Pick, Givaudan, & Poortinga, 2003; Villarreal, Blozis, & Widaman, 2005). These cultural values, like many values in Mexican culture, have been influenced by the Catholic Church (Herrera, 1998; Pick et al., 2003). In this article, however, we refer to them as cultural values.

Familismo. Familismo is characterized by a sense of loyalty to the family and the perception that the family is a cohesive unit in which family members can depend on one another. It has been conceptualized and assessed as a multidimensional construct that includes, but is not limited, to values such as family obligation, financial support, emotional closeness, and respect (Knight et al., 2010; Lugo Steidel & Contreras, 2003; Villarreal et al., 2005). With few exceptions (e.g., Milan & Wortel, 2015), familismo has been found to be associated with positive psychosocial functioning (Cupito, Stein, & Gonzalez, 2015; Zeiders et al., 2013), and to have a protective role in the adjustment of U.S. Latino adolescents (Germán, Gonzales, & Dumka, 2009; Raffaelli, Andrade, et al., 2012; Umana-Taylor, Updegraff, & Gonzales-Backen, 2011). Thus, it is possible that familismo may also serve as a protective factor in the association between negative romantic relationships and adolescent psychological adjustment in Mexico.

Female Virginity. In Mexico, the importance of female virginity is considered both a cultural and religious value, because Mexican culture and the Catholic religion are highly intertwined (Herrera, 1998; Pick et al., 2003). The belief is that females should not engage in sex before marriage (Deardorff, Tschann, & Flores, 2008). To the best of our knowledge, no studies have examined the risk or protective role of female virginity beliefs in the relationship between negative romantic experiences and psychological adjustment of Mexican adolescents; only two studies have examined and found a positive association between marianismo and depressive symptoms in Latinas, but these studies were not conducted with adolescents (Perez, 2011; Pina-Watson, Castillo, Ojeda, & Rodriguez, 2013). Marianismo is a multidimensional construct that endorses traditional gendered values including the importance of female virginity, but also includes beliefs that women should be submissive to men, humble, and self-sacrificing (Castillo, Perez, Castillo, & Ghosheh, 2010; Galanti, 2003; Pina-Watson, Castillo, Jung, Ojeda, & Castillo-Reyes, 2014). Based on few existing studies, it is possible that female virginity, a component of marianismo, may serve as a risk factor in the association between negative romantic relationship experiences and psychological maladjustment due to the high expectation of sexual purity that is imposed on adolescents in romantic relationships.

Gender

Previous studies have found that U.S. Latinas are more likely to experience higher rates of depressive and anxiety symptoms compared to their male counterparts (Cupito et al., 2015; Lorenzo-Blanco, Unger, Ritt-Olson, Soto, & Baezconde-Garbanati, 2011). Thus, it is possible that Mexican female adolescents may be more susceptible to depressive and anxiety symptoms when experiencing negative life events, such as those found in negative romantic relationships. Given these gender differences, it is important to understand which cultural factors can serve to promote or inhibit resiliency in the context of negative romantic relationship experiences (Cupito et al., 2015).

Past studies suggest that familismo may serve as a protective factor for adolescent psychological adjustment, especially for females. For example, research has found that Mexican American female adolescents report greater familismo than Mexican American male adolescents (Cupito et al., 2015; Lorenzo-Blanco et al., 2011; Zeiders et al., 2013). In
a sample of Mexican American adolescents (M age = 14.0), Cupito et al. (2015) found that familial cultural values served as a stronger protective factor for female than male Mexican American adolescents against depressive symptoms. Due to its salience for females, we expected that familismo would serve as a stronger protective factor of psychological maladjustment when experiencing negative romantic relationship events for Mexican female than male adolescents.

In contrast, great importance placed on female virginity may be particularly detrimental for Mexican female adolescents since the expectations are placed on females and not males (Aranda, Castaneda, Lee, & Sobel, 2001; Raffaelli & Ontai, 2004; Zayas, Lester, Cabassa, & Fortuna, 2005). In studies on U.S. Latino families, female adolescents reported experiencing higher levels of parental restrictions than their male counterparts regarding privileges and engagement in social activities (Raffaelli & Ontai, 2004). Thus, the traditionally restrictive environment in which Mexican female adolescents develop may exacerbate the effect of negative romantic experiences on their psychological adjustment, particularly when they also endorse these beliefs. Because Mexican male adolescents do not generally experience the same familial and societal pressures or restrictions, we expected that the negative effect of romantic experiences would be stronger for female adolescents who report high in female virginity.

Age and Family Structure

Age and family structure are important factors to consider in understanding romantic relationships in Mexico. In general, the literature suggests that older adolescents are more likely to date than younger adolescents (Arbeau, Galambos, & Mikael Jansson, 2007; Raffaelli, 2005). However, cultures endorse varying age-related expectations for romantic relationship behaviors, and children, in turn, are socialized by their culture, society, and parents on these age-related expectations (Halgunseth, Ispa, & Rudy, 2006; Harkness & Super, 1992). For example, in Mexico there is a strong expectation to marry, especially for females (East, 1998; Parrado & Zenteno, 2002). As mentioned earlier, la quinceanera represents a critical period in the lives of girls when at the age of 15 they are introduced to society as being eligible for marriage (Tatum, 2014). In addition, evidence exists suggesting that family structure is associated with adolescent romantic conflict (Cavanagh, Crissey, & Raley, 2008) and Latino adolescents’ psychological maladjustment (Zeiders, Roosa, & Tein, 2011). Thus, we controlled for the influence of age and family structure in this study.

Current Study

Using a sample of adolescents from Puebla, Mexico, the aims of this cross-sectional study were to examine whether cultural values (i.e., familismo, female virginity) moderated the associations between negative romantic relationship experiences (e.g., conflict, betrayal, jealousy, rejection, lack of intimacy) and psychological maladjustment (i.e., depressive and anxiety symptoms) in Mexican adolescents, a population at risk for psychological maladjustment (Benjet & Hernandez-Guzman, 2001; Ozer, Fernald, & Roberts, 2008). Additionally, we examined whether the moderating effects of cultural values differed by gender. All analyses controlled for the influence of age and family structure. Based on developmental-contextual (Chen & Rubin, 2011) and Collins’s (2003) romantic relationship frameworks, as well as findings from previous research, we tested the following two hypotheses:

1. The association between negative romantic experiences and psychological maladjustment will be weaker for adolescents high in familismo and stronger for adolescents high in female virginity.
2. The associations between negative romantic experiences and depressive and anxiety symptoms will be stronger for female adolescents low on familismo, and the associations between negative romantic experiences and depressive and anxiety symptoms will be stronger for female adolescents high on views of female virginity.

This study advances knowledge on adolescent romantic relationships by investigating aspects of Mexican culture and how they may serve as risk or protective factors in the association between negative romantic experiences and psychological adjustment for Mexican male and female youth.

METHOD

Participants

Mexican adolescents between the ages of 12 and 19 years participated in a multi-year study on adolescent health in the city of Puebla. Puebla is in
central Mexico, and is one of the largest cities in the country. We used data from the second cohort \((n = 1,123)\), as it contained measures needed for our study. Only participants who reported yes to the question, “Have you ever dated someone or had a boyfriend/girlfriend?” were included in the analyses. Participants were asked to respond to romantic experiences in relation to an individual they considered to be a boyfriend, girlfriend, or someone they went out with once or multiple times. The subsample included 973 participants (56% girls and 44% boys). Average age for the subsample was 15.14 \((SD = 1.52)\) and ranged from 12 to 19 years. This sample was nearly identical to the average age of the total sample (i.e., 15.07). Adolescents reported living in the following family structures: two biological parents (70.4%), biological mother only (16.0%), biological mother and stepfather (6.7%), biological father and stepmother (0.8%), biological father only (2.2%), adoptive parents (0.5%), and other (3.3%).

Data were collected at one time point in summer 2010 from middle school (71.7%) and high school (28.3%) adolescents who attended one of two public schools in Puebla. Most participants (84.0%) attended the middle or high school that was located in a relatively more advantaged community, while the remainder of the sample (16.0%) attended the middle school that was located in a relatively disadvantaged community. Students were still attending school at the time of the survey. Specific information regarding household income was not obtained from participating adolescents or from their schools; however, in personal communication with past researchers who have conducted research in the same schools, it was found that adolescents in the more advantaged school tended to report that their mothers and fathers, on average, had completed high school or some high school education, while adolescents in the less advantaged school tended to report that their mothers and fathers, on average, had completed high school or some middle school education.

**Procedure**

A University institutional review board approved study procedures, and a waiver of written parental consent was obtained. This waiver allowed the study to use a passive parental consent (or opt-out consent) procedure. Principals of the two public schools selected the classrooms from which participants could be recruited based on convenience (e.g., exams and class schedules). Principals distributed consent forms to parents that described the study. Parents signed and submitted consent forms only if they did not want their child to participate in the study. On the day of data collection, students who were opted out of the study by their parents were moved to another room in the school before the principal investigator arrived. In the target classrooms, the principal investigator informed students of their rights, and those who assented completed the survey in Spanish during class time in their classrooms. Students took approximately 90 min to complete the survey and received candy as an incentive.

**Measures**

All measures were translated from English to Spanish by a committee of two PhD-level researchers and two undergraduate assistants who were either native Spanish speakers or bilingual; this translation method was selected based on empirical evidence suggesting that it provides more culturally sensitive instruments and is more appropriate for use when there is a target-language preference (Cha, Kim, & Erlen, 2007; Furukawa & Driessnack, 2016). Then, two Mexican middle school students and a Mexican female school psychologist read over the Spanish version of the measures to make sure grade level was adequate and items were easy to understand by a Spanish native speaker. Finally, we conducted a pilot data collection in a small private middle school in Mexico City. Means and standard deviations for all study variables are presented in Table 1.

**Demographics.** Demographic characteristics such as adolescent age, gender, grade, and family structure (e.g., two-parent biological, biological mother, and stepfather) were reported by adolescent participants. Participants also reported the name of the school they attended.

**Anxiety symptoms.** Anxiety symptoms were measured using the State-Trait Anxiety Inventory for Children—Trait Version (STAIC-T; Spielberger, Edwards, Montouri, & Lushene, 1973). This scale provides information on the general frequency to anxiety symptoms that adolescents experience. Participants rated 20 items on a 3-point scale ranging from 1 = hardly ever to 3 = often. Example items include, “I worry about making mistakes” and “I worry about bad things that might happen to me.” A composite score was formed by summing all 20
higher scores represented more anxiety symptoms. The STAIC-T has good internal consistency in this study ($\alpha = .80$), in studies of Latino adolescents from mixed origins (Pina & Silverman, 2004), and in a prior cohort of this study (Espinosa-Hernandez & Vasilenko, 2015).

**Depressive symptoms.** Depressive symptoms were measured with the 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). This scale provides information on adolescents’ negative affect, positive affect, somatic complaints, and interpersonal difficulties in the past week. Participants rated 20 items on a 4-point scale, anchored by 0 = rarely or none of the time (<1 day) and 3 = mostly or all of the time (5–7 days). Sample items include “I felt like I could not get going” and “I felt sad.” Items on positive affect were reverse coded. All 20 items were summed to form a composite score. Higher scores represented more depressive symptoms. The CES-D demonstrated good internal consistency in this study ($\alpha = .83$) as well as in other studies of Mexican adolescents (Benjet & Hernandez-Guzman, 2001). Additionally, the CES-D has predicted suicidal ideation and loneliness in a sample of U.S. Mexican adolescents (Robert & Chen, 1995) and the factor structure was found to have high conceptual equivalence in samples of Mexican and U.S.-born Mexican adolescents (Golding & Aneshensel, 1989).

**Familismo.** Familismo was measured with Unger et al.’s (2002) 6-item familismo scale, which assessed cultural beliefs about families and family relatives. Responses were averaged across a 4-point scale, anchored by 1 = strongly disagree and 4 = strongly agree. A sample item is “Regardless of what I must sacrifice, acknowledging my family’s problems is very important to me.” The familismo subscale has good internal consistency in this study ($\alpha = .71$), in studies with U.S. Latino adolescents (Umana-Taylor, Alfaro, Bámaca-Colbert, & Guimond, 2009), and in a prior cohort of Mexican adolescents from this study (Espinosa-Hernandez & Vasilenko, 2015).

**Female virginity.** Female virginity was assessed using the Female Virginity as Important scale (Deardorff et al., 2008). Participants responded to three items: “Do you think it’s okay for girls to have sex before they are in a serious relationship?”; “Do you think it’s okay for girls to have sex before marriage?”; and “Do you think it’s okay for girls to make the first move with a guy?” Responses were averaged across a 4-point scale, ranging from 1 = definitely yes to 4 = definitely no. Evidence of high predictive validity and high reliability has been found in samples of U.S. Latino adolescents (over 50% Mexican) in the United States (Deardorff et al., 2008), and in a prior cohort of Mexican adolescents from this study (Espinosa-Hernandez & Vasilenko, 2015). In this study, the Cronbach’s alpha was .65.

**Negative relationship experience.** Negative romantic experiences were measured using nine items of a romantic history survey (Buhrmester, 2001; Smetana & Gettman, 2006). Supported by Collins’s (2003) framework, the scale assesses romantic relationship quality, specifically attributes related to experiences that occur in low-quality relationships. Participants were given a list of romantic relationship events and were told to respond yes or no based on whether they have or have not experienced each event in this school year. Sample items included “Someone you were going out with was unfaithful to you”; “Went through an emotionally intense breakup”;

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**TABLE 1**

Correlations, Means, and Standard Deviations (SD) for Study Variables by Gender (Boys = 428; Girls = 545)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male M (SD)</th>
<th>Female M (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>15.09 (1.48)</td>
<td>15.15 (1.50)</td>
<td>.04</td>
<td>.04</td>
<td>.08</td>
<td>.15**</td>
<td>.20**</td>
<td>.11*</td>
<td></td>
</tr>
<tr>
<td>Family Structure</td>
<td>1.93 (1.71)</td>
<td>2.16 (1.82)</td>
<td>.13**</td>
<td>.10</td>
<td>.04</td>
<td>-.05</td>
<td>-.06</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>15.64 (7.93)</td>
<td>20.02 (9.72)</td>
<td>-.05</td>
<td>.03</td>
<td>.47**</td>
<td>.28**</td>
<td>-.09</td>
<td>-.04</td>
<td></td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td>32.62 (5.34)</td>
<td>36.60 (6.30)</td>
<td>-.02</td>
<td>-.01</td>
<td>.66**</td>
<td>.22**</td>
<td>.05</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>Negative romantic experiences</td>
<td>3.83 (2.5)</td>
<td>3.84 (2.4)</td>
<td>-.11*</td>
<td>-.05</td>
<td>.35**</td>
<td>.28**</td>
<td>.01</td>
<td>-.14*</td>
<td></td>
</tr>
<tr>
<td>Familismo</td>
<td>3.08 (5.2)</td>
<td>3.01 (5.0)</td>
<td>-.14**</td>
<td>.02</td>
<td>-.13**</td>
<td>-.01</td>
<td>.00</td>
<td>.18**</td>
<td></td>
</tr>
<tr>
<td>Views of female virginity</td>
<td>2.46 (7.3)</td>
<td>2.85 (6.7)</td>
<td>-.19**</td>
<td>-.08</td>
<td>-.00</td>
<td>.01</td>
<td>-.02</td>
<td>.19**</td>
<td></td>
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</tbody>
</table>

*Note. Correlations below diagonal are for female adolescents and above diagonal are for male adolescents; Pooled results are presented.

*p < .05; **p < .01.
“Frequently had jealous feelings about a partner”; and “Had emotionally intense arguments with your partner.” Items were coded as 0 = no (did not occur) or 1 = yes (did occur) and summed to compute an overall score. This subscale had acceptable internal consistency (α = .64) in this study and previous studies assessing ethnic minority adolescents (e.g., Smetana & Gettman, 2006).

Plan of Analysis
Missing data (approximately 2.21%) were not related to specific items or measures in this study. Multiple imputation was used to account for missing data. As suggested by Enders (2010), 20 imputations of study variables (i.e., age, gender, family structure, negative romantic experiences, familismo, views of female virginity, depressive symptoms, anxiety symptoms) and interaction terms were generated using all study variables and five auxiliary variables as predictors (i.e., sexual guilt, quality of life, life events, grade level, grades). Pooled means, standard deviations, bivariate correlations, and unstandardized betas were generated for the variables of interest using SPSS version 24 (IBM Corporation, Armonk, NY).

Preliminary analyses were conducted to explore whether age moderated the association between negative romantic experiences and symptoms of anxiety and depression. Findings from these analyses suggested that age did not significantly moderate this association between negative romantic experiences and depressive symptoms (b = -.04, p = .053), and negative romantic experiences and anxiety symptoms (b = -.01, p = .312); hence, age was not included as a moderating variable in the main analyses, but was statistically controlled for in all analyses. Family structure was also statistically controlled for in all analyses. Two multiple regression models were conducted exploring adolescent depressive symptoms and anxiety symptoms, in relation to negative romantic experiences, cultural values, and gender. Because our primary interest was in the moderators of the association between negative romantic experiences and symptoms of anxiety and depression (i.e., by gender, familismo, and female virginity), we did not focus on the main effects of the moderating variables. The three-way interaction between negative romantic experiences, gender, and cultural values were examined for each outcome. Two-way interactions were also tested. We only examined the highest order interactions of each outcome variable, as recommended by Aiken and West (1991).

Additionally, we probed significant interactions by estimating simple slopes at one standard deviation above and below the mean of the interaction variables. A sensitivity analysis was conducted, indicating that we were fully powered to detect an R-square of any value with our sample size.

RESULTS

Depressive Symptoms
Bivariate correlations, means, and standard deviations for all study variables are presented for descriptive purposes (see Table 1). Results of regression analyses are presented in Table 2. For female virginity, results revealed one significant two-way interaction between negative romantic experiences and female virginity on depressive symptoms. Simple slope analyses indicated a significant positive association between negative romantic experiences and depressive symptoms for adolescents who viewed female virginity as more important (t = 9.01, p < .001; b = 3.96, p < .001). While not as strong, simple slope analyses also indicated a significant positive association between negative romantic experiences for adolescents who

<table>
<thead>
<tr>
<th>TABLE 2 Summary of Results of Multiple Regression Analysis Predicting Adolescents’ Depressive and Anxiety Symptoms (N = 973)</th>
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</thead>
<tbody>
<tr>
<td>Depressive Symptoms</td>
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<tr>
<td>Anxiety Symptoms</td>
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<td>**</td>
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<tr>
<td>b</td>
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<td>Age</td>
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<tr>
<td>Family structurea</td>
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<tr>
<td>Negative romantic experiences (NRE)</td>
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<td>Genderb (G)</td>
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<td>Familismo (F)</td>
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<tr>
<td>Female virginity (FV)</td>
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<tr>
<td>NRE x Gb</td>
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<tr>
<td>NRE x F</td>
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<tr>
<td>Gb x F</td>
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<tr>
<td>NRE x FV</td>
</tr>
<tr>
<td>Gb x FV</td>
</tr>
<tr>
<td>NRE x Gb x F</td>
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<tr>
<td>NRE x Gb x FV</td>
</tr>
<tr>
<td>R²</td>
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</tbody>
</table>

Note. Pooled results are presented.

*a Birth mother and father = 1, birth father and stepmother = 2, birth mother and stepfather = 3, birth father only = 4, birth mother only = 5, adoptive parents = 6, other = 7.

*b Male = 0, female = 1.

*p < .05; **p < .01.
reported low views of female virginity (t = 5.02, p < .001; b = 2.16, p < .001). To visually represent these results, we plotted estimated values for 1 SD above and below the mean of female virginity (see Figure 1). For familismo, results indicated one significant three-way interaction (see Table 2). Simple slope analyses suggested that the positive association between negative romantic experiences and depressive symptoms were strongest for female adolescents who reported high familismo beliefs (t = 6.80, p < .001; b = 4.31, p < .001). While not as strong, simple slope analyses suggested additional significant positive associations between negative romantic experiences for girls who reported low familismo (t = 4.95, p < .001; b = 2.89, p < .001), boys who reported high familismo (t = 7.30, p < .001; b = 3.17, p < .001), and boys who reported low familismo (t = 6.81, p < .001; b = 2.95, p < .001). To visually represent these results, we plotted estimated values for males and females 1 SD above and below the mean of familismo (see Figure 2).

### Anxiety Symptoms

For female virginity, results revealed one significant three-way interaction between negative romantic experiences, gender, and views of female virginity on anxiety symptoms (see Table 2). Simple slope analyses suggested that the positive association between negative romantic experiences and anxiety symptoms were strongest for female adolescents who reported high views of female virginity (t = 6.98, p < .001; b = 2.51, p < .001). Additionally, simple slope analyses suggested that there were significant positive relationships between

![Figure 1](image1.png)

**FIGURE 1** Estimated level of depressive symptoms predicted by level of negative romantic experiences for the whole sample, stratified by low (−1 SD) and high (+1 SD) levels of views of female virginity. * indicates associations are significant at p < .01.

![Figure 2](image2.png)

**FIGURE 2** Estimated level of depressive symptoms by gender predicted by level of negative romantic experiences, stratified by low (−1 SD) and high (+1 SD) levels of familismo. * indicates associations are significant at p < .01.
negative romantic experiences and anxiety symptoms in the context of boys who reported high values of female virginity ($t = 6.59$, $p < .001$; $b = 1.88$, $p < .001$), and boys who reported low values of female virginity ($t = 3.06$, $p < .01$; $b = .88$, $p < .01$).

To visually represent these results, we plotted estimated values for males and females 1 SD above and below the mean of female virginity (see Figure 3).

**DISCUSSION**

Despite the high rate of mental health problems among adolescents and low access to mental health resources (Benjet et al., 2009), only one study, to the best of our knowledge, has examined the association between adolescent romantic relationships and psychological maladjustment in Mexico (Espinosa-Hernandez & Vasilyenkov, 2015). Guided by Collins’s (2003) and developmental-contextual (Chen & Rubin, 2011) frameworks, the purpose of this study was to investigate whether Mexican cultural values (i.e., familismo, female virginity) moderated the associations between negative romantic experiences and mental health outcomes (i.e., anxiety symptoms, depressive symptoms) in a sample of Mexican adolescents, after controlling for age and family structure. This study also examined whether gender influenced the effect that cultural values had on the relationship between negative romantic relationship experiences and psychological maladjustment. Even though cultural values in Mexico are greatly influenced by the Catholic religion, familismo and female virginity are referred to as cultural values as opposed to religious values in this article. Findings in this study extend understanding of how cultural values influence the association between negative romantic experiences and mental health outcomes for Mexican male and female youth.

Consistent with Collins’s (2003) framework and past empirical findings, findings in this study indicated that more negative romantic experiences were associated with more depressive and anxiety symptoms in Mexican adolescents (La Greca & Harrison, 2005; Moosmann & Roosa, 2015; Vujeva & Furman, 2011). Collins (2003) suggested that this may be because positive interactions are the foundation of a successful relationship that promotes a sense of belonging and serves as a source of security for adolescents. Negative romantic experiences, in turn, are often linked to unsuccessful romantic relationships that promote a weaker sense of belonging and serve as a source of insecurity, resulting in depressive and anxiety symptoms (Basáñez, Warren, Crano, & Unger, 2014; Rohner, 1980). Thus, adolescents who experience negative events in their romantic relationships may also experience depressive and anxiety symptoms. Secondary education programs may consider providing mental health resources to adolescents who experience negative romantic relationship events.

Findings also revealed that the association between negative romantic relationship experiences and psychological adjustment may differ depending on cultural values and gender. Cultural values such as familismo and female virginity may have roots in the Catholic religion in Mexico (Herrera, 1998; Pick et al., 2003). The

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**FIGURE 3** Estimated level of anxiety symptoms by gender predicted by level of negative romantic experiences, stratified by low ($-1$ SD) and high ($+1$ SD) levels of views of female virginity. *indicates associations are significant at $p < .01$. 
implications of these values in the association between negative romantic relationships and mental health outcomes for adolescent males and females are discussed below.

**Familismo**

Contrary to our hypothesis, findings revealed that Mexican female adolescents who scored high on familismo were at risk for experiencing more depressive symptoms as they experienced more negative romantic experiences. There are a few possible reasons why this finding is in the opposite direction of what we expected. First, this study differed from other studies on familismo in that it examined adolescents in Mexico and measured familismo as a unidimensional construct (e.g., Cupito et al., 2015; Zeiders et al., 2013). For example, Cupito et al. (2015) found fewer depressive symptoms in U.S. Latinas when they reported greater endorsement of two subscales of familismo: family obligation and affiliative obedience; yet, the negative association between the familismo subscale and depressive symptoms did not differ by adolescent gender. Similar to this study, Updegraff, Umaña-Taylor, McHale, Wheeler, and Perez-Brena (2012) used a composite measure of familismo in their longitudinal study of U.S. Mexican youth but found no association between familismo and adolescents’ depressive symptoms. Thus, it is possible that the protective or risk nature of familismo may differ for girls depending on the dimension of familismo examined (e.g., familial support, familial interconnectedness, familial honor, and subjugation of self for family; Lugo Steidel & Contreras, 2003). Future studies should assess familismo as a multidimensional construct to advance knowledge on the protective versus risk factor effect of familismo on the association between negative relationship experiences and adolescent adjustment.

Second, it is possible that negative relationship events may be particularly distressing for female adolescents in Mexico versus males considering the greater pressure placed on them to marry. Lastly, it is possible that adolescents who rate higher on familismo may place greater value on their family members’ opinions, including their opinions of romantic partners (Unger et al., 2002). Thus, female adolescents in Mexico may refrain from seeking support from family members because they fear their family members’ disapproval of the romantic partner or of the negative events within the context of the romantic relationship.

**Female Virginity**

The study also found that the positive association between negative romantic relationship events and anxiety symptoms was strongest for female adolescents who endorsed strong beliefs about female virginity. As previously mentioned, Catholic beliefs are intertwined in the Mexican culture. Thus, female adolescents who believe strongly in the importance of female virginity may be more susceptible to the strong sociocultural pressures in Mexico to remain a virgin until marriage. They also may be more likely to live in traditional families where they are prohibited from engaging in romantic relationships to protect their virginity until marriage (Raffaelli & Ontai, 2001; Villarruel, 1998). Thus, female adolescents who idealize female virginity may feel uncomfortable or inexperienced engaging in romantic relationships prior to marriage. These feelings of insecurity may exacerbate the association between negative romantic events and anxiety symptoms. Furthermore, female adolescents who believe strongly in the importance of female virginity may feel the need to keep their romantic relationships a secret from parents, thereby limiting their ability to seek support in the face of negative romantic experiences. Secrecy or the inability to seek support from parents may be linked to higher levels of anxiety in the context of negative romantic events (Tasopoulos-Chan, Smetana, & Yau, 2009).

Contrary to our hypothesis, there were no gender differences in how female virginity influenced the positive association between negative experiences and depressive symptoms. It is possible that their partner’s infidelity may be equally distressing for male adolescents who believe strongly that their female romantic partners be virgins prior to marriage. It is also possible that men with such beliefs may feel guilty dating someone for whom they are not romantically attracted or planning to marry (Amuchástegui & Aggleton, 2007). Lastly, our measure of female virginity may have inadvertently assessed traditional religious or dating norms. The measure included (1) two items on whether females should have sex before a serious romantic relationship and marriage; and (2) one item about whether females should make the first move (Deardorff et al., 2008). Thus, it is possible that boys who strongly endorse religious beliefs of female purity may be particularly upset or at risk for depression when they experience events that are not in line with their religious or traditional beliefs. Future research on female virginity should use
items that only pertain to the abstinence of sexual intercourse, and that distinguishes between female virginity versus virginity in general, including for men.

**Limitations**

This study, to the best of our knowledge, is the first to have examined risk and protective factors conditioning the association between negative romantic relationships and adolescent mental health symptoms in Mexico; however, it was not without limitations. First, data were collected at only one time point, and from only two public schools in Mexico, which precluded our ability to assess the direction of the relationships between variables and to generalize outside of the sample of this study. For example, Puebla is one of the largest cities in central Mexico, and hence, findings from our study may not generalize to rural areas of Mexico or towns located near the Mexican border in the United States. Future research should collect data at multiple time points and from multiple geographic regions in Mexico to determine the directionality and external validity of these findings.

Second, limitations related to our measure of female virginity should be considered. For example, this study only examined the importance of virginity in regard to females, and did not consider cultural beliefs about male virginity or virility. It is possible that adolescents’ beliefs of male abstinence or sexual behaviors before marriage may have influenced the association between negative romantic experiences and maladjustment for Mexican adolescents. Also, our measure of female virginity beliefs, as well as our measure of negative experiences, yielded low reliability coefficients (.65 and .64, respectively), which may have influenced the findings of this study. Future research should include stronger measures of the importance of female and male virginity, and negative romantic experiences in studies on romantic experiences and Mexican adolescent psychological adjustment.

Third, indicators of familial socioeconomic status (SES) were not available to us, thereby limiting our ability to control for these potentially important influences in our analyses. Past studies have found that mental health indicators vary by levels of SES with Latino adolescents (Ríos-Salas & Larson, 2015), and that early age at marriage differs for Mexican Americans depending on economic conditions (Raley, Durden, & Wildsmith, 2004), which may influence the value adolescents place on romantic relationships. Thus, it is important that future research consider the influence of SES on negative romantic relationships and Mexican adolescents’ psychological adjustment.

Fourth, results should be interpreted with caution due to modest effect sizes of results and the potential of shared-method variance. Though self-reports are valuable in assessing the internal states of adolescents (e.g., depression, anxiety, values), it is possible that the strength of associations between variables may have been inflated, as all the variables were measured by the same respondent. Multiple reporters should be included in future studies. In addition, low mean scores of depressive and anxiety symptoms indicate that there may have been low variability in scores, limiting our ability to predict variance; hence, findings should be interpreted with caution. Lastly, measures in this study were not translated using the back-translation method, which may have influenced the validity of the measures used in our study. Future research should consider using a back-translation method when translating measures from English to Spanish.

**CONCLUSION**

Findings extend understanding on how cultural values influence the established positive association between negative romantic experiences and maladjustment of male and female youth. Mexican adolescents, particularly female adolescents with strong familismo and female virginity beliefs, may benefit from interventions that seek to strengthen relationship building and conflict resolution skills in the context of their romantic relationships. Such skills may help adolescents to prevent, effectively respond to, and cope with negative romantic relationship experiences (Salvatore, Kuo, Simpson, & Collins, 2011; Tiago & Hokoda, 2009), which may reduce the likelihood for psychological maladjustment. Because cultural values are rarely incorporated in preventive interventions, it may be important for practitioners to consider teaching family members in Mexico strategies to support their adolescents, especially females, as they navigate the developmental process of engaging in romantic relationships, a normative developmental process in adolescence.

**REFERENCES**


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