

**HHS PUBLIC ACCESS**

Author manuscript

J Aggress Maltreat Trauma. Author manuscript; available in PMC 2018 March 01.

Published in final edited form as:

J Aggress Maltreat Trauma. 2016 ; 25(8): 773–792. doi:10.1080/10926771.2016.1210270.

Familial Influences on Dating Violence Victimization Among Latino Youth

H. Luz McNaughton Reyes^a, Vangie A. Foshee^a, Joanne Klevens^b, Andra Teten Tharp^b, Mimi V. Chapman^c, May S. Chen^a, and Susan T. Ennett^a^aDepartment of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA^bDivision of Violence Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, Atlanta, Georgia, USA^cSchool of Social Work, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA

Abstract

Despite theoretical and empirical evidence suggesting that the family environment plays a central role in Latino youth development, relatively little is known about how family processes influence dating violence victimization among Latino adolescents. To address this gap in the literature, we used data from 210 Latino parents and their 13- to 15-year-old adolescents to examine associations between several different family processes, including both parenting practices (parent monitoring, parent–adolescent communication) and aspects of the family relational climate (family cohesion, family conflict, acculturation conflict) and psychological, physical, and sexual dating violence victimization. Consistent with expectations, lower levels of family cohesion and higher levels of family and acculturation conflict were associated with risk for dating violence victimization, although associations varied depending on victimization type. In contrast, neither parental monitoring nor parent–adolescent communication was significantly associated with any type of dating violence victimization. In addition, we found that parent, but not teen, Anglo-American acculturation was associated with higher dating violence victimization risk. Findings suggest that family-based dating abuse prevention programs for Latino youth should seek to increase family cohesion and decrease family conflict, including acculturation-based conflict.

Keywords

adolescent; family processes; Hispanic/Latino; teen dating violence

Latino adolescents in the United States represent a growing population at risk for teen dating violence (TDV) victimization. Census projections estimate that the proportion of youth under the age of 18 who are Hispanic or Latino is expected to grow from 24% in 2014 to

CONTACT H. Luz McNaughton Reyes, PhD, Research Assistant Professor, mcnaught@email.unc.edu, Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, 319B Rosenau Hall CB# 7440, Chapel Hill, NC 27599-7400.

34% in 2060 (Colby & Ortman, 2015). National estimates suggest that about 17.2% of high-school-aged Latino youth in the United States have experienced physical or sexual TDV victimization in the past year (Vagi, O'Malley-Olsen, Basile, & Vivolo-Kantor, 2015). These victimization experiences could result in serious physical and mental health consequences that include injury, substance use, depression, and suicidality (Exner-Cortens, Eckenrode, & Rothman, 2013; Foshee, Reyes, Gottfredson, Chang, & Ennett, 2013; O'Leary, Slep, Avery-Leaf, & Cascardi, 2008). Moreover, youth who experience TDV victimization might be at greater risk for intimate partner violence during adulthood (Bouchey & Furman, 2003; Magdol, Moffitt, Caspi, & Silva, 1998).

These findings suggest the need for dating abuse prevention programs that are effective for Latino adolescents. Prevention interventions that involve families as the primary prevention context might be particularly appropriate for Latino youth given the noted importance of family in Latino culture (Leidy, Guerra, & Toro, 2010). In addition, as opposed to universal school- and community-based interventions, family-based interventions can be adapted or designed to specifically target risk and protective factors that are particularly salient or unique contributors to TDV victimization among Latino youth (Leidy et al., 2010). However, to date, little empirical research with Latinos has examined relationships between family processes and TDV victimization that could inform the selection, adaptation, or development of family-based prevention strategies for this population. To this end, this study examined associations between several different family processes including parenting practices (e.g., parental monitoring), as well as aspects of the family relational climate (e.g., family cohesion), and psychological, physical, and sexual TDV victimization using a community-based sample of 210 Latino caregivers and their 12- to 16-year-old adolescents.

Prevalence of TDV victimization among Latino youth

TDV victimization encompasses experiences of psychological (emotional), physical, or sexual violence within a dating relationship (Centers for Disease Control and Prevention [CDC], n.d.). Very few studies of Latino youth, however, have examined psychological or sexual TDV. In particular, only one study has examined the prevalence of psychological TDV victimization among Latino youth. That study, the National Dating Violence Among Latinos study (DAVILA), found an overall past-year prevalence rate for experiencing psychological TDV victimization of 15% (Cuevas, Sabina, & Bell, 2014). Past-year prevalence rates from studies of Latino youth that have examined experiences of physical TDV victimization range between 7% (Cuevas et al., 2014) and 15% (Gonzalez-Guarda, Williams, Merisier, Cummings, & Prado, 2014), and the three studies that have examined experiences of sexual TDV victimization found rates of 2% (past-year prevalence; Cuevas et al., 2014), 11% (lifetime prevalence; Kast, Eisenberg, & Sieving, 2015), and 12% (past-year prevalence; CDC, 2014).

Studies of Latino youth that have examined sex differences in TDV provide inconsistent findings. For example, some studies report no sex differences in the prevalence of physical TDV victimization (Cuevas et al., 2014; Howard, Beck, Kerr, & Shattuck, 2005; Yan, Howard, Beck, Shattuck, & Hallmark-Kerr, 2010); some report higher prevalence for girls than boys (CDC, 2014; Kast et al., 2015), and one study (DAVILA) found significantly

higher prevalence for boys than girls (Cuevas et al., 2014). DAVILA also found that the prevalence of psychological TDV victimization was significantly higher for boys than girls; however, boys and girls were equally likely to report having experienced sexual TDV (Cuevas et al., 2014). In contrast, the two other studies that have examined sexual TDV victimization among Latino youth found that girls were more likely than boys to report experiencing sexual TDV (CDC, 2014; Kast et al., 2015).

In sum, empirical evidence suggests that both Latino boys and girls are at risk for experiencing psychological, physical, and sexual TDV, although it is unclear whether there are sex differences in prevalence rates. Further, only one study has examined the prevalence of or overlap across all three types of TDV using multi-item measures (DAVILA; Cuevas et al., 2014); other studies used single item measures, possibly contributing to underestimation of prevalence rates. This study addressed these limitations by using multi-item measures to assess psychological, physical, and sexual TDV victimization in a sample of Latino adolescents. Sex differences in the prevalence of and overlap across the different types of TDV were also examined.

Family processes: Theoretical linkages with TDV victimization

Two separate but related macrolevel pathways might explain the link between family processes and risk for TDV victimization during adolescence. First, family processes might be related to TDV through associations with adolescent involvement in delinquent or “risky” behaviors (e.g., antisocial behavior, substance use; Schrek & Fisher, 2004). This line of reasoning is based on numerous empirical studies (e.g., Fosco, Stormshak, Dishion, & Winter, 2012; Hoeve et al., 2009; Hoeve et al., 2012), including studies of Latino youth (e.g., Marsiglia, Nagoshi, Parsai, Booth, & Gonzalez-Castro, 2014; Smokowski, Rose, & Baccalao, 2009; Wagner et al., 2010), that have found that aspects of family functioning (i.e., parental monitoring, communication, family cohesion, family conflict) influence adolescent involvement in delinquent behavior. In turn, routine activities (Cohen, 1981) and lifestyle exposure theories (Hindelang, Gottfredson, & Garafalo, 1978) suggest that involvement in delinquent behaviors might increase risk for TDV because such behavior puts adolescents in greater contact with delinquent peers who are more likely to perpetrate TDV and exposes adolescents to environments or situations (e.g., unsupervised parties) where guardianship that could deter TDV perpetration is absent (Brooks-Russell, Foshee, & Ennett, 2013; Schreck & Fisher, 2004).

Second, family processes might link to TDV victimization through influences on the development of “personal characteristics” that compromise adolescents’ ability to resist or deter TDV (Finkelhor & Asdigian, 1996). For example, research suggests that family conflict and weak family bonds could lead to emotional distress and attachment insecurity in youth (Allen et al., 2003; Cummings, Koss, & Davies, 2015); highly distressed and insecure adolescents, in turn, might be unable to deter or resist TDV perpetration, making these youth more vulnerable to TDV victimization, independent of any involvement in risky behavior (Finkelhor & Asdigian, 1996; Jouriles, McDonald, Mueller, & Grych, 2012). These macrolevel pathways encompass numerous potential indirect mechanisms (e.g., deviant peer

affiliation, substance use, anxious attachment, emotion dysregulation) through which a particular family process variable could influence risk for TDV.

Family processes: Empirical linkages with TDV among Latino youth

Family processes might be particularly salient to TDV victimization risk and protection among Latino youth because of strong cultural beliefs in the centrality and influence of the family, or *familismo* (Guilamo-Ramos et al., 2009; Leidy et al., 2010; Smokowski et al., 2014). However, whereas several studies have examined relations between family processes and TDV risk in the general U.S. population, very little research has examined these linkages among Latino families. Further, the few studies that have examined family processes in relation to TDV risk among Latino youth have methodological limitations that make interpretation of findings difficult. For example, East and Hodoka (2015) found that maternal knowledge of their adolescents' whereabouts was negatively associated with physical TDV victimization onset among Latino youth. However, that study did not examine or control for family functioning components such as cohesion, communication, or conflict; as such, parental monitoring might have been a marker for these other unobserved family processes. This is important because other studies have found bivariate associations between family-level factors and TDV victimization that became nonsignificant when other correlated family-level processes were taken into account (e.g., Foshee, Benefield, Ennett, Bauman, & Suchindran, 2004; Kast et al., 2015). For example, in a study of Latino youth, Kast et al. (2015) found that high (vs. low) levels of parent communication were negatively associated with physical (boys and girls) and sexual (girls only) TDV victimization; however, nearly all of these associations were attenuated and became nonsignificant in models that adjusted for family connectedness.

It is also notable that no previous studies of TDV victimization among Latino youth have examined associations with general family or acculturation-based conflict, which emerges when acculturation processes lead parents and adolescents to differ in their core cultural beliefs and values (i.e., an "acculturation gap"; Marsiglia, Kulis, Fitzharris, & Becerra, 2009). This is a key limitation given that research with Latino families has found associations between family and acculturation conflict and adolescent internalizing symptoms (e.g., Smokowski, Rose, & Baccalao, 2010), antisocial behavior (e.g., Smokowski et al., 2009), and substance use (e.g., Marsiglia et al., 2009). Further, family conflict has been found to be a key mediator explaining the effect of family-based interventions on risk behavior in Latino youth (Jensen et al., 2014; Smith, Knoble, Zerr, Dishion, & Stormshak, 2014). Taken together with the theoretical framework outlined earlier, these findings suggest that family and acculturation conflict could be key processes influencing risk for TDV victimization among Latino youth.

This study

In sum, few studies of Latino adolescents have examined associations between family functioning and risk for or protection from TDV victimization. Identifying the family processes that contribute to risk for TDV among Latino youth can inform the content of family-based prevention interventions for this population. To this end, this study draws from

the theoretical framework described earlier and builds from previous research to more comprehensively examine associations between a number of different family processes (parent monitoring, parent–adolescent communication, family cohesion, family conflict, acculturation conflict) and psychological, physical, and sexual TDV victimization in a sample of Latino families ($N=210$). We hypothesized that greater parental monitoring, parent–adolescent communication, and family cohesion would protect Latino youth from TDV victimization, whereas increased family conflict and acculturation conflict would increase their risk for TDV victimization. Sex differences in prevalence rates for each type of TDV and in associations between family measures and each type of TDV were also examined based on findings that suggest the possibility of sex differences in the etiological pathways leading to TDV among Latino youth (East & Hodoka, 2015; Guilamo-Ramos et al., 2009; Kast et al., 2015). In addition, parent and adolescent acculturation measures, as well as parent emotional distress, were included as covariates based on research suggesting that these variables could influence family dynamics (Hughes & Gullone, 2008; Smokowski, David-Ferdon, & Stroupe, 2009; Smokowski et al., 2014) and might also influence risk for TDV (Gonzalez-Guarda et al., 2014; Hughes & Gullone, 2008; Ramos, Green, Booker, & Nelson, 2011; Sanderson, Coker, Roberts, Tortolero, & Reininger, 2004; Silverman, Decker, & Raj, 2007; Smokowski et al., 2014).

Methods

Recruitment and data collection procedure

Analyses for this study use baseline data from a randomized control trial of an adolescent dating violence prevention program. In 2013, participating families were recruited into the study from five North Carolina counties using community-based strategies including flyers, announcements on radio and TV programs, and newspaper ads; word of mouth; presentations at health fairs, schools, and churches; and recruitment through community-based organizations and associated networks. Eligible caregivers self-identified as a Latino parent of at least one adolescent between the ages of 12 and 16 years. Caregivers with more than one eligible adolescent were asked to select only one child to participate in data collection.

Data were collected through structured in-person interviews that lasted approximately 30 minutes and were conducted in participants' homes. Interviews were administered simultaneously to the participating caregivers and their adolescents in separate rooms by two trained bilingual interviewers who read the interview protocol aloud and recorded responses. This method of data collection enabled minimization of missing data and standardization of administration across a range of literacy levels. To reduce social desirability bias in the dating violence questions, interviewers turned their backs while adolescents recorded their answers to those questions on a separate sheet of paper, which was then placed in a sealed envelope. Caregivers and adolescents each received \$15 in compensation for completing the interview.

Prior to survey administration, informed consent was obtained from the caregiver for the participation of both themselves and their adolescents; assent was also obtained directly from adolescent participants. Consent/ or assent and interview administration were

conducted in either Spanish or English, depending on the participants' preference. All study procedures were approved by the University of North Carolina at Chapel Hill Institutional Review Board.

Participants

The sample consisted of 210 adolescents each paired with one caregiver, for a total of 420 participants. Nearly all caregivers (hereafter referred to as parents) were the participating adolescent's mother (96%), 6 were the adolescent's father, and 2 were the adolescent's grandmother. All but two parents (98%) and approximately half of adolescent participants (49%) were born outside of the United States. The majority of adolescent participants reported being of Mexican descent (75%), 9% were Central American, 6% were South American, 2% were Puerto Rican, and 8% reported being of mixed or other heritage. On average, adolescents who reported having been born outside of the United States had lived in the United States for 8.53 years (range = 8 months–16 years). Most adolescent participants reported speaking Spanish with their family most or all of the time (73%), 42% were male, 6% self-reported their race as Black, and the mean age of adolescent participants was 13.87 years (range = 12–16 years). Most parents were between the ages of 28 and 40 (58%), approximately half (48%) reported not having enough money to make ends meet at the end of the month, and one third (33%) reported that their highest level of education was middle school or less.

Measures

The interview protocols were developed in both Spanish and English and consisted of several established measures of risk and protective factors for adolescent TDV victimization as well as newly developed measures unique to the study. Measures that were not available in Spanish were professionally translated and translations were reviewed by bilingual research staff as well as external expert consultants. After the initial protocols were developed in both languages, cognitive interviews were conducted with 56 Latino caregivers and adolescents who were not participants in this study to obtain feedback on translation accuracy, comprehension, recall, and response processes; this feedback was used to improve question wording and protocol structure.

Psychological, physical, and sexual TDV victimization were assessed using adapted items from the Safe Dates victimization in dating relationships scales (Foshee, 1996). Adolescents were asked how many times a dating partner had ever perpetrated each of a series of psychological (5 items; Cronbach's $\alpha = .81$; e.g., "humiliated you in front of others"), physical (4 items; $\alpha = .86$; e.g., "slapped or scratched you"), or sexual (5 items; $\alpha = .85$; e.g., "kissed you when you did not want them to") acts against them. Response options for each act ranged from 0 (*never*) to 3 (*more than four times*). Responses to items corresponding to each dating violence type were summed and, due to limited variability in the sum scores, dichotomized to create binary physical, psychological, and sexual TDV victimization variables.

Parental monitoring was assessed using parent responses to seven items referencing the participating adolescent that assessed how strongly the parent agreed or disagreed that they

(a) have rules that the adolescent must follow; (b) monitor what the adolescent watches on television; (c) put restrictions on his or her access to music, video, and computer games; (d) ask the adolescent about his or her friends; (e) try to meet the parents of his or her friends; (f) set a specific time for the adolescent to come home when he or she is out; and (g) ask the adolescent where he or she is going when he or she goes out. Response options ranged from 0 (*strongly disagree*) to 3 (*strongly agree*); item scores were averaged to create a composite measure ($\alpha = .66$); higher scores denoted greater parental monitoring.

Parent–adolescent communication was assessed as the average of the adolescent’s responses to three items that referred to the parent respondent: “How often do you think you can tell him/her about things that are really personal to you?”; “In general, how would you rate your communication with your parent?”; and, “In general, how satisfied are you with the way you and your parent talk about things that are personal to you?” Response options ranged from 1 (*never*) to 4 (*very often*) for Item 1, 1 (*poor*) to 4 (*very good*) for Item 2, and 1 (*very dissatisfied*) to 4 (*very satisfied*) for Item 3 ($\alpha = .84$). This variable was coded such that higher scores denoted better parent–adolescent communication.

Family cohesion was assessed using adolescent responses to a three-item subscale from a measure developed by Olson (1986). Adolescents were asked how strongly they agreed or disagreed that “family members like to spend free time with each other,” “family members feel very close to each other,” and “family togetherness is very important.” Response options ranged from 0 (*strongly disagree*) to 3 (*strongly agree*); item scores were averaged to create a composite measure ($\alpha = .72$) with higher scores denoting more cohesion. Family conflict was assessed using parent responses to the four-item family conflict subscale of the Family, Friends, and Self (FFS) Assessment Scales (Simpson & McBride, 1992). Parents’ responses to each item (e.g., “How often do members of your family say bad things to one another?”) ranged from 0 (*never*) to 3 (*very often*); item scores were averaged to create a composite scale ($\alpha = .80$).

Acculturation conflict was measured based on the adolescent’s responses to a four-item scale (Vega, Alderete, Kolody, & Aguilar-Gaxiola, 1998). Adolescents were asked how often they (a) had problems with their family because they preferred American customs, (b) felt they would rather be more American if they had the choice, (c) had gotten upset with their parents because the parents don’t know American ways, and (d) felt uncomfortable because they had to choose between Latino and non-Latino ways of doing things. Responses were measured on a Likert scale ranging from 0 (*never*) to 3 (*very often*). Scores were averaged to create a composite measure ($\alpha = .74$) with higher scores denoting more acculturation conflict.

Covariates included three psychosocial control variables: *parent emotional distress*, which was assessed using four items from the Kessler Psychological Distress Scale ($\alpha = .88$; Kessler et al., 2002), and *parent and adolescent acculturation*, which were assessed using the 10-item Psychological Acculturation Scale (PAS; Tropp, Erkut, Coll, Alarcon, & Garcia, 1999). The PAS was designed to assess variability in an individual’s sense of psychological attachment to, knowledge of, and belonging within Latino/Hispanic and Anglo-American cultures. Responses to each item (e.g., “with which group(s) of people do you feel you share

most of your beliefs and values”; “which culture(s) do you feel proud to be a part of”) were scored on a 9-point bipolar scale, ranging from 1 (*only Hispanic/Latino*) to 9 (*only Anglo-American*), with a bicultural orientation as the midpoint (5). Scores were averaged to create a composite scale of parent ($\alpha = .89$) and adolescent ($\alpha = .90$) acculturation, with higher scores representing a more Anglo-American orientation. Demographic control variables included adolescent sex, coded as 1 (*male*) or 0 (*female*); adolescent age in years; adolescent race, coded as 1 (*Black*) or 0 (*other*); adolescent country of birth, coded as 1 (*United States*) or 0 (*foreign*); parent type, coded as 1 (*mother*) or 0 (*other*); and parent education, coded as 2 (more than high school), 1 (*any high school*), or 0 (*middle school or less*).

Analysis strategy

We calculated the proportion of the sample who reported experiencing each type of TDV (psychological, physical, sexual) and the proportion who reported experiencing zero, one, two, or three types of TDV. Chi-square tests were used to examine sex differences in these proportions. Correlation coefficients (phi coefficient) were used to examine associations between each type of TDV and Fisher’s Z tests were used to examine sex differences in these correlations.

Logistic regression was used to examine associations between the family process measures and each type of TDV. Unadjusted and adjusted (multivariate) models were estimated for each TDV outcome. Unadjusted models provide an estimate of the bivariate association between each of the family process measures and each of the TDV outcomes. Adjusted models for each TDV outcome simultaneously included all family process measures as well as psychosocial and demographic covariates. To examine whether the influence of the family process variables on the outcome differed for boys and girls, interactions between each of the family process variables and sex were added to the adjusted model and the joint contribution of the set of interactions to the model was examined with a multivariate Wald test. This allowed us to control for Type I error due to the testing of multiple interaction terms.

Results

Prevalence rates for TDV victimization are reported in Table 1. Over one third (38%) of the sample reported having experienced psychological TDV, 15% reported physical TDV, and 25% reported sexual TDV. Significantly more boys than girls reported physical TDV ($p = .007$); however, prevalence rates for psychological and sexual TDV did not differ significantly by sex. Approximately one quarter of the total sample reported having experienced two or more types of TDV. There were no significant differences between boys and girls in the number of types of victimization experienced (see Table 1). Experiencing one type of victimization was correlated with experiencing another type of victimization (correlations ranged between .35 and .48; $p < .0001$ for all correlations) and correlations did not significantly differ for boys and girls ($p > .10$ for all comparisons).

Table 2 presents the results of the unadjusted (bivariate) and adjusted (multivariate) analyses for each type of TDV (psychological, physical, and sexual). Results from the Wald tests indicated that the joint contribution of the interactions between adolescent sex and the family

process did not contribute significantly to predicting psychological, $\chi^2(5) = 3.42, p = .64$; physical, $\chi^2(5) = 1.17, p = .95$; or sexual TDV, $\chi^2(5) = 6.10, p = .30$. As such, these interactions were trimmed from the adjusted model for each TDV type (sex was retained as a control variable).

Psychological TDV victimization

In unadjusted models, family cohesion ($p = .004$), family conflict ($p = .002$), and acculturation conflict ($p = .009$) were each significantly associated with psychological TDV in expected directions. In addition, parental monitoring was marginally negatively associated with psychological TDV ($p = .08$). In the adjusted model, family cohesion remained positively ($p = .04$) and acculturation conflict negatively ($p = .03$) associated with psychological TDV; the association with family conflict was attenuated and became nonsignificant ($p = .22$).

Physical TDV victimization

In unadjusted analyses, family cohesion was marginally negatively associated with physical TDV ($p = .08$). This association became statistically significant in the adjusted model ($p = .04$). None of the other family process variables were associated with physical TDV across either of the two models.

Sexual TDV victimization

In the unadjusted models, parent–teen communication ($p = .04$), family cohesion ($p = .008$), family conflict ($p = .001$), and acculturation conflict ($p = .005$) were each significantly associated with sexual TDV in expected directions. In adjusted models, family conflict ($p = .048$) remained significant and acculturation conflict remained marginally ($p = .08$) and positively associated with sexual TDV; however, associations between parent–teen communication ($p = .86$) and family cohesion ($p = .26$) and sexual TDV were attenuated and became nonsignificant.

Covariates

Findings from the adjusted models suggest that higher levels of parent acculturation (i.e., Anglo-American orientation) were marginally associated with adolescent risk for psychological TDV (adjusted odds ratio [AOR] = 1.24, $p = .08$) and significantly associated with physical (AOR = 1.35, $p = .04$) and sexual (AOR = 1.37, $p = .01$) TDV. In addition, males were significantly more likely than females to report psychological (AOR = 2.06, $p = .03$) and physical (AOR = 4.15, $p = .001$) TDV. None of the other psychosocial (i.e., adolescent acculturation, parent emotional distress) or demographic (i.e., adolescent age, race, and country of birth; caregiver type and education) covariates were significantly associated with any of the three TDV outcomes in adjusted analyses.

Discussion

Theory and empirical evidence support the notion that the family environment plays a key role in the development of Latino youth. Yet most extant research examining dating violence victimization among Latino adolescents has focused on the linkages between individual-

level rather than family-level factors and one type of TDV, physical victimization. This study extends previous research by providing a comprehensive examination of how different aspects of family functioning are associated with psychological, physical, and sexual TDV victimization among Latino youth.

Several noteworthy findings emerged that might inform future research and efforts to prevent dating violence among Latino youth. First, results from this sample suggest that Latino adolescents are at risk for experiencing all three types of TDV and one quarter of the sample (26% of boys, 24% of girls) reported having experienced more than one type of TDV in their lifetime. Further, consistent with previous research (Cuevas et al., 2014), having experienced one type of TDV was significantly associated with having experienced other types of TDV. Overall prevalence rates for psychological and sexual TDV reported in this study were higher than those reported by other studies of Latino youth (CDC, 2014; Cuevas et al., 2014; Kast et al., 2015); for example, 25% of youth in this study reported having ever experienced sexual TDV as compared to 12% of Latino youth participants in the 2013 Youth Risk Behavior Surveillance (CDC, 2014). Higher prevalence estimates might have been due to differences in sample composition, measurement, or both. In particular, measures used in this study captured a wide range of victimization experiences, including experiences of less severe types of psychological and sexual abuse that are more common among young adolescents. Taken together, these findings suggest that dating abuse interventions for Latino youth should address multiple types of victimization and address victimization among both boys and girls (Cuevas et al., 2014).

Second, findings suggest that family cohesion and family and acculturation conflict might be particularly important processes to target with family-based TDV prevention programs for Latino adolescents. Interventions that increase family cohesion and reduce family conflict, including acculturation conflict, might enable prosocial bonding between parents and youth that constrains involvement in deviant behavior and promotes cognitive and emotional development that, in turn, reduces vulnerability to TDV. There are a number of family-based substance use and youth violence prevention programs that target family cohesion or general and acculturation-based family conflict that have been found to be effective for Latino adolescents (Jensen et al., 2014; Leidy et al., 2010; Pantin et al., 2009; Smith et al., 2014). Our results suggest these existing evidence-based programs might also be effective in preventing TDV. This is an important line for future prevention research; rather than design new TDV prevention programs for Latino youth, a more efficient approach might be to determine whether existing evidence-based programs that aim to improve family cohesion and reduce general and acculturation-based conflict could reduce adolescent risk for TDV victimization.

Associations between family cohesion and family and acculturation conflict and TDV differed across the three victimization outcomes (cohesion with physical, psychological, and sexual TDV; family conflict with sexual TDV; acculturation conflict with psychological TDV). Very few studies have examined risk and protective factors for multiple victimization types within one study, although some findings suggest possible abuse-type-specific risks (e.g., East & Hokoda, 2015; Foshee et al., 2004). These findings might reflect underlying etiological differences in the pathways connecting these family processes to different types

of TDV. However, we caution that further study is needed to corroborate and build on these unexpected findings.

Third, contrary to expectations, we did not find robust associations between parental monitoring or parent–adolescent communication and risk for TDV. Previous studies of Latino youth that have examined the association between parental monitoring or parental communication and TDV have either found no association (Howard et al., 2005) or associations that were significant only when examined independent of other factors (East & Hokoda, 2015; Kast et al., 2015; Yan et al., 2010). For example, Kast et al. (2015) found bivariate associations between both mother–teen and father–teen communication and physical and sexual TDV, however, nearly all of these associations were attenuated and became nonsignificant when adjusting for parent caring, an indicator of family connectedness (Kast et al., 2015). Taken together, these and previous study findings might suggest that the family relational climate (cohesion and conflict), rather than parenting practices like parental monitoring and communication, are more salient influences on risk for TDV victimization among Latino youth. Alternatively, it could be that the influences of parental monitoring and communication on risk for TDV are moderated by other family or cultural factors. Emerging research with Mexican-American adolescents in the southwestern United States, for example, suggests that the effects of parent communication and parent monitoring on substance use behavior could be moderated in complex ways by ethnic identification and acculturation processes (Marsiglia, Nagoshi, Parsai, Booth, et al., 2014; Marsiglia, Nagoshi, Parsai, & Castro, 2012, 2014; Nagoshi, Marsiglia, Parsai, & Castro, 2011; Voisine, Parsai, Marsiglia, Kulis, & Nieri, 2008).

Finally, it is notable that higher parent, but not adolescent, Anglo-American acculturation was associated with increased risk for physical and sexual TDV victimization (marginal association for psychological TDV). Markers of adolescent acculturation have been associated with risk for physical TDV in previous studies (for a review, see Smokowski et al., 2009), with some research suggesting that low-acculturated Latina girls (as indicated by speaking Spanish at home, having a parent born outside of the United States, or high salience of ethnicity) are at lower risk for TDV (Ramos et al., 2011; Sanderson et al., 2004). However, no previous study has simultaneously examined both parent and adolescent acculturation in relation to risk for TDV. One potential explanation for our finding is that parents who are more oriented to Anglo-American culture might allow their adolescents to be more involved in social activities (in-person or via technology) where they could interact with dating partners; in turn, exposure to social activities and dating situations might increase risk for TDV through the pathways described earlier.

Strengths and limitations

This study had several limitations that influence the conclusions that can be drawn from findings. In particular, analyses were cross-sectional and thus we could not establish temporality of associations as required to make causal inferences. Although our theoretical framework suggests that family processes work through various etiological pathways to lead to TDV victimization risk, it is certainly plausible that experiences of TDV could lead to changes in family processes. Future research should therefore build from this study to

examine longitudinal reciprocal associations between family processes and TDV among Latino youth and examine the causal mechanisms explaining these associations.

There were also some measurement-related limitations to our study. All measures were based on adolescent self-report and thus potentially prone to social desirability bias. Although family conflict was assessed, we did not directly examine marriage quality, child maltreatment, or interparental violence, which might be associated with TDV. Measures of parental monitoring and communication were general rather than specific to monitoring and communication about romantic relationships; future research should examine behavior-specific measures of these parenting practices and TDV. Finally, our measures of parent and adolescent acculturation were limited in that they did not measure culture of origin and U.S. cultural orientation using separate scales; the one study to have used this bidimensional approach to assess relationships between acculturation and TDV found that higher levels of adolescent Hispanicism were protective against physical TDV, whereas adolescent Americanism (i.e., orientation to U.S. culture) was unrelated to TDV (Gonzalez-Guarda et al., 2014). More research using multidimensional measures is needed to better understand the etiological pathways and mechanisms that might link acculturation processes to victimization risk (Smokowski et al., 2009).

Additional limitations include that the sample was of modest size, potentially limiting our power to detect the proposed relationships, and not based on a random sample, limiting our ability to generalize findings to other Latino youth. In addition, the sample included a heterogeneous mixture of youth from different ethnic backgrounds including youth of Mexican heritage (74%), as well as youth who reported being of Central or South American origin (26%); however, ancillary analyses suggested that family country of origin was not associated with any of the family process or TDV variables.

Notwithstanding these limitations, this study had several strengths. Using multiple distinct family process and TDV measures enabled a more comprehensive examination of associations between these constructs. Although some previous TDV research with Latino youth has examined family-level risk and protective factors, none incorporated all of the variables we considered. We controlled for confounding by examining the unique associations between each family process and each type of TDV, adjusting for the effects of other family processes, as well demographic factors and acculturation indicators. Other strengths include the fact that, to our knowledge, this is only the second study to examine the prevalence of and overlap in experiences of psychological, physical, and sexual TDV among Latino adolescents. TDV outcomes were assessed using multi-item measures, and thus might more accurately describe the prevalence of these behaviors in this population than the single-item measures used in previous research.

Conclusion

Latino adolescents represent a large and growing population at risk for TDV, yet, to date, limited research has been conducted with Latino youth to identify modifiable risk and protective factors for dating abuse that could be targeted by prevention efforts. Moreover, most extant research examining the etiology of TDV in this population has focused on

individual-level predictors despite the noted importance of family in Latino culture. This study addressed this gap by examining associations between family-level risk and protective factors and multiple types of TDV victimization among Latino youth. Consistent with previous research, physical, psychological, and sexual TDV were found to cooccur and were highly prevalent among both Latino boys and girls (Cuevas et al., 2014). These findings suggest the importance of implementing dating abuse prevention efforts for Latino youth that target both boys and girls and address all three types of TDV. Results also identify family and acculturation conflict, as well as family cohesion, as family processes that might be important targets for family-based dating abuse prevention efforts with Latino youth. Extant family-based interventions that have been tested with Latino adolescents and their caregivers that have been found to be effective in reducing family conflict or increasing family cohesion might also be effective in reducing TDV, even though TDV is not explicitly addressed in the content of those interventions. Future evaluation research should examine this possibility and build on this study to examine the specific mechanisms linking family processes and risk for TDV and determine whether and how associations might depend on demographic or acculturation-related indicators.

Acknowledgments

Funding

This study was funded by the CDC (1 R49 CE001495-01) and by an interpersonnel agency agreement between H. Luz McNaughton Reyes and the CDC (13IPA130569) and between Vangie A. Foshee and the CDC (13IPA1303570). The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the CDC.

References

- Allen JP, McElhaney KB, Land DJ, Kuperminc GP, Moore CW, O'Beirne-Kelly H, Kilmer SL. A secure base in adolescence: Markers of attachment security in the mother–adolescent relationship. *Child Development*. 2003; 74:292–307. DOI: 10.1111/1467-8624.t01-1-00536 [PubMed: 12625451]
- Bouchey, HA., Furman, W. Dating and romantic experiences in adolescence. In: Adams, G., Berzonsky, M., editors. *Blackwell handbook of adolescence*. Oxford, UK: Blackwell Publishers; 2003. p. 312-329.
- Brooks-Russell A, Foshee VA, Ennett ST. Predictors of latent trajectory classes of physical dating violence victimization. *Journal of Youth and Adolescence*. 2013; 42:566–580. DOI: 10.1007/s10964-012-9876-2 [PubMed: 23212350]
- Centers for Disease Control and Prevention. Youth risk behavior surveillance–United States, 2013. *MMWR Surveillance Summaries*. 2014; 63:1–168.
- Centers for Disease Control and Prevention. Understanding teen dating violence. (n.d.)Retrieved from <http://www.cdc.gov/violenceprevention/pdf/teen-dating-violence-factsheet-a.pdf>
- Cohen LE. Modeling crime trends: A criminal opportunity perspective. *Journal of Research in Crime and Delinquency*. 1981; 18:138–164. DOI: 10.1177/002242788101800109
- Colby, SL., Ortman, JM. Projections of the size and composition of the U.S. population: 2014 to 2060. 2015. Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>
- Cuevas CA, Sabina C, Bell KA. Dating violence and interpersonal victimization among a national sample of Latino youth. *Journal of Adolescent Health*. 2014; 55:564–570. DOI: 10.1016/j.jadohealth.2014.04.007 [PubMed: 24880210]

- Cummings EM, Koss KJ, Davies PT. Prospective relations between family conflict and adolescent maladjustment: Security in the family system as a mediating process. *Journal of Abnormal Child Psychology*. 2015; 43:503–515. DOI: 10.1007/s10802-014-9926-1 [PubMed: 25131144]
- East PL, Hokoda A. Risk and protective factors for sexual and dating violence victimization: A longitudinal, prospective study of Latino and African American adolescents. *Journal of Youth and Adolescence*. 2015; 44:1288–1300. DOI: 10.1007/s10964-015-0273-5 [PubMed: 25788124]
- Exner-Cortens D, Eckenrode J, Rothman E. Longitudinal associations between teen dating violence victimization and adverse health outcomes. *Pediatrics*. 2013; 131:71–78. DOI: 10.1542/peds.2012-1029 [PubMed: 23230075]
- Finkelhor D, Asdigian NL. Risk factors for youth victimization: Beyond a lifestyles/routine activities theory approach. *Violence and Victims*. 1996; 11:3–19. [PubMed: 8870212]
- Fosco GM, Stormshak EA, Dishion TJ, Winter C. Family relationships and parental monitoring during middle school as predictors of early adolescent problem behavior. *Journal of Clinical Child & Adolescent Psychology*. 2012; 41:202–213. DOI: 10.1080/15374416.2012.651989 [PubMed: 22417193]
- Foshee VA. Gender differences in adolescent dating abuse prevalence, types and injuries. *Health Education Research*. 1996; 11:275–286. DOI: 10.1093/her/11.3.275-a
- Foshee VA, Benefield TS, Ennett ST, Bauman KE, Suchindran C. Longitudinal predictors of serious physical and sexual dating violence victimization during adolescence. *Preventive Medicine*. 2004; 39:1007–1016. DOI: 10.1016/j.ypmed.2004.04.014 [PubMed: 15475036]
- Foshee VA, Reyes HLM, Gottfredson NC, Chang LY, Ennett ST. A longitudinal examination of psychological, behavioral, academic, and relationship consequences of dating abuse victimization among a primarily rural sample of adolescents. *Journal of Adolescent Health*. 2013; 53:723–729. DOI: 10.1016/j.jadohealth.2013.06.016 [PubMed: 23910572]
- Gonzalez-Guarda RM, Williams JR, Merisier M, Cummings AM, Prado G. Acculturation, risk behaviors and physical dating violence victimization among Cuban-American adolescents. *Journal of Pediatric Nursing*. 2014; 29:633–640. DOI: 10.1016/j.pedn.2014.03.001 [PubMed: 24680919]
- Guilamo-Ramos V, Bouris A, Jaccard J, Lesesne CA, Gonzalez B, Kalogergiannis K. Family mediators of acculturation and adolescent sexual behavior among Latino youth. *Journal of Primary Prevention*. 2009; 30:395–419. DOI: 10.1007/s10935-009-0180-1 [PubMed: 19408122]
- Hindelang, MJ., Gottfredson, MR., Garofalo, J. *Victims of personal crime: An empirical foundation for a theory of personal victimization*. Cambridge, MA: Ballinger; 1978.
- Hoeve M, Dubas JS, Eichelsheim VI, Van Der Laan PH, Smeenk W, Gerris JR. The relationship between parenting and delinquency: A meta-analysis. *Journal of Abnormal Child Psychology*. 2009; 37:749–775. DOI: 10.1007/s10802-009-9310-8 [PubMed: 19263213]
- Hoeve M, Stams GJJ, Van Der Put CE, Dubas JS, Van Der Laan PH, Gerris JR. A meta-analysis of attachment to parents and delinquency. *Journal of Abnormal Child Psychology*. 2012; 40:771–785. DOI: 10.1007/s10802-011-9608-1 [PubMed: 22278802]
- Howard DE, Beck K, Kerr MH, Shattuck T. Psychosocial correlates of dating violence victimization among Latino youth. *Adolescence*. 2005; 40:319–331. [PubMed: 16114594]
- Hughes EK, Gullone E. Internalizing symptoms and disorders in families of adolescents: A review of family systems literature. *Clinical Psychology Review*. 2008; 28:92–117. DOI: 10.1016/j.cpr.2007.04.002 [PubMed: 17509739]
- Jensen MR, Wong JJ, Gonzales NA, Dumka LE, Millsap R, Cox S. Long-term effects of a universal family intervention: Mediation through parent–adolescent conflict. *Journal of Clinical Child & Adolescent Psychology*. 2014; 43:415–427. DOI: 10.1080/15374416.2014.891228 [PubMed: 24730357]
- Jouriles EN, McDonald R, Mueller V, Grych JH. Youth experiences of family violence and teen dating violence perpetration: Cognitive and emotional mediators. *Clinical Child and Family Psychology Review*. 2012; 15:58–68. DOI: 10.1007/s10567-011-0102-7 [PubMed: 22160838]
- Kast NR, Eisenberg ME, Sieving RE. The role of parent communication and connectedness in dating violence victimization among Latino adolescents. *Journal of Interpersonal Violence*. 2015; 31(10): 1–24.

- Kessler RC, Andrews G, Colpe LJ, Hiripi E, Mroczek DK, Normand SL, Zaslavsky AM. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*. 2002; 32:959–976. DOI: 10.1017/S0033291702006074 [PubMed: 12214795]
- Leidy MS, Guerra NG, Toro RI. A review of family-based programs to prevent youth violence among Latinos. *Hispanic Journal of Behavioral Sciences*. 2010; 32:5–36. DOI: 10.1177/0739986309353317
- Magdol L, Moffitt TE, Caspi A, Silva PA. Developmental antecedents of partner abuse: A prospective-longitudinal study. *Journal of Abnormal Psychology*. 1998; 107:375–389. DOI: 10.1037/0021-843X.107.3.375 [PubMed: 9715573]
- Marsiglia FF, Kulis S, Fitzharris B, Becerra D. Acculturation gaps and problem behaviors among U.S. Southwestern Mexican youth. *Social Work Forum*. 2009; 42–43:5–25.
- Marsiglia FF, Nagoshi JL, Parsai M, Booth JM, Castro FG. The parent–child acculturation gap, parental monitoring, and substance use in Mexican heritage adolescents in Mexican neighborhoods of the Southwest US. *Journal of Community Psychology*. 2014; 42:530–543. DOI: 10.1002/jcop.2014.42.issue-5 [PubMed: 25414532]
- Marsiglia FF, Nagoshi JL, Parsai M, Castro FG. The influence of linguistic acculturation and parental monitoring on the substance use of Mexican-heritage adolescents in predominantly Mexican enclaves of the Southwest US. *Journal of Ethnicity in Substance Abuse*. 2012; 11:226–241. DOI: 10.1080/15332640.2012.701566 [PubMed: 22931157]
- Marsiglia FF, Nagoshi JL, Parsai M, Castro FG. The effects of parental acculturation and parenting practices on the substance use of Mexican-heritage adolescents from Southwestern Mexican neighborhoods. *Journal of Ethnicity in Substance Abuse*. 2014; 13:288–311. DOI: 10.1080/15332640.2014.905215 [PubMed: 25176121]
- Nagoshi JL, Marsiglia FF, Parsai M, Gonzalez-Castro F. The moderating effects of ethnic identification on the relationship between parental monitoring and substance use in Mexican heritage adolescents in the southwest United States. *Journal of Community Psychology*. 2011; 39:520–533. DOI: 10.1002/jcop.20449 [PubMed: 21874076]
- O’Leary KD, Slep AMS, Avery-Leaf S, Cascardi M. Gender differences in dating aggression among multiethnic high school students. *Journal of Adolescent Health*. 2008; 42:473–479. DOI: 10.1016/j.jadohealth.2007.09.012 [PubMed: 18407042]
- Olson DH. Circumplex model VII: Validation studies and FACES III. *Family Process*. 1986; 25:337–351. DOI: 10.1111/famp.1986.25.issue-3 [PubMed: 3758310]
- Pantin H, Prado G, Lopez B, Huang S, Tapia MI, Schwartz SJ, Branchini J. A randomized control trial of familias unidas for Hispanic adolescents with behavior problems. *Psychosomatic Medicine*. 2009; 71:987–995. DOI: 10.1097/PSY.0b013e3181bb2913 [PubMed: 19834053]
- Ramos MM, Green D, Booker J, Nelson A. Immigration status, acculturation, and dating violence risk for Hispanic adolescent girls in New Mexico. *Maternal and Child Health Journal*. 2011; 15:1076–1080. DOI: 10.1007/s10995-010-0653-0 [PubMed: 20700636]
- Sanderson M, Coker AL, Roberts RE, Tortolero SR, Reininger BM. Acculturation, ethnic identity, and dating violence among Latino ninth-grade students. *Preventive Medicine*. 2004; 39:373–383. DOI: 10.1016/j.ypmed.2004.01.034 [PubMed: 15226049]
- Schreck CJ, Fisher BS. Specifying the influence of family and peers on violent victimization extending routine activities and lifestyles theories. *Journal of Interpersonal Violence*. 2004; 19:1021–1041. DOI: 10.1177/0886260504268002 [PubMed: 15296615]
- Silverman JG, Decker MR, Raj A. Immigration-based disparities in adolescent girls’ vulnerability to dating violence. *Maternal and Child Health Journal*. 2007; 11:37–43. DOI: 10.1007/s10995-006-0130-y [PubMed: 16845589]
- Simpson DD, McBride AA. Family, Friends, and Self (FFS) Assessment Scales for Mexican American youth. *Hispanic Journal of Behavioral Sciences*. 1992; 14:327–340. DOI: 10.1177/07399863920143003
- Smith JD, Knoble NB, Zerr AA, Dishion TJ, Stormshak EA. Family check-up effects across diverse ethnic groups: Reducing early-adolescence antisocial behavior by reducing family conflict. *Journal*

- of Clinical Child & Adolescent Psychology. 2014; 43:400–414. DOI: 10.1080/15374416.2014.888670 [PubMed: 24731120]
- Smokowski PR, David-Ferdon C, Stroupe N. Acculturation and violence in minority adolescents: A review of the empirical literature. *The Journal of Primary Prevention*. 2009; 30:215–263. DOI: 10.1007/s10935-009-0173-0 [PubMed: 19387835]
- Smokowski PR, Rose RA, Bacallao M. Acculturation and aggression in Latino adolescents: Modeling longitudinal trajectories from the Latino acculturation and health project. *Child Psychiatry & Human Development*. 2009; 40:589–608. DOI: 10.1007/s10578-009-0146-9 [PubMed: 19504182]
- Smokowski PR, Rose RA, Bacallao M. Influence of risk factors and cultural assets on Latino adolescents' trajectories of self-esteem and internalizing symptoms. *Child Psychiatry & Human Development*. 2010; 41:133–155. DOI: 10.1007/s10578-009-0157-6 [PubMed: 19672704]
- Smokowski PR, Rose RA, Evans CB, Cotter KL, Bower M, Bacallao M. Familial influences on internalizing symptomatology in Latino adolescents: An ecological analysis of parent mental health and acculturation dynamics. *Development and Psychopathology*. 2014; 26:1191–1207. DOI: 10.1017/S0954579414000960 [PubMed: 25422955]
- Tropp LR, Erkut S, Coll CG, Alarcon O, García HAV. Psychological acculturation: Development of a new measure for Puerto Ricans on the US mainland. *Educational and Psychological Measurement*. 1999; 59:351–367. DOI: 10.1177/00131649921969794 [PubMed: 21415932]
- Vagi KJ, O'Malley-Olsen E, Basile KC, Vivolo-Kantor A. Teen dating violence (physical and sexual) among US high school students. Findings from the 2013 national youth risk behavior survey. *JAMA Pediatrics*. 2015; 169:474–482. DOI: 10.1001/jamapediatrics.2014.3577 [PubMed: 25730143]
- Vega WA, Alderete E, Kolody B, Aguilar-Gaxiola S. Illicit drug use among Mexicans and Mexican Americans in California: The effects of gender and acculturation. *Addiction*. 1998; 93:1839–1850. DOI: 10.1046/j.1360-0443.1998.931218399.x [PubMed: 9926572]
- Voisine S, Parsai M, Marsiglia F, Kulis S, Nieri T. Effects of parental monitoring, permissiveness, and injunctive norms on substance use among Mexican and Mexican American adolescents. *Families in Society: The Journal of Contemporary Social Services*. 2008; 89:264–273. DOI: 10.1606/1044-3894.3742
- Wagner KD, Ritt-Olson A, Chou CP, Pokhrel P, Duan L, Baezconde-Garbanati L, Unger JB. Associations between family structure, family functioning, and substance use among Hispanic/Latino adolescents. *Psychology of Addictive Behaviors*. 2010; 24:98–108. DOI: 10.1037/a0018497 [PubMed: 20307116]
- Yan F, Howard DE, Beck KH, Shattuck T, Hallmark-Kerr M. Psychosocial correlates of physical dating violence victimization among Latino early adolescents. *Journal of Interpersonal Violence*. 2010; 20:1–24.

Table 1

Self-reported experiences of dating violence victimization (DVV) among Latino adolescents in five North Carolina counties, separately by victimization type and sex.

Experiences of DVV	Sex		Male	Total
	Female	χ^2		
DVV type	<i>n</i> = 121	<i>n</i> = 89		<i>N</i> = 210
Psychological	42 (35%)	38 (43%)	1.39	80 (38%)
Physical	11 (9%)	20 (22%)	7.30**	31 (15%)
Sexual	31 (26%)	21 (24%)	0.11	52 (25%)
Number of types of DVV experienced			2.08	
No victimization	71 (59%)	45 (51%)		116 (55%)
One type	24 (20%)	19 (21%)		43 (20%)
Two types	18 (15%)	15 (17%)		33 (16%)
Three types	8 (7%)	10 (11%)		18 (9%)

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 2

Logistic regression analyses of the association between family processes and dating violence victimization (DVV) among Latino adolescents in five North Carolina counties.

Family processes	Psychological DVV			Physical DVV			Sexual DVV		
	OR [95% CI]	AOR ^a [95% CI]	OR [95% CI]	OR [95% CI]	AOR ^a [95% CI]	OR [95% CI]	OR [95% CI]	AOR ^a [95% CI]	
Parent monitoring	0.51 [0.24, 1.10]	0.54 [0.22, 1.33]	0.77 [0.30, 2.02]	0.64 [0.22, 1.89]	0.68 [0.31, 1.52]	0.79 [0.31, 2.00]			
Parent-adolescent communication	0.75 [0.51, 1.10]	1.15 [0.70, 1.88]	0.84 [0.50, 1.40]	1.04 [0.54, 2.01]	0.64 [0.42, 0.97] [*]	0.95 [0.56, 1.62]			
Family cohesion	0.49 [0.31, 0.80] ^{**}	0.52 [0.27, 0.97] [*]	0.59 [0.32, 1.08]	0.46 [0.22, 0.97] [*]	0.50 [0.30, 0.83] ^{**}	0.67 [0.35, 1.28]			
Family conflict	1.89 [1.26, 2.84] ^{**}	1.37 [0.82, 2.29]	1.38 [0.83, 2.32]	1.13 [0.60, 2.13]	2.56 [1.60, 4.09] ^{***}	1.74 [1.01, 3.02] [*]			
Acculturation conflict	1.84 [1.17, 2.89] ^{**}	1.76 [1.05, 2.96] [*]	1.03 [0.57, 1.87]	1.08 [0.56, 2.10]	2.04 [1.23, 3.36] ^{**}	1.61 [0.93, 2.80]			

Note: OR = odds ratio.

^a Adjusted odds ratios (AOR) included all family processes and controlled for parent acculturation, parent emotional distress, parent type (mother vs. other), parent education, adolescent acculturation, adolescent age, adolescent sex, adolescent race, and adolescent country of birth.

* $p < .05$.

** $p < .01$.

*** $p < .001$.