Social Support from Family and Friends and Their Role as Buffers Against Internalizing Symptoms Among Mexican American Youth

by

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ABSTRACT

Internalizing symptoms are prevalent among adolescents, especially among Latinos, and can have negative consequences on health and development. Understanding the risk and protective factors leading to internalizing difficulties among Latino youth is critical. The current study sought to assess the effects of family risk and peer social rejection in the seventh grade on internalizing symptoms in the tenth grade, and the potential buffering effects of social support from family and from friends, among a sample of 749 Mexican American youth. Structural equation modeling was used to examine pathways from seventh grade family risk and peer social rejection to internalizing symptoms in the tenth grade. Perceived social support from family and perceived social support from friends were tested as moderators of these relations. Gender differences in these pathways were also assessed. Results showed that family risk did not predict tenth grade internalizing symptoms, but that peer social rejection predicted increased internalizing symptoms for girls. Furthermore, buffering effects were not confirmed; rather social support from both friends and family had no effect on the relation between family risk and internalizing symptoms, and high levels of social support from both sources amplified the effect of peer social rejection on internalizing symptoms. Secondary analyses suggested that at low levels of social support from both sources, peer social rejection predicted decreased internalizing symptoms for males. Limitations and implications for prevention and future research are discussed.

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Introduction

Internalizing disorders, such as depression and anxiety, can undermine development in adolescence and lead to negative health and social outcomes (Kendall, Safford, Flannery-Schroeder, & Webb, 2004; Substance Abuse and Mental Health Services Administration, 2008). The prevalence of internalizing symptoms and disorders among Latino youth are particularly high. Surveys of depression among adolescents in the U.S. have consistently found Latino youth to have higher rates of depression than their African American, Asian American, and European American peers (Choi, Meininger, & Roberts, 2006; Mikolajczyk, Bredehorst, Khelaifat, Maier, & Maxwell, 2007; Roberts, Roberts, & Chen, 1997; Twenge & Nolen-Hoeksema, 2002). A CDC report indicated that Hispanic adolescents were more likely to report feeling sad or hopeless than white or black adolescents (Eaton et al., 2012). For anxiety, studies assessing ethnic differences are scarce. Yet, evidence suggests that Hispanic youth report more somatic symptoms, have higher rates of separation anxiety disorder, and show more harm avoidance symptoms and worry compared to other ethnic groups (Ginsburg & Silverman, 1996; McLaughlin, Hilt, & Nolen-Hoeksema, 2007; Piña & Silverman, 2004).

Considering Latinos have the fastest growing youth population in the U.S. (US Census Bureau, 2012), identifying protective mechanisms that can reduce internalizing disorders is critical. One such mechanism is social support. Although social support has several different conceptualizations (Barrera, 1986; Cohen & Wills, 1985), it generally refers to the perception that one is cared for, has assistance available from other people, and is part of a supportive social network (Cobb, 1976). Social support can come from

many sources, but the current study will focus on social support from family and friends and their role as buffers against internalizing symptoms among Mexican American youth.

Theoretical Foundations

Stress and coping processes have been widely implicated as contributing to internalizing problems in adolescence (Compas, Orosan, & Grant, 1993). Bronfenbrenner's (1979) bioecological model provides a theoretical backdrop for understanding stress and coping processes that lead to internalizing problems among Latino youth. Relations among ecological stressors, coping mechanisms, and internalizing difficulties are not limited to the microsystemic level between the Latino adolescent and their close others; these associations likely take place at the mesosystemic (e.g., interactions between their parents and schools), exosystemic (e.g., neighborhood), and macrosystemic levels (e.g., culture) as well. The current thesis will focus on the interplay of stressful circumstances within two primary developmental contexts that are relevant to adolescents' internalizing symptoms. One such context is a family characterized by high levels of conflict and aggression. Adolescents raised in these "risky families" develop poor emotional processing and expression and are at heightened risk for internalizing disorders (Repetti, Taylor, & Seeman, 2002). The peer group is another potentially risky context that will be examined in the proposed thesis. Specifically, adolescents' experience of social rejection from their peers has shown consistent relations with internalizing symptoms (Platt, Kadosh, & Lau, 2013).

Although the family and peer group may be sources of stress, they may also be sources of social support—a potentially useful coping mechanism for adolescents. The buffering hypothesis posits that social support acts as a buffer, protecting individuals

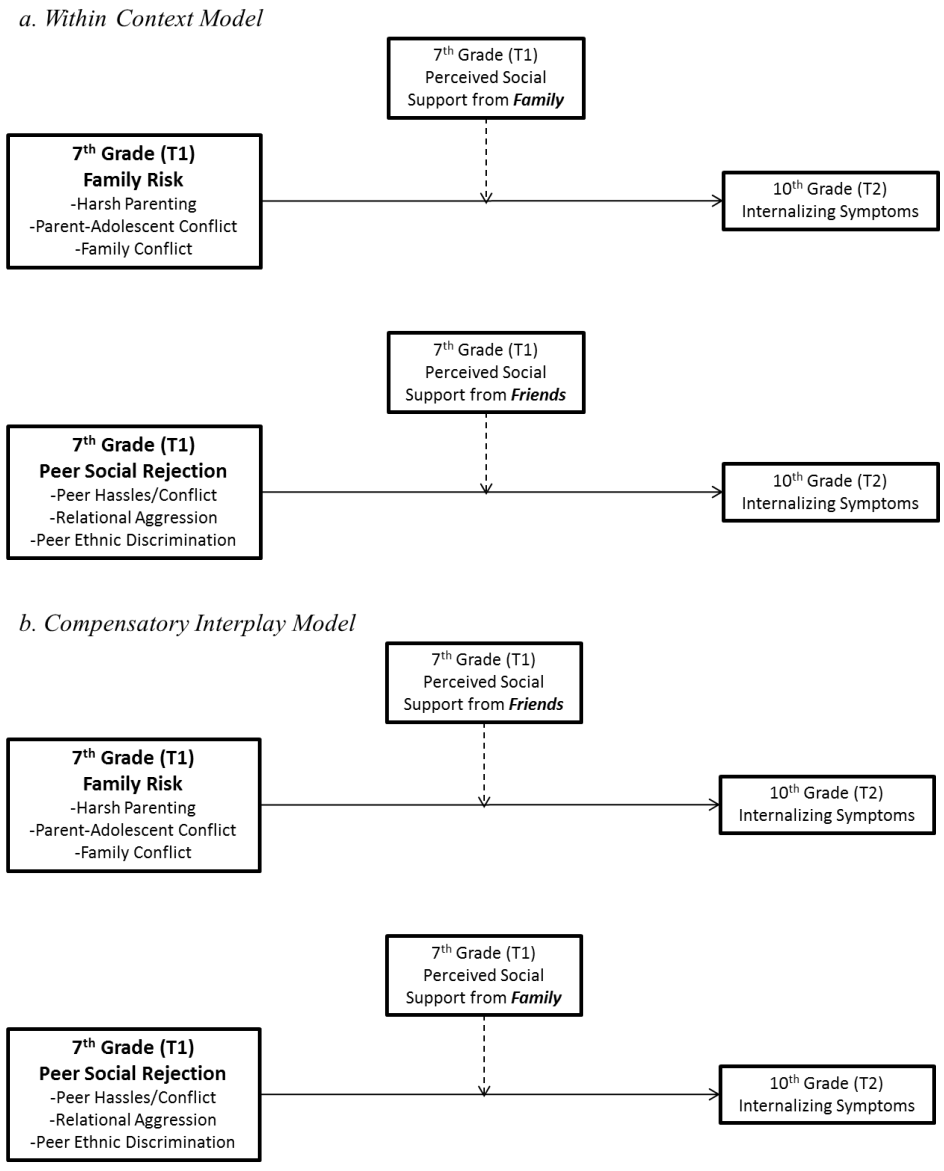
from the negative consequences of stress (Cohen & Wills, 1985). It is well documented that social support buffers high-risk adolescents from developing internalizing problems (e.g., Davidson & Demaray, 2007; Muller, Goebel-Fabbri, Diamond, & Dinklage, 2000), including among Latino youth (Crean, 2004; Raffaelli, Andrade, Wiley, Sanchez-Armass, Edwards, & Arandillas-Garcia, 2013).

The buffering hypothesis also suggests that there must be a reasonable match between the stressor and source of social support for buffering to occur (Cohen & Wills, 1985). Indeed, a stress-support mismatch could lead to poorer psychosocial adjustment. Family risk and peer social rejection are differential stressful contexts that may require different sources of social support, such as from family or friends, for an adolescent to be protected from developing internalizing problems. The current thesis examined three potential matching models: 1) within context match of social support resources, 2) compensatory interplay across contexts, and 3) centrality of family social support.

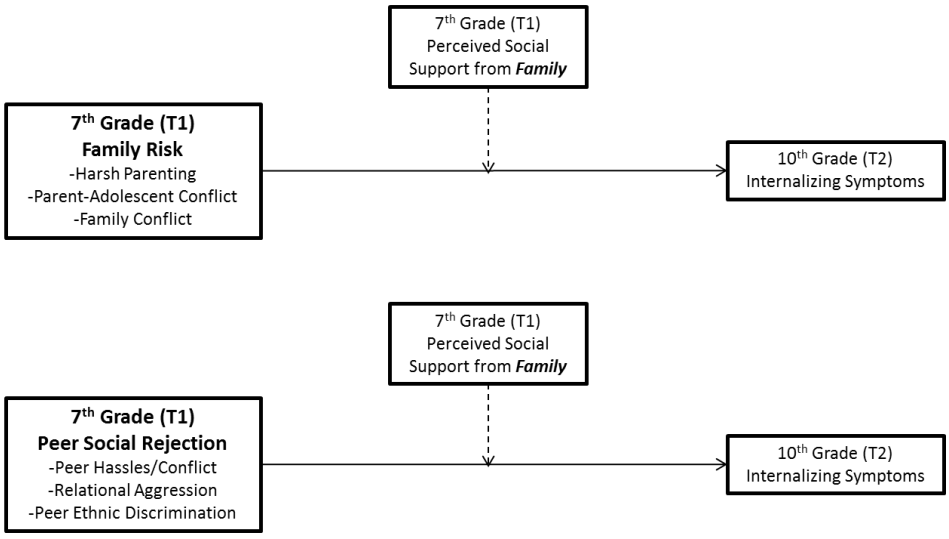
In the within context model (see Figure 1a below), adolescents from risky families may require social support from family members and socially rejected adolescents may require social support from friends to buffer them from developing internalizing difficulties. In contrast, a compensatory interplay model may be at play (see Figure 1b below); adolescents from risky families may require social support from friends, and adolescents rejected from the peer group may require social support from family to act as protective factors against internalizing symptoms. Among Latinos in particular, the centrality of family social support may act as the sole protective force against the adverse consequences of both family and peer stressful contexts (see Figure 1c below). *Familism* is a Latino cultural value that represents strong identification and

attachment of individuals with their families. One of the core facets of *familism* is perceived support and emotional closeness, or the perception that family members are reliable sources of help and have close relationships (Sabogal, Marín, Otero-Sabogal, Marín, & Perez-Stable, 1987). Thus, family social support may reign supreme over friend social support in protecting Latino adolescents from developing internalizing problems, no matter the source of stress.

Figure 1: Conceptual Models



c. Centrality of Family Model



The present study aimed to elucidate the moderating roles of perceived social support from family versus friends in the relations of family risk and peer social rejection to internalizing symptoms among a sample of Mexican American adolescents. Specifically, family risk, peer social rejection, and perceived social support from family and friends in the seventh grade was tested for effects on internalizing symptoms in the tenth grade. Seventh grade is a salient age to study these processes, as youth start middle school, undergo pubertal changes, and enter adolescence, a period when peer and family relationships shift (Brown & Bakken, 2011; Dorn & Biro, 2011; Petersen, 1988; Wolman, 1998). Unsuccessful navigation of these transitions could have long-term consequences in psychosocial adjustment as youth prepare for adulthood.

Family Risk

In their extensive review, Repetti and colleagues (2002) presented overwhelming evidence that growing up in a risky family environment is linked to anxiety, depression, and suicide. They propose that youth from risky families experience alterations in physiological responses to stress, emotional processing, social competence, and

behavioral self-regulation, which in turn lead to maladjustment, including internalizing symptoms (Repetti et al., 2002). For example, children from risky families react to conflict with greater distress, anxiety, and fear than children from non-risky families (Cummings, Pellegrini, Notarius, & Cummings, 1989), a sign of emotion dysregulation. Research also ties emotion dysregulation with internalizing symptoms (Southam-Gerow & Kendall, 2002).

Several studies have found that the accumulation of family risk factors impacts internalizing symptomatology (e.g., Matjasko, Grunden, & Ernst, 2007). For example, an increase in three to four family stressors was associated with a significant increase in internalizing problems from adolescence to early adulthood (Forehand, Biggar, & Kotchick, 1998). The amount of family risk domains in the sixth grade was associated with increases in internalizing problems through ninth grade (Buehler & Gerard, 2013). A similar trend appears in samples of ethnic minority youth (Kim & Brody, 2005; Randell, Wang, Herting, & Eggert, 2006; Sagrestano, Paikoff, Holmbeck, & Fendrich, 2003). Although one study failed to find a link between cumulative family risk and adolescent depression (Smokowski, Mann, Reynolds, & Fraser, 2004), the literature points to a correlation between family risk factors and internalizing difficulties.

In the present study, family risk was conceptualized as a latent factor underlying the measured variables of harsh parenting, parent-adolescent conflict, and family conflict. Prior research supports links between each of these family risk variables and youth internalizing. Harsh parenting has consistently been found to be a risk factor for internalizing problems (Festa & Ginsburg, 2011; Pettit, Laird, Dodge, Bates, & Criss, 2001; Slobodskaya & Akhmetova, 2010; Voydanoff, 2004), including among Mexican

origin youth (García, Manongdo, & Ozechowski, 2014). For example, harsh parenting in fifth or seventh grade predicted tenth grade internalizing symptoms in a sample of Mexican origin daughters and their mothers (Deardorff et al., 2013).

Parent-adolescent conflict is a particularly salient predictor of youth internalizing symptomatology. Research has shown that conflict between parents and their children is significantly associated with youth anxiety and depression (Bradford, Vaughn, & Barber, 2008; Smokowski, Cotter, Robertson, & Guo, 2013; Wang, Brinkworth, & Eccles, 2013). Diverse cultural groups, such as Moroccan immigrants in the Netherlands and Taiwanese youth, also exhibit a link between parent-adolescent conflict and internalizing symptoms, including psychosomatic complaints, social withdrawal, anxiety, and depression (Stevens, Gonneke, Vollebergh, Pels, & Crijnen, 2005; Yeh, 2011). The relation between parent-adolescent conflict and internalizing difficulties has also been evidenced among Latino youth (Céspedes & Huey, 2008; Kuhlberg, Peña, & Zayas, 2010; Lorenzo-Blanco, Unger, Ritt-Olson, Soto, & Baezconde-Garbanati, 2011; Buchanan & Smokowski, 2011; Harker, 2001; Stein, Gonzalez, & Huq, 2012), and Mexican Americans specifically (Zeiders, Roosa, & Tein, 2011). These conflicts may be due to acculturation gaps, between parents and their more acculturated children (Martinez, McClure, Eddy, & Wilson, 2011). Indeed, conflict over cultural values in Latino American families has been linked to youth internalizing problems (Dennis, Basañez, & Farahmand, 2010; Forster, Dval, Baezconde-Garbanati, Chou, Soto, & Unger, 2013; Smokowski, Bacallao, & Buchanan, 2009).

Family conflict pertains to a generally aggressive and violent family environment, as well as conflict between specific family members (e.g., interparental conflict). An

overwhelming amount of research has shown a relation between family conflict and internalizing (e.g., DeCarlo Santiago & Wadsworth, 2009; Gunnlaugsson, Kristjánsson, Einarsdóttir, & Sigfúsdóttir, 2011), as well as interparental conflict and internalizing problems (Bradford et al., 2008; Fear et al., 2009). These relations have been shown in research with ethnically diverse youth in the U.S. (Bradford et al., 2008; DeCarlo Santiago & Wadsworth, 2009; Herrenkohl, Kosterman, Hawkins, & Mason, 2009) and in other countries. For example, among Turkish, Australian, Canadian, and Brazilian youth, family conflict predicted internalizing symptoms (Auerbach & Ho, 2012; Chan, Kelly, & Toumbourou, 2013; Siyez, 2008; Sherman, Duarte, & Verdeli, 2011) and among French and Moroccan immigrant youth, interparental conflict predicted internalizing symptoms (Consoli et al., 2013; Stevens et al., 2005). Mexican origin youth in the U.S. have also shown this trend of family and interparental conflict predicting depressive symptoms (Gonzales, Deardorff, Formoso, Barr, & Barrera, 2006).

Peer Social Rejection

As children transition into adolescence, they place greater importance on peer relationships, particularly peer approval and acceptance (Brown, 1990, 2004; Brown & Larson, 2009). At the same time, peer rejection becomes increasingly prevalent (Brown, 2004). Prior research has shown a clear link between social rejection from peers and internalizing problems in adolescence (Deater-Deckard, 2001; Platt et al., 2013). This may be the case because of greater social comparison in adolescence (Festinger, 1954); youth who observe others being accepted, might experience heightened distress about being rejected. Adolescents also have greater sensitivity to rejection (Hankin & Abramson, 2001), which has been linked to internalizing symptoms (Sandstrom,

Cillessen, & Eisenhower, 2003). More recent neuroimaging research has shown that peer rejection heightens neural activity, which in turn predicts internalizing (Platt et al., 2013; Masten, Eisenberger, Borofsky, McNealy, Pfeifer, & Dapretto, 2011).

Several cross-sectional studies have shown a correlation between peer rejection and internalizing problems (e.g., Prinstein, Boergers, Spirito, Little, & Grapentine, 2000; Voydanoff, 2004). This trend exists in diverse populations as well. For example, ethnically diverse youth in the U.S. who reported more negative peer relationships exhibited more internalizing (Smokowski et al., 2013), and Israeli and Dutch adolescents who reported alienation from peers had higher levels of depression, anxiety, and even posttraumatic stress (Beeri & Lev- Wiesel, 2012; Dwairy, 2011; Roelofs, Lee, Ruijten, & Lobbestael, 2011). Several studies assessed peer rejection via peer nominations, versus self-report, and found similar trends. For example, students who were nominated as "disliked" by their peers exhibited depressive symptoms (Hecht, Inderbitzen, & Bukowski, 1998; Zimmer-Gembeck, Hunter, & Pronk, 2007).

Research points to peer rejection as a predictor of internalizing difficulties. Perceived peer rejection, as assessed by self-reports, has been shown to longitudinally predict internalizing symptoms among diverse samples (Fite, Rubens, Preddy, Raine, & Pardini, 2014; Shochet, Smith, Furlong, & Homel, 2011; Vernberg, 1990). Indeed, one study tested both directions of this relation and found that perceived peer rejection predicted depression one year later, and not the other way around (Nolan, Flynn, & Garber, 2003). A lab-based experiment found that self-reported mood significantly worsened following a peer-rejection task (Reijntjes, Stegge, Terwogt, Kamphuis, &

Telch, 2006). Peer-nominated rejection has also been shown to predict internalizing problems (Coie, Lochman, Terry, & Hyman, 1992; Coie, Terry, Lenox, & Lochman, 1995; Witvliet, Brendgen, Van Lier, Pol, Koot, & Vitaro, 2010). This trend was found among a majority Hispanic sample, with rejection nominations predicting anxious expectations (London, Downey, Bonica, & Paltin, 2007).

In the present study, peer social rejection was conceptualized as a latent factor underlying the measured variables of conflict and hassles with peers, relational aggression victimization, and peer ethnic discrimination. Conflict and hassles with peers, which often include experiences of social rejection, have shown links to internalizing problems. For example, conflict with peers significantly contributed to depression among Chinese youth (Sun & Hui, 2007) and peer hassles predicted increases in internalizing one year later among Caucasian youth (Carter, Garber, Ciesla, & Cole, 2006). Youth who experienced a larger number of peer problems, including conflict with peers and friends, as well as hassles at school, also reported higher levels of depression and anxiety (Farrell et al., 2006). Conflict with a best friend, specifically, was shown to be predictive of internalizing problems (You & Bellmore, 2012). Although the impact of conflict and hassles with peers on internalizing difficulties has not been examined among Latino youth, one study found that a composite of social conflict, including with parents, teachers, and peers, predicted maladjustment—both internalizing and externalizing (Crean, 2004).

Relational aggression victimization, which includes gossip, exclusion, and other activities meant to damage a peer's social reputation and relationships, has consistently been linked to internalizing problems, despite some evidence suggesting otherwise (Ellis,

Crooks, & Wolfe, 2009). A longitudinal study found that relational victimization predicted depressive symptoms two years later (Taylor, Sullivan, & Kliewer, 2013). This link between relational aggression victimization and internalizing has been exhibited in ethnically diverse samples (Espelage, Low, & De La Rue, 2012; Gomes, Davis, Baker, & Servonsky, 2009; Hoglund & Hosan, 2013). Among Hispanic adolescents, in particular, relational aggression victimization has been found to be a predictor of depression, loneliness, and low self-esteem (Forster et al., 2013; Prinstein, Boergers, & Vernberg, 2001). The literature points to relational aggression victimization predicting internalizing problems, although one study highlighted the possibility for bidirectional relations (Hodges & Perry, 1999).

Latino youth, in particular, may experience a specific form of peer rejection—ethnic discrimination. An overwhelming body of literature has linked perceived ethnic discrimination with internalizing symptoms among Latino adolescents (e.g., Behnke, Plunkett, Sands, & Bámaca-Colbert, 2011; Lorenzo-Blanco et al., 2011), and Mexican American youth specifically (Berkel et al., 2010; Zeiders, Umaña-Taylor, & Derlan, 2013). This link is most likely unidirectional as longitudinal studies have shown that perceived discrimination predicts depressive symptoms (Greene, Way, & Pahl, 2006; Zeiders et al., 2013a) and a prospective, cross-lag analysis found that perceived discrimination preceded increases in internalizing symptoms (Berkel et al., 2010). Although youth can experience ethnic discrimination from multiple sources (e.g., society, teachers), perceived peer ethnic discrimination, specifically, has been linked to depression among Mexican American adolescents (Delgado, Updegraff, Roosa, &

Umaña-Taylor, 2011), and may be more detrimental than other forms of discrimination (Greene et al., 2006).

Social Support as a Moderator

The buffering hypothesis posits that social support acts as a buffer against the negative impact of stress on adjustment (Cohen & Wills, 1985). For example, research has shown high levels of social support protect youth exposed to violence from developing internalizing difficulties (Li, Nussbaum, & Richards, 2007; Muller et al., 2000), including a study of a largely Latino sample of middle school students (Ozer, 2005). Studies also find that a high level of general social support reduces the association between global stress and internalizing symptoms for Latino youth (Crean, 2004; Raffaelli et al., 2013).

There are a few mechanisms by which social support may operate as a buffer against internalizing when an individual is under stress. First, individuals with social support may appraise a situation as less stressful because they have support resources that may redefine the potential for harm from a situation or boost an individual's perceived ability to cope with the situation. This attenuated appraisal of a situation as stressful, in turn, would reduce the likelihood that an individual will develop internalizing symptoms. For example, an adolescent who is rejected by some peers might not view that rejection as stressful because they have other friends who accept them. Another way social support may act as a buffer, even if an individual appraises a situation as stressful, is by providing a solution to the situation, which in turn would reduce the probability of the individual becoming depressed or anxious. For example, if an individual is in conflict with their family, a friend might be able to offer advice for how to resolve the conflict. Finally,

social support may alleviate physiological responses to stress, such as by calming the neuroendocrine system, so that people are less reactive to the stressor, thereby reducing the risk for developing internalizing problems. For example, cortisol, the stress hormone, has been linked to internalizing difficulties (El-Sheikh, Erath, Buckhalt, Granger, & Mize, 2008), but a supportive friend or family member may regulate cortisol levels in response to a stressful situation, thereby attenuating this linkage.

Although social support tends to act as a buffer, weakening the association between stress and internalizing among adolescents, social support from different sources may act differently with different stressors. Cohen and Wills (1985) explained that buffering effects will occur when "support functions measured are those that are most relevant for the stressors faced by the person (p. 314)." That is, there must be a match between the source of support and the type of stressor; social support from family versus social support from friends may serve differing functions in the impact of family risk versus peer social rejection on internalizing. Despite this theoretical conjecture, studies have largely not tested the most relevant or best match of social support resources that buffer or moderate the effects of specific contextual stressors among adolescents. With rare exception (Raffaelli et al., 2013), this is also the case for Mexican American youth. Three models of moderation, each supported to varying degrees in the literature, were examined in the current study: 1) within context match of social support resources, 2) compensatory interplay across contexts, and 3) centrality of family social support.

The within context match of social support resources and stressful context suggests that youth in stressful family contexts require social support from family and those in stressful peer environments require social support from friends as buffers against

internalizing difficulties. This may be the case because social support within the same context as the stressor may deem the stressor less threatening. For example, youth who are rejected by some peers, but have social support from other peers, may not perceive the rejection as harshly as youth without this support. There is some evidence suggesting that socially rejected youth need social support from friends to buffer against internalizing symptoms. For example, social support from friends has been shown to protect youth from the negative impact of peer social rejection on internalizing problems among ethnically diverse youth in the U.S. and Jewish Israeli youth (Beeri & Lev-Wiesel, 2012; McDonald, Bowker, Rubin, Laursen, & Duchene, 2010). However, no research has found a within context match of stress and social support for family.

The literature more consistently points to a compensatory interplay across contexts; that is, youth from stressful family environments may require social support from friends, and socially rejected youth may require social support from family to protect against internalizing symptoms. This model may be more accurate because as family stress increases, family support decreases (DeLay, Hafen, Cunha, Weber, & Laursen, 2013; Gillock & Reyes, 1999) and as friend- and peer-related stress increases, friend support decreases (Beeri & Lev- Wiesel, 2012; Gillock & Reyes, 1999). Youth then compensate for the stress in one context with support in another context. For example, youth in severe levels of family risk, that is sexually-abused youth, who reported high levels of friendship support exhibited a weak association between abuse and number of anxiety disorders, whereas support from family members had no effect

(Adams & Bukowski, 2007). This suggests that support from friends can reduce the negative impact of severe family risk on internalizing disorders.

Family support, on the other hand, seems to be a protective factor for peer social rejection. Among relationally victimized adolescents, those who experienced high levels of support from a family member showed no changes in depressive symptoms one year later, whereas those who experienced high levels of friend support showed increases in depressive symptoms (Desjardins & Leadbeater, 2011). This suggests that family support can reduce the impact of rejection on internalizing, but support from friends may actually be detrimental. Similarly, supportive friendship qualities, such as companionship and closeness, have been shown to exacerbate the relation between victimization and internalizing (Hodges, Boivin, Vitaro, & Bukowski, 1999; Schmidt & Bagwell, 2007). Among first-generation Latino adolescents, familial social support acted as a buffer, weakening the link between ethnic discrimination, a form of social rejection, and depressive symptoms (Potochnick & Perreira, 2010).

The third model, the centrality of family social support, may be the better fit for Latino youth. Latino youth, particularly Mexican Americans, may rely on familial support over friend support for protection against all types of stressors due to their cultural value of *familism*, which includes perceived support and emotional closeness from family members (Sabogal et al., 1987). *Familism* seemed to play a role among Brazilian youth, who showed family support acting as a buffer against peer victimization and family conflict on depressive symptoms (DeLay et al., 2013). Among Mexican origin youth, support from family seems to be a better protective force than support from friends. Although support from parents and peers protected Mexican origin college

students from the negative impact of acculturative stress on anxiety, only parental support had this effect on depression (Crockett, Iturbide, Torres Stone, McGinley, Raffaelli, & Carlo, 2007). Similarly, when social support from friends and family were analyzed separately, only family support ameliorated the negative impact of stress on depression among Mexican origin college applicants (Raffaelli et al., 2013). In a cluster analysis of Mexican students in the seventh grade, those characterized by high parental acceptance and low friendship intimacy had fewer depressive symptoms than those characterized by low parental acceptance and average friendship intimacy (Davidson, Updegraff, & McHale, 2011). Mexican American youth even indicated in qualitative interviews that they use family support more than friend support to cope with stress (Kobus & Reyes, 2000). Although these studies support the centrality of the family as a key source of social support for Mexican American youth, they did not examine whether family support was more effective for different types of stressors, including stress within the family and peer contexts.

Gender Differences

Gender was an important factor to consider in testing these moderation models because gender differences have been shown in mean levels of peer and family influences and in internalizing symptoms, as well as in the relations among these factors. Gender differences in internalizing emerge in adolescence, with higher rates of internalizing symptoms among girls than boys (Helsen, Vollebergh, & Meeus, 2000; Hyde, Mezulis, & Abramson, 2008). Adolescent girls, compared to boys, have consistently exhibited higher rates of anxiety (La Greca & Lopez, 1998; Smokowski et al., 2013; Young, Berenson, Cohen, & Garcia, 2005), depression (Bradford et al., 2008; Dwairy, 2011; Hecht et al.,

1998; Wang et al., 2013), and suicidal ideation (Eskin, Ertekin, Dereboy, & Demirkiran, 2007). Latino youth demonstrate these gender differences in internalizing difficulties as well (Behnke et al., 2011; Eaton et al., 2012; Potochnick & Perreira, 2010; Sherman et al., 2011). Among Mexican origin youth in particular, females have reported more depressive symptoms than males (García et al., 2014).

Studies point to gender differences in levels of family risk and its relation to internalizing. For example, females have shown links between cumulative family risk and increasing internalizing problems more consistently than males (Buehler & Gerard, 2013). Some studies have found that high levels of harsh parenting and familial conflict are associated with internalizing symptoms only among girls (Chan et al., 2013; Pettit et al., 2001; Sherman et al., 2011). Females have also reported higher levels of family conflict than males (DeLay et al., 2013), including Latinas (Kobus & Reyes, 2000), which may explain their higher levels of internalizing symptoms.

Parent-adolescent conflict may be a particularly salient contributor to internalizing difficulties for Latino youth, and even more so for females. In Latino culture, females are expected to be passive, to place family needs above their own, and to promote harmony in the family (Gil & Vazquez, 1997). However, adolescent Latinas may be acculturating to more autonomous roles in the U.S, and, thus, confront gender role expectations and restrictions that constrain this autonomy (e.g., Raffaelli & Ontai, 2004). These gender role discrepancies may explain why females, compared to males, have reported more cultural conflict with their parents, which was associated with higher levels of internalizing difficulties (Ansary, Scorpio, & Catanzariti, 2013; Céspedes & Huey, 2008).

Research has also shown gender differences in levels of peer social rejection. Adolescent females, compared to males, have reported more hassles with peers (Carter et al., 2006) and are more likely to be victims of relational aggression (Desjardins & Leadbeater, 2011; Ellis et al., 2009; Espelage et al., 2012). Furthermore, some research suggests that peer social rejection predicts internalizing difficulties only for females. In a study with a largely Latino sample, male and female youth experienced comparable levels of relational victimization, but relational victimization significantly contributed to depression, loneliness, and self-esteem only for females (Prinstein et al., 2001).

Gender differences in social support have also been reported, with female adolescents consistently reporting higher levels of overall social support (Baldwin, Brown, Wayment, Nez, & Brelsford, 2011; Takakura & Sakihara, 2001). While the literature suggests that both genders perceive comparable levels of familial support (Helsen et al., 2000; La Greca & Lopez, 1998; Nahulu et al., 1996; Young et al., 2005), female adolescents have consistently reported higher levels of social support from friends and peers than males (e.g., Desjardins & Leadbeater, 2011; La Greca & Lopez, 1998; McDonald et al., 2010; Siyez, 2008). One study even found that female gender predicted higher peer attachment (Laible, Carlo, & Raffaelli, 2000).

Similar trends are evident among Mexican origin youth. Females of Mexican origin have reported higher overall levels of perceived social support and use of support seeking as a coping strategy than their male counterparts (Moilanen & Raffaelli, 2010; Brittian, Toomey, Gonzales, & Dumka, 2013). Male and female Mexican youth have both shown similarly high levels of familial support (Gillock & Reyes, 1999), but only females have shown comparably high levels of social support from friends (Gillock &

Reyes, 1999; López, Ehly, & García-Vázquez, 2002; Raffaelli et al., 2013). One study identified profiles of family and peer support among Mexican origin youth, and found that females were more likely to be in profiles of high parental and friend support and that males were more likely to be in profiles of high parental support and low friend support (Davidson et al., 2011). A qualitative study found that Mexican origin female adolescents are more likely to cite peers as sources of support than males (Stanton-Salazar & Spina, 2005).

Furthermore, there is evidence suggesting that social support from friends may operate differently for males and females. Indeed, for females, social support from friends may be linked to higher levels of internalizing problems. There are two theoretical frameworks to explain this relation. First, female friends may co-ruminate; that is, they may discuss and revisit their problems, which in turn may make them feel worse, contributing to internalizing problems (Rose, 2002; Rose, Carlson, & Waller, 2007). Second, specifically for Latino American female youth, Crockett and colleagues (2007) propose that social support from friends who espouse autonomy and acculturation may heighten cultural conflicts with parents, which predicts greater internalizing difficulties (Ansary et al., 2013). Given the potential for gender to influence family and peer contextual risks and the protective role of social support in the context of these risks, all of the models will be examined for invariance as a function of youth gender.

The Present Study

The present study examined to what extent social support from family and social support from friends moderates the relations between family risk and internalizing and peer social rejection and internalizing. This study contributes significantly to the body of

literature on stress and coping in several important ways. First, it provides an important opportunity to explore how social support from family and friends differentially buffer against the negative impact of family and peer stressors in a sample of Mexican American adolescents, who are at elevated risk for internalizing problems. Secondly, many studies assessing social support and stress are cross-sectional, or focus narrowly on specific family or peer influences. This study integrates multiple elements of family risk and peer social rejection and uses longitudinal data to allow for stronger causal inferences. Lastly, the present study has implications for prevention. Prevention programs targeting Mexican American youth and their families aim to build social support networks (Gonzales et al., 2012; Smokowski & Bacallao, 2009). By identifying the sources of social support that act as protective factors for specific types of stressors and gender discrepancies in these processes, prevention programs can be further refined to better meet the needs of this vulnerable population.

Study Aims and Hypotheses

The current study tested the main effect of 7th grade (T1) family risk and peer social rejection on 10th grade (T2) internalizing symptoms, as well as the moderating effects of social support from family and from friends in 7th grade (T1) on the links between 7th grade (T1) family risk and 10th grade (T2) internalizing symptoms and between 7th grade (T1) peer social rejection and 10th grade (T2) internalizing symptoms. To assess the main effects, two independent statistical models were examined (see Figures 2a and 2b). To captue all possible moderating effects, four independent statistical models were examined (see Figures 2c to 2f). All of the models controlled for T1 internalizing symptoms, T1 economic hardship, an indicator of socioeconomic status, and

nativity of mother and adolescent. Scholars often control for socioeconomic status because of its correlations to socioemotional development and to stress reaction (Bradley & Corwyn, 2002). It is also important to control for nativity status which has been found to be associated with internalizing problems (Almeida, Subramanian, Kawachi, & Molnar, 2011; Breslau, Borges, Hagar, Tancredi, & Gilman, 2009; Polo & Lopez, 2009; Tillman & Weiss, 2009). Specific aims and hypotheses are:

1. To assess the main effects of family risk and peer social rejection at T1 on T2 internalizing symptoms. It is hypothesized that the T1 family risk and T1 peer social rejection will predict increased T2 internalizing symptoms.

2. To independently assess T1 perceived social support from family and from friends as moderators of the association between T1 family risk and T2 internalizing symptoms, and between T1 peer social rejection and T2 internalizing symptoms. These analyses will test three models:

   a. within context match of social support resources, in which perceived social support from family will moderate the association between family risk and internalizing and perceived social support from friends will moderate the association between peer social rejection and internalizing.

   b. compensatory interplay across contexts, in which perceived social support from friends will moderate the association between family risk and internalizing and perceived social support from family will moderate the association between peer social rejection and internalizing.

c. centrality of family social support, in which perceived social support from family will moderate both the association between family risk and internalizing and peer social rejection and internalizing.

Based on the strength of findings to date and mixed evidence for the role of peer social support, it is hypothesized that the centrality of family model will be supported such that family support will buffer the effects of both family risk and peer social rejection and will show a pattern of stronger stress-buffering effects overall compared to peer social support.

3. To test the main effects models and moderation models separately for males and for females to assess whether these processes differ by gender. First, it is hypothesized that the main effects will be moderated by gender, such that T1 peer social rejection will predict T2 internalizing symptoms for females only, but that T1 family risk will predict T2 internalizing symptoms for both males and females. Secondly, it is hypothesized that both genders will exhibit the centrality of family model. Finally, it is hypothesized that social support from friends may be inconsistent as a buffer for males and females. Specifically, it is hypothesized that, for females, perceived social support from friends will not act as a buffer for family risk and peer social rejection.

Figure 2: Statistical Models Tested

a. Main Effect of Family Risk on Internalizing



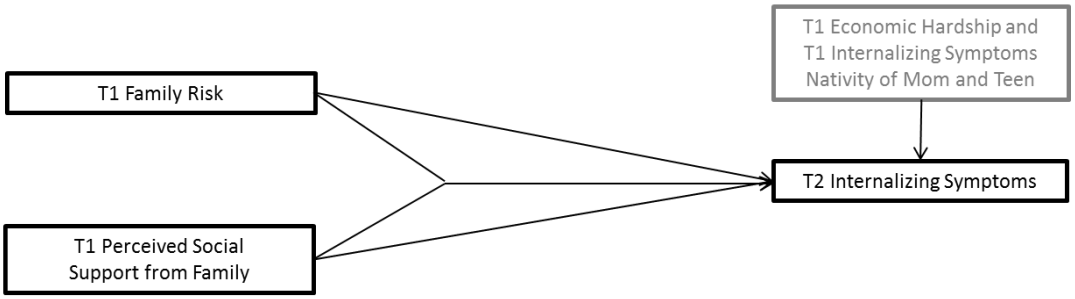
T1 = seventh-grade, T2 = tenth-grade. Control variables are in gray.

b. Main Effect of Peer Social Rejection on Internalizing



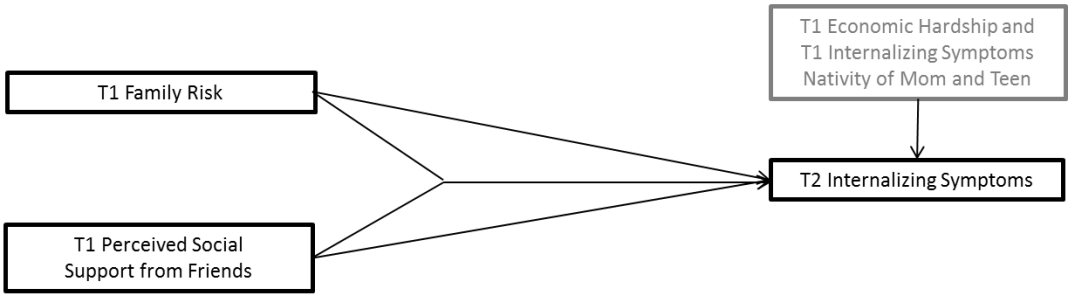
T1 = seventh-grade, T2 = tenth-grade. Control variables are in gray.

c. Family Social Support as a Moderator of Family Risk on Internalizing



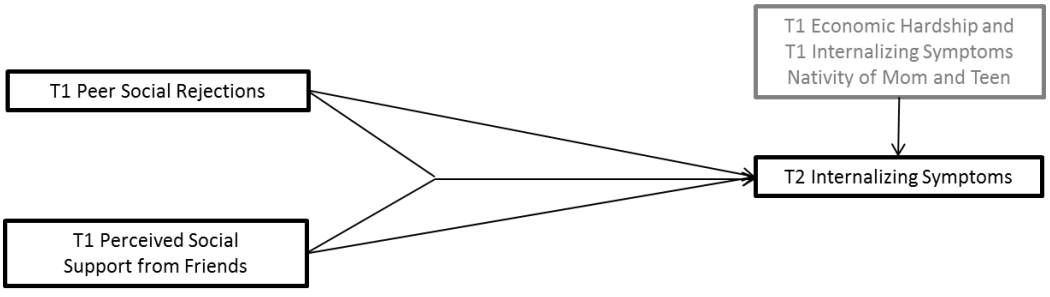
T1 = seventh-grade, T2 = tenth-grade. Control variables are in gray.

d. Friend Social Support as a Moderator of Family Risk on Internalizing



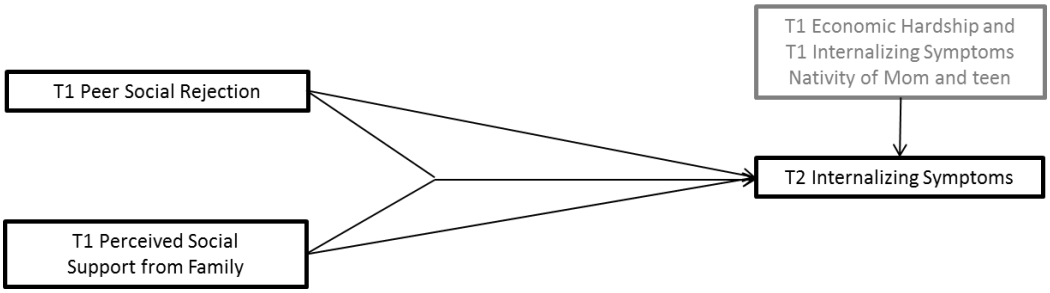
T1 = seventh-grade, T2 = tenth-grade. Control variables are in gray.

e. Friend Social Support as a Moderator of Peer Social Rejection on Internalizing



T1 = seventh-grade, T2 = tenth-grade. Control variables are in gray.

f. Family Social Support as a Moderator of Peer Social Rejection on Internalizing



T1 = seventh-grade, T2 = tenth-grade. Control variables are in gray.

Methods

Participants

Data were from the second and third waves (7th and 10th grades) of a longitudinal study investigating the role of culture and context in the lives of Mexican American families in a large southwestern metropolitan area (Roosa, Liu, Torres, Gonzales, Knight, & Saenz, 2008). For ease of understanding, the 7th grade assessment point is labeled T1 and the 10th grade assessment point is labeled T2 in the current study.

Participants were recruited when they were in the 5th grade, selected from school rosters that served diverse communities. To be eligible: a) families had to have a fifth grader in a sampled school; b) both mother and child agreed to participate; c) the mother was the child's biological mother, lived with the child, and self-identified as Mexican or Mexican American; d) the child's biological father was of Mexican origin; e) the child was not severely learning disabled; and f) no step-father or mother's boyfriend was living with the child (unless the boyfriend was the biological father of the target child).

The sample included 749 youths. At T1, annual family incomes ranged from less than $5,000 to more than $95,000, with a mean of $35,001 – $40,000. A majority of adolescents (87%) were interviewed in English, and a majority of mothers (69%) were

interviewed in Spanish. The mean age of mothers was 38.36 (*SD* = 5.77) and mothers reported an average of 11.80 (*SD* = 3.43) years of education. The mean age of adolescents (51% male) in T1 was 12.81 (*SD* = 0.45). A majority of mothers were born in Mexico (74%), and a majority of adolescents were born in the U.S. (70%).

Procedures

Using a combination of random and purposive sampling, the research team identified communities served by 47 public, religious, and charter schools from the metropolitan area chosen to represent the economic, cultural, and social diversity of the city (see Roosa et al., 2008 for a full description of sampling methods). These schools were chosen from 237 potential schools in the metropolitan area with at least 20 Latino students in the fifth grade. These potential schools were identified based on the cultural context of the communities for which they serve. Cultural context was operationalized based on: a) the Mexican American population density; b) the percentage of elected and appointed Latino office holders; c) the number of churches providing services in Spanish; d) the number of locally owned stores selling traditional Latino foods, medicines, and household items; and 2) the presence of traditional Mexican-style stores (e.g., carnicerias). The score from each indicator was standardized and summed to create a community cultural context score (i.e., level of support for Mexican culture). The 237 school communities were then arranged from lowest to highest. Five "outliers" on the high end of the scale were selected because they represented Mexican ethnic enclaves. An additional 25 schools were systematically selected from the remainder of this list by

choosing a random starting point within the 10 lowest scores and selecting every 9th score (school) thereafter to represent the complete spectrum of community contexts. In total, 47 schools from 18 public school districts, the Catholic Diocese, and alternative schools were selected and organized into 42 distinct, noncontiguous communities. The schools sampled were categorized as 45% large urban, 6% midsize urban, 36% large suburb, 6% small suburb, 2% rural fringe, and 4% rural distant (National Center for Education Statistics, 2006). The percent of students eligible for free/reduced lunch at these schools ranged from 8% to 100% (*M* = 67%; *SD* = 27%). The proportion of Hispanics ranged from 15% to 98% (*M* = 70%; *SD* = 24%).

Recruitment materials in Spanish and English were sent home with all 5th grade children in the selected schools. These materials explained the project and asked parents to provide contact information if interested in participating in the study. Over 85% of those who returned contact information were eligible for screening (e.g., Hispanic) and 1,085 met eligibility criteria. In-home computer-assisted personal interviews lasting about 2.5 hours were completed by 749 families (mother and adolescent required, father optional), 69% of those eligible. These interviews were conducted by interviewers who received 40 hours of training that included information on project goals and characteristics of the target population. Interviewers read each question and possible response aloud in the participants' preferred language to reduce problems related to variations in literacy levels. Each participant was paid $50 and $55 at T1 (7th grade) and T2 (10th grade), respectively.

Measures

All measures in the present study were obtained from a larger interview battery. Each measure is included in the appendix.

Economic hardship. Economic hardship was used as a covariate in all of the statistical models tested. Mother's report of economic hardship was used as the indicator for family socioeconomic status (Appendix 1). Mothers responded to four scales: inability to make ends meet (2 items; "Think back over the past 3 months and tell us how much difficulty you had with paying your bills"), not enough money for necessities (7 items; "Your family had enough money to afford the kind of home you needed"), economic adjustments and cutbacks (9 items; "In the last 3 months, has your family changed food shopping or eating habits a lot to save money?") and financial strain (2 items; "In the next 3 months, how often do you expect that you and your family will experience bad times such as poor housing or not having enough food?"; Barrera, Caples, & Tein; 2001). Prior psychometric analyses provide support for an overall economic hardship scale based on these four subscales, and also show that it operates equivalently across ethnicities (Anglo vs. Mexican American) and language use (English vs. Spanish; Barrera et al., 2001). Zeiders and colleagues (2011) provided support for this economic hardship structure with the current sample. A z-score composite of the four scales was computed with higher scores indicating greater economic hardship.

Nativity status. Nativity status of both mother and adolescent were used as covariates in all of the statistical models tested. Nativity status of the child was measured by mother's report to the question "In what country was your child born?" Answers were coded as 1 (United States), 2 (Mexico), and 3 (Some other country). Nativity status of the mother was measured by mother's report to the question "In what country were you

born?" Answers were coded as 1 (United States), 2 (Mexico), and 3 (Some other country). None of the mothers or adolescents were reported to be born in "some other country"; thus, this variable was treated as categorical with two categories, 1 (United States) and 2 (Mexico).

Family risk. Family risk was conceptualized as a latent variable using the idicators of harsh parenting, parent-adolescent conflict, and family conflict. Prior research with this sample has supported the family risk construct with these three indicators (Gonzales, Liu, Jensen, Tein, White, & Deardorff, in review).

Harsh parenting. Adolescents reported on the eight-item harsh parenting subscale of the Children's Report of Parent Behavior Inventory—Revised (CRPBI—R; Appendix 2; Knight, Virdin, & Roosa, 1994; Schaefer, 1965). The items assess adolescents' perceptions of their mothers' use of physical discipline and sharp verbal reprimands as a disciplinary technique. Sample items include, "Your mother screamed at you when you did something wrong" and "Your mother spanked or slapped you when you did something wrong." Response choices were based on a 5-point scale from 1 (*almost never or never*) to 5 (*almost always or always*), assessing behaviors during the past 3 months. The harsh parenting score was computed by averaging responses from the eight items, with higher scores indicating greater harsh parenting. The CRPBI has demonstrated cross-cultural and cross-language equivalence (Knight, Tein, Shell, & Roosa, 1992; Knight et al., 1994), and the harsh parenting subscale has demonstrated reliabilities ranging from .71-.73 (Gonzales et al., 2011). Chronbach's alpha for the current sample was .76.

Parent-adolescent conflict. Adolescents rated conflict with their mothers using 10 items from the Parent-Adolescent Conflict Scale (PACS; Appendix 3) that was developed from a qualitative study on parent-adolescent conflict in low-income, African American, Anglo, and Mexican origin families (Ruiz, Gonzales, & Formoso, 1998). The measure assesses the frequency of minor and serious conflicts in the last 3 months and includes items such as "You and your mom became very frustrated with each other" and "You and your mom yelled or raised your voices at each other." Adolescents responded on a 5-point scale from 1 (*almost never or never*) to 5 (*almost always or always*). The parent-adolescent conflict score was computed by averaging responses from the 10 items, with higher scores indicating greater parent-adolescent conflict. The PACS has been shown in this sample and others to relate to the mental health outcomes among Mexican American adolescents (Corona, McCarty, Cauce, Robins, Widaman, & Conger, 2012; Vargas, Roosa, Knight, & O'Donnell, 2013) and here demonstrates a Chronbach's alpha of .82.

Family conflict. The family conflict subscale of the *Multicultural Events Scale for Adolescents* (MESA; Appendix 4; Gonzales, Tein, Sandler, & Friedman, 2001) was used to assess disagreements and discord at the family level. Adolescents responded with 1=*happened* or 2=*did not happen* to items relating to cultural conflict (e.g., "People in your family accused you of not being proud of your Mexican background") and general conflict (e.g., "Members of your family hit or hurt each other"). The family conflict score was computed by counting the number of items reported as 1=*happened*, with higher counts indicating greater family conflict. The family conflict subscale of the MESA has shown adequate test-retest reliability (r=.71 over a two week span; Samaniego & Gonzales, 1999). Chronbach's alpha in the current sample was .66.

Peer social rejection. Peer social rejection was conceptualized as a latent variable using the indicators of peer hassles and conflicts, relational aggression, and peer ethnic discrimination. Prior research with this sample has supported the peer social rejection construct with these three indicators (Gonzales et al., in review).

Conflict and hassles with peers. The seven items tapping into rejection from peers from the 14-item peer hassles and conflict subscale of MESA (Appendix 5; Gonzales et al., 2001) were used to assess conflict and hassles with peers. Youths responded as 1=*happened* or 2=*did not happen* in the past three months, to items like, "Other kids told mean stories or lies about you" and "Other kids wanted to fight with you or tried to fight with you." The conflict and hassles with peers score was computed by counting the number of items reported as 1=*happened*, with higher counts indicating greater conflict and hassles with peers. Chronbach's alpha in the current sample was .72.

Relational aggression. The Relational Aggression Scale (Appendix 6) used here was adapted from Prinstein and colleagues' (2001) version of the Revised Peer Experiences Questionnaire (Vernberg, Jacobs, & Hershberger, 1999) that assesses adolescents' aggression and victimization experiences. For the current study, items addressing relational aggression behaviors directed toward the adolescent were used. Relational aggression denotes non-physical behaviors that are intended to inflict social harm (Crick, 1995, 1997) and has been linked to psychological distress in school-age youth, namely depression (Crick & Bigbee, 1998). Adolescents responded to 5 items, answering how often each behavior had been directed toward him/her on a scale from 1 (*almost never or never*) to 5 (*almost always or always*). Sample items include "A kid your age gave you the silent treatment (did not talk to you on purpose)" and "A kid your

age left you out of an activity or conversation that you really wanted to be included in." The relational aggression score was computed by averaging responses from the 5 items, with higher scores indicating greater relational aggression. Chronbach's alpha in the current sample was .79.

Peer ethnic discrimination. Adolescent perceptions of ethnic discrimination from their peers were measured as a mean of five items assessing ethnic discrimination in the form of personal experiences and public regard (Appendix 7). At the time of this study's development, no measure of ethnic discrimination for Mexican Americans was available. Thus, the Adolescent Experiences with Perceptions of Discrimination scale was developed using items adapted from Hughes' and Dodge's (1997) Racism in the Workplace Scale, Landrine's and colleagues' (1995) Schedule of Racist Events, and Klonoff's and Landrine's (1995) Schedule of Sexist Events, all of which have been validated for other groups. This measure has been shown to predict negative mental health outcomes in this same sample (Berkel et al., 2010). The three items of public regard (e.g., "Kids at school think bad things about Mexicans or Mexican Americans") used Likert-type response scales ranging from 1 (*not at all true*) to 5 (*very true*), and the two items of personal experiences (e.g., "How often have kids at school excluded you from their activities, like not inviting you to go out with them, not inviting you to their houses, or not letting you join their games, because you are Mexican or Mexican American?") used Likert-type response scales ranging from 1 (*almost never or never*) to 5 (*almost always or always*). The peer ethnic discrimination score was computed by averaging responses from the five items, with higher scores indicating greater peer ethnic discrimination. Cronbach's alpha in the current sample was .78.

Perceived social support from friends and family. The family and friends subscales of the Multidimensional Scale of Perceived Social Support (MSPSS; Appendix 8; Zimet, Dahlem, Zimet, & Farley, 1988) were used to assess adolescents' perceptions of support from their family members living in the same home and from their friends. Each subscale had 4 items (e.g., "Your family/Your friends really try to help you" and "You can talk about your problems with your family/your friends"), which adolescents responded to using a five-point scale ranging from 1 (*not at all true*) to 5 (*very true*). The perceived social support from family score was computed by averaging responses from the four items from the family subscale, with higher scores indicating greater perceived social support from family. The perceived social support from friends score was computed by averaging responses from the four items from the friend subscale, with higher scores indicating greater perceived social support from friends. In the original version, MSPSS had an alpha coefficient of at least .89 and the overall reliability was .93 (Canty-Mitchell & Zimet, 2000). In the current sample, Chronbach's alpha was .83 for family and .87 for friends.

Internalizing symptoms. Internalizing symptoms at T1 was used as a covariate and internalizing symptoms at T2 was used as the outcome variable in all of the statistical models tested. Adolescents' internalizing symptoms were measured using adolescent- and mother-report of the computerized version of the Diagnostic Interview Schedule for Children (C-DISC IV; Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000), a structured diagnostic instrument based on the *Diagnostic and Statistical Manual of Mental Disorders (4th ed.;* American Psychiatric Association, 1994). This scale has been successfully translated into Spanish (Bravo, Woodbury-Fariña, Canino, & Rubio-Stipec,

1993; Bravo et al., 2001) and has demonstrated validity and reliability with Mexican Americans (Roberts, Roberts, & Xing, 2006). Symptoms over the past year were assessed (e.g., "Was there a time in the last year when you felt sad or depressed for a long time each day?"). Symptom counts for mood disorders and anxiety disorders were summed and then adolescent- and mother-report were averaged to yield a combined report of adolescent internalizing symptoms, with higher scores indicating greater internalizing symptoms.

Data Analytic Plan

The goals of this study were: 1) to examine the main effects of family risk and peer social rejection on internalizing symptoms, 2) to test whether these relations are moderated by social support from family and social support from friends, and 3) to assess whether the main effects models and moderation models differ by gender. Path analysis in structural equation modeling (SEM) was used to test the study hypotheses, using Mplus version 7 (Muthén & Muthén, 2006). An advantage of SEM is that it simultaneously estimates all paths in a model while controlling for the influence of all other variables.

Missingness. The dataset contained missing data because at wave 2 (T1 of the current study) there was already attrition (5%). To handle missing data, full-information maximum likelihood (FIML; Enders, 2010) was used and all baseline (wave 1) study variables were included as auxiliary variables in the models. This conservative approach reduced bias due to missing data and allowed testing of the models on the full sample of 749 participants.

FIML and the inclusion of auxiliary variables to handle missing data are superior to traditional deletion methods, such as listwise and pairwise, for two reasons. First, traditional deletion methods assume missing data is Missing Completely at Random. This means that the probability of missing data on an outcome is unrelated to other measured variables and unrelated to the value of the outcome. However, missing data is often Missing at Random, which means that missing data on an outcome is related to other measured variables (Rubin, 1976). FIML and the inclusion of auxiliary variables assumes data is Missing at Random and use all available observations to provide unbiased estimates of model parameters in the presence of missing values. Second, FIML and the inclusion of auxiliaries preserve statistical power because the full sample is retained.

Handling interactions. MPlus has restrictions on the inclusion of auxiliary variables when measuring interactions between latent variables and measured variables using the XWITH command. To handle this restriction, two single-factor confirmatory factor analyses (CFA) were fitted on the entire sample at T1 (7^{th} grade). These CFAs tested the factor structures of: 1) family risk from the three indicators of harsh parenting, parent-adolescent conflict, and family conflict, and 2) peer social rejection from the three indicators of peer hassles and conflict, relational aggression, and peer ethnic discrimination. The estimated factor scores were then exported and used in the larger models. Interaction variables could then be created using the DEFINE command and auxiliary variables could be included.

Control variables. For all of the models tested, T1 internalizing symptoms, T1 economic hardship (a measure of socioeconomic status), nativity of mother, and nativity of adolescent were included as covariates. These variables were included as covariates

due to their known correlations with socioemotional development, stress, and internalizing symptoms.

Main effects. I tested the main effects of T1 family risk on T2 internalizing symptoms, and T1 peer social rejection on T2 internalizing symptoms (see Figures 2a and 2b). These models were grouped by gender, first allowing all parameters to be free (gender-specific) and then with the regression path constrained to be equal for males and females (common slopes). The fit of the common slopes model was then compared to the gender-specific model to assess whether the main effects differed for males and females. If the fit of the common slopes model was significantly worse than the fit of the gender-specific model as indicated by the chi-square test of model fit, then the main effect differed for males and females. If the common slopes model and the gender-specific model were not significantly different, then the main effect was tested with the overall sample.

Moderation models. I tested four separate moderation models (see Figures 2c to 2f). First, T1 perceived social support from family was tested as a moderator of T1 family risk on T2 internalizing symptoms. Second, T1 perceived social support from friends was tested as a moderator of T1 family risk on T2 internalizing symptoms. Third, T1 perceived social support from friends was tested as a moderator of T1 peer social rejection on T2 internalizing symptoms. Fourth, T1 perceived social support from family was tested as a moderator of T1 peer social rejection on T2 internalizing symptoms.

These models were grouped by gender, first allowing all parameters to be free (gender-specific) and then with the regression paths constrained to be equal for males and females (common slopes). The fit of the common slopes models were then compared to

the gender-specific models to assess whether these four moderation models differed for males and females. If the fit of the common slopes model was significantly worse than the fit of the gender-specific model as indicated by the chi-square test of model fit, then the hypothesized model differed for males and females. If the common slopes model and the gender-specific model were not significantly different, then the hypothesized model was tested with the overall sample. Simple slopes were then probed at high (one standard deviation above the mean) and low (one standard deviation below the mean) levels of the moderator (i.e., social support).

Results

Preliminary Analyses

Attrition analyses. As this thesis used data from the second and third waves of a larger, longitudinal study (Roosa et al., 2008), there were missing data. Mothers and adolescents who had dropped out at wave 2 (T1 in the current study) were compared with those that completed interviews at wave 2, and mothers and adolescents who had dropped out at wave 3 (T2 in the current study) were compared with those that completed interviews at wave 3 on all baseline levels of the study variables (gender, economic hardship, nativity of mother, nativity of adolescent, harsh parenting, parent-adolescent conflict, family conflict, hassles and conflict with peers, peer ethnic discrimination, perceived social support from family, perceived social support from friends, internalizing), and on family income, household structure, and language of interview. These comparisons were assessed to ensure that those participants who were retained did not significantly differ from those who were not retained on these variables.

From the original wave 1 sample of 749 youths, 710 (95%) families were re-interviewed at wave 2 (T1; 7th grade) and 640 (85%) at wave 3 (T2; 10th grade). There were mostly no differences on baseline levels of the study variables and demographic characteristics. Only three significant differences emerged: 1) adolescents who dropped out of the study at wave 2 reported less baseline relational aggression than those who were retained ($t(747) = -2.37$, $p < .05$); 2) families who dropped out of the study at wave 3 reported less baseline income than those who were retained ($t(730) = -2.96$, $p < .01$); and 3) adolescents who dropped out of the study at wave 3 were more likely to be born in Mexico than the United States ($\chi^2(1) = 4.68$, $p < .05$).

Descriptive statistics. Descriptive statistics on all study variables and covariates, including means, variances, skewness, and kurtosis before missing data were handled are presented in Table 1. Skewness and kurtosis were assessed to ensure study variables were normally distributed. None of the variables exceeded conventional cutoffs of 2 for skewness and 7 for kurtosis (West, Finch, & Curran, 1995).

Correlations of study variables. Correlations between all study variables and covariates were assessed to ensure expected correlations were in the expected directions and are presented in Table 2. As expected, internalizing was stable across T1 and T2. For the covariates, only T1 economic hardship was significantly correlated with more T2 internalizing symptoms. Although nativity of mother and nativity of adolescent did not significantly correlate with T2 internalizing symptoms, they were still included as covariates in the models. The T1 stress predictors, both family risk, peer social rejection, and their indicators, were all significantly related to more internalizing at T1 and T2. For the moderators, T1 perceived social support from family was significantly correlated with

less T1 and T2 internalizing symptoms, as anticipated; however, T1 social support from friends did not significantly correlate with internalizing symptoms at either T1 or T2. Gender also significantly correlated with internalizing symptoms—being male was significantly related to less internalizing at both T1 and T2. Furthermore, being male was significantly related to less T1 parent-adolescent conflict, T1 family conflict, and T1 peer hassles and conflict. Correlations were also assessed separately by gender and are presented in Table 3. The upper triangle presents the correlations of study variables for males (N = 361) and the lower triangle presents the correlations of study variables for females (N = 349).

Estimated factor scores. In order to assess the fit of the family risk and peer social rejection latent factors, a two-factor confirmatory factor analysis measurement model was fitted to the entire data. The measurement model suggested good fit of the data [CFI = .97; RMSEA = .06; SRMR = .03]; the resulting standardized factor loadings were all significant at the .001 level. The two constructs were correlated at .65. Then, separate single-factor confirmatory factor analyses for family risk and peer social rejection were tested. The standardized estimated family risk factor scores for harsh parenting, parent-adolescent conflict, and family conflict were .60, .78, and .55, respectively, all $p < .001$, indicating the three variables are reasonable indicators for family risk. The standardized estimated peer social rejection factor scores for peer hassles and conflicts, relational aggression, and peer ethnic discrimination were .66, .72, and .58, respectively, all $p < .001$, indicating the three variables are reasonable indicators for peer social rejection. These factor loadings were then exported to create a family risk and peer social rejection variable, which were used the larger models.

Hypothesis Testing

Main effects. The main effect of T1 family risk on T2 internalizing symptoms was assessed for differences between males and females. The fit of the common slopes model was not significantly different from the gender-specific slopes model, $\chi^2(1) = .42$, $p = .52$. That is, the main effect of T1 family risk on T2 internalizing symptoms did not differ for males and females. Thus, this main effect was tested with the overall sample and showed that T1 family risk did not significantly predict T2 internalizing symptoms, $b = .50$, $SE = 1.02$, $p = .63$ (see Figure 3a).

The main effect of T1 peer social rejection on T2 internalizing symptoms was assessed for differences between males and females. The fit of the common slopes model was significantly worse than the gender-specific slopes model, $\chi^2(1) = 5.36$, $p < .05$. That is, the main effect of T1 peer social rejection on T2 internalizing symptoms differed for males and females. Thus, the gender-specific slopes model was examined, which showed that T1 peer social rejection significantly predicted more T2 internalizing symptoms for females, $b = 1.08$, $SE = .53$, $p < .05$, but not for males, $b = -.49$, $SE = .41$, $p = .23$ (see Figure 3b).

Moderation models. Results of the four moderation models are presented in Table 4.

Family social support as a moderator of family risk on internalizing. The first moderation model, in which T1 perceived social support from family moderates T1 family risk on T2 internalizing symptoms, was assessed for differences between males and females. The fit of the common slopes model was not significantly different from the gender-specific slopes model, $\chi^2(3) = .67$, $p = .88$. That is, the first moderation model did

not differ for males and females. This model was then tested with the overall sample and showed that T1 perceived social support from family did not significantly moderate T1 family risk on T2 internalizing symptoms, $b = .49$, $SE = 1.05$, $p = .64$.

Friend social support as a moderator of family risk on internalizing. The second moderation model, in which T1 perceived social support from friends moderates T1 family risk on T2 internalizing symptoms, was assessed for differences between males and females. The fit of the common slopes model was not significantly different from the gender-specific slopes model, $\chi^2(3) = 1.52$, $p = .68$. That is, the second moderation model did not differ for males and females. This model was then tested with the overall sample and showed that T1 perceived social support from friends did not significantly moderate T1 family risk on T2 internalizing symptoms, $b = .80$, $SE = 1.35$, $p = .55$.

Friend social support as a moderator of peer social rejection on internalizing. The third moderation model, in which T1 perceived social support from friends moderates T1 peer social rejection on T2 internalizing symptoms, was assessed for differences between males and females. The fit of the common slopes model was not significantly different from the gender-specific slopes model, in which all parameters were freed, $\chi^2(3) = 1.45$, $p = .69$. That is, the third moderation model did not differ for males and females. This model was then with the overall sample and showed that T1 perceived social support from friends significantly moderated T1 peer social rejection on T2 internalizing symptoms, $b = 1.14$, $SE = .29$, $p < .001$.

Thus, the simple effects of T1 peer social rejection on T2 internalizing symptoms were assessed at high, mean, and low levels of T1 perceived social support from friends (see Figure 4a). T1 peer social rejection significantly predicted T2 internalizing

symptoms at high levels of T1 perceived social support from friends, $b = 1.46$, $SE = .45$, $p < .001$, but not at mean or low levels of T1 perceived social support from friends. At high levels of perceived social support from friends, peer social rejection in the 7th grade predicted increased internalizing symptoms in the 10th grade.

Family social support as moderator of peer social rejection on internalizing. The fourth moderation model, in which T1 perceived social support from family moderates T1 peer social rejection on T2 internalizing symptoms, was assessed for differences between males and females. The fit of the common slopes model was not significantly different from the gender-specific slopes model, in which all parameters were freed, $\chi^2(3) = 4.82$, $p = .18$. That is, the fourth moderation model did not differ for males and females. This model was then tested with the overall sample and showed that T1 perceived social support from family significantly moderated T1 peer social rejection on T2 internalizing symptoms, $b = 1.21$, $SE = .55$, $p < .05$.

Thus, the simple effects of T1 peer social rejection on T2 internalizing symptoms were assessed at high, mean, and low levels of T1 perceived social support from family (see Figure 4b). T1 peer social rejection significantly predicted T2 internalizing symptoms at high levels of T1 perceived social support from family, $b = 1.11$, $SE = .50$, $p < .05$, but not at mean or low levels of T1 perceived social support from family. At high levels of perceived social support from family, peer social rejection in the 7th grade predicted increased internalizing symptoms in the 10th grade.

Secondary Analyses

Gender differences. The third and fourth moderation models, in which T1 perceived social support from friends and T1 perceived social support from family

moderate T1 peer social rejection on T2 internalizing symptoms, were examined separately for males and females (see Table 5). These secondary analyses were assessed because of the gender difference shown in the main effects of peer social rejection, the unexpected direction of the interactions involving peer social rejection, and the common slopes model for the interaction involving family support trending towards being significantly worse, $\chi^2(3) = 4.82$, $p = .18$, than the gender-specific model. These findings suggested that the overall pattern of gender-specific findings might be important to interpret study results.

Friend social support as a moderator of peer social rejection on internalizing by gender. First, the gender-specific slopes model was examined, which showed that T1 perceived social support from friends significantly moderated T1 peer social rejection on T2 internalizing symptoms for males, $b = 1.12$, $SE = .36$, $p < .01$, but not for females, $b = .67$, $SE = .62$, $p = .28$.

For males, the simple effects of T1 peer social rejection on T2 internalizing symptoms were then assessed at high, mean, and low levels of T1 perceived social support from friends (see Figure 5a). T1 peer social rejection significantly predicted T2 internalizing symptoms at low levels of T1 perceived social support from friends, $b = -.88$, $SE = .42$, $p < .05$, but not at mean or high levels. At low levels of perceived social support from friends, peer social rejection in the 7th grade predicted decreased internalizing symptoms in the 10th grade.

Family social support as a moderator of peer social rejection on internalizing by gender. The gender-specific slopes model was assessed, which showed that T1

perceived social support from family significantly moderated T1 peer social rejection on T2 internalizing symptoms for males, $b = 1.46$, $SE = .48$, $p < .01$, but not for females, $b = .87$, $SE = .85$, $p = .31$.

For males, the simple effects of T1 peer social rejection on T2 internalizing symptoms were then assessed at high, mean, and low levels of T1 perceived social support from family (see Figure 5b). T1 peer social rejection significantly predicted T2 internalizing symptoms at low levels of T1 perceived social support from family, $b = -1.38$, $SE = .48$, $p < .01$, but not at mean or high levels. At low levels of perceived social support from family, peer social rejection in the 7th grade predicted decreased internalizing symptoms in the 10th grade.

Cross-sectional analyses. Cross-sectional analyses were conducted to test the main effects and moderation effects with Time 1 (7th grade) internalizing symptoms as the outcome. These secondary analyses were conducted to examine whether there were effects at the same time point, rather than across time, without having to control for the stability of internalizing symptoms. All of the models were examined with the full sample as these models did not differ for males and females. These analyses showed significant main effects for T1 family risk on T1 internalizing symptoms (b=6.99, SE =.97, $p < .001$) and T1 peer social rejection on T1 internalizing symptoms (b=3.25, SE =.40, $p < .001$), controlling for economic hardship, nativity of adolescent, and nativity of mom; however, all four moderation effects were not significant (see Appendix 9 for cross-sectional figures).

Discussion

Given the considerable risk for internalizing problems faced by Latino adolescents (e.g., Mikolajczyk et al., 2007; Piña & Silverman, 2004), the current study sought to assess the potential buffering role of social support from family and from friends in the relations between family risk and internalizing symptoms and between peer social rejection and internalizing symptoms. Generally, it was expected that family risk and peer social rejection would be significant predictors of internalizing symptoms, but that these relations would be moderated by social support. Further, family social support was expected to have stronger effects on these relations than friend social support.

Main effects of seventh grade family risk and peer social rejection on tenth grade internalizing symptoms were tested, as well as the moderating effect of seventh grade family social support and friend social support. In prospective analyses, the main effect of family risk in the seventh grade did not predict increasing internalizing symptoms across the transition from seventh to tenth grade; however, for females only, peer social rejection in the seventh grade predicted increased internalizing symptoms. The hypothesized centrality of family model, in which social support from family buffers against internalizing symptoms for both family risk and peer social rejection, was not supported. Indeed, this study did not find buffering effects for either source of social support. Social support from friends and family in the seventh grade had no effect on the relation between seventh grade family risk and tenth grade internalizing symptoms. Rather than buffering effects, high levels of both sources of social support potentiated the effect of seventh grade peer social rejection on tenth grade internalizing symptoms. Furthermore, secondary analyses suggest that this latter moderation may be conditioned by gender, such that males with low levels of social support from both friends and family

showed peer social rejection in the seventh grade predicting decreased internalizing symptoms in the tenth grade.

Main Effects

Family risk was associated with internalizing symptoms as evidenced by significant correlation and cross-sectional analyses in the seventh grade, a link extensively found in the literature among Hispanic and non-Hispanic samples of adolescents alike (e.g., Céspedes & Huey, 2008; Bradford et al., 2008). Studies among Mexican American youth have also found cross-sectional links between family risk indicators, such has parent-adolescent and family conflict, and adolescent internalizing sympotms (Zeiders et al., 2011; Gonzales et al., 2006). However, the hypothesized effect of family risk in the seventh grade predicting increasing internalizing symptoms across the transition to tenth grade, over and above the stability of seventh grade internalizing symptoms, was not supported. The nonsignificant prospective finding was surprising. Numerous studies have supported family risk as a longitudinal predictor of internalizing symptoms (e.g., Johnson, Cohen, Kasen, Smailes, & Brook, 2001; Matjasko et al., 2007), including an extensive review that concluded family risk prospectively predicts internalizing symptoms in childhood and adolescence (Repetti et al., 2002). There are several potential reasons why these effects were not replicated in the current study.

Although latent factor analyses showed that it was reasonable to create a family risk latent factor from the three indicators of harsh parenting, parent-adolescent conflict, and family conflict, one possibility for the lack of prospective findings of family risk predicting later internalizing symptoms is the use of a latent index rather than the specific family risk indicators. Indeed, one study found that, among ethnic minority youth, a

cumulative family risk index did not predict internalizing problems when youth were in the tenth grade (Smokowski et al., 2004). It is possible that, despite evidence that specific indicators such as harsh parenting and family conflict have prospective effects on internalizing among Mexican American adolescents (Deardorff et al., 2013; Gonzales et al., 2006), these separate indicators may operate in distinct ways that were not captured by our latent construct.

For Mexican American youth in particular, harsh parenting has shown mixed effects that have been attributed to unique cultural and contextual circumstances. Mexican American parents have been shown to use harsher parenting strategies compared to other ethnicities, and these strategies may be considered normative (Hill, Bush, & Roosa, 2003; Santisteban, Muir-Malcolm, Mitrani, & Szapocznik, 2002). It is possible that Mexican American youth may view harsh parenting as normative, rather than stressful, and, thus, are not affected in the long-term by this parenting style. Indeed, one study has shown that harsh parenting is not detrimental for children when it is culturally expected (Lansford et al., 2005). Research has also shown that harsh parenting may be combined with other indicators, such as responsive parenting, within some Mexican Ameriacn families, and this pattern may be an adaptive parental response to a high risk neighborhood context (White, Zeiders, Gonzales, Tein, & Roosa, 2013). These findings lend further support to the notion that harsh parenting is not universally indicative of family risk.

On the other hand, parent-adolescent conflict and family conflict in general have been shown to be particularly detrimental for Mexican American youth because they run counter to the high value that this cultural group places on family harmony and child

respect towards elders (Keefe & Padilla, 1987; Hovey & King, 1996; Sabogal et al., 1987). Compared to findings regarding harsh parenting, research on parent-adolescent conflict and family conflict have been much more consistent in showing negative effects on internalizing symptoms among Mexican American youth (Gonzales et al., 2006; Zeiders et al., 2011; Smokowski, Rose, & Bacallao, 2010; Gonzales et al., in review). Thus, despite their high intercorrelations, the combination of variables in our latent models may have masked important nuances in their prospective effects.

The role of the Mexican American value of *familism* may need to be considered more broadly in the relation of family risk and internalizing problems. Indeed, *familism* has been linked to less internalizing symptoms (Zeiders, Updegraff, Umaña-Taylor, Wheeler, Perez-Brena, & Rodríguez, 2013), which could be due to different family processes among Mexican Americans. For example, Mexican American youth may rely on the extended family, whereas this study mainly focused on parents and support within the immediate family. Among Mexican Americans, close relationships are not limited to the nuclear family, but include extended family, such as aunts, uncles, cousins, and grandparents (Alvirez & Bean, 1976; Baca Zinn, 1983; Mindel, 1980). Mexican American youth may not be as affected by stressful family context in the home due to the close proximity of and emotional support provided by extended family members (Ramirez & Arce, 1981; Baca Zinn & Wells, 2000; Keefe & Padilla, 1987; Sarkisian, Gerena, & Gerstel, 2006). Further research is needed to parce out the intricacies of family processes of Mexican Americans and how they impact family risk and adjustment among youth.

Another possibility as to why family risk did not prospectively predict internalizing symptoms is the specific timing of the current study. Many adolescents from risky families have likely experienced this stressful context since childhood. Thus, by the seventh grade, these adolescents may already be experiencing increased symptoms such as depression and anxiety in response to family risk. Any continued or added family risk that occurs in the seventh grade may not have shown significant effects from 7^{th} to 10^{th} grade after accounting for the stability of internalizing symptoms during this period. Indeed, several of the studies cited by Repetti and colleagues (2002) in their extensive review of risky families assessed family risk factors in *childhood* and their long-term impact on internalizing difficulties in childhood and adolescence (e.g., Kaslow, Deering, & Racusin, 1994; Chorpita & Barlow, 1998; Grych & Fincham, 1990). Seventh grade may also be a poor time to assess family risk's impact on internalizing symptoms, as this is a transitional period in which the peer group becomes more important, possibly more so than the family (Brown & Bakken, 2011; Petersen, 1988; Brown & Larson, 2009). Indeed, adolescents have been found to spend more time with their peers, and peers become more influential (Buhrmester, 1990). Even among Mexican American youth, family and peers have been found to provide different needs during the transition to adolescence (Moilanen & Raffaelli, 2010; Edwards & Lopez, 2006). Thus, the peer group may have a greater impact on internalizing symptoms than family factors as peers become more important during the transition to adolescence.

The peer group did indeed have a greater impact on internalizing symptoms in the current study. Although peer social rejection in the seventh grade did not predict increased internalizing symptoms in the tenth grade, over and above the stability of

seventh grade internalizing symptoms, for the overall sample, this effect was found for females and for those reporting high levels of social support from friends and family. The lack of a robust effect of peer social rejection for the overall sample was unexpected given the literature showing that peer social rejection predicts later internalizing symptoms among ethnically diverse adolescents (e.g., Nolan et al., 2003; Witvliet et al., 2010), including Latino youth (London et al., 2007; Forster et al., 2013; Lorenzo-Blanco et al., 2011). However, these prospective studies involved shorter time spans than the current study and may be capturing more immediate or even concurrent effects of peer social rejection on internalizing difficulties, which was found in the current study in the seventh grade. Indeed, one study among Mexican American youth found that peer social rejection only predicted internalizing cross-sectionally, but not changes in these symptoms across time (Zeiders et al., 2013a). Despite the lack of effects for the overall sample, peer social rejection predicted later internalizing symptoms for females. This finding aligns with past studies that have also shown this trend only among females (e.g., Shochet et al., 2011), including among a majority Latino sample of adolescents (Prinstein et al., 2001).

Females, as compared to males, may exhibit greater internalizing difficulties when their peers reject them because they place greater value on social bonds than males, making them more vulnerable to the negative effects of rejection. Evolutionarily, the creation and maintenance of social networks for females was a means of protection against predatory threats (Taylor, Klein, Lewis, Gruenewalk, Gurung, & Updegraff, 2000). Decades of research on adolescents' social environments reflect these gender differences in social bonding. Females are more likely to value intimacy in their

relationships (Urberg, Değirmencioğlu, Tolson, & Halliday-Scher, 1995; Buhrmester & Furman, 1987), and invest more time and effort into building intimacy within their relationships than males (Gilligan, 1982; Rueger, Malecki, & Demaray, 2010). Indeed, adolescent girls have been found to be more integrated into social networks, to make and receive more friendship choices, and to participate more in social connections as compared to their male counterparts (Urberg et al., 1995, Frydenberg & Lewis, 1993; Gilligan, 1982). Males, on the other hand, have been found to be more unconnected in their social environments (Urberg et al., 1995), and value mutual interests and activities in their social relationships over intimacy (Frey & Rothlisberger, 1996). Females' greater value on social bonds and connectedness has also been linked to their well-being (Copeland & Hess, 1995; Frydenberg & Lewis, 1993). For example, positive friend environments have been associated with lower levels of depression in girls, but not boys (Slavin & Rainer, 1990).

Due to females' greater emphasis and value in positive social environments, females may be particularly sensitive to peer rejection, which may be the mechanism by which socially rejected females develop internalizing problems. Indeed, rejection sensitivity, or the tendency to anxiously expect, readily perceive, and over-react to signs of social rejection (Downey, Mougios, Ayduk, London, & Shoda, 2004), has been shown to be one mechanism by which peer rejection is linked to internalizing symptoms (London et al., 2007; Sandstrom et al., 2003). Females have been found to be more sensitive to rejection than males (e.g., Zimmer-Gembeck, Trevaskis, Nesdale, & Downey, 2014), and anticipate more negative emotional responses to rejection (Reijntjes, Stegge, & Terwogt, 2006). Furthermore, females are more often rejected, particularly via

relational aggression (Desjardins & Leadbeater, 2011; Espelage et al., 2012), and appraise these events as more stressful (Seiffge-Krenke, 1995). Furthermore, females are more attuned to social comparison than males (Webb, Zimmer-Gembeck, & Donovan, 2014), which may make them more aware and sensitive to rejection, leading to greater internalizing difficulties.

Moderating Effects of Social Support

Cohen & Wills (1985) posited that social support acts as a buffer, protecting individuals from the negative consequences of stress, such as internalizing problems. The buffering hypothesis also theorized that there must be a reasonable match between the stressor and source of social support for buffering to occur (Cohen & Wills, 1985). It was hypothesized that Mexican American youth would exhibit the centrality of family model, in which family social support protects youth in both stressful family and peer contexts from developing internalizing difficulties. This model was not supported, which was unanticipated as Mexican Americans have strong familial ties and perceived support due to their cultural value of *familism* (Sabogal et al., 1987). Evidence has also pointed to family social support acting as a buffer for Mexican American college students in the link between global and acculturative stressors and internalizing problems (Crockett et al., 2007; Raffaelli et al., 2013). These studies were cross-sectional, thus, familial support may only act as a buffer in the immediate effects of stress on internalizing difficulties, rather than in longitudinal effects. Another possibility is that social support from family does not have a protective role when youth are experiencing the specific stressors of family risk and peer social rejection, rather than global or acculturative stress. It is also possible that familial support does not have the same buffering qualities among Mexican

American adolescents who may be striving for independence. Indeed, emerging evidence suggests that parental support loses its buffering capacity as children enter adolescence (Hostinar, Johnson, & Gunnar, 2015).

The within context and compensatory models, in which youth require social support from the same and different contexts as the stressor, respectively, for buffering to occur, were also not supported. Indeed, buffering effects of social support were not found at all. The lack of support for the buffering hypothesis was unexpected as the literature has pointed to social support protecting youth, including Latinos, in stressful contexts from developing internalizing difficulties (e.g., Beeri & Lev-Wiesel, 2012; Potochnick & Perreira, 2010). However, a majority of studies only found buffering effects for concurrent internalizing symptoms, but did not find that social support acted as a buffer longitudinally (e.g., Davidson & Demaray, 2007; Desjardins & Leadbeater, 2011). It may also be that Mexican American youth require specific types of support from different sources to achieve buffering effects, which this study did not capture. For example, families, particularly parents, have been shown to be sources of affectionate support for Mexican American youth, whereas friends have been shown to be sources of intimacy and companionship (Moilanen & Raffaelli, 2010; Edwards & Lopez, 2006). Future research should assess whether specific types of social support from friends and from family show buffering effects across time among Mexican American youth.

Rather than buffering effects, social support from family and from friends in the seventh grade had no effect on the relation between family risk and internalizing symptoms, both cross-sectionally in the seventh grade and longitudinally in the tenth grade. This finding is in contrast to the limited research examining the roles of social

support from family and from friends in the link between family risk and internalizing symptoms. One study among Braizilian youth evidenced a buffering effect of family social support in the relation between family conflict and concurrent depressive symptoms (DeLay et al., 2013), and another study found that friend social support acted as a buffer for adults who retroactively reported growing up in highly risky families from developing anxiety disorders in adulthood (Adams & Bukowski, 2007). One possibility is that buffering effects of social support only act for concurrent relations between family risk and internalizing difficulties, rather than longitudinally. Additionally, it may be that stressful family contexts have such a profound impact on Mexican American adolescents because it runs counter to their cultural value of *familism* and family harmony (Keefe & Padilla, 1987; Sabogal et al., 1987) that other coping mechanisms are needed to deal with this type of stressor. More research is needed to assess how values of *familism* interact with risky family contexts, and how Mexican American youth cope with their family stress.

Unlike in the link between family risk and internalizing symptoms, social support from family and from friends in the seventh grade did moderate the effect of seventh grade peer social rejection on tenth grade internalizing symptoms. Rather than the anticipated buffering effect, social support from both sources amplified the positive effect of peer social rejection on internalizing. That is, peer social rejection in the seventh grade predicted greater tenth grade internalizing symptoms only at high levels of social support from friends and from family, but had no effect at mean and low levels of social support. The fact that family social support was detrimental, rather than protective, to socially rejected youth was surprising given that past research has shown buffering effects

(Desjardins & Leadbeater, 2011; Potochnick & Perreira, 2010). On the other hand, the finding that social support from friends exacerbated the effect of peer social rejection on internalizing symptoms has shown support in the literature, both for concurrent and longitudinal associations (Desjardins & Leadbeater, 2011; Schmidt & Bagwell, 2007).

One possibility for these findings is that youth who are socially rejected by their peers are the ones who enact their support network, and, thus, receive more support from both their friends and their family. Having received support, these individuals might then endorse greater levels of perceived social support, which refers to the expectation that support will be available when needed. Indeed, two of the four items on both the family and friend subscales of the Multidimensional Scale of Perceived Social Support (Appendix 8; Zimet et al., 1988) asked whether or not social support is available when a person has problems. Thus, it is possible that the youth who were socially rejected by their peers were the ones who endorsed greater levels of social support, but also developed later internalizing symptoms due to the stress they were experiencing. There is evidence suggesting that individuals with greater amounts of stress and problems are more likely to enact their support systems (Barrera, 1986), and evidence linking enacted support to increased internalizing symptoms (e.g., Lakey, Orehek, Hain, & VanVleet, 2010; Seidman, Shrout, & Bolger, 2006). However, despite this evidence for enacted support, perceived social support has consistently been linked to less internalizing symptoms (e.g., Siedlecki, Salthouse, Oishi, & Jeswani, 2014; Finch, Okun, Pool, & Ruehlman, 1999), including among Mexican American youth (Raffaelli et al., 2013). Furthermore, correlation analyses from this study show a negative relation between perceived social support from family and internalizing symptoms, both in the seventh and

tenth grades, and no relation between perceived social support from friends and internalizing symptoms.

Another possibility is that individuals who rely on their support network to resolve their problems develop a lower sense of self-worth because they were not able to solve their problems on their own (Lepore, Glaser, & Roberts, 2008), and thus develop internalizing difficulties. Mexican American youth in particular may feel worse for using social support because of their cultural value of *simpatía*, or maintaining harmony in relationships (Kim, Soliz, Orellana, & Alamilla, 2009), and the collectivist cultural assumption that individuals should not burden their support networks (Kim, Sherman, & Taylor, 2008). Similarly, use of social support is considered a passive coping strategy (Zeidner & Endler, 1996), and passive coping strategies are more commonly linked to internalizing symptoms than active coping strategies, which involve mental engagement in solving the problem (e.g., Mao, Bardwell, Major, & Dimsdale, 2003). In contrast, it may be that youth who rely on their support network place a greater value on their social bonds, and, thus, are more vulnerable to the negative effects of social rejection. As females tend to place greater value on their social connections than males (Urberg et al., 1995), these processes may need to be interpreted for gender differences.

Although gender differences for this moderation were not significant, there were several reasons to examine these moderation models separately for males and females in secondary analyses. These reasons include discrepancies in internalizing symptoms between adolescent males and females (Hyde et al., 2008; García et al., 2014), theoretical implications of gender differences among these processes (e.g., Buehler & Gerard, 2013; Prinstein et al., 2001; Rose et al., 2007), and the differences between males and females

in social networks (Urberg et al., 1995; Beneson, 1990). These secondary gender analyses showed that family and friend support moderated the relation between peer social rejection and internalizing symptoms for males only, such that having low levels of social support protected socially rejected males from developing internalizing symptoms. Social support from friends and family did not moderate the link between seventh grade peer social rejection and internalizing symptoms for females, but both models showed the trend that with increasing levels of social support, peer social rejection was more strongly linked to internalizing symptoms. These findings suggest that regardless of the source and amount of social support, females will be at high risk for internalizing symptoms if they are rejected by their peers. For males, on the other hand, peer social rejection led to less internalizing difficulties at low levels of both family and friend social support, suggesting that less social support is resilient for males.

As discussed earlier, the gender differences in these processes may be due to differences in the value females and males place on their social bonds. Females, who place great value on their social connections, maintain strong social support networks, but are also more vulnerable to the negative effects of social rejection. Males, on the other hand, may place a lower value on their social bonds, which may act as a protective factor. That is, males may not view peer social rejection as such a threat. Additionally, males may have low expectations for social support or may not maintain strong social support, forcing them to solve peer problems on their own, which may lead to less internalizing difficulties.

The different emphasis adolescent males and females place on their social bonds have led to differing coping strategies, which may explain why these processes differ for

males and females. Since females place greater value in their social connections, this may be why females are more likely to use support-seeking strategies to cope with stress than males (Hampel & Peterman, 2005; Halstead, Johnson & Cunningham, 1993; Frydenberg & Lewis, 1991). Furthermore, females have been found to seek greater intimacy in their relationships (Urberg et al., 1995; Gilligan, 1982; Rueger et al., 2010). To attain this intimacy, females may be more likely to open up to each other about their problems, leading to co-rumination, a process involving repeated discussion and focus on problems and negative feelings (Rose, 2002). Indeed, females have been found to be more likely than males to co-ruminate in their relationships, particularly with friends (Rose et al., 2007; Hampel & Peterman, 2005). Mexican American female adolescents in particular have been found to rely more on social support and emotional venting than their male counterparts (Kobus & Reyes, 2000). Rather than engage in constructive problem solving in their relationships, females are more likely to just accept problems and resign themselves to their negative consequences more frequently than males (Frydenberg & Lewis, 1991; Cicognani, 2011). This evidence could explain why the relation between peer social rejection and internalizing symptoms is trending towards becoming stronger with greater amounts of social support for females. That is, the more social support females use to cope with stress, the more opportunities they have to co-ruminate, and focus on the negative feelings and consequences of their problems, leading to the development of internalizing symptoms.

Males, in turn, are more likely to be unconnected in their social networks and place less value in social bonds (Urberg et al., 1995). Thus, males are more likely to use other forms of coping with stress than use of social support. Indeed, males are more

likely to use coping strategies involving independence, denial, and distractions (Frydenberg & Lewis, 1991; Halstead et al., 1993; Phelps & Jarvis, 1994; Feldman, Fischer, Ransom, & Dimiceli, 1995). These strategies align with positive male social environments, which are based off of engagement in mutual interests, physical activities, diversions, and stress reduction activities (Copeland & Hess, 1995; Frey & Rothlisberger, 1996), which lower the risk for internalizing problems. Mexican American adolescent males, in particular, have also been found to use behavioral distractions and humor (Ojeda & Liang, 2014). Furthermore, using social support to cope with their problems may go against male gender-roles of self-reliance, strength, and emotional control (Addis & Mahlik, 2003; Courtenay, 2000). It is possible that use of avoidant and self-reliant coping strategies is more adaptive in Mexican American culture because of the Latino cultural value of *simpatía*, the value of maintaining harmony in relationships (Kim et al., 2009), and not burdening others. Mexican American males with a strong sense of *caballerismo*, or a positive masculine image, may be more likely to use active coping, positive reframing, planning, and use of humor to cope with stress (Odeja & Liang, 2014). Thus, socially rejected males who do not use social support may take pride in their ability to handle their problems themselves, and are actually protected from internalizing symptoms. The current findings were in support of theoretical implications that peer social rejection and coping operate differently for males and females. However, these findings were only suggestive, highlighting the need for further research on gender differences in these processes generally, and among Mexican American youth in particular.

Limitations and Implications

The results of this study should be viewed in light of some limiations. As mentioned above, our measure of social support was limited in its capacity to capture the complex nature of support. It may be that specific types of social support, such as affection, companionship, and instrumental aid, impact the relation between stress and internalizing symptoms in different ways. Whereas emotionally-driven social support may exacerbate the relation between stress and internalizing difficulties, instrumental and informational support may have buffering properties. The match between type of support and source of stress may be important to consider as well. Furthermore, family and friends have been shown to provide different types of support among Mexican American youth (Moilanen & Raffaelli, 2010; Edwards & Lopez, 2006), which may have confounded the findings. The current study did not include different types of support provided by family and friends to examine these distinctions. By identifying more broadly the source and type of social support that provides protective benefits for Mexican American youth, future research can begin to unpack the complexities of support processes.

Second, this study only used adolescent report of study variables, except for the combined adolescent- and mother-reported internalizing symptom count. Although adolescents may provide the best singular measure of their own perceptions and internal states (De Los Reyes, Thomas, Daruwala, Swan, Van Wie, & Lechner, 2012), reports from other sources may provide different information or a more holistic picture of stressful contexts. For example, peer-nominations can provide information as to whether or not an adolescent is actively rejected or just socially withdrawn (Coie et al., 1995), and reports from parents and siblings could give a more accurate portrayal of a family

environment. Observational studies, too, can provide objective and comprehensive assessments of peer culture and family contexts. Furthermore, this study only included adolescent reports of their mothers for the indicators of harsh parenting and parent-adolescent conflict; yet, an adolescent's preception of their father is also important to consider. Future studies in this area would benefit from using multiple reporters, as well as observational methods. Additionally, reporter comparisons might help elucidate the best source of information in understanding stressful contexts and in predicting internalizing symptoms.

Finally, this study used secondary data from the second and third waves of a larger longitudinal study (Roosa et al., 2008). Although there were many advantages to this data set, including extensive procedures for recruiting and retaining participants, a large sample size, and a longitudinal design, there were limitations as well. First, the sample consisted of Mexican American adolescents from a southwestern metropolitan area, and may not be representative of Mexican American youth living in other geographical areas. Second, as mentioned above, this study was a secondary analysis of an existing data set, which did not contain comprehensive measures of social support, as well as observational data or data from certain reporters (e.g., siblings, peers). Father reports were also not required for participation, and ultimately excluded from analyses because only half of the participants had data from their fathers. Third, even though this study had a prospective design, only two data points (i.e., seventh and tenth grade) were used, jeapordizing the confidence in conclusions about causality (Rogasa, 1995). Fourth, while seventh grade was a salient age to study these processes (e.g., Brown & Bakken, 2011), the initial sample was recruited in the fifth grade; thus, data were missing due to

attrition. A conservative approach to handle this missing data was taken, but retaining the full sample or having the baseline sample in the seventh grade would have strengthened this study.

Despite these limitations, this work has definite implications for prevention programs targeting internalizing problems among Mexican American youth. The finding that peer social rejection predicts internalizing symptoms for females only suggests that school programs should aim to improve female peer relations, possibily by promoting acceptance and cooperation. Several current prevention and intervention programs for Mexican American youth target strengthening support networks (e.g., Cervantes, Goldbach, & Santos, 2011; Gonzales et al., 2012); however, findings from this study suggest that social support may be detrimental for socially rejected youth, and unbeneficial for youth from stressful family contexts. Furthermore, interventions targeting Mexican American males may consider focusing on other forms of coping, such as self-reliance, because less social support may have protective properties for males.

Conclusion

Overall, this study adds to the literature on stress and coping among Mexican American youth. In particular, family and peer stressors may have differential impacts on youth maladjustment. Further, social support may not have the anticipated buffering benefits among this population, which suggests that social support is a complex process that needs to be teased apart. Future research would benefit from more nuanced assessments of types and sources of support, as well as gender differences in these processes, to better understand how and when social support has protetive versus detrimental effects. Advancing knowledge in this area is critical so as to better inform

policy and prevention, and help lower rates of internalizing problems among Mexican American youth.

Table 1. Means, Standard Deviations, Skewness, Kurtosis of Study Variables

	N	Min	Max.	Mean	Std Dev.	Skewness	Kurtosis
Gender (T1)	710	361	Male	(51%)			
Child Nativity Status (T1)	710	497	US	(70%)			
Mother Nativity Status (T1)	710	524	Mex.	(74%)			
Economic Hardship (T1)	703			0.00	3.18	0.37	-0.61
Harsh Parenting (T1)	703	1	5	2.01	0.70	0.87	0.31
Parent-Adol. Conflict (T1)	704	1	5	2.10	0.59	1.09	1.98
Family Conflict (T1)	710	0	9	1.06	1.46	1.65	2.65
Peer Hassles/Conflict (T1)	710	0	7	1.71	1.78	0.91	-0.01
Peer Ethnic Discrim. (T1)	699	1	5	1.62	0.71	1.39	1.82
Relational Aggression (T1)	710	1	5	1.49	0.63	1.93	4.59
Perceived Social Support from Family (T1)	710	1	5	4.38	0.69	-1.28	1.24
Perceived Social Support from Friends (T1)	710	1	5	4.07	0.86	-0.91	0.17

Internalizing (T1)	708	13.19	8.03	1.18	2.91
Internalizing (T2)	635	12.15	8.43	1.20	1.87

T1=Time 1, 7th grade (*N* = 710); T2=Time 2, 10th grade (*N* = 640)
Gender coded as 1=female, 2=male
Nativity coded as 1=United States, 2=Mexico
Min. and Max. represent possible range

Table 2. Correlations among Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.Gender (T1)	--															
2.Child Nativity (T1)	.07	--														
3.Mom Nativity (T1)	-.04	.35**	--													
4.Econ. Hard. (T1)	-.05	.21**	.24**	--												
5.Fam. Risk (T1)	-.08*	-.13**	-.11**	.01	--											
6. Harsh Parent. (T1)	-.01	-.06	.03	.05	.71**	--										
7.Par.-Adol. Conf.(T1)	-.09*	-.14**	-.14**	-.02	.92**	.47**	--									
8.Fam. Conflict (T1)	-.08*	-.07	-.10**	.01	.65**	.33**	.43**	--								
9. Peer Soc. Rej. (T1)	.01	.02	.00	.13**	.43**	.34**	.32**	.45**	--							
10.Peer Hass/Conf(T1)	-.10*	-.01	-.05	.09*	.42**	.26**	.32**	.47**	.79**	--						
11.Peer Discrim. (T1)	.06	.14**	.12**	.16**	.29**	.27**	.21**	.25**	.69**	.38**	--					
12.Rel. Aggress. (T1)	.06	-.04	-.02	.07	.32**	.28**	.23**	.33**	.86**	.48**	.41**	--				
13. Perc. Social Support from Family (T1)	-.01	.03	-.07	-.10**	-.25**	-.14**	-.22**	-.25**	-.22**	-.23**	-.09*	-.18**	--			
14. Perc. Social Support from Friends (T1)	-.34**	-.02	.01	-.01	.00	-.05	.04	-.06	-.18**	-.12**	-.07	-.21**	.29**	--		
15. Internalizing (T1)	-.09*	-.05	-.01	.19**	.32**	.23**	.24**	.36**	.42**	.43**	.26**	.30**	-.21**	-.06	--	
16. Internalizing (T2)	-.20**	-.08	-.05	.10*	.20**	.11**	.18**	.20**	.24**	.28**	.10*	.16**	-.15**	.01	.51**	--

T1=7th grade. T2=10th grade.

Gender coded 1=female, 2=male

Nativity coded 1=United States, 2=Mexico

*Correlation is significant at the .05 level (2-tailed).

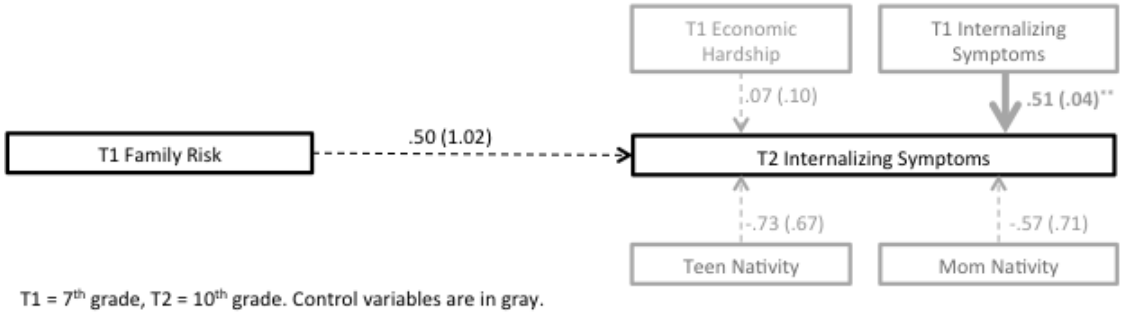
**Correlation is significant at the .01 level (2-tailed).

Table 3. Correlations among Study Variables Presented by Gender

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Child Nativity (T1)	--	.40**	.22**	-.14**	-.11*	-.10	-.10	-.02	-.04	.12*	-.04	-.01	-.03	-.06	-.11
2.Mom Nativity (T1)	.30**	--	.24**	-.14**	-.02	-.16**	-.10	-.05	-.07	.12*	-.11*	-.11*	.00	-.03	-.12*
3.Econom. Hard. (T1)	.21**	.23**	--	-.02	.06	-.07	-.02	.09	.04	.15**	.06	-.09	-.04	.18**	.09
4.Fam. Risk (T1)	-.12*	-.10	.03	--	.69**	.90**	.58**	.47**	.43**	.31**	.36**	-.16**	-.05	.33**	.16**
5. Harsh Parent. (T1)	-.01	.08	.05	.73**	--	.41**	.23**	.29**	.22**	.22**	.25**	-.08	-.09	.21**	.02
6.Par.-Adol. Conf.(T1)	-.17**	-.14**	.01	.93**	.52**	--	.32**	.34**	.33**	.22**	.26**	-.11*	.04	.23**	.16**
7.Fam. Conflict (T1)	-.03	-.12*	.03	.70**	.41**	.50**	--	.47**	.46**	.30**	.37**	-.19**	-.13*	.38**	.17**
8. Peer Soc. Rej. (T1)	.06	.06	.16**	.42**	.39**	.31**	.43**	--	.79**	.71**	.85**	-.19**	-.20**	.42**	.15**
9.Peer Hass/Conf(T1)	.04	-.05	.13*	.41**	.30**	.31**	.48**	.80**	--	.46**	.47**	-.21**	-.18**	.41**	.15**
10.Peer Discrim. (T1)	.15**	.13*	.19**	.28**	.31**	.21**	.22**	.66**	.32**	--	.40**	-.04	-.08	.24**	.03
11.Rel. Aggress. (T1)	.00	.08	.09	.30**	.32**	.21**	.30**	.87**	.51**	.42**	--	-.18**	-.19**	.34**	.15**
12. Perc. Social Support from Family (T1)	.08	-.02	-.11*	-.34**	-.20**	-.31**	-.30**	-.24**	-.24**	-.14**	-.18**	--	.31**	-.22**	-.16**
13. Perc. Social Support from Friends (T1)	.04	-.01	-.02	-.02	-.01	-.01	-.05	-.18**	-.15**	-.01	-.21**	.30**	--	-.15**	-.09
14. Internalizing (T1)	-.02	.00	.19**	.31**	.25**	.24**	.34**	.43**	.45**	.28**	.28**	-.20**	-.04	--	.48**
15. Internalizing (T2)	-.03	-.01	.11	.21**	.19**	.16**	.20**	.32**	.36**	.18**	.21**	-.16**	-.05	.52**	--

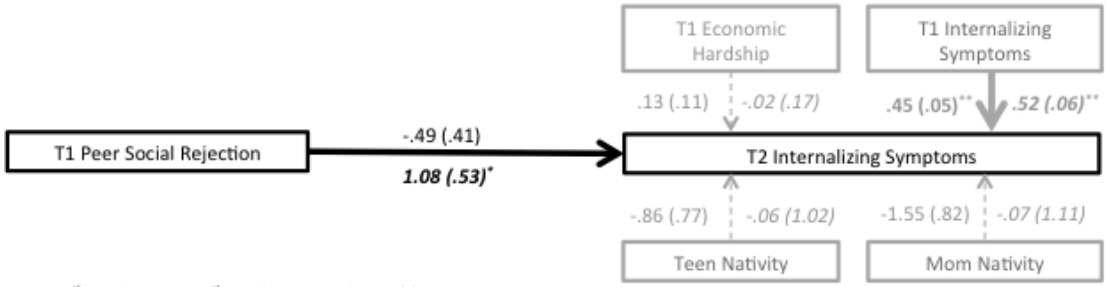
The upper triangle presents the correlations of males (N = 361). The lower triangle presents the correlations of females (N = 349).
T1=7th grade. T2=10th grade.
Nativity coded as 1=United States, 2=Mexico
*Correlation is significant at the .05 level (2-tailed).
**Correlation is significant at the .01 level (2-tailed).

Figure 3a. Main Effect of Family Risk on Internalizing, full sample



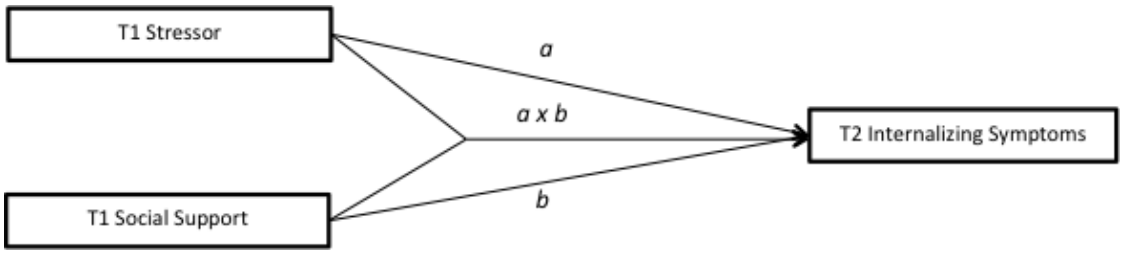
T1 = 7th grade, T2 = 10th grade. Control variables are in gray.
Unstandardized regression coefficients are reported for the *full sample*.
-->Non-significant path; → Significant path
* Effect is significant at .05 level
** Effect is significant at the .001 level

Figure 3b. Main Effect of Peer Social Rejection on Internalizing, by gender



T1 = 7th grade, T2 = 10th grade. Control variables are in gray.
Unstandardized regression coefficients are reported by gender.
Italicized coefficients represent females.
-->Non-significant path, → Significant path
* Effect is significant at .05 level
** Effect is significant at the .001 level

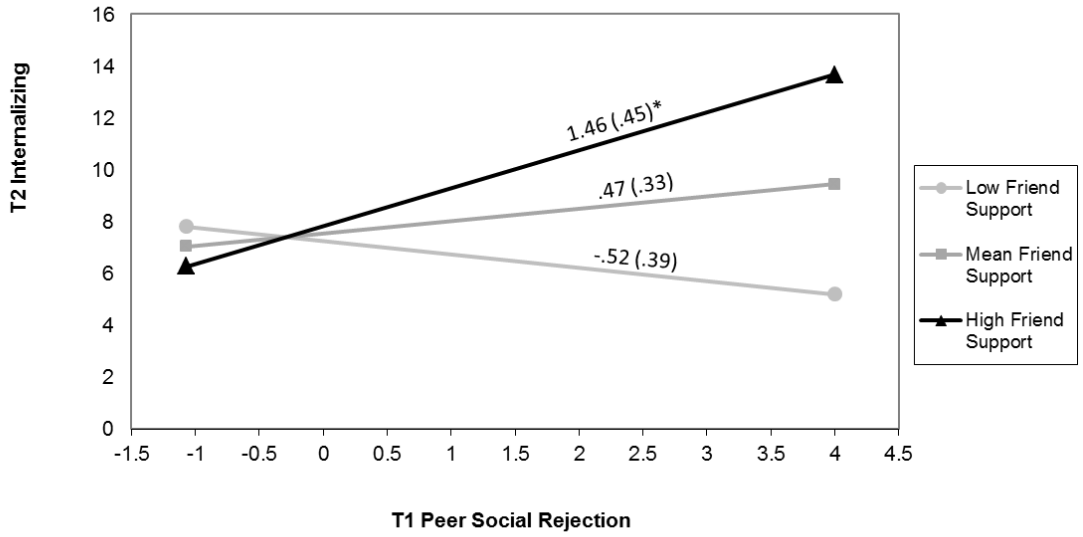
Table 4. Regression Coefficients of the Four Moderation Models



Model	*a*	*b*	*a x b*
Family social support as a moderator of family risk on internalizing	.38(1.03)	-.57(.51)	.49(1.05)
Friend social support as a moderator of family risk on internalizing	.40(1.07)	.36(.34)	.80(1.35)
Friend social support as a moderator of peer social rejection on internalizing	.47(.33)	.33 (.34)	1.14(.29) **
Family social support as a moderator of peer social rejection on internalizing	.27(.33)	-.66(.48)	1.21(.55)*

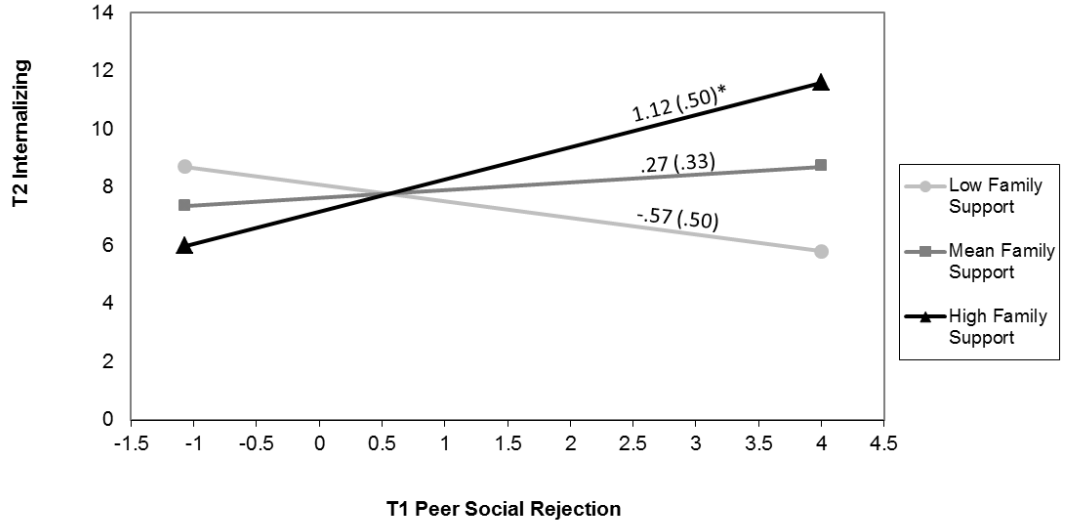
Please refer to the above figure for the corresponding paths a, b, and a x b.
T1=7th grade, T2=10th grade.
Stressor refers to family risk and peer social rejection.
Social Support refers to family social support and friend social support.
Unstandardized regression coefficients are reported for the full sample.
*Effect is significant at the .05 level.
**Effect is significant at the .001 level.

Figure 4a. Simple Effects of T1 Peer Social Rejection on T2 Internalizing Symptoms at High, Mean, and Low Levels of T1 Perceived Social Support from Friends.



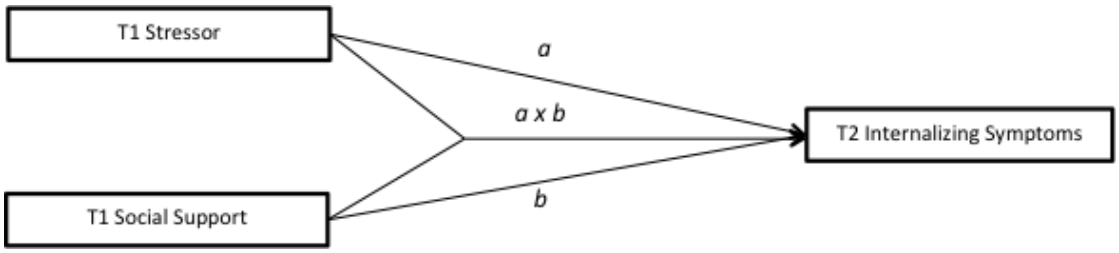
T1=7th grade, T2=10th grade
*Simple effect at high friend support is significant, p<.001

Figure 4b. Simple Effects of T1 Peer Social Rejection on T2 Internalizing Symptoms at High, Mean, and Low Levels of T1 Perceived Social Support from Family.



T1=7th grade, T2=10th grade
* Simple effect at high family support is significant p<.05

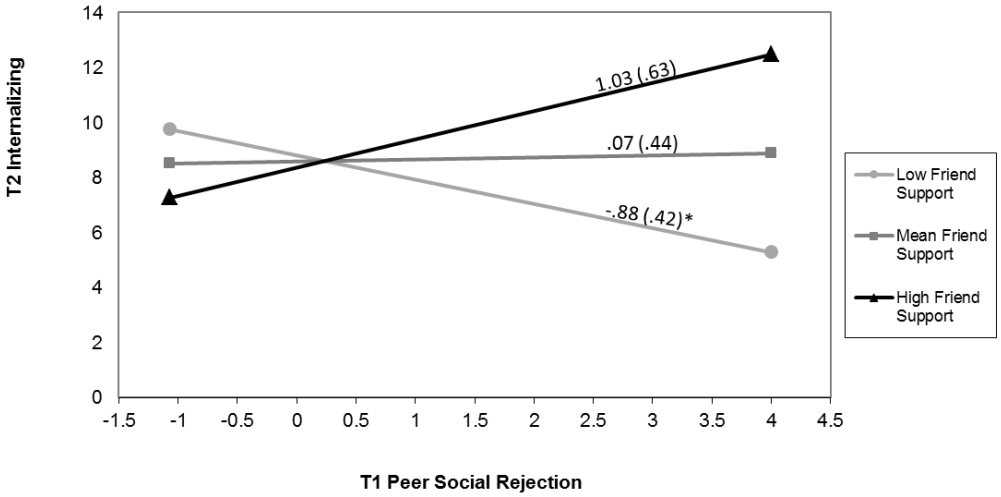
Table 5. Regression Coefficients of Secondary Analyses by Gender



Model	***a***	***b***	***a x b***
Friend social support as a moderator of peer social rejection on internalizing	.07(.44) / .93(.57)	-.26(.39) / -.32(.75)	1.11(.36)** / .67(.62)
Family social support as a moderator of peer social rejection on internalizing	-.37(.40) / 1.09(.52)*	-.81(.59) / -.77(.78)	1.46(.48)** / .87(.85)

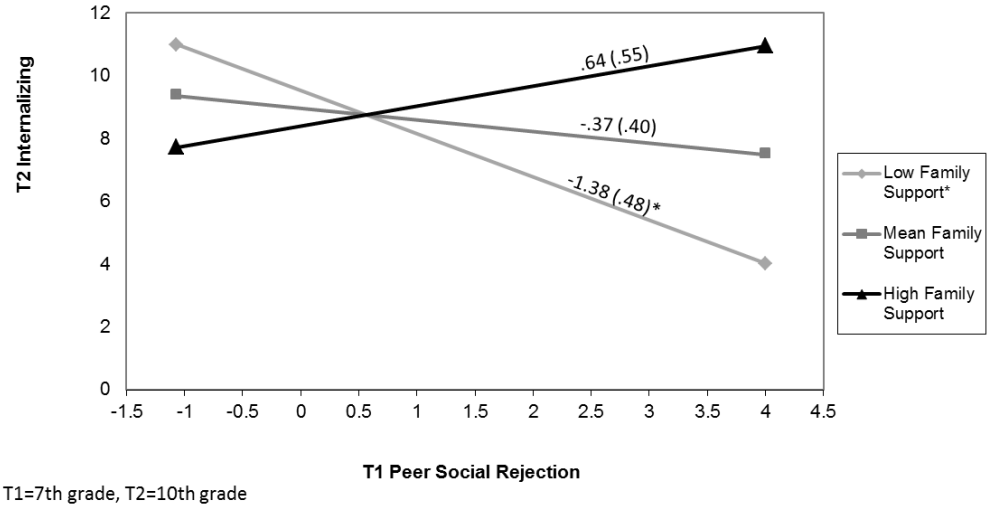
Please refer to the above figure for the corresponding paths a, b, and a x b.
T1=7th grade, T2=10th grade.
Stressor refers to family risk and peer social rejection.
Social Support refers to family social support and friend social support.
Unstandardized regression coefficients, *b*(*SE*), are reported for males/females.
*Significant at the .05 level.
**Significant at the .01 level.

Figure 5a. Males: Simple Effects of T1 Peer Social Rejection on T2 Internalizing Symptoms at High, Mean, and Low Levels of T1 Perceived Social Support from Friends.



T1=7th grade, T2=10th grade
*Simple effect at low friend support is significant, p<.05

Figure 5b. Males: Simple Effects of T1 Peer Social Rejection on T2 Internalizing Symptoms at High, Mean, and Low Levels of T1 Perceived Social Support from Family.



T1=7th grade, T2=10th grade
*Simple effect at low family support is significant, p<.01

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APPENDIX A

ECONOMIC HARDHIP

Interviewer: I am interested in learning about how often you expect that you and your family will experience the following in the next 3 months.

Entrevistador: Estoy interesado(a) en aprender que tan seguido usted y su familia piensan que van a experimentar estos eventos en los próximos 3 meses.

1. Think back over the past 3 months and tell us how much difficulty you had with paying your bills. Would you say you had:

Ahora, piense en los últimos tres meses y digame cuánta dificultad usted tuvo en pagar sus cuentas. Diría usted que tuvo:

1. A great deal of difficulty	1. Muchísima dificultad
2. Quite a bit of difficulty	2. Bastante dificultad
3. Some difficulty	3. Algo de dificultad
4. A little difficulty	4. Un poco de dificultad
5. No difficulty at all	5. Nada de dificultad

2. Think again over the past 3 months. Generally, at the end of each month did you end up with:

Piense otra vez en los últimos tres meses. Generalmente al final del mes usted se quedo con:

1. More than enough money left	1. Más que suficiente dinero de sobra

2. Some money left	2. Algo de dinero de sobra
3. Just enough money left	3. Apenas suficiente dinero
4. Somewhat short of money	4. Algo corta de dinero
5. Very short of money	5. Muy corta de dinero

Interviewer: Please think about how you felt about your family's economic situation over the past 3 months. Indicate how true each statement is for your family.

Entrevistador: Por favor piense en como se ha sentido en relación a la situación económica de su familia, en los últimos tres meses, y dígame que tan cierto es para usted, y su familia cada una de las siguientes frases.

3. Your family had enough money to afford the kind of home you needed.

Su familia tuvo suficiente dinero para proporcionar el tipo de hogar que necesitaron.

1. Not at all true	1. Nada cierto
2. A little true	2. Un poco cierto
3. Somewhat true	3. Algo cierto
4. Mostly true	4. Cierto
5. Very true	5. Muy cierto

4. You had enough money to afford the kind of clothing you needed.

Ustedes tuvieron suficiente dinero para proporcionar el tipo de ropa que necesitaron.

5. You had enough money to afford the kind of furniture or household appliances you needed.

Ustedes tuvieron suficiente dinero para proporcionar el tipo de muebles o aparatos del hogar que necesitaron.

6. You had enough money to afford the kind of car you needed.

Ustedes tuvieron suficiente dinero para proporcionar el tipo de automóvil que necesitaron.

7. You had enough money to afford the kind of food you needed.

Ustedes tuvieron suficiente dinero para proporcionar el tipo de comida que necesitaron.

8. You had enough money to afford the kind of medical care you needed.

Ustedes tuvieron suficiente dinero para proporcionar el tipo de servicios médicos que necesitaron.

9. Your family had enough money to afford leisure and recreational activities.

Su familia tuvo suficiente dinero para proporcionarse actividades recreativas y de diversion.

Interviewer: In the last 3 months, has your family made any of the following adjustments because of financial difficulties?

Entrevistador: En los últimos tres meses, ¿Ha realizado su familia alguno de los siguientes ajustes, debido a una necesidad financiera?

10. …changed food shopping or eating habits a lot to save money?

¿…cambiaron mucho su manera de comer o hacer compras para ahorrar dinero?

1. Yes	1. Sí
2. No	2. No

11. …shut down the heat or air conditioning to save money even though it made the house uncomfortable?

¿…apagaron el calenton o aire acondicionado para ahorrar dinero aunque la casa se sintiera incomoda?

12. …did not go to see the doctor or dentist because you did not have the money?

¿...no fueron a ver al doctor o dentista debido a que no tenían dinero?

13. …fell far behind in paying bills?

¿...se atrazaron en sus pagos de las cuentas?

14. …asked relative or friends for money or food to help you get by?

¿...le pidieron a sus parientes o amigos dinero o comida para ayudarse?

15. …added another job to help make ends meet?

¿...consiguieron otro trabajo para que les alcanzara?

16. …received government assistance?

¿…recibieron ayuda del gobierno?

17. …sold some possessions because you needed the money (even though you really wanted to keep them)?

¿...vendieron algunas cosas porque ustedes necesitaron el dinero (aunque ustedes deveras querían quedarse con ellas)?

18. …moved to another house or apartment to save some money?

¿…se mudaron a otra casa o apartamento para ahorrar dinero?

19. In the next three months, how often do you expect that you and your family will experience bad times such as poor housing or not having enough food?

¿En los próximos tres meses, que tan seguido espera que usted y su familia pasen por tiempos difíciles como no tener una vivienda adecuada o no tener suficiente comida?

1. Almost never or never	1. Casi nunca o nunca
2. Once in awhile	2. De vez en cuando
3. Sometimes	3. Aveces
4. A lot of the time (frequently)	4. Muchas veces (frequentemente)
5. Almost always or always	5. Casi siempre o siempre

20. In the next three months, how often do you expect that you will have to do without the basic things that your family needs?

¿En los próximos tres meses, que tan seguido espera que ustedes tendrán que vérselas sin las cosas básicas que su familia necesita?

APPENDIX B

HARSH PARENTING

Interviewer: I would like you to think about the past three months. While I ask you some questions about your experiences with your mom, please tell me how often each of these statements was true for you, that is: how often each statement describes your experiences with your mom during the past three months.

Entrevistador: Me gustaría que pensaras en tu vida durante los últimos tres meses. Primero te voy a preguntar acerca de ti y de tu mamá. Por favor dime que tan seguido cada una de estas frases fue cierta durante los últimos tres meses.

1. Your mother spanked or slapped you when you did something wrong.

Tu mamá te golpeo o cacheteo cuando hiciste algo malo.

1. Almost never or never	1. Casi nunca o nunca
2. Once in a while	2. De vez en cuando
3. Sometimes	3. A veces
4. A lot of the time (frequently)	4. Muchas veces (frequentemente)
5. Almost always or always	5. Casi siempre o siempre

2. Your mother got angry when you were noisy around the house.

Tu mamá se enojo cuando fuiste ruidoso en casa.

3. Your mother got so mad at you that she called you names.

Tu mamá se enojo tanto contigo que te llamo por nombres.

4. Your mother screamed at you when you did something wrong.

Tu mamá te grito cuando hiciste algo malo.

5. Your mother lost her temper with you when you didn't help around the house.

Tu mamá perdió el temperamento contigo, cuando no le ayudaste en casa.

6. Your mother nagged you until you did what she wanted you to do.

Tu mamá te molesto hasta que hiciste lo que ella quería que hicieras.

7. When you did something wrong, your mother said she was disgusted with you.

Cuando hiciste algo malo, tu mamá te dijo que estaba disgustada contigo.

8. When you did something wrong, your mother punished you in front of your house.

Cuando hiciste algo mal, tu mamá te castigó en frente de tus amigos.

APPENDIX C

PARENT-ADOLESCENT CONFLICT

Interviewer: How often do YOU do the following things when you have a disagreement or difference of opinion with your mom?

Entrevistador: ¿Qué tan seguido haces las siguientes cosas cuando tienes un desacuerdo o diferencia de opinión con tu mamá?

1.You and your Mom disagreed with each other.

Tú y tu mama estuvieron en desacuerdo.

1. Almost never or never	1. Casi nunca o nunca
2. Once in a while	2. De vez en cuando
3. Sometimes	3. A veces
4. A lot of the time (frequently)	4. Muchas veces (frequentemente)
5. Almost always or always	5. Casi siempre o siempre

2. You let your Mom know that you were angry.

Dejaste a tu mama saber que estabas enojada/o con ella.

3. Your Mom let you know that she was angry.

Tu mama te dejo saber que ella estaba enojada.

4. You and your Mom became very frustrated with each other.

Tú y tu mama se frustraron mucho una/o con la otra.

5. You and your Mom gave each other the silent treatment.

Tú y tu mama se dejaron de hablar a propósito.

6. You and your Mom had a small argument or misunderstanding.

Tú y tu mama tuvieron una discusión pequeña o un malentendido.

7. You and your Mom gave each other dirty looks or rolled your eyes.

Tú y tu mama se dieron miraras feas o se rodaron los ojos.

8. You and your Mom ignored each other.

Tú y tu mama se ignoraron una/o a la otra.

9. You and your Mom had a serious argument or fight.

Tú y tu mama tuvieron una seria discusión o pelea.

10. You and your Mom yelled or raised your voices at each other.

Tú y tu mama se gritaron o se levantaron la voz.

APPENDIX D

FAMILY CONFLICT

Interviewer: Now I'm going to read a list of events that sometimes happen to children. Please tell me whether or not each of the following events happened to you during the past 3 months.

Entrevistador: Ahora voy a leer una lista de eventos que algunas veces le suceden a los niños. Por favor dime si cada uno de estos eventos te sucedió durante los últimos tres meses.

1. A family member got upset at you for not participating in the family‘s cultural or religious traditions.

Un miembro de la familia se disgustó contigo por no participar en las tradiciones culturales o religiosas de la familia.

1. Happened	1. Sucedió
2. Did not happen	2. No sucedió

2. A family member criticized you for hanging out with people of a different race or culture.

Un miembro de la familia te criticó por juntarte con personas de diferente cultura o raza.

3. People in your family accused you of not being proud of your Mexican background.

Durante los últimos tres meses, personas en tu familia te acusaron de no estar orgulloso/a de herencia Mexicana.

4. You disagreed with family members because they want you to do things the Mexican / Latino way.

Estuviste en desacuerdo con tus familiares debido a que ellos querian que hicieras las cosas al estilo Mexicano o Latino.

5. You had a serious disagreement or fight with a parent.

Tuviste un desacuerdo serio o pelea con uno de tus padres.

6. Your parents had a serious disagreement or fight with each other.

Tus padres tuvieron un desacuerdo serio o una pelea entre ellos.

7. Other members of your family or people you live with had a serious disagreement or fight.

Otros miembros de tu familia o las personas con las que vives tuvieron un desacuerdo serio o pelea.

8. Members of your family hit or hurt each other.

Miembros de tu familia se golpearon o lastimaron entre ellos.

9. Members of your family refused to speak to each other.

Durante los últimos tres meses, miembros de tu familia se negaron a hablarse unos a otros

APPENDIX E

CONFLICT AND HASSLES WITH PEERS

Interviewer: Now I'm going to read a list of events that sometimes happen to children. Please tell me whether or not each of the following events happened to you during the past 3 months.

Entrevistador: Ahora voy a leer una lista de eventos que algunas veces le suceden a los niños. Por favor dime si cada uno de estos eventos te sucedió durante los últimos tres meses.

1. Your friends criticized you for hanging out with other ethnic or racial groups.

Tus amigos te criticaron por juntarte con otros grupos étnicos o con grupos de otra raza.

1. Happened	1. Sucedió
2. Did not happen	2. No sucedió

2. Other kids said mean or bad things to you.

Otros niños te dijeron cosas antipáticas o malas.

3. Other kids told mean stories or lies about you.

Otros niños contaron cosas malas o dijeron mentiras acerca de ti.

4. Other kids made fun of the way you look.

Otros niños se burlaron de tu apariencia.

5. A friend that you trusted did not keep a secret.

Un amigo en quien confiabas no guardó un secreto.

6. You had a disagreement or fight with a close friend.

Tuviste un desacuerdo o pelea con un amigo íntimo o una amiga íntima.

7. Other kids wanted to fight with you or tried to fight with you.

Otros niños quisieron pelear contigo o trataron de pelear contigo.

APPENDIX F

PEER RELATIONAL AGGRESSION

Interviewer: The following questions are about relationships you have with other kids your age. Please tell me how often each of the following things happened to you in the past three months.

Entrevistador: Las siguientes preguntas son acerca de tus relaciones con otros niños de tu edad. Por favor dime que tan seguido sucedió cada cosa en los últimos tres meses.

1. A kid your age left you out of what he or she was doing.

Otro niño de tu edad te dejó fuera de lo que él o ella estaba haciendo.

1. Almost never or never	1. Casi nunca o nunca
2. Once in a while	2. De vez en cuando
3. Sometimes	3. A veces
4. A lot of the time (frequently)	4. Muchas veces (frequentemente)
5. Almost always or always	5. Casi siempre o siempre

2. A kid your age left you out of an activity or conversation that you really wanted to be included in.

Otro niño de tu edad te dejó fuera de una actividad o conversación en la que tú realmente querías ser incluido/a.

3. A kid your age did not invite you to a party or other social event even though he or she knew that you wanted to go.

Otro niño de tu edad no te invitó a una fiesta u otro evento social, aun cuando él o ella sabía que (tu) querías ir.

4. A kid your age that you liked would not sit near you at lunch or in class.

Otro niño de tu edad con quien tú querías estar no quiso sentarse cerca de ti durante el almuerzo o en clase.

5. A kid your age gave you the silent treatment (did not talk to you on purpose).

Otro niño de tu edad no te habló a propósito.

APPENDIX G

PEER ETHNIC DISCRIMINATION

Interviewer: For the next set of questions, I am interested in your experiences with other people at your school. Thinking of these people, please tell me how true the following statements are true for you.

Entrevistador: Para las siguientes preguntas estoy interesado/a en tus experiencias con otras personas en tu escuela. Pensando en estas personas dime que tan ciertas son para ti las siguientes frases.

1. You have heard kids at school making jokes or saying bad things about Mexicans or Mexican Americans.

Has oído a niños en tu escuela haciendo bromas o diciendo cosas malas de los Mexicanos o Mexicanos Americanos.

1. Not at all true	1. Nada cierto
2. A little true	2. Un poco cierto
3. Somewhat true	3. Algo cierto
4. Mostly true	4. Cierto
5. Very true	5. Muy cierto

2. Kids at school think bad things about Mexicans or Mexican Americans.

Niños en la escuela piensan mal sobre los Mexicanos o Mexicanos Americanos.

3. Kids at school dislike Mexicans or Mexican Americans.

A los niños de la escuela no les gustan los Mexicanos o Mexicanos Americanos.

Interviewer: Tell me in the past three months, how often has each of the following statements been true.

Entrevistador: Piensa sobre cuántas veces en el último 3 meses has pensado que cada uno de lo siguiente ha sido cierto.

4. How often have kids at school excluded you from their activities, like not inviting you to go out with them, not inviting you to their houses, or not letting you join their games, because you are Mexican or Mexican American?

En los ultimos tres meces, te excluyeron los ninos en tu escuela de sus actividades como juegos o fiestas porque eres Mexicano(a) o Mexicanos Americano(a).

1. Almost never or never	1. Casi nunca o nunca
2. Once in a while	2. De vez en cuando
3. Sometimes	3. A veces
4. A lot of the time (frequently)	4. Muchas veces (frequentemente)
5. Almost always or always	5. Casi siempre o siempre

5. How often have kids at school called you names because you are Mexican or Mexican American?

En los últimos tres meses, que tan seguido los niños de la escuela te llamaron por apodos, porque eres Mexicano(a) o Mexicanos Americano(a).

APPENDIX H

SOCIAL SUPPORT FROM FRIENDS AND FAMILY

Interviewer: Now we would like to ask you some questions about your relations with some important people in your life. First, please think about the family members who live with you such as your parent(s) and any brothers or sisters, and please tell me how true each of these statements is for you.

Entrevistador: Ahora, me gustaría hacerte preguntas sobre tus relaciones con personas importantes en tu vida. Primero, piensa por favor en tu familia más cercana, tu mamá, (si se aplica, tu papá), (y si se aplica, tus hermanos); por favor dime que tan cierto es cada una de estas frases para ti.

1. Your family really tries to help you.

Mi familia deveras trata de ayudarme.

1. Not at all true	1. Nada cierto
2. A little true	2. Un poco cierto
3. Somewhat true	3. Algo cierto
4. Mostly true	4. Cierto
5. Very true	5. Muy cierto

2. When you feel bad, you get the help and support you need from your family.

Cuando me siento mal, recibo la ayuda y el apoyo de mi familia.

3. You can talk about your problems with your family.

Puedo hablar de mis problemas con mi familia.

4. Your family is willing to help you make decisions.

Mi familia esta dispuesta en ayudarme a tomar decisiones.

Interviewer: Now think about your friends and tell me how much each of these statements is true for you.

Entrevistador: Ahora piensa en tus amigos y dime qué tan cierto es cada una de estas frases para ti.

1. Your friends really try to help you.

Mis amigos deveras tratan de ayudarme.

1. Not at all true	1. Nada cierto
2. A little true	2. Un poco cierto
3. Somewhat true	3. Algo cierto
4. Mostly true	4. Cierto
5. Very true	5. Muy cierto

2. You can count on your friends when things go wrong.

Puedo contra con mis amigos cuando las cosas no van bien.

3. You have friends with whom you can share your joys and sorrows.

Tengo amigos con quienes puedo compartir mi felicidad y mi tristeza.

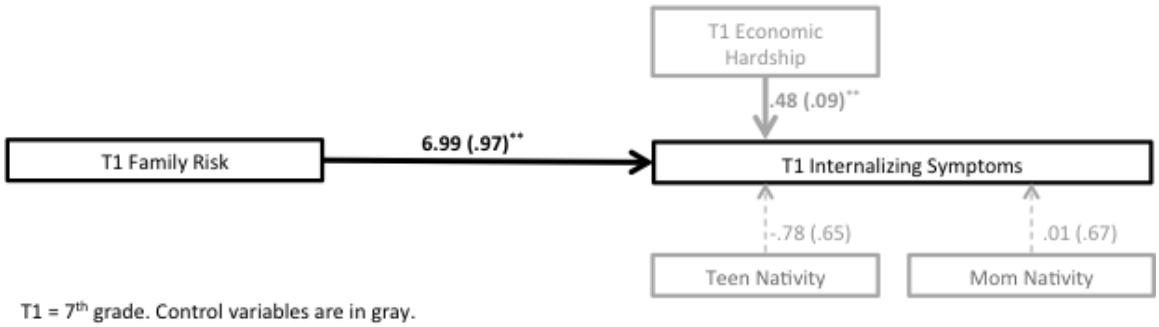
4. You can talk about your problems with your friends.

Puedo hablar de mis problemas con mis amigos.

APPENDIX I

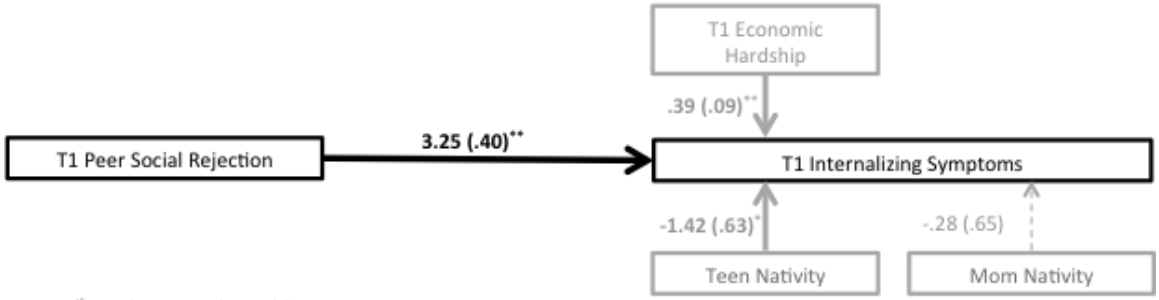
CROSS-SECTIONAL SECONDARY ANALYSES

Main Effect of T1 Family Risk on T1 Internalizing, full sample



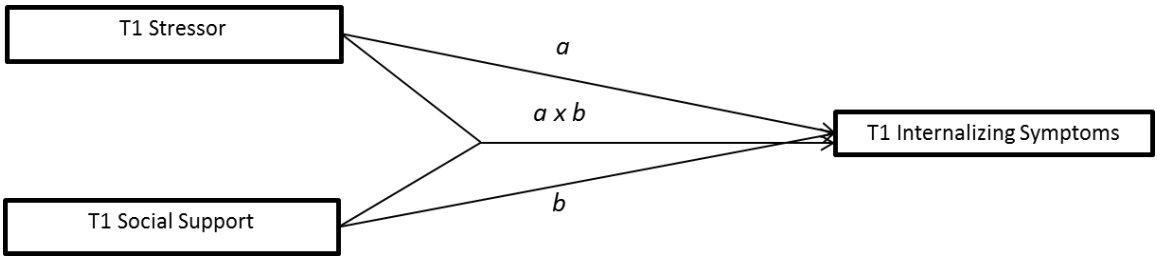
T1 = 7th grade. Control variables are in gray.
Unstandardized regression coefficients are reported for the *full sample*.
-->Non-significant path, → Significant path
* Effect is significant at the .05 level
** Effect is significant at the .001 level

Main Effect of T1 Peer Social Rejection on T1 Internalizing, full sample



T1 = 7th grade. Control variables are in gray.
Unstandardized regression coefficients are reported for the full sample.
-->Non-significant path, → Significant path
* Effect is significant at the .05 level
** Effect is significant at the .001 level

Regression coefficients of the four moderation models



Model	*a*	*b*	*a x b*
Family social support as a moderator of family risk on internalizing	6.63(1.10)**	-1.43(.45)**	1.39(1.05)
Friend social support as a moderator of family risk on internalizing	7.06(.96)**	-.51(.34)	-1.54(1.22)
Friend social support as a moderator of peer social rejection on internalizing	3.33(.39)**	.11 (.32)	.18(.50)
Family social support as a moderator of peer social rejection on internalizing	3.13(.43)**	-1.33(.43)*	.54(.43)

Please refer to the above figure for the corresponding paths a, b, and a x b.
T1=7th grade.
Stressor refers to family risk and peer social rejection.
Social Support refers to family social support and friend social support.
Unstandardized regression coefficients are reported for the full sample.
*Significant at the .01 level.
**Significant at the .001 level.