The Effects of Family Stressors on Depression in Latino Adolescents as Mediated by Interparental Conflict

Jenny Carolina Mondragón
Brigham Young University
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Jenny Carolina Mondragon

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Master of Science

Roy A. Bean, Chair
Angela Beesley Bradford
Richard B. Miller

School of Family Life
Brigham Young University

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ABSTRACT

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Jenny Carolina Mondragon
School of Family Life, BYU
Master of Science

Extensive literature suggests that Latino youth experience higher levels of depression when compared to youth from other ethnic backgrounds; yet, relatively little is known regarding why this particular population is especially susceptible to depression. This study focused on family level stressors and the link between interparental conflict and adolescent depressive symptoms in Latino families. The sample consisted of 400 girls and 290 boys; they were distributed into four groups based on gender and family structure. Written surveys were completed in their respective English classes measuring the aforementioned variables. Results indicated a significant relationship across all four groups between family stressors and interparental conflict, along with interparental conflict and depression. Implications and directions for future research are discussed.

Keywords: depression, family stress, interparental conflict, adolescents
# Table of Contents

List of Tables ........................................................................................................................................ iv
List of Figures ......................................................................................................................................... v
The Effects of Family Stressors on Depression in Latino Adolescents as Mediated by Interparental Conflict .................................................................................................................. 1
Literature Review ..................................................................................................................................... 2
  Depression Among Adolescents ............................................................................................................ 2
  Family Stressors ..................................................................................................................................... 3
  Interparental Conflict ............................................................................................................................... 4
  Gender Differences ................................................................................................................................. 6
Method ..................................................................................................................................................... 7
  Procedure ............................................................................................................................................... 7
  Sample ................................................................................................................................................... 8
  Measures ............................................................................................................................................... 8
Results ..................................................................................................................................................... 10
Discussion ............................................................................................................................................... 12
  Implications for Therapy ......................................................................................................................... 14
  Limitations ........................................................................................................................................... 15
  Conclusion ........................................................................................................................................... 16
References ............................................................................................................................................... 17
List of Tables

Table 1 Demographic and Measurement Details ................................................................. 29
Table 2 Bivariate Correlations among Study Variables (Girls and Boys in Biological Families) 30
Table 3 Bivariate Correlations among Study Variables (Girls and Boys in Non-Biological Families) ................................................................................................................................................................................. 31
Table 4 Goodness-of-Fit Statistics for Tests of Multigroup Invariance: A summary .................. 32
List of Figures

Figure 1 Hypothesized Structural Model................................................................. 33
The Effects of Family Stressors on Depression in Latino Adolescents as Mediated by Interparental Conflict

Depression is a prevalent mental health disorder, often initiating in childhood and continuing on into adolescence. Adolescent depression has an estimated prevalence rate between 5% and 8% (Forum on Child and Family Statistics, 2013; Maughan et al., 2013; McCarthy et al., 2008) with chronic symptoms marked by considerable impairment, accounting for a significant quantity of the health care costs sustained by this age group (Birmaher et al., 1996). Furthermore, depression in adolescence is associated with adverse outcomes such as substance abuse, academic problems, cigarette smoking, high-risk sexual behavior, physical health problems, impaired social relationships, and an increased risk of suicide (Birmaher et al., 1996; Brent et al., 1994; Le et al., 2003). Presented by ethnicity, Latino adolescents report higher levels of depression compared to youth from other ethnic backgrounds (Twenge & Nolen-Hoekseman, 2002); however, relatively little is known about why Latino youth are particularly susceptible to depression (Céspedes & Huey, 2008).

Considering that the majority of research on child and adolescent depression has been centered on European Americans, researchers are restricted considerably when trying to understand depression among Latino youth. Furthermore, the available research on depression among Latino youth primarily focuses on how both foreign-born and US-born Latino youth experience acculturative stress (Hovey & King, 1996; Potochnick & Perreira, 2010; Roche & Kuperminc, 2012), with very little attention focused on family-level stressors (Cervantes, Goldbach, & Santos, 2011). Other studies look at mental health outcomes and economic stress (Garcia et al., 2014; Zychinski & Polo, 2012) but give insufficient attention to the role of family relationships in protecting adolescents (or placing them at increased risk) from the impact of said
stressors (Potochnick & Perreira, 2010). In order to more clearly understand this research topic, this study examines Latino family relationships and the associations between family stressors, interparental conflict, and adolescent depression.

**Literature Review**

**Depression Among Adolescents**

Depression in adolescence may present itself by a decline of interpersonal relationships, poor academic performance and increased risk of suicide and self-harm (Thapar, Collishaw, Pine, & Thapar, 2012). Depression can become a significant impairment for individuals and families, with some authors suggesting that “adolescent depression shows continuity into adulthood and it is predicted to become the second leading cause of disability worldwide by the year 2020” (Lewis et al., 2014, p. 319).

Additionally, persistent stressors at home can influence the development of depression and its prevalence from adolescence into adulthood (Hankin, 2006). Some longitudinal studies have identified that being exposed to stressful life events is a precursor for the intensity, frequency, and severity of depression (Goodyer, 2001). In fact, Hankin (2006) notes that a majority of the people suffering from a depressive disorder, report having experienced at least one significant negative life event in the month prior to the onset of depression.

In addition, depression is likely to be influenced by factors other than stressful life events, as parental conflict may also play an underlying role in adolescent depression. Huang and colleagues (2014) suggest that when a couple is unable to productively resolve their conflict; they are likely to involve their children in the conflict to release some of the anxiety and tension between them (Aro & Palosaari, 1992). The child might respond by developing a variety of symptoms, one of which could be depression (Huang, Costeines, Kaufman, & Ayala, 2014).
As a group, Latino youth in the United States, particularly Mexican American immigrants and Puerto Ricans, have been found to have high rates of internalizing spectrum problems such as depression (Bernal, Cumba-Aviles, & Saez-Santiago, 2006). Compared to other ethnic groups, Latinos are at increased risk for suicide, which is tightly linked with depression (Eaton et al., 2006; Goldston et al., 2008). Taken together, these findings accentuate that depression among Latino youth has high public health relevance and there is a need to expand the research for this ethnic group (Garcia, Manongdo, & Ozechowski, 2014).

**Family Stressors**

Family stressors are defined as life situations or alterations that place strain on the family unit, and may potentially lead to changes in the family system’s functioning requiring a need for adjustment or adaptive behavior (McCubbin & Patterson, 1983). Family stressors may include low socioeconomic status, perceived financial strain, parents spending a lot of time outside of the home or parents getting in trouble with the law or going to jail (Chappel et al., 2014; Poehlmann et al., 2010; Ruiz-Casares et al., 2012). Family stressors often occur in conjunction with each other and have cumulative consequences on both adolescents and parents (Masten & Shaffer, 2006). For example, Valdez, Chavez, and Woulfe (2013) suggested that “parents affected by family stressors might be less able to provide a stimulating environment, demonstrate warmth, and deliver consistent discipline and monitoring.” Other studies further this argument in observing that adolescents are impacted when parents are emotionally unavailable due to family stressors (Shanahan, 2000; Valdez, et al, 2013).

Additionally, the ramification for adolescents constantly being exposed to family stressors is that their well-being and healthy development are likely to be at risk (Cicchetti & Toth, 1998). Recognizing the function of stressors in the lives of adolescents is important,
considering that the predominant models of adolescent psychopathology emphasize the potential influence of environmental stressors in the prevalence of internalizing disorders in adolescents (Grant et al., 2003).

Finally, research suggests that economically disadvantaged families experience higher levels of stress, and are markedly more impacted by these events because of their limited resources to cope with them (Sheidow, Henry, Tolan, & Strachan, 2014). Since Latino families are more likely to live in poverty than those of the majority European American culture, Latino adolescents are more vulnerable to the adverse impact of stress exposure (Stein, Gonzalez, & Hug, 2012).

**Interparental Conflict**

One of the family processes that may be altered due to stressors is the quality of the marital relationship (Moore & Florsheim, 2008), especially as it relates to interparental conflict. A study by Buehler et al. refers to this type of discord as covert marital conflict and defines it as “hostile behaviors and affect that reflect passive-aggressive ways of managing conflict between parents” (Buehler et al., 1998, p. 120). These behaviors include trying to get the child to take sides, unfairly blaming child for marital problems, using the child as a messenger when one parent does not want to directly communicate with the other, and defaming the other parent in front of the child (Buehler et al., 1998).

Studies suggest that conflict between parents increases the risk of a variety of emotional and behavioral problems among adolescents (Ayoub et al., 1999; Cummings & Davies, 1994; Emery, 1999). In fact, the effect of interparental conflict both before and following marital dissolution has been demonstrated to be a pervasive stressor for adolescents from both intact and divorced families (Baker & Brassard, 2013). Within intact families, experiencing interparental
conflict and becoming involved in said conflict can develop into a situation that is emotionally
draining and unsettling (Davies & Cummings, 1994; Weber & O'Brien, 1999). Additionally,
Lewis, Siegel, and Lewis (1984) found that witnessing interparental conflict was reported by
elementary school children to be the third most distressing life stressor they faced. Furthermore,
Forehand et al. (1991) found that high levels of interparental conflict were associated with more
parent-child relationship problems, which was in turn the best predictor of concurrent and
subsequent difficulty in functioning for adolescents (Baker & Brassard, 2013).

Some of the internalizing problems associated with interparental conflict consist of
symptoms such as depression, anxiety, and withdrawal (Buehler & Welsh, 2009). Adolescents
are at a higher risk of experiencing distress when their parents include them in their marital
discord, place them in a situation to take sides, or contend for their affection (Amato & Afifi,
2006). Adolescents often describe these negative feelings as being torn in two or caught in the
middle (Afifi & Schrodt, 2003; Buchanan et al., 1991). Amato and Afifi (2006) also noted that
children may assume that their behaviors will be perceived as acts of disloyalty by one or both
parents; this can lead to levels of distress and may be a contributing factor for child adjustment
problems.

Research indicates that Latino family functioning can be disrupted by family stressors,
given that such life events adversely alter family processes and may indirectly cause conflict in
the home as well as subsequently produce negative repercussions on adolescent well-being
(Prelow, Loukas, & Jordan-Green, 2007). In the case of interparental conflict, the research
indicates that Latino youth are affected to different degrees when compared to European
Americans in the same age range. For example, contrasting Mexican Americans and European
Americans Parke et al. (2004) found that parental conflict was significantly associated with
internalizing problems (including various depressive symptoms) for both populations, but there was a statistically stronger association for Latinos. However, another study by Bradford et al. (2004) comparing adolescents from 11 different nationalities, including Colombia and the United states, found that adolescents’ reports of parental conflict were associated with internalizing problems (including depression) regardless of the national origin of the participants.

A thorough review of the available literature only found a small number of studies investigating both family stressors and interparental conflict. The research notes that while family stressors may directly disrupt adolescents, a possibility exists that this relation may be indirect and mediated by difficulty in functioning within numerous family systems (Salafia, Gondoli, & Grundy, 2008). For instance, family stressors may affect adolescents by first leading to problems in the parental subsystem (Elgar et al., 2004). In turn, research done by Buehler et al. (2007) suggests that exposing adolescents to parental problems is an added stressor to an already challenging developmental time period, and may prevent them from perceiving their family as a safe place to turn to for comfort and protection. As a result, any interparental hostility that takes place during this crucial transitional period may generate a situation in which the adolescent feels constrained to put his or her needs aside in order to solve the parental conflict (Buehler et al., 2007).

**Gender Differences**

The literature is inconclusive about gender differences and how adolescents respond to interparental conflict. For instance, some studies indicate that adolescent boys are more likely to
get involved in parental conflict (Jaffe, Wolfe, & Wilson, 1990). In comparison, other studies have noted that adolescent girls seem to be more susceptible to being caught in the middle of parental disputes (Davies et al., 2002; Goeke-Morey et al., 2003). However, the research related to the topic of gender differences and adolescent depression tends to be more consistent. In this body of research there are numerous studies suggesting that adolescent girls are more prone to depressive symptoms and consistently report higher levels of depression when compared to boys (Garber & Martin, 2002; Hankin & Abramson, 2001). Due to the gender differences reported in previous literature, this study will also examine how adolescents are impacted by interparental conflict (by gender) in order to better understand any differences for males and females.

It is predicted that the occurrence of interparental conflict will (at least, partially) mediate the effects that stress has on depression for Latino boys and girls. Interparental conflict and stress are both expected to be positively related to depression. Two control variables (child age and family socio-economic status [SES]) will be examined within the model and the model fit will be compared across four groups (boys and girls, from biological [living with both biological parents] and nonbiological families [living with at least one parent who is not a biological parent]). The relationship among study variables (and the expected direction of their associations) are presented in Figure 1 (the hypothesized structural model).

**Method**

**Procedure**

The data for this study were part of a larger project focusing on socializing dimensions and influences as they related to adolescent development and youth outcomes in various cultures. Data were collected from 2,292 ninth through twelfth graders in a west Texas area school district. Based on teacher’s willingness to allow surveying in their classrooms, 4,150
students were eligible for participation. Students for whom parental consent had been obtained completed written surveys in their respective English class. Some students were absent during survey dates at school and others were not able to participate due to non-returned consent forms, resulting in 2,292 completed surveys (55.3% response rate). Seventy-eight surveys were discarded due to concerns regarding response integrity, with a resultant sample of 2,214. In terms of ethnic group categorization, 788 students self-identified as being Latino or Hispanic.

**Sample**

The Latino portion of the sample that reported on interparental conflict consisted of 400 girls and 290 boys, with an average age of 16.15. Nearly 50% of respondents came from an intact home, living with both biological parents. Approximately 14% of participants lived with just their mother, while another 12% reported living with their mother and step-father. The majority of respondents (51.5%) reported their socio-economic status to be about the same as most of their peers, 27.1% reported being richer than most, and the remaining 16.5% reported being poorer than most. Additional sample details are presented in table 1.

**Measures**

**Family stressors.** Children’s experience of stressful life events was assessed using 16 items from Johnson (1982), with higher scores representing a more recent occurrence of stressful life events. Respondents answered how recently events happened, ranging from 0-“never happened,” 1-“happened in your lifetime,” 2-“happened in last six months.” Sample items include (a) “frequent arguments between parents” and (b) “brother or sister leaving home.” This measure has been found to be reliable and valid for use with a Latino sample in previous research (McCarty, 2006) and the Cronbach’s alpha coefficient was found to be 0.92.
Reliability coefficients for this sample were found to range from .70 to .80 and additional measurement details are presented in table 1.

**Interparental conflict.** Interparental conflict is measured using a scale derived from Buehler et al. (1998) and consists of four questions: “How often does one of your parents try to get you to side with one of them?”, “How often does one of your parents send a message to the other one through you because they don’t want to talk to the other parent?”, “How often do you feel caught in the middle when your parents fight?”, and “How often do you feel torn between your parents?”. Responses ranged from 1(never) to 4(very often). This interparental scale was developed in previous studies measuring marital conflict (Buehler et al., 1998) and has been utilized in previous cross-cultural studies utilizing a Latino sample (Bradford et al., 2004) where authors noted a reliability coefficient of .72. Reliability coefficients for this sample were found to range from .72 to .84 and additional measurement details are presented in table 1.

**Depression.** Adolescent depression was assessed using the ten-item Children’s Depression Inventory (Kovacs, 1992). Respondents selected the most descriptive statement in response to the following prompt, “Mark one sentence from each group that best describes your feelings during the past two weeks”. A three-point Likert scale (1-to-3) was used with higher scores indicating higher levels of depressive symptoms, after 4 items were reverse-coded from positive valenced to negative. As a sample item, respondents were given three options with each option having a different point value: (a) “I am sad once in a while” (1 point), (b) “I am sad many times” (2 points), and (c) “I am sad all the time” (3 points). In previous studies, the Cronbach’s alpha coefficients was found to be .90 for participants with depressive disorders and .86 for participants without depressive disorders (Aluja & Blanch,
Reliability coefficients for this sample were found to range from .81 to .85 and additional measurement details are presented in table 1.

Control variables. Several control variables were included in the analyses including family structure, child age, child gender and family SES. Family structure was based on participant’s responses to the questions, “Which parents or guardians do you live with now?” Responses were: “mother and father”, “mother only”, “father only”, “mother and stepfather”, “father and stepmother”, “some of the time in my mother’s home and some in my father’s”, “other relatives”, “guardian or foster parent who is not a relative”, or “I live alone or with friends”. Participants who reported living with both biological parents (“mother and father”) were categorized as having a biological family structure while all other family configurations were grouped together as having a “non-biological” family structure. Socio-economic status was based on participant’s responses to the question, “Compared to other kids your age, how well-off do you think your family is?” Responses were: “we are a lot poorer than most”, “we are a little poorer than most”, “we have about the same amount of money as most”, “we are a lot richer than most”.

Results

Measure items (for each of the three measures) were grouped into parcels following the recommendations of Seo et al. (2016). This action was taken given (a) the overall reputation and common utilization of the measures used here (see above), and (b) the focus here on associations among latent variables rather than item-level relationships. The parceling approach is also advantageous in that it, “conveys manifest information into latent space, reducing the specific variance of each item (i.e., increase the proportion of true-score variance
leading to higher reliability and greater communality)” (p. 377, Seo et al., 2016). Factor loadings for all indicators (parcels) across all four groups were found to be significant.

Using AMOS 24.0 (Arbuckle, 2008), the hypothesized model (see Figure 1) was examined for goodness-of-fit and measurement invariance across all four gender/family structure (G/FS) groups. Following the recommended procedure (Bartle-Haring, 1997; Bollen, 1989; Vandenberg and Lance, 2000), a configural model was established with all parameters unconstrained to serve as the “baseline” against which subsequent models (more constrained) could be compared. As seen in table 4, all CFI difference values for all models were found to be below the recommended .01 cutoff proposed by Cheung and Rensvold (2002) except in the case of model A. Regarding model A (all factor loadings for all measures were constrained to be equal across the four G/FS groups), the CFI difference was found to be slightly higher, at .017. As the more traditional measure of fit, the $\chi^2$ difference tests demonstrated evidence for the invariance of factor loadings for the measures of family stressors and for depression but not for the measure of interparental conflict.

Initial data analyses included bivariate correlations among study variables for each of the four gender/family structure groups: boys/biological ($n = 156$), girls/biological ($n = 186$), boys/non-biological ($n = 134$), and girls/non-biological ($n = 214$). The means, standard deviations, ranges and reliabilities (Cronbach’s alpha coefficients) are presented in table 1 while correlations are presented in tables 2 and 3 (biological and non-biological families, respectively).

Examining the hypothesized structural model, the resultant indices indicated a good fit as follows: $\chi^2 = 233.77$, $p < .001$ (df = 164), $\chi^2$/df = 1.425, CFI = .962, TLI = .938, and RMSEA = .024. Based on fit index standards, these results indicated that the model was a very good fit for
the data based on the following recommendations: CFI values above .90, χ2/df values below 2.0, and RMSEA value below .05 (Hu & Bentler, 1999). Across the four G/FS groups, a number of similarities and differences in path coefficients were noted. First, for all four G/FS groups, a significant positive relationship was found between family stressors and interparental conflict, indicating that for Latino families (and probably all families), family-level stress contributes to interparental conflict. Second, across all four groups, a significant positive relationship was noted between interparental conflict and depression, meaning that for Latino youth (and, again, probably all youth), where there is parental conflict there is also youth depression. As the third consistency in findings across all four G/FS groups, the relationships between control variables (youth age and family SES) were found to be non-significant.

The only noteworthy difference in path coefficients was for the girls in biological families group where a significant relationship was noted between family stress and youth depression, whereas this relationship was found to be non-significant for the other three groups. In and of itself, this finding is not surprising given that this same association has been noted in other studies (e.g., Cicchetti & Toth, 1998); however, it is surprising to find it in the case of only one group of adolescents. Perhaps, girls (rather than boys) and girls in two-parent biological families (rather than in other familial structural arrangements) are more connected and attentive to family-level stressors.

**Discussion**

The results indicate a significant positive relationship between family stressors and interparental conflict for Latino families. As mentioned by McCubbin & Patterson (1983) when overwhelming stressors exist in the home it can be very emotionally taxing, and shifts may occur in family functioning and family interactions. A significant interaction that is altered is that of
the parental relationship, feelings of inadequacy may arise as parents lack the mechanisms to navigate through conflict and begin exhibiting manipulative behaviors involving their children as mentioned by Buehler et al. (1998). Although on the surface, covert forms of conflict may appear to be innocuous, they can cause just as much harm as more overt forms of conflict, depriving adolescents the opportunity to observe healthy conflict resolution and leading to developmental problems (Whittaker & Bry 1991), including depressive symptoms.

The results also indicate a significant positive relationship between interparental conflict and adolescent depression. Adolescence is already a pivotal stage in which mental health is fragile and readily susceptible (Andersen, 2003) and the mechanism of communication between parents and adolescents have a strong impact on adolescent development (Yoon et al., 2004). The presence of interparental conflict represents weakened mechanisms of communication which can disrupt family environment and in turn, may lead adolescents to experience feelings of worthlessness and guilt if they begin to blame themselves for the problems of their parents. In addition, the adolescent may display fatigue, diminished interest or pleasure in all or almost all activities and a decreased ability to concentrate due to having to act as a messenger for the parents. Being in frequent situations of having to take sides with one or the other parent may cause teens to experience depression or depressive symptoms on a consistent basis (Buehler et al., 1998).

Some studies have shown a link between age and depression with marked danger of having at least 1 psychiatric disorder by age 16 (Costello et al., 2003), depression appears to be not as widespread among middle aged individuals but notably prevalent among younger and older adults (Mirowsky & Ross, 1992). However, the results for this study indicate a non-significant relationship between age and depression.
Additionally, the results indicate that for girls in families with both biological parents there was a significant positive relationship between family stress and depression. As mentioned by Cicchetti and Toth (1998) when adolescents experience regular family stress their well-being and development become susceptible to risks, depression being one of those risks. The gender-specific aspect of this set of findings can be supported by other studies where, compared to boys, girls generally receive more exposure to a variety of stresses including family level stressors (Hankin et al., 2007; Rudolph, 2002). This can be especially applicable to Latina girls as this population seems to ascribe a considerable amount of value on positive family relationships (Romero & Ruiz, 2007). Since family stress can lead to conflict, Latina girls may perceive a deterioration in positive family functioning and over time depressive symptoms may emerge.

**Implications for Therapy**

These findings can be helpful in broadening our understanding of depression among Latino adolescents. Particularly the link that may exist between interparental conflict and depression, suggesting that attention should be devoted to this type of conflict in the assessment and intervention stages. If this type of conflict is detected within family interactions it would be valuable to educate parents on the detrimental effect that these passive-aggressive behaviors can have on their adolescent’s mental health development. Furthermore, parents can be presented with alternate coping mechanisms and ways of approaching conflict resolution without placing their children in the middle of it.

Additionally, the positive relationship that was found between family stressors and interparental conflict, joins other findings in underscoring the adverse effects that family level stressors may impose on the parental unit and subsequently affecting the entire family. It is important for clinicians to consider the many factors that may influence interparental conflict,
stress being one of them. Although family stressors cannot be avoided a realistic focus of therapy can consist of relaxation techniques and positive imagery.

Finally, Latina girls seem to resort to their parents for a lot of emotional support and it is important for clinicians treating this population to be aware of how these girls react to hardship in the home. These findings seem to highlight that Latina girls may experience higher levels of depression in the presence of family stress possibly due to the lack of emotional support and resources available to them. Understanding these differences may help clinicians to tailor therapy sessions in a way that will address these needs and provide Latina girls and their parents with essential resources to assess and manage depressive symptoms.

Limitations

Several limitations to the present study should be noted. First, this sample primarily focuses on school-going youth and as Bradford et al. (2004) previously noted going to school or having a high attendance rate symbolizes a certain amount of privilege and familial/individual stability that may not be accessible to all youth. Given this observation, it is unfair to assume that the family interactions explored in these findings parallel families where kids do not attend school or have intermittent attendance.

Second, the single-informant design of this study can be problematic in terms of credibility and lack of complete representation. This type of design places a substantial amount of trust on the adolescent’s ability to provide an accurate report, but fails to survey the parents and thus their experiences are not represented. Without collecting data from both sides, it becomes difficult to make exhaustive conclusions and thus many of the findings only make up part of the narrative (Baker & Brassard, 2013).
Lastly, another limitation to this study is that information was gathered by use of cross-sectional tests and therefore, the trends and interactions observed between variables only capture a small glimpse of these relationships (Chappel et al., 2014). To better understand how these patterns affect Latino families over a period of time, longitudinal tests should be conducted.

Conclusion

This study demonstrates that family level stressors play a significant role among Latino families by adversely altering family relationships, and are likely to increase friction between parental interactions perhaps leading to behaviors that place children in the middle of the conflict. These findings further reveal that when interparental conflict is present it places Latino adolescents at an increased risk for developing depressive symptoms. Furthermore, it provides insight into the possible ways in which Latino boys and girls respond differently to difficult situations, with the present study suggesting that girls are more affected by perceiving family stress in the home. These findings emphasize the burden that stress places on the whole family and the interactions that may influence adolescent depression, strategies should be aimed at monitoring these occurrences and increasing our understanding of them.
References


### Table 1 Demographic and Measurement Details

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<th>Boys/Non-Bio</th>
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<td><strong>Age: mean (SD), Range</strong></td>
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*Note. SES = socioeconomic status; FS = family stress; IPC = interparental conflict; Dep = adolescent depression; SD= standard deviation; Boys/Bio = boys in biological families; Boys/Non-Bio = boys in non-biological families; Girls/Bio = girls in biological families; Girls/Non-Bio = girls in non-biological families.*
Table 2 Bivariate Correlations among Study Variables (Girls and Boys in Biological Families)

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<td>Depression</td>
<td>-.09</td>
<td>-.12</td>
<td>.39**</td>
<td>.32**</td>
<td></td>
</tr>
</tbody>
</table>

Note: correlations for boys are above diagonal, girls below diagonal; SES = socioeconomic status; FS = family stress; IPC = inter-parental conflict
* p < 0.05. ** p < 0.01.
Table 3 Bivariate Correlations among Study Variables (Girls and Boys in Non-Biological Families)

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>SES</th>
<th>FS</th>
<th>IPC</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td>.02</td>
<td>.08</td>
<td>.02</td>
<td>.04</td>
</tr>
<tr>
<td>SES</td>
<td>.15*</td>
<td></td>
<td>-.14</td>
<td>-.07</td>
<td>-.17</td>
</tr>
<tr>
<td>FS</td>
<td>.06</td>
<td>-.12</td>
<td></td>
<td>.24*</td>
<td>.24**</td>
</tr>
<tr>
<td>IPC</td>
<td>-.03</td>
<td>-.05</td>
<td>.18*</td>
<td></td>
<td>.27**</td>
</tr>
<tr>
<td>Depression</td>
<td>-.07</td>
<td>-.10</td>
<td>.12</td>
<td>.28**</td>
<td></td>
</tr>
</tbody>
</table>

*Note: correlations for boys are above diagonal, girls below diagonal; SES = socioeconomic status; FS = family stress; IPC = interparental conflict
* p<0.05. ** p<0.01.
### Table 4 Goodness-of-Fit Statistics for Tests of Multigroup Invariance: A summary

<table>
<thead>
<tr>
<th>Model Description</th>
<th>Comparative Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
<th>Significance</th>
<th>CFI</th>
<th>$\Delta$CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CONFIGURAL model, equality not constrained</td>
<td>n/a</td>
<td>152.221</td>
<td>96</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>.971</td>
<td>n/a</td>
</tr>
<tr>
<td>2A. Measurement model A: All factor loadings constrained equal.</td>
<td>2A versus 1</td>
<td>201.325</td>
<td>114</td>
<td>49.104</td>
<td>18</td>
<td>$p &lt; .005$</td>
<td>.954</td>
<td>.017</td>
</tr>
<tr>
<td>2B. Measurement model B: Factor loadings for only FS constrained equal.</td>
<td>2B versus 1</td>
<td>158.181</td>
<td>102</td>
<td>5.96</td>
<td>6</td>
<td>NS</td>
<td>.971</td>
<td>.000</td>
</tr>
<tr>
<td>2C. Measurement model C: Factor loadings for only FS and IPC constrained</td>
<td>2C versus 1</td>
<td>182.631</td>
<td>108</td>
<td>30.41</td>
<td>12</td>
<td>$p &lt; .005$</td>
<td>.961</td>
<td>.010</td>
</tr>
<tr>
<td>2D. Measurement model D: Factor loadings for only FS and DEP constrained</td>
<td>2D versus 1</td>
<td>175.914</td>
<td>108</td>
<td>23.693</td>
<td>12</td>
<td>$p &lt; .01$</td>
<td>.964</td>
<td>.007</td>
</tr>
<tr>
<td>2E. Measurement model D: Factor loadings for only FS and DEP Parcel2 constrained</td>
<td>2E versus 1</td>
<td>161.481</td>
<td>105</td>
<td>9.26</td>
<td>9</td>
<td>NS</td>
<td>.970</td>
<td>.001</td>
</tr>
<tr>
<td>2F. Measurement model D: Factor loadings for only FS and DEP Parcel3 constrained</td>
<td>2F versus 1</td>
<td>165.146</td>
<td>105</td>
<td>12.925</td>
<td>9</td>
<td>NS</td>
<td>.969</td>
<td>.002</td>
</tr>
</tbody>
</table>

*Note: FS = family stress; IPC = interparental conflict; DEP = depression*
Figure 1 Hypothesized Structural Model

![Diagram of hypothesized structural model]

- Interparental Conflict
- Family Stressors
- Adolescent Depression
- Depression Parcel1
- Depression Parcel2
- Depression Parcel3
- Age
- SES

Legend:
- Positive (+) arrows indicate positive relationships.
- Negative (-) arrows indicate negative relationships.