Longitudinal and Integrative Tests of Family Stress Model Effects on Mexican-Origin Adolescents

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Abstract

The family stress model represents a common framework through which to examine the effects of environmental stressors on adolescent adjustment. The model suggests that economic and neighborhood stressors influence youth adjustment via disruptions to parenting. Incorporating integrative developmental theory, we examined the degree to which parents’ cultural value orientations mitigated the effects of stressors on parenting disruptions and the degree to which environmental adversity qualified the effect of parenting on adolescent adjustment. We tested the hypothesized Integrative Family Stress Model longitudinally in a sample of mother-youth dyads (N = 749) and father-youth dyads (N = 467) from Mexican origin families, across three times points spanning early to middle adolescence. Providing the first longitudinal evidence of family stress mediated effects, mothers’ perceptions of economic pressure were associated with increases in adolescent externalizing symptoms five years later via intermediate increases in harsh parenting. The remaining findings supported the notion that integrative developmental theory can inform family stress model hypothesis testing that is culturally and contextually relevant for wide range of diverse families and youth. For example, fathers’ perceptions of economic pressure and neighborhood danger had important implications for adolescent internalizing, via reductions in paternal warmth, but only at certain levels of neighborhood adversity. Mothers’ familism value orientations mitigated the effects of economic pressure on maternal warmth, protecting their adolescents from experiencing developmental costs associated with environmental stressors. Results are discussed in terms of identifying how integrative developmental theory intersects with the family stress model to set diverse youth on different developmental pathways.

Key Words: neighborhoods, socioeconomic status, Latino, culture, fathers
Environmental stressors experienced during childhood are risk factors for adolescent maladjustment (McLoyd, 1998) and considerable work has been done to document the underlying family process mechanisms via which these stressors impact adolescent development in diverse groups (Conger, Conger, & Martin, 2010). The family stress model (FSM) has frequently been used to examine the mediated effects of environmental stressors on the development of adolescent adjustment problems via disruptions to key parenting and family processes. The body of work, however, has several shortcomings, especially as it regards developmental scholarship. Methodologically, the most glaring flaw of past research is a lack of longitudinal tests (Conger et al., 2010). Second, FSM scholarship often focuses on economic pressure or neighborhood danger. Development, especially for minority youth, often takes place in the context of both stressors (Gutman, McLoyd, & Tokoyawa, 2005). Third, FSM scholarship has focused on cross-cultural replication (Parke et al., 2004), perhaps at the expense of embedding the research within comprehensive cultural and contextual developmental frameworks.

The current study sought to address noted shortcomings in FSM scholarship. First, we tested key FSM mediational hypotheses longitudinally (across three waves of data), from late childhood to middle adolescence, in a sample of Mexican origin mother-youth dyads ($N = 749$) and father-youth dyads ($n = 467$). Second, we offered a strong test of FSM hypotheses by including two environmental stressors (parents’ perceptions of economic pressure and neighborhood danger), two parenting processes (warmth and harsh parenting), and two indicators of adolescent adjustment problems (internalizing and externalizing symptoms). Finally, we drew from culturally- and contextually- informed developmental theory to advance a set of FSM hypotheses that were sensitive and relevant to a wider cultural and contextual range of families. Traditional FSM perspectives suggest that parents’ perceptions of environmental stressors are expected to influence adolescents’ adjustment via disruptions to parenting processes (Figure 1, path $ab$). The “Integrative Model for the Study of Developmental Competencies in Minority Children” (Garcia Coll et al., 1996, p. 1986) suggests that minority parents’ cultural values will interact with environmental stressors to influence parenting (path $a$’) and that the implications of parenting for adolescent adjustment will depend
upon the level of environmental adversity (path b'). The Integrative Model was developed to offer an appropriate framework for “conducting research that addresses the diversity and strengths of minority populations” in the U.S. (Garcia Coll et al., 1996, p. 1891). Though we used data on Mexican origin families to test key model hypotheses, the Integrative FSM presented in the current study (Figure 1) is theoretically germane to a broad range of racially, ethnically, and socioeconomically diverse families and youth (e.g., Fuller & García Coll, 2010).

Mexican origin families represent an ideal population for advancing FSM scholarship embedded within a cultural and contextual developmental framework. First, population members range from immigrant to later generations, with corresponding diversity in some heritage cultural values (Knight et al., 2010). Second, Mexican origin families are overrepresented among those in poverty and high-adversity neighborhoods (South, Crowder, & Chavez, 2005). Epidemiological trends, however, suggest that Mexican origin families with stronger orientations to their heritage culture may be resilient to endemic levels of economic and neighborhood stressors (García Coll & Marks, 2012). Third, there is documented diversity in the distribution of poor and non-poor Mexican origin families across the spectrum of neighborhood adversity (author citation). Fourth, father-present households are more prevalent among poor Latino families relative to other low-income groups (45.7% of Latino families in poverty are 2-parent vs. 15.6% for African Americans; Lopez & Velasco, 2011). The combined cultural and neighborhood diversity support tests of the ways that culture and context, as recognized by the Integrative Model (García Coll et al., 1996), intersect with putative FSM processes to influence adolescent adjustment across time.

**Parenting Behaviors as Mediators of Environmental Stressors on Adolescent Adjustment**

In research focused on cross-cultural replication of the FSM, which is predominated by attention to economic pressure, it is expected that stressors will predict higher adolescent adjustment problems (e.g., internalizing and externalizing symptomatology) via parenting disruptions. Parenting disruptions are typically characterized as decreases in parental warmth and/or increases in parental harshness (Conger et al., 2010). A common approach in FSM scholarship (but c.f., Gutman et al., 2005) is to combine measures of
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parental warmth and (reverse-scored) harshness into a single latent parenting construct, *positive parenting* (Conger et al., 2002). Two underlying assumptions are operating here. First, diverse stressors have culturally universal implications for warmth and (low) harsh parenting. Second, that warmth and (low) harsh parenting have contextually universal implications for adolescent adjustment. These assumptions are problematic. Multiple developmental theories suggest that the predictors and subsequent developmental implications of parenting should not be studied relative to a set of *standard norms* (e.g., high warmth and low harshness), but rather as adaptations to the contexts (cultural and otherwise) of development (Del Guidice, Ellis, & Shirtcliff, 2011; Reese & Gallimore, 2000; Super & Harkness, 1986). Theorizing the FSM within the Integrative Model permits an examination of how parents and adolescents (vis-à-vis parenting and adjustment, respectively) adapt to the stressful economic and neighborhood environments that are disproportionally faced by ethnic minorities (Garcia Coll et al., 1996, p. 1907), advancing beyond underlying FSM assumptions.

**Culturally defined parenting responses to environmental stressors.** The Integrative Model (Garcia Coll et al., 1996) suggests that minority families develop *adaptive cultures* that set them on different pathways to competence, as defined for both the family (e.g., parenting competence) and the developing child (e.g., adjustment). *Adaptive culture* manifests as a “culturally defined” response to inhibiting environments (e.g., dangerous neighborhoods, inadequate economic resources, p. 1904). These responses, reflecting the product of heritage culture and current environmental demands, permeate socialization processes taking place within families, including parenting.

To better reflect the notion that minority parents have culturally defined responses to inhibiting environments that may be different from responses observed in mainstream tests of the FSM, in the current study we examined familism values as a moderator of the FSM link between environmental stressors and parenting (path $a'$). Familism, a core feature of Latino culture (Gonzales, Germán, & Fabrett, 2012), is a multidimensional construct. *Obligation* familism beliefs emphasize duty and family responsibility to provide support, help, and tangible care to kin, especially in times of need and when
requiring personal sacrifice; referent familism beliefs emphasize the duty to fulfill familial roles and behave honorably because individuals’ behaviors reflect upon the family (Calzada et al., 2012; Knight et al., 2010; Sabogal et al., 1987). Obligation beliefs are prosocial beliefs that shape individual’s ability to put others’ needs before their own (Cabrera & Steca, 2007; Telzer, Masten, Berkman, Lieberman, & Fuligni, 2011). Referent beliefs situate the individual’s definition of self within the family (Knight et al., 2010). A parent who endorses these beliefs may find that the parenting role is a particularly salient way to define the self (referent), and believe that fulfilling that role involves a degree of self-sacrifice (referent-obligation) to provide care to children (obligation) that is stalwart and honorable (referent). In terms of culturally defined responses to inhibiting environments (García Coll et al., 1986), both of these values (‘familism values’) may differentiate parents’ responses to environmental stressors because parents high on familism beliefs may be uniquely situated to be resilient to environmental stressors and to put their children’s needs before their own. Consequently, we expected these familism values to be protective in the association between environmental stressors and parenting disruptions.

Empirical evidence provides preliminary support for the idea that parenting responses to environmental stressors may be culturally defined, may vary between or among groups diverse on cultural value orientations. One between-group study found that economic pressure was negatively associated with positive parenting (i.e., warmth and low harsh parenting) among Whites, but not Latinos (Raver, Gershoff, & Aber, 2007). Perhaps Latinos, on average, did not experience parenting disruptions associated with economic pressure because, relative to non-Latino whites, they had higher familism value orientations (Sabogal et al., 1987). One within-group study found that highly familistic Mexican origin

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1 Some scholars employ a similar theoretical definition, but label the construct “support,” not “obligation.” For example, Lugo Steidel & Contreras (2003) define familism “support” beliefs as “the belief that family members have an obligation to offer emotional and financial support to other family members” (p. 320) and their “support” scale items address (a) housing, (b) financial help, (c) help with eldercare, childcare, and (d) sacrifice for the family. We call this construct “obligation” beliefs, consistent with Knight’s et al. (2010) and Sabogal’s et al. (1987) theoretical definitions of “obligation” beliefs. We also employed Knight’s et al. (2010) “obligation” scale items that address (a) housing, (b) financial help, (c) help with eldercare, childcare, and (d) sacrifice for the family. It is necessary to point out, however, that scholars relying on Lugo Steidel & Conteras’ work (or measure) would probably refer to our theoretical definition of obligation beliefs as reflecting support beliefs.
parents were capable of maintaining high levels of warmth in the context of environmental stressors, but those low on familism values evinced lower warmth in response to stressors (author citation). Both studies failed to support traditional FSM parenting disruptions among Latinos (on average) or among highly familistic Mexican origin Latinos, suggesting that decreases in warmth associated with environmental stressors and increases in harsh parenting associated with economic pressure may be mitigated by familism values.

The theorized relation between neighborhood danger and harsh parenting is more nuanced. This is because higher levels of harsh parenting in response to dangerous neighborhoods may represent a meaningful adaptation to those environments (Del Giudice et al., 2011; García Coll et al., 1996). Parents, including Mexican origin parents (Cruz-Santiago & Ramirez-Garcia, 2011), may intentionally use higher levels of harsh parenting in dangerous neighborhoods to protect children from ecological adversities (Furstenberg et al., 1993). Traditionally, the FSM interprets a positive association between neighborhood danger and harsh parenting as a disruption. The Integrative Model suggests an alternate interpretation: namely that it may be necessary to advance a revised notion of disruption, one that reflects broader understandings of the parenting strategies parents may be using to deal with neighborhood danger (Cruz-Santiago & Ramirez-Garcia, 2011; Furstenberg et al., 1993). Consequently, higher levels of harsh parenting may represent an adaptive parenting response to neighborhood danger (García Coll et al., 1996), not a parenting disruption (Conger et al., 2010).

To the degree that higher harsh parenting is adaptive in dangerous neighborhoods, it is further expected that parents who are able to put their children’s needs before their own and remain resilient to environmental stressors would be more capable of responding to neighborhood danger with higher levels of harsh parenting. Failing to support traditional FSM hypotheses, three studies documented no main effect between neighborhood danger and harsh parenting for Mexican origin parents (Conger et al., 2012; author citations). The failure to document any main effect between neighborhood danger and harsh parenting for Mexican origin parents, likely reflects within-group cultural diversity in the association between
neighborhood danger and harsh parenting (García Coll et al., 1996). Indeed, one cross-sectional study found that only highly familistic parents were able to respond to neighborhood danger with higher levels of harshness (author citation). Interpreted within relevant developmental theory (García Coll et al., 1996), this finding suggested that highly familistic parents were uniquely capable of displaying an adaptive parenting response to the demands of dangerous neighborhoods.

**Contextual qualification of parenting effects on adolescent adjustment.** The Integrative Model (García Coll et al., 1996) suggests that developmental outcomes associated with family socialization processes must be considered “within the context of specific ecological circumstances” (p. 1907). The theory further postulates that socioeconomically disadvantaged neighborhood contexts represent key aspects of environmental adversity for minority youth. To better reflect the theoretical notion that parenting behaviors may influence adolescent adjustment differently depending on the specific ecological circumstances within which they take place, in the current study we examined neighborhood adversity as a moderator of the FSM association between parenting and adolescent adjustment (path b’). Mainstream perspectives on adverse neighborhood environments (Roche & Leventhal, 2009) have advance a tripartite classification of the ways in which parenting effects on adolescent adjustment are qualified by neighborhood adversity: (a) amplified advantages effects, when the benefits of effective parenting behaviors (e.g., warmth) are greatest for youth in low-adversity neighborhoods; (b) family compensatory effects, when the benefits of effective parenting behaviors are greatest for youth in high-adversity neighborhoods; and (d) amplified disadvantages effects, when the costs of ineffective parenting (e.g., disengagement) are greatest for youth in high-adversity neighborhoods. Consistent with the amplified advantages type, the benefits of parental warmth and responsiveness have been found to be greater for African American (Simons, Simons, Burt, Brody, & Cutrona, 2005) and Mexican origin (author citation) youth living in low-adversity neighborhoods.

Once again, however, harsh parenting represents a special case that, in the context of relevant developmental theory (García Coll et al., 1996), is challenging to incorporate into the mainstream tripartite system. Harsh parenting cannot be classified as universally effective or ineffective. In adverse
neighborhoods it may be effective because it protects children from, and prepares them for, life (therefore, conferring adjustment-related benefits); in low-adversity neighborhoods it may be ineffective because it signals environmental uncertainty (therefore, conferring adjustment-related costs; Del Giudice et al., 2011; García Coll et al., 1996). To better reflect culturally and contextually informed developmental theory, we added a fourth classification: adaptive parenting effects, when the effect of a parenting behavior that is ineffective in mainstream settings (e.g., harsh parenting in low-adversity neighborhoods) proves effective in non-mainstream settings (e.g., high adversity neighborhoods).

There is some empirical support for the hypothesis that harsher and stricter parenting has adaptive parenting effects on adjustment, especially for adolescents, including Latinos (Dearing, 2004). Evidence for Mexican origin youth, however, is mixed. Qualitative work suggests that parents intentionally enacted harsher control strategies to help their adolescents successfully negotiate the demands of risky neighborhoods (Cruz-Santiago & Ramirez-Garcia, 2011). Quantitative work documents amplified disadvantages (author citation), or costs regardless of context (author citation) associated with such strategies. Both of the latter studies, however, focused on earlier developmental periods. It is possible that there are early costs associated with such strategies, but these strategies prove effective as youth transition across key developmental switchpoints (e.g., from childhood to adolescence; Del Giudice et al., 2011).

**Study Hypotheses**

In the current study we sought to address methodological and theoretical gaps in FSM scholarship by testing a culturally and contextually extended conceptual model (Figure 1, The Integrative FSM) across three waves of data spanning late childhood to middle adolescence. **Hypothesis 1 (H1)** reflects the traditional FSM (path $ab$): on average, parents’ perceptions of environmental stressors would predict increases in adolescent adjustment problems via disruptions to parenting. **Hypothesis 2 (H2)** reflects the potential for culturally defined parenting responses to environmental stressors (path $a'$). We expected that parents’ familism values would mitigate the effects of family stressors on parenting disruptions. We expected that highly familistic parents would be protected from experiencing decreases in warmth
associated with economic pressure and neighborhood danger. For harsh parenting, we expected that highly
familistic parents would be protected from displaying higher harshness in response to economic pressure. In
response to neighborhood danger, however, we anticipated that highly familistic parents may be uniquely
situated to respond to dangerous neighborhood environments via increases in harsh parenting. Hypothesis 3
(H3) reflects the contextual qualification of parenting effects on adolescent adjustment (path b’): we
expected that neighborhood adversity would moderate the effect parenting had on adjustment such that
warmth would display amplified advantages effects and harsh parenting would display adaptive parenting
effects. Finally, we explored a fourth hypothesis (H4) reflecting the combined mediation/moderation model
(Figure 1). Because the two literatures supporting H2 and H3 are compartmentalized, and because these
aspects of developmental theory have not previously been tested, we explored moderated mediational
pathways when results did not preclude them.

Method

Data come from the first three waves (W1, W2, and W3 for 5th, 7th, and 10th grades, respectively) of a
study investigating culture, context, and Mexican origin adolescents and their families (Roosa et al., 2008).
Mexican origin students (N = 749) were recruited from 5th grade rosters of schools in a large southwestern
metropolitan area. Families were screened according to these criteria: they had a target 5th grader attending a
sampled school; the participating mother was the biological mother, lived with the child, and was Mexican
origin; the biological father was Mexican origin; the child was not learning disabled; and no stepfather
figure was living with the child. Father participation in two-parent households was not required; 467 (82%)
of 579 eligible (biological and living in same household) fathers participated at W1. The full sample of
mothers and their children represents one of the largest and most representative samples of Mexican origin
families (Roosa et al., 2008). The smaller sample represents an important population of fathers, one that
represents a wide range of economic and neighborhood circumstances (author citation). Therefore, we
estimated the hypothesized model in the full sample of mother-youth dyads and in the subsample of father-
youth dyads. Families in which fathers participated were similar to families in which fathers were eligible
but did not participate on W2 neighborhood adversity and several child (i.e., nativity, gender, W1 age, generational status, language of interview) and mother characteristics (i.e., nativity, W1 age, generational status). These families, however, came from neighborhoods with less W1 adversity, and higher W1 family income.

Of the original sample of 749, 710 (95%) were reinterviewed at W2 and 641 (86%) at W3. In the original sample of mother-youth dyads (father-youth dyads), 48.9% (48.4%) of the youth were female, the mean age at 5th grade was 10.9 years (10.8 years) and the SD was 0.46 (SD=0.47). Most, 70.2% (66.6%), adolescents were U.S.-born and most, 82.4% (81.6%), were interviewed in English. Most, 74.4% (79.9%), mothers (fathers) were Mexico-born, and most, 69.9% (76.8%), were interviewed in Spanish. On a 1 ($0,000 - $5,000) to 20 ($95,001+) scale, the median annual family income was 6 (6; $25,001 – $30,000/year). Families came from 154 (126) W1 neighborhoods (i.e., census tracts), with poverty rates ranging from 0.56% to 68.53% (0.78% to 68.48%).

Study procedures were approved by the institutional review board at the authors’ university. Complete research procedures are detailed elsewhere (Roosa et al., 2008). Using a stratified random sampling strategy, the research team identified communities served by 47 public, religious, and charter schools throughout the metropolitan area. Recruitment materials (available in English and Spanish) were sent home with all 5th graders in these schools; interested families were screened for eligibility. Overall, 73% of eligible families participated. Informed consent and assent were obtained from parents and youth. Family member completed separate Computer Assisted Personal Interviews and were paid $45, $50, and $55 for participation (W1-W3, respectively).

Measures

Parents were asked demographic questions, including annual family income and nativity (U.S., Mexico). Residential addresses were geocoded at W2 to assign families to census tracts. For each measure discussed below, citations to sources providing evidence of cross-language measurement equivalence also provide extensive evidence of construct validity.
Parents’ perceptions of environmental stressors (W1). Parents reported on their economic pressures using a Spanish/English language equivalent measure of economic pressure (author citation) developed for use in testing the FSM (Conger et al., 2002). Items (11) assessed the inability to make ends meet, not enough money for necessities, and financial strain (e.g., “tell us how much difficulty you had with paying your bills”). Parents’ perceptions of neighborhood danger were measured using a Spanish/English language equivalent neighborhood danger measure (3 items; e.g., “it is safe for your child to play outside;” author citation). All items had 5-point, Likert-type responses; higher scores indicated higher levels of each stressor. Item averages were calculated. Cronbach’s alpha coefficients ($\alpha$) were .92 for mothers’ and fathers’ reports on economic pressure and .89 and .88, respectively, for mothers’ and fathers’ reports on neighborhood danger.

Familism value orientations (W1). Parents reported on familism obligations (5 items; e.g., “if a relative is having a hard time financially, one should help them out if possible”) and referent (5 items; e.g., “it is important to work hard and do one’s best because this work reflects on the family”) values using the Mexican American Cultural Values Scale (Knight et al., 2010). Participants rated their degrees of agreement with items from (1) not at all to (5) completely. Because the subscale scores were correlated for mothers and for fathers ($r=.49$, $p < .001$ and $r=.54$, $p < .001$, respectively) and the two dimensions load on a single familism factor (Knight et al., 2010), they were combined into a single familism score using factor score solutions (Supplemental materials 1). For both mothers and fathers $\alpha = .70$.

Parenting behaviors (W1, W2). Parents and youth reported on parenting using subscales from the Spanish/English language equivalent (author citation) Children’s Report of Parental Behavior Inventory. Responses ranged from (1) almost never to (5) almost always. The acceptance subscale assessed warmth in the parent-child relationship (8 items; e.g., “your (parent) understood your problems and worries”). The harsh parenting subscale assessed punitive or demeaning behaviors (8 items; e.g., “your [parent] screamed at you when you did something wrong.”). Across reporters, behaviors, and waves $0.70 \leq \alpha \leq 0.88$ (see Supplemental Materials Tables 1 and 2).
Neighborhood adversity (W2). Because W2 interviews began in Fall 2006 and concluded in Spring 2008, all neighborhood-level indicators were captured from American Community Survey data (U.S. Census Bureau, 2009). Based on psychometric work on neighborhood concentrated disadvantage, which predicts crime and delinquency (Sampson, Raudenbush, & Earls, 1997) and represents adverse developmental contexts (Leventhal & Brooks-Gunn, 2000), we standardized and summed tract-level indicators: percent (a) families below poverty, (b) males ≥ 16 years unemployed, (c) female-headed households, and (d) households with public assistance. Alphas were .72 and .63 in the full sample of mothers and the father sub-sample, respectively.

Adolescents’ adjustment (W2, W3). We assessed internalizing and externalizing symptoms using the Diagnostic Interview Schedule for Children (Shaffer, Fisher, & Lucas, 2004). Internalizing counts were the sum of anxiety and mood disorder symptoms; externalizing counts were the sum of oppositional defiance disorder, conduct disorder, and attention deficit hyperactivity disorder symptoms (Conger et al., 2002). Mothers and adolescents were administered schedules independently. To maximize test-retest reliability and criterion validity (Shaffer et al., 2004), as well as comparability to FSM literature (Conger et al., 2002), mother and adolescent reports were combined using standard scoring algorithms (Shaffer et al.).

Analytic Strategy

We used structural equation modeling (SEM) to estimate the hypothesized model and maximum likelihood estimation to deal with missing data. We graphed significant interactions to demonstrate the direction of the associations and probed simple regression and mediation effects at +1 SD/-1 SD of the scores on the moderator (author citation). In cases where neither simple effect was significant at +1 SD/-1 SD (but the interaction was), we probed the simple effect at +2 SD/-2 SD (so long as the sample contained families who scored within that range). RMediation was used to test mediation based on the distribution-of-the-product method (Tofighi & MacKinnon, 2011). We used multiple group analysis to examine the structural equivalence of the model across five sources of potential variability: parent nativity, youth
nativity, W1 single vs. two-parent families (mother-youth dyads sample only), youth gender, and neighborhood mobility (those who remained in the same neighborhood across the three waves vs. those that did not). Additional technical details are provided in the Supplemental materials 1. Given that both parent and youth reports were available for parenting variables and parent and youth rate parenting behaviors differently (author citation), we ran the hypothesized model once with each reporter. All analyses controlled for gender differences in symptom levels (author citation), except when conducting the multigroup analyses across youth gender (where gender was used as a grouping variable). We controlled for income differences in symptoms and controlled for levels of symptoms and parenting behaviors at the previous waves.

Results

Descriptive statistics and correlations of study variables are presented in Supplemental materials 2. We compared baseline adolescent demographic (i.e., gender, age, generational status, language of interview), mother demographic (i.e., marital status, age, generational status), and father demographic variables (i.e., age, generational status) between families who participated at W2 and W3 versus those that did not; all comparisons were non-significant. We also compared baseline measures of study variables: families who participated at W2 had higher W1 internalizing and externalizing symptoms compared to families who did not participate at W2, but families who participated at W3 versus those that did not were not different on W1 symptoms; all other comparisons were non-significant. Multi-group modeling indicated equivalence across adolescent nativity, parent nativity, adolescent gender, household structure, and neighborhood mobility status. The Integrative FSM fit the data for both the mother models and the father models (Figures 2 and 3, respectively). Throughout the presentation of the results, we provide signposts to the reader, linking the empirical tests to the paths in the conceptual model presented in Figure 1 (e.g., path a, path a’).

Mother-Youth Dyad Models

Mothers’ reports on parenting. Adjusting for T1 measures, mothers’ perceptions of economic pressure were positively related to harsh parenting (path a). There was no main effect of economic pressure
on warmth; however the effect of economic pressure on warmth was moderated by familism values (path $a'$). Figure 4a demonstrates the direction of the association between economic pressure and warmth across the range of familism values. In general, economic pressure related to warmth in a positive direction for mothers with higher familism and negative direction for mothers with lower familism values. Probing the interaction showed that the simple effect was significant at -2 $SD$ (no families had scores in the range of +2 $SD$). At the lowest levels of familism (approximately 6% of mothers had familism scores in this range), perceived economic pressure and warmth were significantly related [$B = -.09 (.04), p < .05$]. There was no main effect of perceived neighborhood danger on parenting (path $a$), and no neighborhood danger by familism interaction (path $a'$).

Adjusting for T2 measures, income, and gender differences, there were negative effects of warmth on youths’ internalizing and externalizing symptoms (path $b$). Harsh parenting was positively associated with youths’ externalizing (path $b$), but not internalizing, symptoms. There were no significant parenting by neighborhood adversity interactions (path $b'$). Simple mediation tests (path $ab$) showed that the mediated effect of perceived economic pressure on externalizing symptoms via harsh parenting was significant ($ab = .062$, 95% C.I. = [.006, .145]). The combined mediated/moderated effect of perceived economic pressure via warmth was examined for both internalizing and externalizing symptoms at -2 $SD$ familism only (based on the simple effects observed above). Mediation (path $ab$) was significant at -2 $SD$ familism for externalizing ($ab = .076$, 95% C.I. = [.002, .185]), and not significant at conventional levels for internalizing ($ab = .098$, 95% C.I. = [-.003, .261], 90% C.I. = [0.006, 0.228]).

**Adolescents’ reports on parenting.** There were no main (path $a$) or interactive (path $a'$) effects of economic pressure on harsh parenting or warmth. There was no main effect of neighborhood danger on parenting (path $a$). The effect of neighborhood danger on harsh parenting was moderated by mothers’ familism values (path $a'$). Figure 4b demonstrates the direction of the association between neighborhood danger and harsh parenting across the range of familism values. In general, neighborhood danger related to harsh parenting in a positive direction for mothers with higher familism and negative direction for mothers...
with lower familism values. Probing the interaction showed that the simple effect was significant at +1 SD of familism: perceived neighborhood danger and harsh parenting were positively related \( B = .07 (.03), p < .05 \) when mothers’ were high on familism. There were no main (path b) or interactive (path b’) effects of parenting on symptoms. As a result, no mediation (path ab) or combined moderation/mediation effects existed.

**Father-Youth Dyads Models**

**Fathers’ reports on parenting.** Both stressors were negatively related to warmth (path a). There were no main effect of stressors on harsh parenting (path a) and no familism interactions (path a’). There was no main effect of warmth on symptoms (path a); however, the effect of warmth on internalizing symptoms was moderated by neighborhood adversity (path a’). Figure 4c shows the interactive effects; in general, paternal warmth related to adolescent internalizing in a negative direction when families lived in low-adversity neighborhoods. Probing the interaction showed that the simple effect was significant at -1 SD. When neighborhood adversity was low (-1 SD), there was a negative association between warmth and internalizing symptoms \( B = -2.12 (.90), p < .05 \). There was no main effect of harsh parenting on symptoms; however, the effects of harsh parenting on externalizing and internalizing symptoms were moderated by neighborhood adversity (path b’; Figures 4d & 4e, respectively). In general, harsh parenting was related to internalizing and externalizing symptoms in a negative direction when neighborhood adversity was high, and in a positive direction when neighborhood adversity was low. Probing the interaction for internalizing symptoms showed that the simple effect was significant at +1 SD and -1 SD. When neighborhood adversity was high, there was a negative relation between harsh parenting and internalizing symptoms \( B = -2.21 (.77), p < .01 \); when neighborhood adversity was low, there was a positive relation between harsh parenting and internalizing symptoms \( B = 2.36 (.92), p < .01 \). Probing the interaction for externalizing symptoms showed that the simple effect was significant at -1 SD. When neighborhood adversity was low, there was a positive relation between harsh parenting and externalizing symptoms \( B = 2.01 (.55), p < .001 \). The combined mediation/moderation effect of perceived economic
pressure and that of perceived neighborhood danger via warmth were examined for internalizing symptoms. Results revealed that mediation of perceived economic pressure and that of perceived neighborhood danger for internalizing were both significant in low-adversity neighborhoods ($path\ ab = .228$, 95% C.I. = [.023, .530] for economic pressure, and $ab = .157$, 95% C.I. = [.018, .355] for neighborhood danger), but not significant in high-adversity neighborhoods.

**Adolescents’ reports on paternal parenting.** Fathers’ perceptions of economic pressure were positively related to harsh parenting (path $a$), but not to warmth. There was no main effect of perceived neighborhood danger on parenting (path $a$) and no familism interactions (path $a'$). There was no main effect of parenting on symptoms (path $b$), and no neighborhood adversity interactions (path $b'$).

**Summary**

For H1 (path $ab$): mothers’ perceptions of economic pressure were associated with increases in adolescent externalizing via increases in harsh parenting. For H2 (path $a'$): mothers’ familism values moderated the association between economic pressure and maternal warmth (in the mother-report on parenting model) such that high familism mitigated disruptions (path $a'$). Mothers’ familism values also moderated the association between neighborhood danger and harsh parenting (in the youth-report on parenting model) in a manner consistent with an adaptive parenting response to neighborhood danger (path $a'$). For H3 (path $b'$): neighborhood adversity moderated the association (in the father-report on parenting model) between fathers’ warm parenting and adolescent internalizing symptoms (such that warmth displayed amplified advantages effects), and between fathers’ harsh parenting and adolescent internalizing and externalizing symptoms (such that harsh parenting displayed adaptive parenting effects). For H4: disruptions to maternal warmth mediated the effects of economic pressure on adolescent externalizing only when mothers were lowest on familism values (in the mother-report on parenting model), and disruptions to paternal warmth mediated the effects of economic pressure and neighborhood danger on adolescent internalizing only when adolescents lived in low-adversity neighborhoods (in the father-report on parenting model).
Discussion

We examined a longitudinal FSM (Conger et al., 2010) that incorporated key hypotheses from the Integrative Model (García Coll et al., 1996) concerning (a) parents’ cultural value orientations as a moderator of putative associations between stressors and parenting and (b) environmental adversity as a moderator of putative associations between parenting and adolescent adjustment. Though the proposed integrative model is theoretically germane to youth development occurring in a wide range of diverse (e.g., ethnically, racially, culturally, socioeconomically) families, we tested hypotheses from the Integrative FSM longitudinally in a sample of Mexican origin mother-youth dyads and father youth-dyads. Our hypothesized model received mixed support. There was some evidence of traditional FSM mediated effects. There was, however, also evidence of culturally defined effects of stressors on parenting in the mother models and of contextually-qualified parenting effects on adolescent adjustment in the father models. Together, models provided evidence that key FSM mediational pathways are moderated by parents’ cultural value orientations or neighborhood adversity. All findings held across parent and youth nativity, family structure, youth gender, and residential neighborhood mobility.

H1: Traditional FSM Effects

We observed limited empirical support for the basic mediated causal processes advanced by the traditional FSM (Conger et al., 2010). Mexican origin mothers experienced increases in harsh parenting associated with economic pressure. Harsh parenting, in turn, predicted later increases in adolescents’ externalizing symptoms. One prior ethnic comparative study found that Latino parents (relative to non-Latino white parents) did not experience disruptions to positive parenting (including both warmth and harsh parenting components) associated with economic pressure (Raver et al., 2007). When we examined warmth and harsh parenting behaviors separately, we found that diverse Mexican origin mothers experience traditional FSM increases in harsh parenting associated with economic pressure, but that they did not necessarily experience corresponding decreases in warmth. Because traditional FSM findings were not replicated for maternal warmth, or in any of the father models, our findings also highlight the importance of
using developmental theory to advance beyond assumptions concerning the universal implication of stressors on parenting and the universal implications of parenting on adolescent adjustment (García Coll et al., 1996). That is, the current study suggests that the traditional FSM may not adequately represent the stress process for Mexican origin families, or, perhaps, for families that are diverse on their cultural values or exposures to environmental adversity.

**H2: Culturally Defined Parenting Responses to Environmental Stressors**

Our Integrative FSM suggests that diverse parents’ cultural value orientations will interact with environmental stressors to influence parenting. To test this hypothesis, we focused on documented diversity in familism values among Mexican origin families in the U.S. (Knight et al., 2010). Two empirical findings, both in the mother models, lend support to our hypothesis. First, mothers’ familism values moderated the association between economic pressure and maternal warmth in the mother-report on parenting model. Only those mothers lowest on familism values experienced decreases in warmth associated with economic pressure. For those who endorsed higher levels of familism, there were no associations between economic pressure and warmth. Our prospective findings extend prior cross-sectional research (author citation) and suggest that Mexican origin mothers with higher familism values were protected from experiencing parenting disruptions (in the form of decreases in warmth) associated with economic pressure. Highly familistic mothers may be resistant to warmth disruptions because their values help them to maintain positive mental health across time (Zeiders et al., 2013) and shape their ability to prioritize others’ needs (in this case their children’s needs for a responsive mother; Telzer et al., 2011).

Second, mothers’ familism values also moderated the association between neighborhood danger and harsh parenting in the youth-report on parenting model. At high levels of maternal familism, neighborhood danger predicted increases in harsh parenting; at lower levels of familism the direction of this association was negative. The current prospective findings replicate prior cross-sectional work (author citation). From the traditional FSM framework, this pattern suggests that only highly familistic mothers were “at risk” of experiencing increases in harsh parenting in response to neighborhood danger. Developmental theory,
coupled with a broader understanding of the parenting strategies parents may use to deal with neighborhood danger (Cruz-Santiago & Ramirez-Garcia, 2011; Furstenberg et al., 1993), suggest this may be an adaptive parenting response to neighborhood danger (Del Giudice et al., 2011; García Coll et al., 1996). Our results suggest that only highly familistic mothers adapted to neighborhood danger in this way. Prior work, that did not examine cultural moderation, consistently failed to identify any association between neighborhood danger and harsh parenting for Mexican origin parents (Conger et al., 2012; author citation). Our results shed light on these findings, suggesting there is significant within-group cultural diversity in how neighborhood danger relates to harsh parenting. Harsh parenting may be consistent with parents’ ethnotheories about what children need when they are being raised in dangerous neighborhoods (Furstenberg et al., 1993; García Coll et al., 1996). As in the case of maternal warmth, highly familistic mothers’ values may shape their ability to prioritize their children’s needs (Telzer et al., 2011) and fulfill the maternal role.

Our findings suggest that cultural values and beliefs can shape the ways in which parents respond to adverse environments. The current findings advance beyond prior work (author citation), offering longitudinal evidence that minority mothers integrate information on the environment with heritage cultural beliefs and values to (parentally) adapt to inhibiting environments (e.g., dangerous neighborhoods, inadequate economic resources; García Coll et al., 1996). According to the theory, these culturally defined responses to inhibiting environments are the result of an adaptive culture, which influences the way parents interact with their youth. Familism beliefs, the operationalization of parents’ cultural value orientations in the current study, may have been protective in the association between economic pressure and maternal warmth and between neighborhood danger and harsh parenting because mothers who endorse these values find the parenting role to be a salient aspect of their identity, and believe in making self-sacrifices to provide care to their children that reflects honorably on the family. Consequently, they are capable of adapting to environmental stressors in a way that prioritizes their children needs over their own. Consistent with this view, our findings also provide preliminary evidence that the FSM-based notion
of parenting disruption (often operationalized as increases in harsh parenting; Conger et al., 2010), may need to be revised to reflect an inability to parent in a manner consistent with adaptive cultural beliefs and goals for child development (rather than as deviation from majority-group findings; Fuller & García Coll, 2010). Still, our findings should also be interpreted with caution, as we only observed these culturally defined responses to inhibiting environments among mothers.

**H3: Contextual Qualification of Parenting Effects on Adolescent Adjustment**

Our Integrative FSM suggests that environmental adversity will qualify the effect of parenting on adolescent adjustment. To test this hypothesis, we focused on documented diversity in neighborhood adversity among Mexican origin families in the U.S. (author citation). Three empirical findings, all in the father models, lend support to this hypothesis. First and second, the contextual relevance of paternal harsh parenting for internalizing and externalizing symptoms was consistent with adaptive parenting effects. For both outcomes, when neighborhood adversity was low, paternal harshness was associated with significant increases in symptoms. This positive association between harshness and adjustment problems is consistent with traditional FSM scholarship (Conger et al., 2010). When neighborhood adversity was high, however, paternal harshness was related to decreases in internalizing symptoms and did not predict increases in externalizing symptoms. These associations between harshness and adjustment problems are inconsistent with traditional FSM scholarship (Conger et al., 2010). Our results offer a longitudinal replication of prior findings with African American samples (Dearing, 2004). Harsh fathering may be an objectively better parenting strategy in adverse environments, or it may be that adolescents living in these environments expect their fathers to be harsh, and therefore attach different meaning to the behaviors (Deater-Deckard, Dodge, & Sorbring, 2005). Previous cross-sectional work with Mexican origin children, suggested that paternal harshness was associated with increases in internalizing, even in adverse neighborhoods (author citation). It may be that paternal harshness in adverse neighborhoods is costly during middle childhood, but ultimately has benefits as youth progress past developmental switchpoints (Del Giudice et al., 2011).

Third, the contextual relevance of paternal warmth for internalizing symptoms was consistent with
the amplified advantages type. Paternal warmth was associated with decreases in internalizing symptoms, but only when adolescents resided in low-adversity neighborhoods. This finding contrasts two previous studies, wherein Mexican origin fathers’ warmth did not predict late childhood (author citation) or early adolescent (Gonzales et al., 2011) internalizing. It, however, extends prior findings among African American early and middle adolescents and their caregivers (Simons et al., 2005) to Mexican origin middle adolescents and their fathers. Perhaps paternal warmth becomes increasingly influential as Mexican origin youth attempt to negotiate broader adolescent and mainstream contexts. One perspective on the amplified advantages findings for paternal warmth is that positive family variables (e.g., paternal warmth) do not matter as much for youth outcomes in high-adversity neighborhoods (Gorman-Smith et al., 2001).

Emphasizing the importance of examining distinct parenting behaviors separately, it is noteworthy that this pattern of results only held true for paternal warmth; paternal harsh parenting was especially influential (and beneficial) in high-adversity neighborhoods.

Taken together, our results for fathers are consistent with theory and indicate that the costs or benefits of diverse parenting behaviors on adolescent adjustment are directly linked to the quality of the neighborhood context. That is, the effects of paternal parenting on adolescent adjustment must be uniquely theorized across diverse levels of environmental adversity (Del Giudice et al., 2011; García Coll et al., 1996). As it regards the Integrative FSM, our findings for fathers offer evidence that high harsh parenting may represent an adaptation to adverse neighborhood contexts. This finding lends additional support to revising the FSM notion that higher levels of harsh parenting universally represent a parenting disruption. In adverse contexts, increases in paternal harshness were not disruptive; rather, they were beneficial (vis-à-vis adolescent adjustment). Given the pattern of harsh parenting effects for mothers (maternal harsh parenting was associated with increases in externalizing regardless of the level of environmental adversity), however, our work also highlights the potential that ethnic minority families’ structures and roles (García Coll et al., 1996) may need to be further theorized as we strive toward a more culturally- and contextually-relevant FSM. The mere presence of Mexican origin fathers in high-adversity
neighborhoods (Lopez & Velasco, 2011) may represent a cultural adaptation (in terms of structures and roles) to adverse neighborhoods and their use of harsh parenting (vs. mothers’) may take on a unique meaning for adolescents in these neighborhoods.

**H4: Combined Mediation/Moderation in the Integrative Family Stress Model**

Our Integrative FSM suggests the possibility of both mediated and moderated FSM effects on adolescent adjustment and some support was observed for this proposition. For example, youth may be on different developmental pathways to competence, depending on parents’ cultural value orientations and/or levels of environmental adversity. First, the combined mediation/moderation findings in the mother model provide evidence that heritage cultural beliefs interacted with environmental demands to set Mexican origin youth on a different (from that predicted by the FSM) developmental pathway. Economic pressures positively predicted externalizing symptoms via disruptions to maternal warmth, but only when mothers were lowest on familism values. In this way, highly familistic mothers’ culturally defined warm parenting responses to inhibiting environments that were high on economic pressures represented an adaptation, that benefited their adolescents, to stressful economic conditions (García Coll et al., 1996). One of the ways that heritage familism cultural values influence adolescent development may be by giving mothers a sense of purpose grounded in the maternal role that facilitates warm parenting resilience to economic pressures. Few studies have explicitly tested hypotheses derived from the Integrative Model regarding culturally defined adaptations to inhibiting environments. More research on the underlying mechanisms is desperately needed. Recent brain research (Telzer et al., 2011) and theoretical treatments of the interplay between biology and culture (Causidias, 2014) suggest that those high on familism beliefs may be uniquely capable of prioritizing others needs above their own.

Next, the combined mediation/moderation findings in the father model provide evidence that environmental adversity interacts with parenting behaviors to set youth on different (from that predicted by FSM) developmental pathways. Here, adolescents experienced increases in internalizing symptoms associated with their fathers’ earlier exposures to environmental stressors via decreases in paternal warmth,
but only when they lived neighborhoods low on adversity. When neighborhood adversity was high, disruptions to paternal warmth did not predict internalizing, so mediated effects were not observed. These findings could be interpreted via a relative deprivation model (Jencks & Mayer, 1990). This perspective suggests that adolescents living in low-adversity neighborhoods, but with fathers who are struggling with environmental stressors, may be evaluating their circumstances relative to those of their neighbors and peers. Accordingly, it is these relative evaluations that may be responsible for the predicted increases in internalizing. In mainstream neighborhoods the social role expectations are for parents to be warm and responsive (Pyke, 2000). In high-adversity neighborhoods, parents, especially fathers, may be expected to be more authoritarian and harsh (Letiecq & Koblinsky, 2004). Consequently, adolescents living in low-adversity neighborhoods may be uniquely affected by warmth disruptions because they expect their fathers to be warm; they attach different meaning and valence to the (absence of) such behaviors (Deater-Deckard et al., 2005). Work on the meaning adolescents in different neighborhoods attach to parenting behaviors could illuminate some of the underlying mechanisms.

**Model Exceptions**

Though our significant findings were consistent with the Integrative FSM advanced herein, there are several non-significant findings that deserve comment. It is noteworthy that there was little evidence of cross-reporter replication between the models run with parents’ own reports on their parenting behaviors and the models with youths’ separate reports on mothers’ behaviors and fathers’ behaviors. Across the board, adolescents’ reports on parenting were unrelated to adjustment. This pattern offered a stark contrast to the parent-reports on parenting models (where all but two of the $b$ or $b'$ paths predicted adjustment). We utilized mothers as the parent reporter on the C-DISC and employed the parent-youth combined scoring algorithm (Shaffer et al., 2004) to estimate symptom scores (Conger et al., 2002). Consequently, shared method variance is an impossible explanation for father-report model findings and an unlikely explanation for mother-report findings. Our pattern of findings suggests the adjustment-related implications of mothers’ and fathers’ behaviors may be quite unique, but prior research suggests that youth may have difficulty
distinguishing between parents in their reports on parenting behaviors (author citation). Future work should strive to use measures of parenting that are sensitive to mothers’ and fathers’ unique behaviors because their behaviors may relate very differently to adolescent adjustment (as was the case in the current study).

Second, there was a lack of support for culturally defined stressor effects on parenting in the father models and for contextual qualification of parenting effects on adolescent adjustment in the mother models. Previous works documented both types of moderation for Mexican origin parents, albeit earlier in development (author citations). Developmental theory suggests that there are key switchpoints across the lifespan that signal revisions in behavioral strategies (Del Giudice et al, 2011). In light of earlier findings (author citations), fathers’ familism values may produce culturally-based parenting responses to environmental stressors during late childhood, but they do not signal continued changes in parenting into adolescence. Similarly, as youth progress past meaningful switchpoints, the impact of maternal parenting behaviors on adjustment may stabilize across contexts, while the impact of paternal parenting behaviors becomes increasingly context-dependent. This may occur because some parenting behaviors are more normative among mothers compared to fathers, consequently there is more variability across developmental time and contexts in the substantial effects that fathers have on youth (Simpkins, Fedricks, & Eccles, in press). Little work has been done to examine parenting behavior in relation to parents’ own, or their children’s developmental switchpoints, or in relation to fathers’ vs. mothers’ parenting effects. When comparing the current work to prior findings, it appears as though this kind of research is critical to advancing an understanding of development in context (Del Giudice et al., 2011) and of the FSM in development.

Additionally, recent work suggests that it is critical to consider that familism – in particular behavioral components of familism – may be a risk factor for families (Calzada et al., 2012). It may be that fathers did not experience the familism protective effects that we observed for mothers because fathers with high familism beliefs who are also experiencing economic pressure or neighborhood danger are actually more distressed (than fathers’ low on familism beliefs) by their inability to meet family obligations and
fulfill fathering roles. Work that includes a direct measure of stress and addresses the nuances of the various dimensions of familism beliefs (Lugo Steidel et al., 2003; Knight et al., 2010) and behavioral manifestations of familism as risk and/or protective factors (Calzada et al., 2012), could substantially advance our understanding of these important processes, and of the nuanced role that familism plays in the lives of Latinos.

We did not observe moderated mediational effects of environmental stressors on adolescent adjustment via harsh parenting. Results for harsh parenting were nuanced; in every case, they precluded mediation/moderation. In the youth-report on mothers’ parenting model, familism values moderated the association between neighborhood danger and harsh parenting (H2), but youths’ reports on harsh parenting did not, in turn, predict adolescent adjustment (precluding H4). Further, neighborhood adversity moderated the association between paternal harsh parenting and adolescent adjustment in the father report on parenting model (supporting H3), but neither stressor predicted changes in fathers’ reports on harsh parenting across time (precluding H4). Together, findings suggest that mothers may be integrating information about neighborhood danger with familism values to choose harsh parenting as a response to neighborhood danger (García Coll et al., 1996), but it is fathers’ harsh parenting that is adaptive in the context of neighborhood adversity (Del Giudice et al., 2011). Little work has been done on diverse samples of mothers (both single and two-parent) and fathers living in diverse neighborhood environments. A simultaneous focus on both mothers and fathers in two-parent families may reveal that – as a family system – they are demonstrating moderated mediational effects of environmental stressors on adolescent adjustment via harsh parenting. Our analyses – which examined at the full sample of mother-youth dyads and the sub-sample of father-youth dyads separately – were not able to address this important research question. Though this study makes a critical contribution to advancing a more culturally- and contextually- informed view of harsh parenting, our results suggest that there is much work to be done.

Conclusions and Future Directions
The FSM has proved important for understanding the mechanisms via which environmental stressors (Gutman et al., 2005) impact adolescent adjustment, but the current work suggests that culture and context have important implications for putative developmental pathways. As such, the results move beyond longitudinal replication of the FSM (Conger et al., 2010) to offer critical cultural and contextual theoretical expansion. Our findings with Mexican origin mothers are consistent with Integrative developmental theory suggesting that ethnic minority families produce adaptive cultural responses, reflecting the product of heritage culture and current environmental demands (García Coll et al., 1996). Our findings with Mexican origin fathers are consistent with Integrative developmental theory suggesting that developmental outcomes associated with family socialization processes must be considered relative to ecological circumstances, including neighborhood adversity (Del Giudice et al., 2011; García Coll et al., 1996). Future work on the Integrative FSM should rely on culturally- and contextually-informed theorizing to examine other aspects of cultural value diversity between and among diverse groups (including among Mexican origin fathers, e.g., traditional gender role beliefs) and between diverse aspects of environmental adversity (including aspects that may moderate the association between mothers’ parenting and adolescent adjustment, e.g., peer network composition).

The current study had several strengths that should be viewed in light of its limitations. First, the study tested key FSM hypotheses in a longitudinal mediated design, addressing an important methodological weakness (Conger et al., 2010). We examined parenting behaviors separately. Many of the culturally defined, contextually qualified, and mediated effects may not have been observed using latent variable approaches that collapsed across behaviors. Still, the focus on testing longitudinal aspects of the model across diverse families limited us to those specific mediators that are most relevant to diverse family forms, mainly parenting disruptions. Future scholarship should examine other hypothesized mediators (e.g., co-parent hostility, conflict, withdrawal). Second, we were unable to include an objective assessment of stress. Though the link between economic and neighborhood stressors and parents’ stress is well-established (Conger et al., 2010), future scholarship would benefit from
measuring stress and/or psychological distress directly. This may be especially critical for understanding the implications of neighborhood danger for harsh parenting. Third, the current study made important theoretical advances regarding FSM effects for mothers and for fathers; still, a sample that includes single-parent fathers as well as model testing that includes both mothers and fathers together represent areas for future work.

Our findings provide suggestions for intervention and prevention. First, programs targeted at helping both mothers and fathers to remain warm to their children would likely prove beneficial to decreasing rates of adolescent internalizing/externalizing symptoms. In light of the differential impact of harsh parenting across neighborhood contexts, practitioners may want to refrain from strong global sanctions against paternal harshness. At the neighborhood and community level our study suggests that programs aimed at reducing environmental stressors would enhance diverse parents’ abilities to parent effectively, thereby benefiting adolescents. Finally, programs and policies aimed at supporting retention (avoiding erosion) of mothers’ familism values may be able to capitalize on a source of resilience among Mexican origin families.
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Author citations have been removed.


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Figure 1: Integrative family stress model effects on adolescent adjustment.
Figure 2: Integrative family stress model results for mother/child report model (N = 749). Note: All coefficients are significant (p < .05); standard errors follow in parentheses. ns = not significant (p ≥ .05). In the mediational path, significant paths in at least one reporter model are solid lines; non-significant paths are dashed. For familism a main effect and interaction effect for each mediator is estimated, but only paths significant in at least one reporter-model are shown. For neighborhood adversity a main effect and interaction effect for each outcome is estimated, but only paths significant in at least one reporter-model are shown. Unstandardized path coefficients for the mother report on parenting model are reported first; estimates from the child report on parenting model follow after the forward slash. Adolescent gender and family income were included in this model as covariates, but are omitted from the figure to enhance clarity.
Familism Value Orientations (W1)

Perceptions of Neighborhood Danger (W1)

Perceptions of Economic Pressure (W1)

Warmth (W1)

.47 (.06)/.53 (.07)

Warm Parenting (W2)

R² = .34/.18

Harsh Parenting (W2)

R² = .44/.17

Harsh (W1)

.67 (.05)/.37 (.06)

Externalizing (W2)

.36 (.06)/.36 (.06)

Externalizing Symptoms (W3)

R² = .17/.13

Internalizing Symptoms (W3)

R² = .31/.27

Internalizing (W2)

14.89 (2.03)/15.96 (2.09)

Model Fit: χ² (31) = 30.13, p = .51; CFI = 1.00; RMESA = .00; SRMR = .02 for the father report of parenting model; χ² (31) = 97.63, p < .05; CFI = .86; RMESA = .07; SRMR = .04 for the child report of parenting model.

Figure 3: Integrative family stress model results for father/child report model (N = 467). Note: All coefficients are significant (p < .05); standard errors follow in parentheses. ns = not significant (p ≥ .05). In the mediational path, significant paths in at least one reporter model are solid lines; non-significant paths are dashed. For familism a main effect and interaction effect for each mediator is estimated, but only paths significant in at least one reporter-model are shown. For neighborhood adversity a main effect and interaction effect for each outcome is estimated, but only paths significant in at least one reporter-model are shown. Unstandardized path coefficients for the father report on parenting model are reported first; estimates from the child report on parenting model follow after the forward slash. Adolescent gender and family income were included in this model as covariates, but are omitted from the figure to enhance clarity.
Figure 4. Simple slopes plots for familism moderations (4a & 4b), and neighborhood adversity moderations (4c – 4e). * $p < .05$. ** $p < .01$. *** $p < .001$. 