

Filial Responsibility, Perceived Fairness, and Psychological Functioning of Latino Youth From Immigrant Families

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The contributions of filial responsibility to psychological functioning were examined longitudinally among Latino young adolescents from immigrant families. Participants included 199 7th and 8th Grade Latino boys and girls (M age = 13.8) who were either immigrants (79%) or children of immigrants (21%). The term, *filial responsibility*, refers to children's family caregiving efforts (e.g., household chores, caring for siblings). *Perceived fairness*, which refers to perceptions of equity, reciprocity, and acknowledgment, was examined as an important corollary describing the familial context in which youths' responsibilities are enacted. Over the course of this 1-year longitudinal study, a significant decline was observed in mean levels of caregiving, whereas a significant increase was observed in perceived fairness. Consistent with a conceptualization of filial responsibility as contributing to psychological development in positive and, in some contexts, negative ways, caregiving activities predicted increases in cooperative behavior and interpersonal self-efficacy, whereas perceived fairness predicted declines in psychological distress. Implications for practitioners and policymakers working with this population are discussed.

Keywords: immigrant families, Latino or Hispanic, adolescence, resilience, filial responsibility

Children from immigrant families face the transition to adolescence while negotiating differences between the expectations and practices of their culture of origin and their family's new home (Fulgini, 2001). The period of early adolescence is widely regarded as a time when youth, including those from immigrant families, intensify their strivings to establish autonomy while at the same time maintaining positive relationships with parents (Phinney, Kim-Jo, Osorio, & Vilhjalmsson, 2005; Pomerantz, Qin, Wang, & Chen, 2011). Negotiating obligations to the family represents a salient context in which young adolescents can both affirm their connectedness to parents and move toward a sense of autonomy from them (Pomerantz et al., 2011). As such, considerable research on children of immigrants in the United States has focused on how children's obligations to their families shape their development (Fulgini, Tseng, & Lam, 1999; Hardway & Fulgini, 2006; Phinney, Ong, & Madden, 2000).

Developmental models of risk and resilience point to family interactions as critical determinants of development (Kuperminc, Wilkins, Roche, & Alvarez-Jimenez, 2009), so that the extent and quality of young peoples' family interactions, and changes in those interactions during salient transitions such as the entry into adolescence, are likely to play an important role in psychological functioning (Laursen & Collins, 2009). The resilience perspective conceptualizes psychological functioning broadly, encompassing domains such as emotional well-being and social competence, and it considers characteristics of individuals and their primary social

settings that increase the likelihood of maladaptation (risk factors) or mitigate these risks (protective factors). This perspective is particularly relevant for studying the development of young Latino adolescents from immigrant families, given high rates of poverty, discrimination, and other stresses associated with migration and resettlement, along with well-documented developmental changes (e.g., school transitions) that are associated with declines in psychological adaptation across the transition from childhood to adolescence (Kuperminc, Wilkins, et al., 2009). In this study, we focus on Latino young adolescents from immigrant families, a population at considerable risk for maladjustment resulting from exposure to many of these risks. We examine how youths' filial responsibilities contribute to psychological functioning, reflected in symptoms of psychological distress, interpersonal self-efficacy, and cooperative behavior.

What Is Filial Responsibility?

Much of the literature uses terminology that reflects concerns about how children's excessive contributions to their families (e.g., *parentification*, *role reversal*) might compromise their well-being (e.g., Burton, 2007; Earley & Cushway, 2002), or conversely, expectations that children's contributions and sense of obligation to their family (often referred to as *familism*) support positive development because they are consistent with a culturally rooted world view that values loyalty, cooperation, and kinship ties (Esparza & Sánchez, 2008). We use the term, *filial responsibility*, to refer to children's family caregiving efforts (Jurkovic et al., 2004; Kuperminc, Jurkovic, & Casey, 2009). Caregiving includes physically maintaining the household (*instrumental caregiving*) and facilitating parents' and other family members' psychological well-being (*emotional caregiving*). We also consider the *perceived fairness* of youths' responsibilities, referring to youths' general

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perceptions of equity, reciprocity, and the extent to which they receive recognition for their caregiving activities within the family.

Links Between Filial Responsibility and Psychological Adjustment

Studies of children growing up in conditions of risk, including parental divorce (Hetherington, 1999), poverty (McMahon & Luthar, 2007; East & Weisner, 2009), the aftermath of war (Jurkovic, Kuperminc, Sarac, & Weisshaar, 2005), and immigration (Kuperminc, Jurkovic, et al., 2009; Walsh, Shulman, Bar-On, & Tsur, 2006) have found that family responsibilities can increase risk for emotional distress, for example, when levels of caregiving are extremely high or low, or when cumulative levels of family stress are high. Some studies have also found, paradoxically, that these same responsibilities can contribute to maturity, competence, and positive social relationships. This pattern of *competence at a cost* (Hetherington, 1999) suggests a complex role of family responsibilities contributing to development in positive and negative ways.

Focusing primarily on attitudes about family obligations, research on cultural variations in psychological development (e.g., Fuligni et al., 1999; Phinney et al., 2000) has documented that filial responsibilities are consistent with interdependent orientations of many cultural groups (Super & Harkness, 1981; Weisner & Gallimore, 1977). For example, adolescents from Asian and Latin American backgrounds living in the United States have been found to endorse greater expectations to assist, respect, and support their families than adolescents from European backgrounds (Fuligni et al., 1999; Hardway & Fuligni, 2006). Immigrant children in the United States typically learn English more quickly than their parents do and often take on roles such as “language brokering” (Weisskirch, 2005), advocating for the family, tutoring, and surrogate parenting (Valenzuela, 1999). Youth who take on and value such roles report positive self-concepts, ethnic identity, and academic achievement (Fuligni et al., 1999; Kuperminc, Wilkins, et al., 2009; Weisskirch, 2005). For such youth, contributing to the family in meaningful ways may engender feelings both of connectedness and independence (Pomerantz et al., 2011).

Given considerable cultural and family variation in expectations for children’s contributions to their family’s well-being (e.g., Phinney et al., 2000), we argue for the importance of considering both the extent of caregiving activities and the attitudes that young people hold regarding their responsibilities. Youths’ perceptions of fairness are rooted at least partly in cultural beliefs about children’s roles (Boszormenyi-Nagy & Krasner, 1986; Jurkovic et al., 2004). Thus, a dual consideration of family caregiving behaviors and perceptions about fairness and reciprocity can provide insight into the seemingly contradictory findings documenting both benefits and risks of filial responsibility (Jurkovic et al., 2004; Kuperminc, Jurkovic, et al., 2009).

It has been argued that when adolescents assume caregiving responsibilities they frequently find themselves in a position to make mature decisions and gain adult-like competencies (e.g., Taylor et al., 1997). On the other hand, such responsibilities can restrict social opportunities (e.g., to participate in afterschool programs), which can increase stress and dissatisfaction (Earley, Cushway, & Cassidy, 2007). The link between caregiving activities and increased behavioral or emotional problems may emerge

when responsibilities are very high or experienced by youth as overwhelming (e.g., Burton, 2007). For example, a focus group study of children who cared for relatives with chronic illness or disability (Earley et al., 2007) found that youth built positive identities around their caregiving roles but also felt stigmatized by their peers and reported that they felt they could not discuss their own problems with others.

Cross-sectional research with Latino adolescents from immigrant families supports the importance of considering both the extent of and attitudes toward filial responsibility. Weisskirch (2005) studied 55 sixth graders who were primarily U.S.-born children of Mexican immigrant parents and found that most of the youth reported engaging in language brokering, a specific form of filial caregiving. Language brokering and positive feelings about it both had significant correlations with ethnic identity, but when entered in a multiple regression equation, only positive feelings contributed to higher levels of ethnic identity.

In our own study (Kuperminc, Jurkovic, et al., 2009) of 129 Latino (primarily Mexican origin) adolescents from immigrant families, we found that youths’ reports of caregiving in the home were associated with higher teacher- and self-reported social competence for the sample as a whole and fewer teacher-reported acting-out problems among boys. Perceived fairness, while associated with lower levels of distress, also moderated a curvilinear association of filial caregiving with behavioral self-regulation (suppression of aggression, impulse control, and consideration of others), such that high levels of caregiving predicted high levels of self-regulation but only when perceived fairness was also high. Whereas some research (e.g., East & Weisner, 2009) has documented sex differences in parental expectations for children’s family contributions, we did not find differences in girls’ as compared with boys’ reported caregiving behavior, but we did find that girls perceived their responsibilities as less fair.

Relatively little longitudinal research has been conducted in this area. Some studies have revealed that immigrant youths’ sense of family duty persists over the transition into adulthood (Fuligni & Pederson, 2002), suggesting that filial responsibility might increase or remain stable through adolescence. However, recent cross-cultural findings that feelings of family obligation decline over the seventh–eighth grades for American, but not Chinese children, offer a contrasting view consistent with the Western notion of early adolescence as a time of seeking increased independence from parents (Pomerantz et al., 2011).

This Study

In summary, past research has yielded seemingly contradictory findings, with some studies showing that excessive responsibilities are detrimental to development and others showing that family responsibility can contribute to competence and maturity. Moreover, the lack of longitudinal studies hinders conclusions regarding the direction of effects. Framed in a resilience perspective, this short-term, longitudinal study examines family responsibilities as a potential risk or protective factor in the development of Latino adolescents from immigrant families. Our sample was exposed to significant adversity, including high rates of poverty and acculturation stress. Whereas we acknowledge that filial responsibilities are highly valued within other cultural groups, we focus on Latinos in this study to maximize our ability to examine variability and

diversity within this group. Our first goal was to explore how filial caregiving activities and perceptions of fairness change during early adolescence. Our second goal was to examine the implications of filial caregiving and perceptions of fairness for youths' psychological functioning. On the basis of past cross-sectional research, we considered independent contributions of youth reports of caregiving activities and perceived fairness in explaining one-year changes (increases or decreases) in psychological functioning. Building on our previous work, we expected to find positive associations of filial caregiving with social competence (i.e., interpersonal self-efficacy and cooperative behavior) and negative associations of fairness with psychological distress. We considered that perceived fairness might moderate associations between caregiving and psychological functioning. We also considered sex as a possible moderator of the associations of caregiving and perceived fairness with each criterion variable.

Method

Participants

In the spring of Year 1, data were collected from 199 Latino seventh and eighth grade students at a public middle school in the Southeastern United States. The sample included 56% of the students identified by the school district as Hispanic or Latino. Fifty-eight percent ($n = 115$) were female, and the average age was 13.8 years ($SD = 0.80$). Seventy-nine percent ($n = 158$) had immigrated to the United States, and the rest were U.S. born children of immigrants ($n = 41$). Fifty-one participants (26%) immigrated at age 12 years or older, and 107 (54%) immigrated prior to age 12. Most (76%; $n = 119$) immigrants were born in Mexico; 13% ($n = 20$) were born in Central America (El Salvador, Guatemala, Honduras, Nicaragua, or Costa Rica); 4% ($n = 7$) were born in the Caribbean (Cuba, the Dominican Republic, or Puerto Rico), and 6% ($n = 10$) were born in South America (Colombia, Peru, Paraguay, or Venezuela). About half of the participants were in seventh grade (52%, $n = 103$), and 90% received a federally subsidized school lunch.

Twenty-eight percent of the Year 1 participants moved to a different school district within one year, leaving 144 students available to complete the second wave in the spring of Year 2. All but one ($n = 143$, 99%) completed the Year 2 portion of the study. This level of attrition is consistent with the high geographic mobility of Latino families (U.S. Census Bureau, 2003). *T* tests on all Year 1 variables comparing participants who completed both waves with those participating only in the first wave revealed only that attriters (M age = 14.05 years) were older than completers (M age = 13.79 years), $t(197) = 2.01$, $p = .04$.

Procedure

Institutional Review Boards at the authors' institution and the school district approved the procedures. All students who identified as Latino or Hispanic were invited to participate. Recruitment strategies included having bilingual researchers make brief classroom presentations in English and Spanish and staffing an information table in the cafeteria during meal times. Interested students were given parental consent forms in English and Spanish. Students were required to bring a signed parental consent form and to

sign an assent form before participating. Participants received a movie pass as an inducement.

Questionnaires were administered to groups of 10–15 students. About half of the sessions were administered in Spanish by bilingual researchers; the others were administered in English. One researcher introduced questionnaires and read items aloud to control for reading ability and another researcher answered questions. Sessions lasted about two class periods (1.5 hr).

Spanish versions of all measures were generated through translation, back translation, and decentering (Barona & Barona, 2000). Youth completed questionnaires that included both the English and Spanish versions of each item side by side.

Measures

Participants completed similar self-report questionnaires in Years 1 and 2. Sample means, standard deviations, and internal consistency estimates for total and subscale (or item parcel, see below) scores for primary study variables are presented in Table 1. Internal consistency (alpha) estimates ranged from .76–.91 for the total scores.

Demographic and acculturation variables. Several demographic and acculturation variables were examined as potential covariates. Adolescents completed demographic items, including sex (1 = male, 0 = female), age, single- versus two-parent family, number of household residents, and whether the participant was the oldest (1 = oldest, 0 = other) or the youngest child in the family (1 = youngest, 0 = other; in addition to differentiating oldest and youngest children in a family with two or more children, this coding allowed us to identify only children—coded as both youngest and oldest—and middle children—coded as neither oldest nor youngest).

Adolescents also completed previously validated measures of cognitive, affective, and cultural aspects of acculturation and immigration. The five-item Language Acculturation Scale ($\alpha = .83$; Marín & Marín, 1991) assesses language use in various contexts (e.g., "In general, in what language do you read?"); responses are on a 5-point scale, ranging from 1 (*only Spanish*) to 5 (*only English*). The Social, Attitudinal, Familial, and Environmental Stress Scale (SAFE; $\alpha = .84$; Mena, Padilla, & Maldonado, 1987) assesses stressful events related to acculturation and perceptions of stereotypes by the majority group in relation to immigrant populations. Responses to the 24 items are given on a 4-point Likert-type scale, ranging from *not at all true* to *very true* (e.g., "It's hard to be away from the country that my family is from"). The 12-item Familism subscale of the Multiphasic Assessment of Cultural Constructs-Short Form (MACC-SF; $\alpha = .60$; Cuéllar, Arnold, & Maldonado, 1995) assesses perceptions of the importance of family interdependence, loyalty, and the degree to which adults should be respected and obeyed (e.g., "Even if a child believes that his parents are wrong, he should obey without question"). Items are rated on a 4-point Likert-type scale, ranging from 1 (*not at all true*) to 4 (*very true*). One item about parental school involvement was dropped because of overlap with other study instruments. We also created dummy variables differentiating Mexican-origin youth (1) versus youth with other Latin American origins (0), immigrants (1) versus nonimmigrants (0), and recent immigrants who arrived at age 12 or older (1) versus others (0).

Table 1

Means, SDs, and Internal Consistency Estimates for Independent and Criterion Measures at Years 1 and 2

Variable	Response scale	<i>M (SD)</i>		Cronbach's α	
		Year 1 (<i>n</i> = 199)	Year 2 (<i>n</i> = 143)	Year 1 (<i>n</i> = 199)	Year 2 (<i>n</i> = 143)
Filial caregiving (Total)		2.22 (0.51)	2.09 (0.53)	(.76)	(.82)
Caregiving Parcel no. 1	1-4	2.33 (0.58)	2.24 (0.63)	.47	.60
Caregiving Parcel no. 2	1-4	2.12 (0.65)	1.95 (0.62)	.53	.60
Caregiving Parcel no. 3	1-4	2.20 (0.63)	2.09 (0.62)	.60	.61
Perceived fairness (Total)		3.00 (0.69)	3.18 (0.63)	(.82)	(.86)
Fairness Parcel no. 1	1-4	2.98 (0.84)	3.21 (0.70)	.61	.56
Fairness Parcel no. 2	1-4	2.97 (0.86)	3.11 (0.81)	.67	.74
Fairness Parcel no. 3	1-4	3.04 (0.78)	3.21 (0.68)	.67	.70
Psychological Distress (Total)		2.13 (0.57)	1.96 (0.57)	(.78)	(.84)
Anxiety	1-4	2.55 (0.82)	2.29 (0.81)	.57	.68
Depression	1-4	2.29 (0.78)	2.02 (0.77)	.47	.70
Low self-esteem	1-4	1.96 (0.74)	1.78 (0.68)	.73	.74
Low well-being	1-4	1.74 (0.75)	1.74 (0.73)	.54	.67
Interpersonal self-efficacy (Total)		3.25 (0.69)	3.29 (0.67)	(.89)	(.91)
Initiating relationships	1-5	3.29 (0.93)	3.30 (0.81)	.72	.73
Emotional support	1-5	3.68 (0.85)	3.58 (0.84)	.75	.81
Assertiveness	1-5	3.30 (0.79)	3.36 (0.79)	.56	.68
Self-disclosure	1-5	2.73 (0.96)	2.83 (0.95)	.67	.75
Conflict management	1-5	3.27 (0.88)	3.35 (0.88)	.73	.85
Cooperative behavior (Total)		1.44 (1.02)	1.69 (1.04)	(.77)	(.77)
Cooperative Parcel no. 1	1-4	1.06 (1.01)	1.17 (1.03)	.67	.68
Cooperative Parcel no. 2	1-4	1.82 (1.29)	2.17 (1.33)	.64	.65

Filial responsibility. Youth completed the Filial Responsibility Questionnaire—Youth (FRQ-Y; Jurkovic et al., 2005). Jurkovic et al. (2005) and Kuperminc, Jurkovic, et al. (2009) found adequate reliability and associations of the 34-item FRS-Y with psychological and school functioning, providing evidence of validity. Items are rated on a 4-point Likert-type scale, ranging from 1 (*not at all true*) to 4 (*very true*). Items tap various behaviors, including instrumental (e.g., “I often wash, dress, or feed some member of my family”) and emotional caregiving (e.g., “If someone in my family is upset, I try to help in some way”); perceptions of fairness, including equity (e.g., “In my family, I am often asked to do more than my share” [reverse scored]) and reciprocity (e.g., “My parents are very helpful when I have a problem”) are also assessed.

We used item parcels to create multiple measures of the caregiving and fairness constructs necessary for latent variable modeling (Little, Cunningham, Shahar, & Widaman, 2002). Streiner (2003) noted that scales constructed with few items (such as the 3–5 item parcels used in this study) tend to have lower Cronbach's alpha estimates than longer scales, and argued that short scales assessing complex constructs with average interitem correlations of .15–.20 indicate adequate reliability. For perceived fairness (10 items total) we used the *item-to-construct balance* (parcels contain a balance of high to low loading items) approach described by Little et al. to create three parcels for this unidimensional scale, each with three–four items. Mean interitem correlations within parcels ranged from .31–.49, indicative of adequate reliability (see Table 1). Because the caregiving measure assesses multiple types of responsibilities, we used the *domain-representative* approach (each parcel includes items for subconstructs, e.g., language brokering, sibling caregiving) to construct three parcels, each with 5 items. Mean interitem correlations ranged from .17–.24, indicative of adequate reliability given the diverse item content.

Psychological distress. The Weinberger Adjustment Inventory—Distress Scale (Dahlberg et al., 2006; Weinberger & Schwartz, 1990) consists of 12 items, assessing anxiety, depression, self-esteem, and well-being (e.g., “I usually think of myself as a happy person” and “In reality I don't like myself very much”). Items were rated on a 4-point Likert-type scale, ranging from 1 (*not at all true*) to 4 (*very true*).

Interpersonal self-efficacy. A 20-item version of the Adolescent Interpersonal Competence Questionnaire (Buhrmester, 1990) was used to assess social skills with peers, including initiating relationships, emotional support, assertiveness, self-disclosure, and conflict management (e.g., “How good are you at making someone feel better when they are unhappy or sad?”). The 5-point Likert-type scale ranged from 1 (*poor at this*) to 5 (*very good at this*).

Cooperative behavior. Eight items from the Modified Aggression Scale (Bosworth & Espelage, 1995) were used to assess cooperative behavior with peers (e.g., “I helped other students solve a problem”) within the last 30 days. Response options included: *Never*, *1 or 2 times*, *3 or 4 times*, and *5 times or more*. Using the item-to-construct balance approach (described previously), we created two parcels, each with four items. Mean interitem correlations within each parcel ranged from .32–.35, indicative of adequate reliability.

Plan of Analysis

Data were screened for missing values, outliers, and violations of univariate and multivariate normality. We used structural equation modeling (SEM) to describe 1-year change in caregiving and perceived fairness using Steyer, Partchev, and Shannon's (2000) multistate model with invariant parameters (MSIP) to form latent factors representing true initial levels of and intraindividual change

in those variables. We also used the MSIP to examine change in indices of psychological functioning. Given the modest sample size, we examined moderating effects of fairness and gender using hierarchical multiple regression.

SEM analyses were conducted using the full information maximum likelihood (FIML) estimator in EQS 6.1 (Bentler, 2006) to obtain parameter estimates, standard errors, and fit statistics in the presence of missing data. FIML fits the model to the nonmissing values for each observation, using all available data. It has been found to have the advantages of single and multiple imputation methods, without explicitly imputing any data (Widaman, 2006). We used cutoff values of comparative fit index (CFI) $\geq .96$ and standardized root-mean-square residual (SRMR) $\leq .09$ recommended for sample sizes of $n = 150-250$ (Hu & Bentler, 1999). We used a robust estimator to test models with nonnormally distributed variables. This estimator provides a scaled chi-square statistic (Yuan-Bentler chi square) and estimates of CFI and root-mean-square error of approximation (RMSEA) but not SRMR. For those models we evaluated model fit using the CFI cutoff of .96 and RMSEA cutoff of .08 (Brown & Cudeck, 1993).

We estimated separate models for each dependent variable (see Figure 1). We examined associations of both baseline levels of and change in caregiving and perceived fairness with change in each dependent variable. We first fit a measurement model that included unstructured correlations among the latent constructs and covariates, making theoretically plausible modifications to improve model fit without substantially altering the basic model specification (e.g., estimating a correlation between error terms for indicators of caregiving and perceived fairness). We next examined a

structural model that tested hypothesized pathways. We compared goodness of fit of the measurement and structural models using a chi-square difference test ($\Delta\chi^2$) and considered additional paths when the initial model did not fit as well as the measurement model (e.g., a prospective association of caregiving with change in perceived fairness). All models controlled the cross-sectional associations among the baseline measures and included covariates that could bias estimates of association among the primary variables (Jaccard et al., 2006). Each of the structural models fit the data about as well as its respective measurement model and demonstrated adequate goodness of fit.

Results

Preliminary Analysis

There were few missing data resulting from item nonresponse ($\leq 2\%$), but substantial sample attrition as described previously. With regard to missing data, we inspected the GLS Combined Test of Homogeneity of Means/Covariances provided by EQS 6.1; this test was nonsignificant for each model, indicating that data were missing completely at random.

To identify confounding variables, we examined demographic and acculturation-related variables as predictors of baseline levels and change in each of the dependent variables. We retained three covariates that were associated ($p < .05$) with caregiving or perceived fairness and at least one of the outcome measures, as these could bias estimates of associations among the primary variables (Jaccard et al., 2006). These included gender, English language acculturation, and acculturative stress. Girls reported declines in perceived fairness over time ($\beta = -.23$), and also reported higher psychological distress ($\beta = .24$), cooperative behavior ($\beta = .18$), and interpersonal self-efficacy ($\beta = .29$) than boys. Youth with higher language acculturation reported higher levels of caregiving at baseline than others ($\beta = .27$) and higher baseline levels of psychological distress ($\beta = .20$) and cooperative behavior ($\beta = .22$). High levels of acculturative stress were associated with higher baseline levels of caregiving ($\beta = .41$) and lower perceived fairness ($\beta = -.61$); acculturative stress was also positively associated with baseline levels of distress ($\beta = .69$) and interpersonal self-efficacy ($\beta = .18$). Only two other variables examined had associations either with the criterion variables or the independent variables, but not both. Although youngest children reported lower caregiving than older children in their families, birth order was unrelated to any of the adjustment outcomes. Mexican origin youth reported higher baseline levels of interpersonal self-efficacy than youth with origins in other Latin American countries ($\beta = .22$); however, levels of caregiving and perceived fairness were unrelated to Mexican origin. Correlations among the variables retained for subsequent analyses are presented in Table 2 (for expedience we show correlations among total scales rather than item parcels). Of note, reports of caregiving were associated positively both with psychological distress and with indices of social competence (interpersonal self-efficacy and cooperative behavior). Perceived fairness was negatively related to psychological distress.

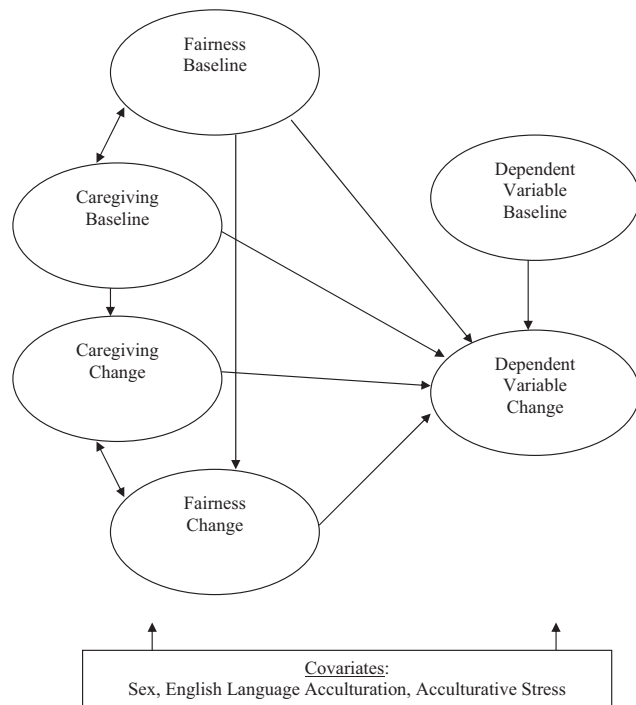


Figure 1. Illustration of the specification for structural models assessing the role of change in caregiving and perceived fairness on change in indices of adjustment.

Table 2
Bivariate Correlations Among Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Sex (male)	—												
2. Language acculturation	.05	—											
3. Acculturative stress	.07	-.35*	—										
4. Caregiving (1)	.08	.13	.40*	—									
5. Caregiving (2)	.12	.24*	.29*	.71*	—								
6. Fairness (1)	-.08	-.02	-.46*	-.52*	-.40*	—							
7. Fairness (2)	-.18*	-.03	-.45*	-.40*	-.42*	.70*	—						
8. Distress (1)	.15*	-.04	.47*	.27*	.27*	-.55*	-.50*	—					
9. Distress (2)	.11	-.19*	.52*	.34*	.32*	-.47*	-.60*	.61*	—				
10. Interpersonal self-efficacy (1)	.21*	.17*	.08	.36*	.36*	-.15*	-.24*	-.07	.04	—			
11. Interpersonal self-efficacy (2)	.27*	.25*	-.13	.15*	.33*	-.08	-.12	-.04	-.14	.48*	—		
12. Cooperative behavior (1)	.18*	.30*	-.06	.19*	.15*	.04	-.04	-.06	-.15*	.39*	.26*	—	
13. Cooperative behavior (2)	.21*	.40*	-.08	.14	.29*	.02	-.08	-.06	-.10	.25*	.49*	.44*	—

* $p < .05$.

Primary Analysis

Mean and intraindividual change in filial caregiving and perceived fairness. To address our first research question, we fit the MSIP model to the longitudinal data for multiple measures of filial caregiving and perceived fairness. Similar to a latent growth curve model, the MSIP model includes structured means and path coefficients and latent variables representing baseline levels and intraindividual change. The models fit the data well (see Table 3). Standardized factor loadings of latent variables on indicators of caregiving and perceived fairness, as well as estimated latent means, variances, and retest correlations are shown in Table 4. Participants reported lower levels of caregiving and higher levels of perceived fairness at Year 2 compared with baseline. The retest correlations for caregiving and perceived fairness were .70 and .75, respectively, indicating substantial intraindividual change in each variable (43%–51% of the variance in the Year 2 measures were unaccounted for by the Year 1 measure).

Mean and intraindividual change in psychological functioning. Prior to estimating explanatory models, we also used the MSIP model to examine change in psychological distress, interpersonal self-efficacy, and cooperative behavior (see Tables 3 and 4). These models fit the data well. Levels of psychological distress were lower and cooperative behavior was higher at Year 2 compared with baseline. Perceived interpersonal competence did

not change significantly. Retest correlations ranged from .43–.62, indicating substantial intraindividual change (62%–68% of the variance in Year 2 measures was unaccounted for by Year 1 measures).

Independent contributions of filial caregiving and perceived fairness. We next examined contributions of baseline levels and change in caregiving and perceived fairness to changes in psychological functioning. The results are summarized in Table 5. As typically found when estimating latent change models (e.g., Weaver & Kim, 2008), although the retest correlations for each dependent variable were positive, baseline levels in the change model were negatively associated with change in each dependent variable. Thus, for example, participants with higher initial levels of psychological distress reported greater declines in distress over time.

Psychological distress. The model accounted for 56% of the variance in change in psychological distress. As expected, high levels of perceived fairness at baseline contributed prospectively to declines in distress over time. Moreover, increases in perceived fairness independently contributed to declines in distress over time. There were no independent associations of filial caregiving with change in psychological distress.

Cooperative behavior. The model accounted for 38% of the variance in change in cooperative behavior. Increases in caregiving contributed to increases in cooperative behavior. Perceived fairness was unrelated to change in cooperative behavior.

Interpersonal self-efficacy. The model accounted for 47% of the variance in change in interpersonal self-efficacy. Increases in caregiving contributed to increasing interpersonal self-efficacy over time. Perceived fairness was unrelated to change in interpersonal self-efficacy.

Moderating effects. The SEM analyses examined independent effects of caregiving and perceived fairness. To examine whether perceived fairness moderated the associations of caregiving with adjustment, we computed hierarchical multiple regression models for each outcome. We controlled for covariates and the Year 1 measure of each criterion variable prior to entering main effects of caregiving and perceived fairness. We then entered the interaction of caregiving by perceived fairness. Interaction terms were computed after first centering the independent variable and

Table 3
Fit Statistics for Initial Change Models

Variable	Model χ^2	Model <i>df</i>	CFI	SRMR	RMSEA
Caregiving	7.112	9	1.000	.026	.000
Fairness	10.831	8	.998	.032	.042
Psychological distress	25.953	18	.991	.041	.047
Interpersonal self-efficacy	45.618	34	.993	—	.042
Cooperative behavior	4.516	2	1.000	.007	.080

Note. Fit statistics for interpersonal self-efficacy are based on robust estimation of standard errors; estimates for SRMR were not available for these models. CFI = comparative fit index; SRMR = standardized root-mean-square residual; RMSEA = root-mean-square error of approximation. * $p < .05$.

Table 4
Full Information ML Estimates of Standardized Factor Loadings, Factor Means, and Retest Correlations For Models Examining Change In Filial Caregiving, Perceived Fairness, and Measures of Psychological Functioning

Variable	Baseline		Change	Retest <i>r</i>	
	Loading on Y1 indicators	Loading on Y2 indicators	Loading on Y2 indicators		
Filial caregiving					
Caregiving Parcel no. 1	.74	.69	.56	.70	
Caregiving Parcel no. 2	.76	.83	.67		
Caregiving Parcel no. 3	.66	.63	.50		
Latent factor mean (variance)	2.35 (0.18)		-0.12 (0.12)		
Perceived fairness					
Fairness Parcel no. 1	.78	.90	.61	.75	
Fairness Parcel no. 2	.71	.81	.55		
Fairness Parcel no. 3	.77	.87	.59		
Latent factor mean (variance)	3.03 (0.36)		0.15 (0.16)		
Psychological distress					
Anxiety	.73	.73	.64	.62	
Depression	.74	.73	.65		
Low self-esteem	.59	.66	.58		
Low well-being	.45	.51	.41		
Latent factor mean (variance)	2.56 (0.35)		-0.23 (0.27)		
Interpersonal self-efficacy					
Initiating relationships	.70	.73	.66	.52	
Emotional support	.85	.89	.81		
Assertiveness	.66	.69	.63		
Self-disclosure	.56	.54	.65		
Conflict management	.80	.79	.87		
Latent factor mean (variance)	3.27 (0.38)		0.07 <i>ns</i> (0.32)		
Cooperative behavior					
Cooperative Parcel no. 1	.87	.85	.92		.43
Cooperative Parcel no. 2	.67	.65	.50		
Latent factor mean (variance)	1.01 (0.74)		0.20 (0.86)		

Note. Estimates of factor loadings and means based on Steyer et al.'s (2000) change version of the multistate model with invariant parameters (MSIP). Estimates of retest correlations are taken from a simplified state version of the model. All estimates significantly different from 0 ($p < .05$) unless otherwise noted.

moderator. We examined the Year 1 and Year 2 measures of caregiving and perceived fairness in separate models. None of the interaction terms reached significance. We also examined sex as a moderator of the effects of caregiving and perceived fairness on adjustment. None of these interactions reached significance.

Discussion

In this study, we examined filial responsibilities among young Latino adolescents from immigrant families. In the first phase of analysis, we explored change in caregiving and perceived fairness, and in the second phase, we examined how caregiving and perceived fairness contribute to youths' psychological functioning over time.

Understanding Short-Term Change in Filial Caregiving and Perceived Fairness

The declines in mean levels of caregiving observed in this study may reflect young people's ongoing negotiation of autonomy from parents (McElhaney & Allen, 2001). The increases in perceived fairness suggest that families are successfully renegotiating adolescents' responsibilities, at least from the youths' point of view. This does not mean that Latino youth are relinquishing family responsibilities, however. For example, Fuligni and Pedersen (2002) showed that family obligations increase during the transi-

tion to young adulthood; thus, the decline in caregiving observed in this study may be a temporary developmental phenomenon at early to mid-adolescence. This possibility aligns with Phinney et al.'s (2005) findings that a sense of interdependence (e.g., complying with parents' wishes and values that place family needs ahead of individual preferences) coexists with autonomy (e.g., self-assertion and negotiating compromise) among adolescents from cultural minority groups.

Contributions of Filial Caregiving and Fairness to Psychological Adjustment

Research drawing from diverse theoretical and empirical traditions has yielded mixed findings regarding the benefits and costs of youth's family responsibilities. The mixed findings are due, in part, to variations in how responsibilities have been conceptualized and measured (East, 2010). We argued for the importance of considering the extent of youth's caregiving activities independent of their feelings about the fairness of those activities.

Changes in caregiving activities showed significant associations with increases in cooperative behavior and interpersonal self-efficacy. Although there was a significant positive correlation between caregiving and psychological distress, that association was not significant when considered in the context of perceived fairness. It is important to emphasize that these findings pointing to increases in social competence linked to filial caregiving do not

Table 5

Final Structural Equation Models of Filial Caregiving and Perceived Fairness as Predictors of Baseline Levels and Change in Psychological Distress, Aggression, Cooperative Behavior, and Interpersonal Competence

Variable	Psychological distress	Cooperative behavior	Interpersonal self-efficacy
Predictors of change in DV			
Caregiving (BL) → DV (CHX)	.03	.15	.13
Caregiving (CHX) → DV (CHX)	.06	.39*	.33*
Fairness (BL) → DV (CHX)	-.50*	-.06	.06
Fairness (CHX) → DV (CHX)	-.52*	-.07	.10
Other selected model parameters			
Caregiving (BL) → Caregiving (CHX)	-.34*	-.36*	-.35*
Fairness (BL) → Fairness (CHX)	-.46*	-.48*	-.53*
DV (BL) → DV (CHX)	-.66*	-.52*	-.57*
Caregiving (BL) → Fairness (BL)	-.32*	-.33*	-.32*
Caregiving (BL) → Fairness (CHX)	-.22	-.20	-.20
Variance explained			
Change in DV	.56	.38	.47
Goodness of fit			
Measurement model χ^2 (df)	303.014 (195)*	216.50 (118)*	370.41 (236)*
Final model χ^2 (df)	312.75 (209)*	235.15 (134)*	395.69 (252)*
$\Delta\chi^2$ (df)	9.73 (14)	18.65 (16)	25.28 (16)
CFI	.98	.97	.97
SRMR	.06	.07	.07
RMSEA	.05	.06	.05

Note. Standardized estimates of regression weights (β) and correlations (r) are provided. χ^2 difference test compares fit of final model to that of measurement model. BL = baseline; CHX = change; CFI = comparative fit index; SRMR = standardized root-mean-square residual; RMSEA = root-mean-square error of approximation.

* $p < .05$.

negate the possibility of harmful effects. Developmental costs of caregiving might emerge (a) in other domains of development, such as school engagement (e.g., East & Weisner, 2009); (b) when youth have extremely high caregiving responsibilities (e.g., Earley & Cushway, 2002; McMahon & Luthar, 2007); or (c) when youth resent or experience conflict surrounding their caregiving (East & Weisner, 2009; Kuperminc, Jurkovic, et al., 2009). It is interesting that increases in caregiving activity contributed to increased social competence at a time in which the general trend was toward declining levels of caregiving over time. Future research, perhaps using person-centered analyses to identify subgroups of youth with different patterns of change in caregiving activities and perceived fairness, is warranted to provide greater insight into this finding.

As in our previous cross-sectional work (Jurkovic et al., 2005; Kuperminc, Jurkovic, et al., 2009), perceived fairness (acknowledgment and reciprocity) was strongly related to distress. Notably, low baseline levels and declines in perceived fairness both contributed independently to increases in psychological distress. We have argued that the ethical context in which children enact their contributions to the family (i.e., the balance of fairness, acknowledgment, and reciprocity) may be the most important focus of efforts to promote positive development and mitigate the conditions under which filial caregiving can become problematic (Jurkovic et al., 2004). Such efforts can include parenting interventions aimed at increasing support to overextended parents, emphasizing strategies for distributing responsibilities equitably among siblings, and recognizing children's contributions (Jurkovic et al., 2004). Practitioners who work with Latino youth and their families (e.g., educators and school counselors) might also benefit from a greater awareness of the importance of perceived fairness and how children's caregiving responsibilities can contribute to

competence. Rather than pointing to some prescribed levels of filial responsibilities, practitioners might instead work with parents to negotiate an optimal level that can expose their children to competence enhancing experiences while making sure to acknowledge the importance of the child's contributions.

Analysis of moderating effects and of demographic and acculturation-related variables offered little insight into explaining individual differences in patterns of change. The lack of a significant Perceived Fairness \times Caregiving interaction suggests that fairness might be better conceptualized as an important variable in its own right, than as a contextual variable useful for understanding the conditions in which caregiving activities contribute to adjustment in positive or negative ways. Whereas past research has documented higher levels of domestic caregiving for girls compared with boys (East & Weisner, 2009), our analysis did not find sex differences in the extent of youths' caregiving responsibilities or in their association with adjustment. It is likely that the global measure used in this study was insensitive to gender differences in specific types of caregiving tasks. The finding that girls experienced declines in their feelings of fairness is consistent with the idea that girls may feel increasingly constrained by cultural expectations for adhering to traditional gender roles (East, 2010; Valenzuela, 1999).

Limitations and Future Directions

With only two time points, our analysis was confined to examining short-term increases or decreases in filial caregiving and perceived fairness and their association to changes in psychosocial functioning. Future research, using a longer time frame, a wider age range, and three or more waves of data is needed to enable

investigation of transactional or reciprocal effects among filial responsibilities and psychosocial adaptation over the course of adolescence. Other limitations include the study's reliance on self-report measures and a relatively small sample size. The study sample was demographically similar to the larger population of Latino students at the school; however, the participation rate of 56% leaves open the possibility of selection effects that may have biased our findings in unknown ways. Although our focus on caregiving behavior represents an important extension of past research, the global measure of filial caregiving used in this study was insensitive to differences in types of family responsibilities enacted by youth and did not provide information about the amount of time young people devoted to caregiving responsibilities (East, 2010). Our theoretical framework distinguishes instrumental and emotional caregiving (Jurkovic et al., 2004); however, empirically we have consistently found these dimensions to be highly intercorrelated, leading us to retain a single caregiving factor. Further development of the FRQ-Y is needed to capture a more nuanced assessment. Given consistent findings that youth in immigrant families achieve language and other skills more readily than their parents, leading parents to rely on their children for tasks such as language brokering (e.g., Weisskirch, 2005), further exploration of the potential moderating role of acculturation-related variables such as language use and acculturative stress is also warranted.

In conclusion, this study highlights a potential risk for Latino youth from immigrant families when youth feel that their considerable filial caregiving efforts are not sufficiently acknowledged or reciprocated. Independent of youths' feelings of the fairness of their caregiving efforts, our findings suggest that enacting family caregiving activities can contribute to positive development among Latino youth.

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