Mexican American Adolescents' Family Obligation Values and Behaviors: Links to Internalizing Symptoms Across Time and Context

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Family obligation is an important aspect of family relationships among families from Mexican backgrounds and can have significant implications for adolescents' well-being. Prior research and theory regarding youths' obligations offer conflicting hypotheses about whether it is detrimental or beneficial for adolescents' well-being. In the current longitudinal study, we used a daily diary method among 428 Mexican American adolescents and their parents to closely examine the impact of adolescents' family obligation values and family assistance behaviors on internalizing symptoms over time. The authors closely examined the role of the family context in these associations. Results suggest that family obligation values relate to declines in adolescents' internalizing symptoms, whereas family assistance behaviors are both a protective and risk factor, depending on the family context. Only when youths provide family assistance in response to acute changes in parental physical and psychological distress do family assistance behaviors relate to increases in adolescents' internalizing symptoms.

Keywords: family obligation, family assistance, internalizing symptoms, daily diary, adolescence

The emphasis on children and adolescents supporting, assisting, and taking into account the needs and wishes of their family is an important aspect of family relationships among families from Mexican backgrounds in the United States (Suárez-Orozco & Suárez-Orozco, 1995). These families often stress the importance of spending time with the family, high family unity, family social support, and interdependence for daily activities (Calzada, Fernandez, & Cortes, 2010; Fuligni Tseng, & Lam, 1999; Fuller & García Coll, 2010). The importance of this cultural value, often referred to as family obligation, coupled with the need to help the family instrumentally (i.e., family assistance), can have significant implications for adolescents' psychological well-being. However, prior research and theory on whether filial responsibilities have positive or negative implications for adolescents' psychological well-being has been mixed and inconclusive. Several studies have identified negative outcomes—such as increased substance use, lower aca-

demic achievement, greater externalizing and internalizing symptoms, and lower levels of happiness (Chase, Deming, & Wells, 1998; East & Weisner, 2009; Oznobishin & Kurman, 2009; Peris, Goeke-Morey, Cummings, & Emery, 2008; Stein, Riedel, & Rotheram-Borus, 1999; Williams & Francis, 2010)—whereas other studies have found positive outcomes, such as better coping skills, higher levels of social competence, and greater happiness (Hooper, Marotta, & Lanthier, 2008; Stein, Rotheram-Borus, & Lester, 2007; Telzer & Fuligni, 2009; Tompkins, 2007; Walsh, Shulman, Bar-On, & Tsur, 2006). Inconclusive and mixed findings of both positive and negative outcomes may be attributable to the differential effects of the endorsement of family obligation values and actual engagement in family assistance behaviors and to differences in the family context. In the current longitudinal study, we used a daily diary method among Mexican American adolescents and their parents to closely examine the implications of family obligation values and family assistance behaviors for adolescents' internalizing symptoms.

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Differential Influences of Family Obligation Values and Family Assistance Behaviors on Well-Being

Family Obligation Values

Adolescents from Latin American families in the United States are often characterized by their strong endorsement of family obligation values—the psychological sense to support, respect, and care for one's family (Suárez-Orozco, & Suárez-Orozco, 1995). Devotion, respect, and loyalty to the family are seen as imperative, and children are often expected to make personal sacrifices for the

sake of their family (Fuligni et al., 1999). Even when growing up in American society, Mexican adolescents from second and third generations maintain a strong sense of family obligation that is greater than that of their European American peers, above and beyond socioeconomic factors, highlighting family obligation as an important cultural value for Mexican families that is independent of acculturation and financial need (Fuligni et al., 1999).

Family Assistance Behaviors

Family obligation values are manifested in and reinforced through children's daily engagement in family assistance behaviors, which can include providing instrumental support, such as completing household chores (e.g., cleaning, cooking), caring for siblings, and assisting parents at their work or with official business (e.g., completing government forms; Suárez-Orozco, & Suárez-Orozco, 1995; Telzer & Fuligni, 2009). Compared with youths from European backgrounds, youths from Mexican backgrounds spend almost twice as much time helping their family each day and assist their family 5-6 days per week on average (Telzer & Fuligni, 2009). Moreover, Mexican adolescents' family assistance has been found to be contingent on daily family circumstances. For example, Mexican adolescents are more likely to assist their family on days when their mother experiences greater levels of fatigue, suggesting that these youths help in response to familial need (Tsai, Telzer, Gonzales, & Fuligni, 2013). The contingent nature of family assistance behaviors may have significant implications for youths' well-being.

Family Obligation Values and Links to Internalizing Symptoms

Given the emphasis placed on family obligation in Latin American culture, the internalization of strong family obligation values among Mexican American adolescents may provide these adolescents with a meaningful social role, a means to maintain connectedness with their family, and a sense of cultural continuity in the family. Consistent with social identity theory, group identification enhances one's willingness to support and assist one's group and provides a sense of meaning and purpose (Hogg, 2003), which is linked to better psychological well-being (Zika & Chamberlain, 1992). Thus, family obligation may increase one's sense of connection to the family, which, in turn, may relate to lower levels of internalizing symptoms, in part because it confers a sense of life purpose, meaning, and self-esteem. Indeed, adolescents who embrace the cultural value of family obligation tend to report closer relationships with their parents and siblings (Fuligni et al., 1999), have higher academic motivation (Suárez-Orozco & Suárez-Orozco, 1995), lower levels of externalizing behaviors (Germán, Gonzales, & Dumka, 2009; Telzer, Gonzales, & Fuligni, 2014), and higher levels of self-esteem and positive well-being (Fuligni & Pedersen, 2002). Therefore, in the current study, we sought to test the longitudinal mediators that may explain why family obligation values are associated with positive well-being. We predicted that a greater endorsement of family obligation values would be associated with lower internalizing symptoms over time, because it increases adolescents' well-being, providing them a sense of selfesteem, purpose, and meaning.

Family Assistance Behaviors and Links to Internalizing Symptoms

Given the contingent nature of adolescents' family assistance behaviors, the implications of family assistance behaviors may also depend on the family context. Family assistance behaviors may only be negative when they occur within difficult family contexts, such as families experiencing recent major life changes or parental distress and illness. Prior research has found that adolescents in homes marked by chronic parental mental or physical distress experience more difficult adjustment when they bear the responsibility of high levels of family assistance (Godsall, Jurkovic, Emshoff, Anderson, & Stanwyck, 2004; Goglia, Jurkovic, Burt, & Burge-Callaway, 1992; Stein et al., 1999). Parents in these families may not be able to fulfill their parental roles adequately, and, consequently, adolescent children may take on extensive caregiving responsibilities, becoming overburdened (Stein et al., 1999). Similarly, adolescents in families experiencing major recent negative life events (e.g., parent losing a job, parents getting divorced) have increased depression (Berden, Althaus, & Verhulst, 1990), and so family assistance in families with more recent major life events may be experienced as particularly stressful for adolescents.

Alternatively, it is possible that family assistance within difficult family contexts may be adaptive for adolescents who may develop better coping skills and adjustment, particularly among Mexican American families who encourage support of one another. Such assistance in response to family need may provide adolescents with a sense of purpose and meaning that may be especially important at times when they and their family are more vulnerable (Stein et al., 2007). For instance, Walsh et al. (2006) found that immigrant youths who provided greater levels of support to their parents reported better coping following stressful life events, suggesting that family assistance can be adaptive. In line with work on child resilience, there may be benefits to adolescents in the face of difficult and negative life events (Masten, 2001; Stein et al., 2007). Thus, the provision of family assistance may serve a meaningful role for adolescents who are in difficult family environments.

In the current study, we tested the role of the family context in two ways. First, we conducted standard moderation analyses to test whether high overall levels of negative family contexts (e.g., parental physical illness, depressive symptoms, major life events) amplified or attenuated the relation between adolescents' overall levels of family assistance behaviors and their internalizing symptoms. Such analyses would indicate whether high levels of family assistance are associated with compromised or adaptive adolescent functioning in families experiencing greater overall hardship. By examining mean levels of family stressors as reported by parents, these analyses focused on relatively chronic levels of stress.

Second, we used daily diary methods to investigate more acute and variable levels of family stress by examining the daily link between adolescents' family assistance behaviors and their parents' experiences of daily stressors (e.g., physical symptoms, distress, daily negative events). Adolescents and their parents each completed their own daily reports of events and feelings they experienced every day on the same days for 2 weeks. This unique methodological approach allowed us to investigate daily-level associations between adolescents' family assistance behaviors and their parents' experience of acute stressors on the same day. For

instance, do adolescents who provide greater family assistance on days when a parent is experiencing greater physical distress show higher internalizing symptoms than adolescents who provide the same level of family assistance but not in response to familial stress? These analyses help describe whether acute changes in parental stress relate to acute changes in family assistance and how this responsivity is associated with adolescents' internalizing symptoms. Adolescents who help more on days when their parents report greater distress may experience detriments to their wellbeing because of the demanding and stressful nature of their assistance. By taking a comprehensive approach to examining the detailed context in which family assistance occurs, we aimed to remedy the inconclusive and mixed findings regarding the positive and negative effects of family assistance. Our goal was to identify when family assistance may be negative or positive for adolescents' well-being.

Current Study

In the current study, we examined the role of family obligation values and family assistance behaviors on Mexican American adolescents' internalizing symptoms. Most prior work has either examined family assistance behaviors and concurrent levels of psychological well-being (e.g., Peris et al., 2008; Telzer & Fuligni, 2009) or asked adolescents to report retrospectively on their earlier family assistance behaviors and assessed their current psychological symptoms (e.g., Williams & Francis, 2010). Little research has examined how family obligation values and family assistance behaviors relate to changes in internalizing symptoms over time.

We sought to address the following key research questions: (a) How do family obligation values and behaviors differentially relate to changes in internalizing symptoms? (b) Does a sense of meaning and self-esteem mediate the association between family obligation values and internalizing symptoms? (c) Are family assistance behaviors associated with internalizing symptoms differently for adolescents from more chronically negative family contexts (e.g., parental depressive symptoms, parental physical complaints, negative life events), and do these associations predict compromised or more adaptive adolescent functioning? (d) Are family assistance behaviors associated with internalizing symptoms differently for adolescents who respond to acute changes in family stress?

Method

Participants

At the first wave of this 2-year longitudinal study, 428 (49.8% male, 50.2% female) 9th and 10th grade adolescents ($M_{\rm age}=15.02$ years, SD=0.83) and their primary caregiver from Mexican backgrounds participated. The primary caregiver was the person who self-identified as the adult who spent the most time with the adolescent and knew about the adolescent's daily activities. At the second wave of the study, 337 (78.7% retention) families participated again. In this wave, adolescents were in the 10th and 11th grades ($M_{\rm age}=16.03$ years, SD=.82). The average length of time between the two waves was 1.05 years (SD=0.23).

The primary caregivers who participated were predominantly the adolescent's mother (82.9%), with 13.1% being the adoles-

cent's father, and the remaining 4% being grandparents, aunts, or uncles. Given that 96% of the primary caregivers were mothers or fathers, we use the term *parents* throughout this article for the sake of simplicity. The majority of participants were immigrant families: 12.6% were of the first generation (i.e., adolescent and parents were born in Mexico), 68.9% were of the second generation (i.e., adolescent was born in the United States, but at least one parent was born in Mexico), and 18.5% were of third generation or greater (i.e., both the adolescent and parents were born in the United States). As shown in Table 1, most parents did not complete high school, more than half of adolescents' biological parents were married to each other, the majority of adolescents lived in dual-parent households (i.e., at least two adults in the home), and most adolescents were the middle or oldest child.

Procedure

Participants were recruited from two public high schools in the Los Angeles metropolitan area. Students in both schools were predominantly from Latin American backgrounds from lower to lower middle class families. In both schools, over 70% of students qualified for free and reduced meals (California Department of Education, 2011). During the first wave of data collection, classroom rosters of all 9th and 10th graders were obtained from the participating schools and were then randomly allocated for study recruitment across the school year. Each week, a few classrooms were selected, and presentations about the study were given to students. In addition, consents were mailed to students' homes, and phone calls to parents were made to determine interest and eligi-

Table 1 Socioeconomic Background and Family Composition

Variable	N (% of sample)
Mother's education	
Did not complete high school	269 (63.0)
Completed high school	32 (7.5)
Completed some college	67 (15.7)
Completed 2-year college	23 (5.4)
Completed 4-year college	13 (3.0)
Father's education	
Did not complete high school	273 (63.8)
Completed high school	46 (10.7)
Completed some college	27 (6.3)
Completed 2-year college	23 (5.4)
Completed 4-year college	13 (3.0)
Marital status	
Married	248 (57.9)
Separated or divorced	87 (20.3)
Never married	59 (13.8)
Widowed	7 (1.6)
Family composition	
Dual-parent household	366 (85.5)
Only child	54 (12.6)
Youngest child	90 (21.0)
Middle child	118 (27.6)
Oldest child	160 (37.4)

Note. N=428. These numbers are for Wave 1 demographics. Wave 2 demographic data were nearly identical in terms of percentage of sample. Marital status refers to the primary caregiver's marital status to the biological parent of the child participant. Dual-parent household represents whether there were at least two adults in the home. Column sections that do not add up to 100% indicate missing responses.

bility. Both the adolescent and the adolescent's primary caregiver had to be willing to participate in the study and report a Mexican background. A total of 428 families agreed to participate during the first wave, which represented 63% of families who were reached by phone and determined to be eligible for the study. One year after the first wave of data collection, families were recontacted to participate in the second wave of data collection.

At both waves, interviewers visited the home of participants, where adolescents completed a self-report questionnaire and parents participated in a personal interview, during which the interviewer guided them through a similar questionnaire and recorded their responses. Seventy-one percent of parents and 1.4% of adolescents chose to complete the questionnaire in Spanish. Questionnaires took approximately 45-60 min to complete. Next, participants were provided with 14 days of diary checklists to complete every night before going to bed for 2 subsequent weeks. The three-page diary checklists took approximately five to 10 minutes to complete each night. Participants were instructed to fold and seal each completed diary checklist and to stamp the seal with an electronic time stamper each night. The time stamper imprinted the current date and time and was programmed with a security code such that adolescents could not alter the correct time and date. Participants were told that if inspection of the data indicated that they had completed the checklists correctly and on time, each family would also receive two movie passes. At the end of the 2-week period, interviewers returned to the home to collect the diary checklists. Adolescents received \$30 for participating, and their primary caregiver received \$50. The time-stamper monitoring and incentives resulted in a high rate of compliance, with 96% of the potential diaries being completed by both adolescents and parents and 86% (adolescents) and 90% (parents) of the diaries being completed on time (i.e., before noon on the following day). Although adolescents and parents completed daily diaries at both waves, the current study used the diaries at Wave 1.

Measures of Independent and Dependent Variables

Internalizing symptoms. Adolescents completed the Youth Self-Report form of the Child Behavior Checklist (Achenbach, 1991) as part of the initial questionnaire. At both waves, adolescents rated 31 items on a three-point scale ($0=not\ true\ of\ me$, $1=somewhat\ or\ sometimes\ true\ of\ me$, $2=true\ or\ often\ true\ of\ me$) tapping anxious, somatic, and withdrawn symptoms (e.g., "I cry a lot," "I worry a lot," "I don't have much energy"). To examine changes in internalizing symptoms, a residualized score was calculated whereby the group-level variance in Wave 2 internalizing symptoms that was explained by Wave 1 scores was removed. The residualized score at Wave 2, after controlling for Wave 1, reflected changes (increases or decreases) in participants' internalizing symptoms over the following year. The scale had good internal consistency (Wave 1: $\alpha=.88$; Wave 2: $\alpha=.87$).

Family obligation values. At Wave 1, adolescents completed 25 questions describing their values regarding family obligation, including their attitudes regarding (a) current assistance to the family, (b) respect for the family, and (c) future support to the family (Fuligni et al., 1999). Current assistance measured participants' expectations of how often they should assist with household tasks and spend time with the family $(1 = almost\ never, 5 = almost\ always)$, such as "help take care of your brothers and

sisters," "eat meals with your family," and "spend time with your family on weekends." Respect for the family measured participants' beliefs about the importance of respecting and following the wishes, desires, and expectations of other family members $(1 = not \ at \ all \ important, 5 = very \ important)$, such as "make sacrifices for your family," "respect your older brothers and sisters," and "show great respect for your parents." Future support to the family assessed adolescents' beliefs about the importance of providing support to and being near their families in the future $(1 = not \ at \ all \ important, 5 = very \ important)$, such as "help your parents financially in the future," "help take care of your brothers and sisters in the future," and "have your parents live with you when you get older." All 25 items were averaged to create one index of family obligation values (Telzer, Masten, Berkman, Lieberman, & Fuligni, 2011). The scale's internal consistency was $\alpha = .90$.

Daily family assistance behaviors. Family assistance behaviors were measured at Wave 1 using the daily diary. Adolescents indicated each night for 14 days whether they had engaged in any of the following nine activities: (a) helped clean the apartment or house, (b) took care of siblings, (c) ran an errand for the family, (d) translated for parents, (e) helped siblings with their schoolwork, (f) helped parents with official business (e.g., translating letters, completing government forms), (g) helped to cook a meal for the family, (h) helped parents at their work, and (i) other. Adolescents checked off whether they engaged in any of these behaviors each day. Adolescents could also indicate that they had helped their family in other activities not on the list. The list of activities was derived from focus group studies of adolescents and has been used successfully in previous studies with Mexican adolescents (e.g., Telzer & Fuligni, 2009). An index of daily family assistance was created for each day by summing the number assistance activities. This score could therefore range from 0–9 each day.

Measures of Mediators

Self-esteem. Self-esteem was measured using the Rosenberg Self-Esteem Scale (Rosenberg, 1965) at Waves 1 and 2. Using a five-point scale ($1 = strongly \ disagree$, $5 = strongly \ agree$), adolescents answered 10 questions assessing their global self-esteem (e.g., "On the whole, I am satisfied with myself"). The 10 items were averaged. The scale had good internal consistency ($\alpha = 85$)

Meaning and purpose. At Wave 1 and 2, adolescents completed the Meaning in Life Questionnaire (Steger, Frazier, Oishi, & Kaler, 2006). Using a seven-point scale (1 = absolutely untrue, 7 = absolutely true), adolescents responded to five questions assessing the presence of meaning and purpose in their life (e.g., "I understand my life's meaning," "My life has a clear sense of purpose"). The scale's internal consistency was $\alpha = .86$.

Measures of Chronic Negative Family Context Moderators

Parental physical symptoms. At Wave 1, the primary caregiver completed a 12-item measure adapted from Resnick et al. (1997) and Udry and Bearman (1998) to assess physical symptoms. The primary caregiver indicated whether he or she experienced a variety of physical complaints in the past 2 weeks (1 = not at all, $5 = almost\ every\ day$), including "headaches," "very tired

for no reason," and "stomachaches or pain." A parental physical symptoms score was calculated by taking the average of the 12 items. The scale's internal consistency was good for the English ($\alpha = .84$) and Spanish versions ($\alpha = .83$).

Parental depressive symptoms. At Wave 1, the primary caregiver completed the Center for Epidemiological Studies Depression Scale (Radloff, 1977), a 20-item scale measuring the severity of depressive symptomology. Using a four-point scale $(0 = rarely \ or \ none \ of \ the \ time, 3 = most \ of \ the \ time)$, participants indicated the frequency with which they felt depressive symptoms in the last week (e.g., "I was bothered by things that usually don't bother me," "I felt lonely," "I could not get going"). A parental depressive symptoms score was calculated by taking the average of the 20 items. The scale's internal consistency was good for the English ($\alpha = .91$) and Spanish versions ($\alpha = .88$).

Negative life events. To examine the number of negative life events experienced by parents, a modified version of the Negative Events Inventory (Conger et al., 2002) was administered to the primary caregiver at Wave 1. The parent indicated whether 16 events had occurred within the past 3 months (e.g., "You got laid off," "A family member died," "You got separated or divorced," "You moved far away from family or friends"). A sum of the items was calculated to create a score ranging from 0 to 15.

Measures of Acute Daily Negative Family Context Moderators

Daily parental physical symptoms. During Wave 1, parents indicated their daily physical symptoms each evening for 14 days using items from the Profile of Mood States (POMS; Lorr & McNair, 1971), a widely used measure in previous daily diary studies of stress and psychological well-being (Bolger & Zuckerman, 1995; Kiang, 2012; Telzer & Fuligni, 2009). Parents used a five-point scale (1 = not at all, 5 = extremely) to indicate the extent to which they felt physical symptoms each day (items: "headache"; "back, joint or muscle pain"; "trouble sleeping"). Daily-level alpha coefficients indicated that this measure possessed good internal consistency (English: α = .96; Spanish: α = .96).

Daily parental psychological distress. Parents' daily distress was assessed during Wave 1 each evening for 14 days using items from the POMS (Lorr & McNair, 1971). Parents used a five-point scale (1 = not at all, to 5 = extremely) to indicate the extent to which they felt distressed, which tapped anxious and depressive feelings (items: "sad," "hopeless," "on edge," "discouraged," "unable to concentrate," "uneasy," "nervous"). Daily-level alpha coefficients indicated that this measure possessed good internal consistency (English: $\alpha = .97$; Spanish: $\alpha = .96$).

Daily negative events. During Wave 1, parents indicated each evening for 14 days whether they experienced any one of five negative family events that day (i.e., argued with their child, argued with their spouse, argued with another family member, someone in the family did something bad or created a problem, and something bad happened to someone in the family). An index of daily negative events was derived by taking the sum of these items each day.

Results

Attrition

Adolescents who participated in both waves had marginally lower internalizing symptoms at Wave 1 (M=11.78, SD=7.90) than did adolescents who did not participate in Wave 2 (13.69, SD=9.80), t(427)=1.94, p=.053. Adolescents did not vary by level of participation on any other study variable of interest.

Descriptives

Family obligation values. Female participants (M = 3.67, SD = 0.67) reported marginally stronger family obligation values than did male participants (M = 3.55, SD = 0.63), t(425) = 1.90, p = .054. Family obligation values did not differ on any other study variable, including household structure, generation, parental education, and birth order.

Family assistance behaviors. Overall, 99% of adolescents helped on at least one day of the study. Adolescents provided some type of assistance to the family on 79.2% of days and assisted their family with 1.9 activities on average per day. Male and female participants did not differ in their average number of family assistance activities (female = 1.90 activities, SD = 1.20; male = 1.80 activities, SD = 1.3), t(417) = .82, ns. First-generation youths assisted their family with more family assistance activities (M =2.4, SD = 1.3) than did second- (M = 1.80, SD = 1.20) or third-generation (M = 1.60, SD = 1.10) youths, F(2, 416) = 6.33, p < .005, $\eta^2 = .03$. In terms of birth order, youngest siblings assisted with fewer assistance activities (M = 1.30, SD = 0.97) than middle (M = 2.10, SD = 1.40) or oldest siblings (M = 2.00, SD = 1.40)SD = 1.10), F(3, 412) = 7.40, p < .001, $\eta^2 = .06$. Family assistance was not associated with parental education and did not differ depending on whether the household was a single- or dualparent household.

Internalizing symptoms. We did not find evidence of normative changes in internalizing symptoms from Wave 1 (M =11.79, SD = 7.85) to Wave 2 (M = 11.45, SD = 7.83; mean difference = 0.34, SD = 6.90), t(336) = 0.88, ns. Internalizing symptoms at Waves 1 and 2 were highly correlated (r = .61, p < .61.001). Female participants reported more internalizing symptoms at Wave 1 (M = 14.00, SD = 10.40) and Wave 2 (M = 13.00, SD = 8.20) than did male participants (Wave 1: M = 10.37, SD =7.20; Wave 2: M = 9.80, SD = 7.10), ts(335-426) = 3.7-4.6, ps < .001. Male and female participants did not differ in changes in internalizing symptoms (i.e., the residualized Wave 2 scores; female = 0.39, SD = 6.80; male = -0.41, SD = 5.50), t(336) =1.2, ns. In terms of generational differences, third-generation youths reported greater internalizing symptoms at Wave 1 (M =14.20, SD = 10.30) than did second-generation youths (M =11.35, SD = 7.40), but neither group differed from first-generation youths (M = 13.80, SD = 9.40), F(2, 425) = 4.95, p < .01. There were no generational differences in internalizing symptoms at Wave 2 or in changes in internalizing symptoms from Wave 1 to Wave 2. There were no differences in internalizing symptoms based on birth order or parental education.

Bivariate Correlations

The bivariate correlations between all study variables (excluding daily-level parental variables) are depicted in Table 2. Adolescents who valued family obligation more engaged in higher levels of family assistance behaviors. Family obligation values were associated with lower internalizing symptoms at Wave 1 and Wave 2 and with greater self-esteem and meaning at Wave 1 and Wave 2. Family assistance behaviors were only associated with greater meaning at Wave 1 and Wave 2. Family obligation values and family assistance behaviors were not associated with parental stress (depressive symptoms, physical complaints, or negative life events). Adolescents' sense of meaning and self-esteem were associated with lower levels of internalizing symptoms at Wave 1 and Wave 2.

Linking Family Obligation Values and Family Assistance Behaviors to Internalizing Symptoms

To test our first research question, we conducted a hierarchical linear regression analysis to examine how family obligation values and family assistance behaviors differentially related to changes in internalizing symptoms (i.e., the residualized Wave 2 score). In the first model, family obligation values and family assistance behaviors were simultaneously entered to predict changes in internalizing symptoms to examine how family obligation and family assistance behaviors related to internalizing symptoms above and beyond the effect of the other. Several control variables were entered in the model, including generation, parental education, gender, and family composition (i.e., single- vs. dual-parent household and birth order). Family obligation values and family assistance behaviors were differentially related to internalizing symptoms: family obligation values were related to declines in internalizing symptoms (B = -1.69, SE = 0.58, $\beta = -.17$, p <.005), whereas family assistance behaviors were not related to changes in internalizing symptoms (B = -0.11, SE = 0.31, $\beta = -.02$, ns). To test whether the regression coefficients for family obligation values and family assistance behaviors differentially related to changes in internalizing symptoms, we computed a Z test for the difference between slopes (Paternoster, Brame, Mazerolle, & Piquero, 1998). Results indicated that the difference was statistically significant (Z = 3.45, p < .001).

Mediating Family Obligation and Internalizing Symptoms With Self-Esteem and Meaning

Given that family obligation values were significantly related to declines in internalizing symptoms, we conducted mediation analyses to examine whether the main effect of family obligation values on internalizing symptoms was mediated by changes in adolescents' self-esteem and sense of meaning. We calculated the magnitude and the significance of the indirect effects of family obligation values on internalizing symptoms through self-esteem and meaning using the methods outlined by MacKinnon, Fritz, Williams, and Lockwood (2007), in which the asymmetric confidence limits were computed on the basis of the distribution of products. The product of coefficients test uses the path weights for each indirect pathway (e.g., from the predictor to the mediator, from the mediator to the outcome variable) and the corresponding

Means, Standard Deviations, and Bivariate Correlations of All Study Variables

Variable	(QS)M	1	2	3	4	5	9	7	8	6	10	11	12
1. Family obligation values (Wave 1)	3.61 (0.65)												
2. Family obligation values (Wave 2)	3.55 (0.63)	.58***											
3. Family assistance behaviors (Wave 1)	1.86 (1.23)	.25***	.21***										
4. Internalizing symptoms (Wave 1)	12.19 (8.32)	20***	14**	.03									
5. Internalizing symptoms (Wave 2)	11.45 (7.83)	20***	23***	06	.61								
6. Parent depressive symptoms (Wave 1)	1.69(0.53)	.01	02	.01	90.	.10							
7. Parent physical symptoms (Wave 1)	1.57 (0.52)	08	10	90	.11*	.12*	.59***						
8. Negative life events (Wave 1)	1.74 (1.74)	.05	02	.02	.03	.07	.48**	.31***					
9. Self-esteem (Wave 1)	3.83 (0.77)	.30***	.26***	.03	52***	29***	03	12^{*}	03				
10. Meaning (Wave 1)	3.79 (0.91)	.37***	.34***	.16***	41***	31***	04	90	02	.57***			
11. Self-esteem (Wave 2)	3.82 (0.79)	.26***	.32***	.07	39***	54***	90	14**	08	.54**	.46***		
12. Meaning (Wave 2)	3.77 (0.97)	.27***	.43***	.12*	26^{***}	—.42***	04	60	07	.36***	.50***	.57***	
*** 10 / s ** *													

Table 3 Mediating Family Obligation Values on Changes in Internalizing Symptoms With Changes in Self-Esteem and Meaning

Total effec	et (C)	Dir	ect effect	(Č)		Indir	ect effect of self-e	esteem (M1) and mean	ing (M2)
В	SE	В	SE	ΔR^2	В	SE	Z	% of total effect	95% CI
-1.78***	.58	93	.51	.23***	3736	.17 .13	2.22* 2.74**	22.1% 21.4%	[74,05] [70,10]

Note. All analyses controlled for generation, parental education, gender, and family composition (i.e., single- vs. dual-parent household and birth order). B refers to the unstandardized coefficient. C refers to the total effect of family obligation values on changes in internalizing. C' refers to the direct effect of family obligation values on changes in internalizing accounting for both the mediators, self-esteem (M1) and meaning (M2). Indirect effect refers to the effects of family obligation values on changes in internalizing through self-esteem (M1) and meaning (M2). ΔR^2 is the change in R^2 when the mediators are entered into the model. The percentage of the total effect of family obligation values on changes in internalizing was determined by dividing the indirect effect of family obligation values on internalizing through self-esteem and meaning by the total effect of family obligation values on internalizing. Z refers to the tests of the statistical significance of the indirect effects, and the percentage of total effect refers to the percentages of the total effects that were accounted for by the indirect effects. The confidence interval (CI) represents the asymmetric confidence limits based on the distribution of products accounted 101 b, ... (MacKinnon et al., 2007). ** p < .01. *** p < .001.

standard errors to compute the test statistic. Similar to the residualized score that was calculated for internalizing symptoms, we calculated the Wave 2 residualized scores for self-esteem and meaning, each reflecting changes in participants' self-esteem and meaning from Wave 1 to Wave 2. These mediation analyses represented how family obligation values related to changes in internalizing symptoms through changes in self-esteem and changes in meaning. All mediation analyses controlled for generation, gender, parental education, and family composition.

First, we tested whether family obligation values at Wave 1 were related to changes in self-esteem and meaning between Wave 1 and Wave 2. Family obligation values were significantly associated with increases in self-esteem (B = 0.12, SE = 0.06, p < .05) and meaning (B = 0.21, SE = 0.07, p < .005). Next, we calculated the indirect effects, in which family obligation values at Wave 1 were entered into a regression model to predict changes in internalizing symptoms with the mediators included in a second model. As shown in Table 3, the original effect of family obligation on internalizing symptoms was reduced and became nonsignificant when self-esteem and meaning were entered into the model. Selfesteem and meaning accounted for a significant 43.5% of the original effect of family obligation values on internalizing symptoms. The confidence intervals of the indirect effects were calculated using Tofighi and MacKinnon's (2011) RMediation program, which calculates the asymmetric confidence interval on the basis of the distribution of the products. The confidence intervals do not include zero, consistent with statistically significant mediation.

Moderating Role of Overall Family Context in the Association Between Family Assistance Behaviors and **Internalizing Symptoms**

Next, to answer our third key question examining how family assistance behaviors relate to internalizing symptoms depending on the family contexts, we ran moderation analyses. We entered interaction terms into the model to predict changes in internalizing symptoms. We examined three potential contextual family variables: (a) parental physical symptoms, (b) parental depressive symptoms, and (c) major life events. Using the guidelines of Aiken and West (1991) to estimate interaction effects using multiple regression, we computed interaction terms by centering the moderator variables and multiplying them by the centered version of

family assistance (i.e., average number of family assistance activities). The interaction terms were then entered into multiple regression analyses along with the centered moderators and family assistance to predict changes in internalizing symptoms. Gender, generation, socioeconomic status, and family composition were included as controls.

We found one significant interaction, such that family assistance behaviors were differentially associated with changes in internalizing symptoms depending on the level of negative life events in their family $(B = -0.94, SE = 0.30, \beta = -.17, p < .005)$. Families experienced between zero and 10 negative life events. To probe the interaction, we compared families who had experienced zero or one negative life event versus families experiencing two or more events. As shown in Figure 1, adolescents in families with few negative life events did not show an association between family assistance and internalizing symptoms (B = 0.36, SE =0.44, $\beta = .07$, ns), whereas adolescents in families experiencing greater negative life events showed a significant association, such that higher levels of family assistance were associated with declines in internalizing symptoms over time (B = -1.09, SE =0.44, $\beta = -.21$, p < .05).

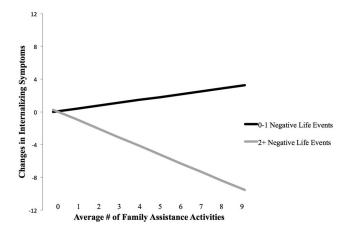


Figure 1. Family assistance behaviors are associated with declines in internalizing symptoms for adolescents from families experiencing high levels of major life events.

Daily Context of Family Assistance Behaviors and Acute Response to Parental Stress

To test our fourth research question, we ran daily-level analyses to examine whether adolescents who provided greater family assistance on days when their parent experienced higher than normal levels of stressors showed changes in internalizing symptoms. Hierarchical linear modeling (Raudenbush & Bryk, 2002) was used to examine whether a stronger connection between family assistance and parental stressors on a daily basis was differentially associated with changes in internalizing symptoms. An unconditional model first tested whether adolescents' family assistance on a given day varied depending on whether their parents experienced more stress (psychological distress, physical symptoms, and negative events) than usual on the same day. The following daily level equation was estimated:

Family assistance_{ij} =
$$b_{0j} + b_{1j}$$
 (Psychological Distress)
+ b_{2j} (Physical Symptoms)
+ b_{3j} (Negative Events) + b_{4j} (Week day)
+ e_{ii} . (1)

Family assistance on a particular day (i) for a particular adolescent (j) was modeled as a function of the average family assistance across days (b_{0i}) , how much parents experienced stress (psychological distress, physical symptoms, negative daily events) that day (b_{1-3i}) , and whether each day was a weekday (b_{4i}) . Weekday was effects coded such that 1 = weekday and -1 = weekend. Parental stress was person-mean centered, such that any significant effects represented associations that occurred when parents experienced greater than average levels of stress. By being centering at the person, the daily-level associations are independent of individuallevel differences. Results of this unconditional model indicated that the daily-level association between family assistance and family stress was not significant. In other words, adolescents did not provide greater family assistance on days when their parents reported greater physical symptoms, greater psychological distress, or more negative daily events.

Next, we added the following individual-level equations to the model described in Equation 1:

$$\begin{split} b_{0j} &= c_{00} + c_{01} \text{(Changes in Internalizing Symptoms)} \\ &+ c_{02} \text{(Female)} + c_{03} \text{(Generation 1)} + c_{04} \text{(Generation 2)} \\ &+ c_{05} \text{(Parent Education)} + c_{06} \text{(Dual Household)} \\ &+ c_{07} \text{(Youngest)} + c_{08} \text{(Middle)} + c_{09} \text{(Only)} + u_{0j} \end{aligned} \tag{2} \\ b_{1j} &= c_{10} + c_{11} \text{(Changes in Internalizing Symptoms)} \\ &+ c_{12} \text{(Female)} + c_{13} \text{(Generation 1)} + c_{14} \text{(Generation 2)} \\ &+ c_{15} \text{(Parent Education)} + c_{16} \text{(Dual Household)} \\ &+ c_{17} \text{(Youngest)} + c_{18} \text{(Middle)} + c_{19} \text{(Only)} + u_{1j} \end{aligned} \tag{3} \\ b_{2j} &= c_{20} + c_{21} \text{(Changes in Internalizing Symptoms)} \\ &+ c_{22} \text{(Female)} + c_{23} \text{(Generation 1)} + c_{24} \text{(Generation 2)} \end{split}$$

$$+ c_{25}(Parent Education) + c_{26}(Dual Household)$$

$$+ c_{27}(Youngest) + c_{28}(Middle) + c_{29}(Only) + u_{2j}$$
(4)
$$b_{3j} = c_{30} + c_{31}(Changes in Internalizing Symptoms)$$

$$+ c_{32}(Female) + c_{33}(Generation 1) + c_{34}(Generation 2)$$

$$+ c_{35}(Parent Education) + c_{36}(Dual Household)$$

$$+ c_{37}(Youngest) + c_{38}(Middle) + c_{39}(Only) + u_{3j}$$
(5)

The average level of family assistance (b_{0i}) and the daily association between assistance and parental stress (b_{1-3i}) were modeled as a function of changes in internalizing symptoms. Several control variables were included in the individual-level equation, including gender, generation, and family composition. Although it may seem unconventional to place internalizing symptoms as a predictor in these Level 2 equations given its hypothesized role as an outcome of family assistance, it was necessary to do so within a multilevel modeling framework to take advantage of the generalized least squares estimation to examine the association of an individuallevel factor (i.e., internalizing symptoms) with the association between two factors that vary within the individual across days (i.e., family assistance and family stress). Results of this model indicate significant Level 2 interactions with internalizing symptoms. As shown in Table 4, adolescents who provided greater family assistance on days when their parents reported higher than average levels of physical symptoms and psychological distress showed increases in internalizing symptoms. We did not find significant associations with negative daily events.

Discussion

Family obligation is an important aspect of family relationships among families from Mexican backgrounds (Calzada et al., 2010; Fuligni et al., 1999; Fuller & García Coll, 2010; Suárez-Orozco & Suárez-Orozco, 1995). The cultural tradition of family obligation, coupled with the very real need to help the family, can have significant implications for adolescents' psychological well-being. Yet prior research has reported inconsistent findings of both positive and negative outcomes of adolescents' familial responsibilities (e.g., Hooper et al., 2008; Peris et al., 2008; Stein et al., 1999, 2007; Telzer & Fuligni, 2009; Tompkins, 2007; Walsh et al., 2006; Williams & Francis, 2010). In the current study, we took a comprehensive approach to examine the impact of adolescents' family obligation values versus family assistance behaviors on changes in internalizing symptoms, and we closely examined the role of the family context in these associations. The results suggest that family obligation values are protective for Mexican adolescents' wellbeing, whereas family assistance behaviors act as both a protective and a risk factor depending on the family context in which the assistance takes place.

Family Obligation Values and Internalizing Symptoms

We found that family obligation values related to declines in internalizing symptoms over time. Consistent with social identity theory, family obligation values provide adolescents with a sense of connection to the family, fostering meaning and purpose (Hogg, 2003). Indeed, greater family obligation values were associated

Table 4
Daily-Level Associations Between Adolescents' Family
Assistance Behaviors and Primary Caregivers' Daily Stress by
Change in Internalizing Symptoms From Wave 1 to Wave 2

Variable	b	SE
Individual level		
Intercept	0.85	0.29**
Change in internalizing symptoms	-0.01	0.01
First generation	0.87	0.26***
Second generation	0.29	0.18^{\dagger}
Parent education	-0.01	0.01
Dual household	0.03	0.06
Female	0.23	0.13^{\dagger}
Oldest child	0.66	0.19***
Middle child	0.72	0.19***
Only child	0.44	0.25^{\dagger}
Parental physical symptoms	-0.08	0.17
Change in internalizing symptoms	0.01	0.002**
First generation	-0.02	0.14
Second generation	-0.06	0.09
Parental education	-0.002	0.01
Dual parent	0.01	0.04
Female	0.10	0.06
Oldest child	0.06	0.10
Middle child	0.07	0.10
Only child	-0.01	0.10
Parental psychological distress	-0.03	0.16
Change in internalizing symptoms	0.02	0.008**
First generation	-0.15	0.20
Second generation	-0.02	0.13
Parental education	-0.01	0.01
Dual parent	0.01	0.03
Female	-0.004	0.11
Oldest child	0.12	0.13
Middle child	0.08	0.14
Only child	-0.02	0.19
Negative family events	-0.01	0.09
Change in internalizing symptoms	-0.01	0.01
First generation	0.21	0.20
Second generation	0.06	0.06
Parental education	0.002	0.01
Dual parent	0.01	0.01
Female	-0.06	0.06
Oldest child	-0.10	0.09
Middle child	-0.03	0.10
Only child	-0.02	0.14
Weekday	-0.09	0.04^{*}

Note. bs represent the unstandardized coefficients. p < .10. p < .05. p < .01. p < .01. p < .01.

with increases in a sense of meaning and self-esteem. A sense of life meaning and purpose, aspects of eudaimonic well-being, are particularly important for immigrant and ethnic minority families, who may face challenges in their everyday lives (Ryff, Keyes, & Hughes, 2003). Particularly within Mexican American families where family obligation is strongly encouraged, it is important for adolescents to understand the significance of supporting their family and its impact on sustaining family relationships. Thus, family obligation provides Mexican-origin adolescents with a sense of competence and relatedness, leading to a better sense of life meaning and purpose, to higher levels of self-esteem, and, in turn, to declines in internalizing symptoms over time. Our mediation analyses support the notion that family obligation values relate to declines in internalizing symptoms over time, in part,

because family obligation provided adolescents with a sense of self-esteem and meaning and purpose. Though the longitudinal aspect of this study is a strength, having only two waves limits the interpretation of our mediation findings, because the temporal ordering of our effects cannot be fully delineated. Low self-esteem and meaning could be the consequences of depressed mood and, therefore, not necessarily the mediating link between family obligation and depressive symptoms. Future work should examine these links across several years and multiple waves of data collection to fully understand the mediating pathways.

Family Assistance Behaviors and Internalizing Symptoms

In contrast to family obligation values, we expected the impact of family assistance behaviors to be more complex. Prior research has found both positive and negative implications of children's provision of support for their family (e.g., Chase et al., 1998; Hooper et al., 2008; Peris et al., 2008; Stein et al., 1999, 2007; Telzer & Fuligni, 2009; Tompkins, 2007; Walsh et al., 2006), suggesting that the impact of family assistance may depend on the family context in which it occurs. In the current study, we examined multiple aspects of stressful family contexts (i.e., overall levels of parental physical symptoms, depression, and negative life events) but also used a unique daily diary methodology to examine acute changes in stressful family contexts. In our first set of analyses, we conducted standard moderation analyses to test whether adolescents' family assistance behaviors within families marked by high overall levels of family stressors related to changes in internalizing symptoms. Our findings suggested that family assistance behaviors were not detrimental when coupled with recent negative life events but actually predicted longitudinal declines in internalizing symptoms. Adolescents' assistance behaviors following family stress may be indicative of cultural concord, providing adolescents a sense of meaning that is consistent with their strong family obligation values that emphasize supporting one another (Fuligni & Pedersen, 2002). In line with models of child resiliency, youths may benefit from finding instrumental ways to adapt to difficult and negative life events (Masten, 2001). Thus, the provision of family assistance may serve as a positive way for teens to cope with the challenging life events at home, which, in turn, may strengthen family bonds over time.

In contrast to experiences of recent negative life events, high levels of parental depression and physical symptoms did not affect the impact of family assistance on adolescents' internalizing symptoms. It is possible that negative life events affect not only the parents but the larger family context, including the teen. For instance, a parent losing a job may lead to financial consequences that also affect the adolescent, whereas parental depression and physical symptoms may be a personal stressor of the parent that has a more indirect effect on the adolescent. The lack of significant effects for parental depression and physical symptoms may also be attributable to the normative, rather than clinical, symptoms in our sample. Perhaps if we had recruited families from a clinical setting who were experiencing severe and chronic physical or mental illnesses (e.g., cancer, psychological disorder), we might have found significant effects. Prior research has examined more severe parental symptoms by focusing on clinical populations such as parents with HIV (e.g., Stein et al., 1999, 2007). Nevertheless, our findings indicate that within a community sample, parental physical and depressive symptoms are not disruptive for adolescents who provide high overall levels of family assistance.

When we examined the daily responsivity of adolescents' family assistance behaviors, a different picture emerged. Adolescents' who provided greater levels of family assistance in response to acute changes in their parents' physical symptoms and psychological distress showed increases in internalizing symptoms. By having parents and adolescents complete daily dairies on the same day for 2 weeks, we were able to capture the daily link between parental reports of family stressors and adolescents' assistance behaviors. Our findings suggest that this daily contingency and pattern of responsivity to acute changes in parents' negative wellbeing can take a toll on adolescent's own well-being over time. Despite the meaningful nature of the activity, increased rates of family assistance can be distressing and can become burdensome when they occur in tandem with daily changes in parents' physical and psychological symptoms. On these days, teens are providing greater assistance because they are either personally cognizant of their parents' distress or their parents are requesting greater assistance. The changing demands across days due to parental distress may mean that teens have to place the needs of their family before their own. Having to adjust their level of support to meet changing parental demands becomes stressful and taxing on teens because it may take away from time to meet their personal social demands and responsibilities (e.g., time with friends, schoolwork). In addition, on days when parents are more physically and psychologically distressed, parents may not be available to provide nurturance and support to their children (Stein et al., 1999). This type of family stress may be less likely to promote resilience, such as that shown in the context of negative life events, because family assistance in the context of life events may involve the whole family pulling together to pitch in. In contrast, family assistance in the context of parents' diminished physical and psychological capacities may be more difficult and demanding for adolescents in the long run, because it may be associated with reduced parental support and engagement.

Overall, our findings indicate that when there are marked changes in the family context, such as the occurrence of negative major family events and acute changes in parents' physical and psychological symptoms, daily family assistance has significant long-term implications for adolescents' internalizing symptoms. On the one hand, high levels of family assistance, coupled with negative life events, appear to be protective for adolescents' wellbeing. The provision of instrumental support during times of family hardships can strengthen family bonds and contribute to better well-being. The types of major life events measured here may be experienced as more stable (i.e., loss of a parent's job will not likely vary from day to day), so youths can develop long-term strategies (e.g., engaging in higher family assistance) for dealing with the hardship. On the other hand, when adolescents provide greater family assistance in response to acute changes in parents' daily physical and psychological distress, it can become psychologically taxing and, consequently, maladaptive in the long run. Such acute changes in family stress may be experienced as more abrupt and uncertain, and so youths experience greater distress from assisting their family in response to potentially unpredictable day-to-day changes in family stress. Thus, routine levels of family assistance are not maladaptive (i.e., family assistance in and of itself was not related to internalizing symptoms), but when higher levels of family assistance occur in response to changes in the family context, we see differential effects of family assistance on adolescent well-being.

Limitations and Future Directions

Our sample included a population that generally values family support at high levels (Suárez-Orozco, & Suárez-Orozco, 1995). It is possible that family assistance would be experienced as more negative among ethnic or cultural groups that do not place a similarly high value on family support. Such youths may not find meaning in the activity, so family assistance may not provide the same source of resiliency as it did for the Mexican-origin youths in this study. Thus, family assistance may be more burdensome for cultural groups that do not place high value and importance on family support. Future research should examine how family assistance relates to psychological well-being across ethnically and culturally diverse youths.

In addition, researchers have distinguished between instrumental support (e.g., helping around the house, caring for siblings) and emotional support (e.g., becoming a confidant in times of distress, regulating parents' emotions; Titzmann, 2012; Williams & Francis, 2010). When adolescents provide high levels of emotional support to their parents, they themselves may receive less emotional support while also having the responsibility to maintain emotional stability in their family (Titzmann, 2012). Indeed, emotional support has been consistently linked to negative outcomes, including distress and exhaustion (e.g., Hooper et al., 2008; Titzmann, 2012). Future research should carefully examine the differential effects of instrumental versus emotional support on adolescents' psychological well-being. It is likely that emotional support will have more negative impacts on adolescents' well-being.

Conclusions

In conclusion, the provision of family support is an important aspect of family relationships among Mexican American adolescents. We took a comprehensive, detailed approach to study the daily lives of Mexican American youths to carefully examine when family assistance may be negative or positive. Our findings support the notion that family assistance behaviors are generally not maladaptive for Mexican American youths, unless the assistance occurs in conjunction with parental physical complaints. It is important to note that our findings indicate that family assistance can be positive for adolescents following major family stressors, relating to declines in internalizing symptoms. For populations facing challenges related to their ethnic minority or immigrant status, family obligation and assistance may provide a sense of meaning, purpose, and well-being, helping adolescents to cope with the everyday challenges associated with being a teenager in American society.

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