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## Adolescents' Daily Assistance to the Family in Response to Maternal Need

*Although children's provision of family assistance is a common routine, little is understood about the day-to-day variability that may exist in children's assistance behaviors. Guided by a family systems framework, the current study examined whether Mexican American adolescents' provision of family assistance was contingent on daily maternal need. Adolescents (N = 354, 49% males, M<sub>age</sub> = 14.96 years) and their mothers (M<sub>age</sub> = 41.55 years) each completed reports on 14 consecutive days. The results indicated that adolescents generally responded to maternal need, being more likely to help their families on days when their mothers worked or felt fatigued. This daily contingency was modified by family and adolescent characteristics, with adolescents thought to generally*

*engage in low levels of assistance (i.e., youngest males and those in families with little economic strain) increasing their help when their mothers were fatigued. In contrast, daily maternal work did not appear to stimulate greater assistance among families with low levels of economic strain.*

Children's provision of family assistance is a common family routine (Bianchi & Robinson, 1997; Cogle, Tasker, & Morton, 1982; Gager, Sanchez, & Demaris, 2009; Telzer & Fuligni, 2009a; White & Brinkerhoff, 1981a). For children from Mexican backgrounds in particular, family assistance is a behavior that is strongly rooted in their cultural value of *family obligation*—the psychological sense that they should support, respect, and spend time with their family (Fuligni, Tseng, & Lam, 1999). Adolescents from Mexican backgrounds spend significantly more days and more time helping their families than their peers from Chinese and European backgrounds (Telzer & Fuligni, 2009a). Mexican American adolescents help their family at high rates by taking care of siblings, helping around the house, and assisting parents with their work (Telzer & Fuligni, 2009a, 2009b). The provision of family assistance is strongly embedded in their cultural values, becoming an important cultural script for Mexican American

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children to connect with their families and fulfill their familial obligations (Hardway & Fuligni, 2006; Orellana, 2001; Suárez-Orozco & Suárez-Orozco, 1995).

Little is understood, however, about how the family context regulates and maintains adolescents' engagement in this important family routine. For example, the extent to which adolescents' family assistance may vary from day to day and whether this behavior may be contingent on other experiences at home is unclear; that is, do Mexican American adolescents help their families at a consistently high rate every day regardless of what is going on at home, or do they help more or less on certain days depending on daily family circumstances? Grounding our work in a family systems framework that emphasizes the importance of understanding individual behaviors and family processes within the larger family context (Cox & Paley, 1997; Minuchin, 1985; Whitchurch & Constantine, 1993), we employed a daily diary approach among mother-adolescent dyads to better understand the nature of family assistance and how this household routine is maintained. First, we examined whether daily variability in Mexican American adolescents' provision of family assistance was contingent on their mothers' need. Second, we investigated whether responsiveness to maternal need varied according to characteristics of families and adolescents that have been suggested to be associated with providing help to the family (i.e., economic strain, household structure, gender, birth order, and generational status). Last, we explored whether responsiveness to maternal need varied across different types of family assistance (i.e., household chores, sibling care, parental assistance).

#### FAMILY ASSISTANCE IN RESPONSE TO MATERNAL NEED

According to the family systems perspective, the family is a dynamic social system that comprises separate yet interrelated subsystems (Minuchin, 1985). Individuals are perceived as important members of an organized family unit, and their development and functioning can be best understood when studied within the family context. Moreover, family systems theory conceptualizes children's behaviors as products of family processes and dynamics involving other members (Whitchurch & Constantine, 1993). Given

the high prevalence of family assistance among Mexican American adolescents, in the current study we sought to test family systems theory in a unique way by exploring the daily linkages between adolescents' family assistance behaviors and their mothers' daily lives in order to better understand the variability in this household routine.

Research on housework recognizes that although family assistance is a common routine for children, parents—in particular, mothers—perform more housework than other family members (Bianchi & Milkie, 2010; Crouter & Maguire, 1998; Lee, Schneider, & Waite, 2003). Moreover, time availability theory acknowledges that parents face constraints in their everyday lives that can limit their time and energy to complete household tasks (Benin & Edwards, 1990; Cheal, 2003). For example, work demands may interfere with parents' ability to complete housework, and there may be a greater need for other family members, including children, to increase their assistance at home (Cheal; Gager et al., 2009). Research, however, has yet to link parents' daily experiences to children's family assistance behaviors. Drawing on parental experiences identified in time availability research, we explored how mothers' daily work and fatigue can shape the daily variability in Mexican American adolescents' family assistance.

In order to best capture the linkages between mothers' daily experiences and variability in adolescents' family assistance, we used daily diaries with mother-adolescent dyads. Although other studies have employed daily diary or time-use methodologies (e.g., Benin & Edwards, 1990; Bianchi & Robinson, 1997; Crouter, Bumpus, Head, & McHale, 2001), researchers have not investigated the daily variability in this activity. In the current study, adolescents and their mothers 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 children's daily family assistance and mothers' daily work experiences and fatigue.

#### *Maternal Work*

Time availability theory posits that parents' time constraints due to work contribute to a greater dependence on their children to help around the

house (Benin & Edwards, 1990; Cheal, 2003). Research findings in support of this assertion, however, have been inconsistent. Some studies have found that children of employed mothers spend more time on housework than children of unemployed mothers (e.g., Blair, 1992), whereas other studies have not found this association (Bianchi & Robinson, 1997; Cheal; Lee et al., 2003). It is possible that this inconsistency may be due to the reliance on one-time, global assessments of parent's employment status (e.g., employed vs. unemployed, part time vs. full time), which limits the ability to capture variability in parents' work on a daily basis. For instance, parents may not work the same shifts or the same number of hours each day (Presser, 2003). In fact, many immigrant parents in the United States are not employed in full-time, year-round jobs but work nonstandard hours (e.g., swing shifts, nights) or have temporary or on-call jobs whereby their schedules do not match the modal workforce or their children's school schedules, such that they are not home when their kids are home (Hernandez, Denton, & Macartney, 2007). Therefore, it is important to take into account temporal variations in parents' work schedules and understand the daily associations between parents' work and how children help their families at home. In addition, examination of the variability in parents' work at the daily level within families provides a better understanding of whether it is parents' work itself that contributes to children's greater level of family assistance or whether it is parents' employment status more generally. In the current study, we hypothesized that on days when mothers worked, children would be more likely to assist their families.

#### *Maternal Fatigue*

Research based on time availability theory has primarily focused on the constraints due to parental employment, and less is understood about how other personal resources, such as parents' energy level, also influence the extent to which they rely on their children to help at home. Although no studies have directly examined the daily linkages between parental fatigue and children's family assistance, a recent study found that parents' perceived stress was positively associated with the amount of time their children participated in housework (Gager et al., 2009). Extant research also indicates that level of

stress influences housework allocation among married couples (Bolger, DeLongis, Kessler, & Wethington, 1989; Pittman, Solheim, & Blanchard, 1996). In one study, wives increased their work at home on days when husbands came home stressed from work in order to alleviate their husbands' stress at home (Bolger et al.). Together, these findings provide support that parents' psychological well-being can impinge on their availability or energy to complete housework and thus increase the need for other family members, including children, to help at home. In the current study, we examined how mothers' level of fatigue on a given day could shape their child's provision of assistance to the family on that same day. We hypothesized that on days when mothers felt fatigued, adolescents would be even more likely to assist their family because they are cognizant of their mothers' well-being or because their mother explicitly requests greater assistance.

#### FAMILY AND ADOLESCENT VARIATIONS IN THE RESPONSE TO MATERNAL NEED

According to family systems theory, families are adaptive and self-regulating systems in which family members respond to changes in the family context (Cox & Paley, 1997; Minuchin, 1985; Whitchurch & Constantine, 1993). To expand on this theory, and to further our understanding about how adolescents may respond similarly or differently to daily maternal need, we drew on prior literature that has revealed group differences in adolescents' family assistance. Specifically, we examined how the contingent nature of adolescents' daily family assistance varied as a function of family (e.g., household structure, economic strain) and adolescent (e.g., gender, birth order, generation) characteristics that have been suggested to be important for family assistance.

Two competing hypotheses can be offered about family and adolescent variations in response to maternal need. On the one hand, groups that have been suggested to engage in greater family help (e.g., those from single-parent and low-socioeconomic status [SES] homes, females, oldest children) could be predicted to be more responsive to maternal need because helping the family is an established routine for these groups that often includes responding to the needs of other family members (Crouter et al., 2001; Manke, Seery, Crouter, &

McHale, 1994; White & Brinkerhoff, 1981b). On the other hand, these groups of adolescents may engage in high levels of family assistance regardless of what is happening in the family on a daily basis and therefore do not change their help to the family as a function of variations in maternal need. In contrast, children who generally provide little help to the family on a daily basis (e.g., youngest males) may become more responsive when their mothers are in need. If so, this raises the interesting possibility that group differences in family assistance may be lessened on days of high levels of maternal need. We did not have strong a priori predictions about which of the two competing hypotheses would be supported, but below we describe our justification for examining specific family and adolescent characteristics.

#### *Family Variations*

The predictability of family routines varies across different families and is often influenced by the family ecology, such as the structure of the family and available economic resources (Fiese et al., 2002; Weisner, Matheson, Coots, & Bernheimer, 2005). In the current study, we examined whether the contingent nature of adolescents' family assistance in response to maternal experiences may vary as a function of two important family characteristics: (a) whether the household is headed by one or two parents and (b) the family's level of economic strain. Whereas some research indicates that there is a greater need for children to help around the house among single-parent households (e.g., White & Brinkerhoff, 1981a), other research indicates that the time children spend doing chores does not differ between single- versus dual-parent homes (Bianchi & Robinson, 1997; Gager et al., 2009; Telzer & Fuligni, 2009a). Although fathers' contribution to housework in dual-parent families has increased in recent decades, mothers still perform a greater proportion of the housework (Almeida, Maggs, & Galambos, 1993; Bianchi & Milkie, 2010). Nevertheless, the lack of an overall difference between single- and dual-parent households might mask variations in the contingent nature of family assistance, and so we examined whether variation in adolescents' assistance in response to maternal need varied depending on single- versus dual-parent households.

It also is important to consider the extent to which financial resources influence the routines related to children's family assistance over and above the potential effect of single- versus dual-parent homes. The family stress model posits that family economic hardships have a negative impact on parents' well-being, marital satisfaction, and parenting practices, such as low warmth and high hostility toward and greater withdrawal from their children (Conger, Conger, & Martin, 2010; Conger, Elder, Lorenz, Simons, & Whitbeck, 1994; Conger, Rueter, & Elder, 1999). Researchers have not directly examined the association between economic stress and parenting practices in relation to how parents may delegate chores at home, but it is possible that mothers who are experiencing high economic strain may rely on their children to help more around the house on average and especially on days when they work and feel more fatigued. It may also be the case, however, that special circumstances due to maternal work and fatigue may encourage greater participation in family assistance among children from families under low economic strain, who are, on average, less likely to help compared to adolescents from families under high economic strain. Consequently, group differences that may exist at average levels of family assistance may be diminished on days marked by greater maternal need. Level of economic strain is associated with a family's broader SES; the current study focused on the family's economic strain because it is a more contemporaneous and proximal measure of SES (Conger et al., 2010).

#### *Adolescent Variations*

Work around the home traditionally has been considered a female activity, and research has consistently shown that females do more housework than males (Benin & Edwards, 1990; Blair, 1992; Gager et al., 2009; Hofferth & Sandberg, 2001; Key & Sanik, 1990; Manke et al., 1994). Moreover, there is a suggestion that there is greater variability in females' family assistance. For instance, girls help significantly more on weekends than weekdays, whereas boys' family assistance remains relatively low and stable across the week (Crouter & Maguire, 1998; Manke et al., 1994). Perhaps greater variability in females' family assistance may also suggest that females are more responsive to changes in the family context. We hypothesized

that females would help their families across more days than males, and we further examined whether this gender difference continued to exist when their mother went to work or felt fatigued. Given that females tend to assist more than males, it is possible that they respond to their mother's fatigue and work by helping more on these days. It also is possible, however, that on days when there is greater maternal need, males pitch in at equal rates compared to females because there is more room for responsiveness given males' lower rate of assistance.

Furthermore, research on housework has found that older siblings generally help around the house more than their younger siblings (Cogle & Tasker, 1982; Lee et al., 2003). Thus, we investigated whether children who are the oldest in their family consistently help their families the most or if maternal work and fatigue may encourage younger children to provide more assistance than they typically do on these particular days.

In addition, we examined whether the contingency of adolescent family assistance on maternal experiences varied as a function of unique Gender  $\times$  Birth Order interactions. In one study, Crouter et al. (2001) found that younger sisters were more likely than their older brothers to engage in household chores in families in which mothers were employed in demanding work situations. It appears that there may be resistance for males to provide family assistance above and beyond what they already contribute, and this may be due to the sentiment that housework has been traditionally perceived as a female activity (Benin & Edwards, 1990; Blair, 1992; Gager et al., 2009; Hofferth & Sandberg, 2001; Key & Sanik, 1990; Manke et al., 1994). We examined whether similar gender and birth order patterns in family assistance would appear. Would adolescents who are the oldest female in their family be most responsive to their mother's daily needs, or do special circumstances due to maternal work and fatigue elicit equal help from children (e.g., youngest males in the family) who are typically least likely to help?

Last, children from immigrant families endorse family obligation values more strongly than those whose parents were born in the United States (Fuligni et al., 1999). Thus, we hypothesized that adolescents from first- (i.e., adolescent and parent both born in Mexico) and second- (i.e., adolescent born in the United States and parent born in Mexico) generation

backgrounds would provide more assistance to their families across most days than their third-generation peers (i.e., adolescent and parent both born in the United States), and we examined whether the contingency between adolescent family assistance and maternal experiences varied according to generational status.

#### VARIATION ACCORDING TO THE TYPE OF FAMILY ASSISTANCE

Finally, given the variation in the types of assistance that adolescents provide to their family, we explored whether adolescents' responsivity to maternal need was most evident in some tasks more than others. General household chores (e.g., cleaning, cooking) and sibling care have been found to be the most common types of assistance engaged in by children, whereas providing direct help to parents with their jobs or official business (e.g., completing government forms) tends to be relatively rare (Telzer & Fuligni, 2009a, 2009b). Given their greater frequency, household chores and sibling care may show greater contingency on maternal need, but we did not have an explicit hypothesis about how adolescents' responsivity might vary across types of family assistance. Instead, these analyses were conducted for exploratory purposes.

#### RESEARCH GOALS AND HYPOTHESES

Drawing from the family systems approach and the time availability perspective and employing the daily diary methodology, our overall goal in the study was to better understand the nature of children's family assistance by linking children's engagement in family assistance to their mothers' daily work and well-being. We addressed three research questions. First, we examined whether adolescents' provision of family assistance was contingent on their mothers' daily experiences. On the basis of the time availability hypothesis (Benin & Edwards, 1990; Cheal, 2003), which holds that parents face constraints in their everyday lives that can limit their availability to complete household chores, we hypothesized that on days when mothers went to work or felt fatigued, adolescents would be more likely to assist their families.

Second, we investigated whether the daily associations between adolescent family assistance and maternal need varied as a function of



important family (i.e., family structure and economic strain) and adolescent (i.e., gender, birth order, generation) characteristics. As described earlier, we tested competing hypotheses about whether the daily assistance of adolescents in groups believed to generally provide more help to the family overall (i.e., single-parent households, families with greater economic strain, females, oldest siblings, first-generation immigrants) was more or less contingent on maternal need. We did not make a strong prediction about which hypothesis would be supported.

Finally, we explored whether mothers' daily work and fatigue had a particular influence on some family assistance tasks, such as household chores and caring for siblings, as opposed to others, such as helping parents with their jobs or official business. These final analyses were exploratory, and we did not make specific predictions about the results.

## METHOD

### *Participants*

The original sample included 428 adolescents and their primary caregivers (83% mothers, 13% fathers, 4% other relatives), the latter being those who self-identified as the adult who spent the most time with the adolescent and who knew the most about the adolescents' daily activities. To focus on a more homogeneous parent sample, we restricted our analyses to only mother-child dyads. Our final analytic sample included 354 (49% males) 9th- and 10th-grade adolescents ( $M_{\text{age}} = 14.96$  years,  $SD = 1.13$ ) and their mothers ( $M_{\text{age}} = 41.55$  years,  $SD = 6.45$ ) from Mexican backgrounds.

Most of the adolescents came from immigrant families: Almost 12% (11.9%) were of the first generation (i.e., the adolescent and at least one parent were born in Mexico), 69.2% were of the second generation (i.e., the adolescent was born in the United States, but at least one parent was born in Mexico), and 18.9% were of the third generation (i.e., the adolescent and parent were born in the United States). The majority of parents (73.4%) had at most some high school education, 14.3% had completed high school, and 12.3% had more than a high school education. On average, families included five ( $M = 5.18$ ,  $SD = 1.46$ ) members, and adolescents had at least one sibling ( $M = 1.81$ ,  $SD = 1.15$ ) living in the same home.

### *Procedure*

Participants were recruited from two high schools in the Los Angeles area. Each school possessed significant proportions of students from Latin American backgrounds (62% and 94%) who were from lower- to lower-middle-class families. In both schools, over 70% of students (72% and 71%) qualified for free and reduced-price meals, slightly above the average of 65% for Los Angeles County Schools (California Department of Education, 2011).

Classroom rosters were obtained from the participating schools. Across the year, a few classrooms were randomly selected each week for recruitment. Presentations about the study were given to students, letters were mailed to students' homes, and phone calls were made to parents to determine eligibility and interest. Both the adolescent and the adolescent's mother had to be willing to participate in the study. The final sample represented 63% of families who were reached by phone and determined to be eligible by self-reporting a Mexican ethnic background.

Interviewers visited the participants' homes, where adolescents completed a self-report questionnaire on their own and mothers participated in a personal interview during which the interviewer guided mothers through a similar questionnaire and recorded the mothers' responses. Questionnaires included items that assessed family background (e.g., household size), parent-child relationships, and well-being and took approximately 45 to 60 minutes to complete. Next, adolescents and mothers each were provided with a 14-day supply of diary checklists to complete every night before going to bed for the subsequent 2-week period. Each diary checklist was three pages long and took approximately 5 to 10 minutes to complete each night. To ensure timely completion of the diary checklists, participants were instructed to fold and seal each completed diary checklist and to stamp the seal with an electronic time stamper. The time stamper imprinted the current date and time and was programmed with a security code so that participants could not alter the correct date and time. Both English and Spanish versions of the questionnaires and diaries were available, and interviews with mothers were conducted in the language the mother was most comfortable using. Three adolescents and 250 (71%) mothers completed the study materials (i.e., questionnaires/interviews and diaries) in Spanish, with the rest of the participants

completing them in English. In addition, the interviewers maintained contact with the families by phone during this 2-week period to ensure that participants understood the procedures and to encourage nightly completion of the diaries. At the end of the 2 weeks, interviewers returned to the home to collect the diary checklists. Adolescents received \$30 and mothers received \$50 for participating. In addition, participants were told that a pair of movie passes would be awarded if inspection of the data indicated that participants had completed the diaries correctly and on time. The time-stamper monitoring and incentives resulted in a high rate of compliance, with 95% and 94% of the potential diaries being completed by both adolescents and mothers, respectively, with 86% (adolescents) and 90% (mothers) of the diaries being completed on time (i.e., before noon on the following day).

### Measures

#### Daily measures.

Adolescent daily family assistance. Using the diary checklists, adolescents indicated whether they had engaged in any of the following nine activities each day: helped clean the apartment or house, took care of siblings, ran an errand for the family, helped siblings with their schoolwork, translated for parents, helped parents with official business (e.g., completing government forms), helped cook a meal for the family, helped parents at their workplace, and did anything else to help their family. The list of activities was derived from focus groups of adolescents and has been used successfully in previous studies (e.g., Fuligni, Yip, & Tseng, 2002; Hardway & Fuligni, 2006; Telzer & Fuligni, 2009a). Overall, 99.1% adolescents helped on at least one day of the study and engaged in approximately 1.83 ( $SD = 1.20$ ) types of assistance tasks per day.

For our analyses, we created an index of overall *family assistance* to assess whether adolescents helped their family by participating in any of the nine family assistance behaviors each day (0 = *no assistance*, 1 = *any assistance*). Adolescents provided some type of assistance to their family on 79% ( $SD = 25\%$ ) of the days.

We created additional indexes that tapped specific types of assistance each day, using the same scoring of 0 = *no assistance* and 1 = *any assistance*. In descending order of occurrence,

*assist household* represented whether adolescents cleaned their apartment or house, ran an errand for the family, or cooked a meal for the family (occurred on 70% of days,  $SD = 28\%$ ). *Assist siblings* represented whether adolescents took care of their siblings or helped them with their schoolwork (occurred on 38% of days,  $SD = 36\%$ ). *Assist parents* represented whether adolescents assisted their parents by translating for them, helping with official business, or helping at their parent's workplace (occurred on 16% of days,  $SD = 23\%$ ).

Gender differences in overall family assistance and in the specific domain of general household assistance appeared, such that females ( $M$ s: overall = 82%, household = 76%) spent more days helping their families than males ( $M$ s: overall = 75%, household = 63%),  $t(343) = 2.75 - 4.49$ ,  $ps = .006 - .000$ . There were no gender differences in sibling or parent assistance. Family assistance also differed by day of the week (weekend vs. weekday) such that adolescents were more likely to assist their families in general, and specifically with household chores, on weekends ( $M$ s: overall = 81%, household = 73%) than weekdays ( $M$ s: overall = 77%, household = 67%),  $t(4470) = 2.45 - 3.83$ ,  $ps = .014 - .000$ . Sibling and parent assistance did not vary by day of the week.

Maternal daily work. Mothers indicated whether they went to work each day. Over half of the mothers (54.2%) worked at least one day during the duration of the study. On average, mothers worked 6.78 days ( $SD = 3.71$ ) days across the 2 weeks of the study. Mothers also reported the times they started and ended work at their jobs. We calculated the total number of work hours each day and indexed whether their work day was standard or nonstandard. Work days that began after 6:00 a.m. and ended before 6:00 p.m. were considered standard work days, whereas work hours that occurred between 6:00 p.m. and 6:00 a.m. were considered nonstandard work days. Mothers worked an average of 7.61 ( $SD = 2.31$ ) hours on work days and typically worked standard work days ( $M = 83\%$ ,  $SD = 30\%$ ).

Maternal daily feelings of fatigue. Maternal fatigue each day was assessed with items from the Profile of Mood States (Lorr & McNair, 1971), a widely used measure in previous daily diary studies of stress and psychological

well-being (Bolger & Zuckerman, 1995; Fuligni et al., 2002). Participants used a 5-point scale that ranged from 0 (*not at all*) to 4 (*extremely*) to indicate the extent to which they felt “exhausted,” “worn out,” and “fatigue.” The mean of the three items represents daily fatigue, which averaged 1.05 ( $SD = 0.79$ ). The multiple-item measure had modest internal consistency ( $\alpha = .65$ ).

#### *Questionnaire measures.*

**Economic strain.** Mothers completed a nine-item scale that assessed the extent to which they had experienced any difficulties meeting their economic needs over the last 3 months (Conger et al., 2002). Mothers responded to questions such as “How much difficulty did you have paying your bills” (0 = *no difficulty at all*, 4 = *a great deal of difficulty*). Using a 4-point scale that ranged from 0 (*not true at all*) to 4 (*very true*), mothers also responded to items such as “You had enough money to afford the kind of food you needed” and “You had enough money to afford the kind of utilities (e.g., electricity, phone, gas, water) you needed.” These latter items were reverse scored. Mothers’ average rating on this scale was a 2.79 ( $SD = 0.72$ ). This measure had good internal consistency ( $\alpha = .90$ ).

**Educational status.** Mothers reported their own and their spouse’s highest educational attainment by selecting one of the following six categories: *elementary/junior high school*; *some high school*; *graduated from high school*; *some college*; *graduated from college*; or *graduated from law, medical, or graduate school*. Educational status was calculated by averaging both mother’s and her spouse’s level of education.

**Single- versus dual-parent household.** Mothers reported their current relationship status. The majority of the participants (75%) were married, remarried, or in a domestic relationship with their partner, and these families were considered dual-parent households.

**Adolescents’ birth order.** We used mothers’ report of the ages of the adolescents’ siblings to determine the adolescents’ birth order. Adolescents were categorized as being an only (11.9%), youngest (21.5%), middle (28.8%), or oldest (37.0%) child in the family.

## RESULTS

### *Analytic Strategy*

Analyses were conducted with hierarchical linear modeling (Raudenbush & Bryk, 2002), which was designed to analyze nested data of the type collected for this study (i.e., daily-level data at Level 1 nested within individuals at Level 2). To examine whether variability in adolescents’ family assistance was contingent on mothers’ daily work and fatigue, we first analyzed unconditional models in which we estimated the daily-level associations of maternal work and fatigue with adolescents’ family assistance. This initial model also allowed us to examine whether there was significant variance to be explained at the daily and individual levels. We then analyzed a series of models in which we examined the extent to which the average amount of family assistance and the daily association of assistance with maternal work and fatigue varied by family (i.e., single- vs. dual-parent families, economic strain) and adolescent (i.e., gender, birth order, generational status) characteristics. We first present the results for overall family assistance, followed by the results for the specific types of assistance (i.e., household, sibling, and parents).

### *Family Assistance in Response to Maternal Need*

To address our first research question, an unconditional model assessed whether adolescents’ likelihood of assisting their families on a given day was contingent on whether their mothers worked and their mothers’ level of fatigue on the same day. In this model, maternal work and fatigue were modeled at Level 1 as random effects and person mean centered in order to ensure that the daily-level associations were independent of individual-level differences. We also included weekday as a fixed effect at Level 1. Although the nesting of days within individuals was taken into account in the model, no predictors were included at Level 2. Thus, the daily-level effects were not modeled as a function of between-person characteristics in this initial, unconditional model.

As shown in Model 1 of Table 1, the results support our hypotheses that adolescents would be more likely to provide family assistance on days when their mothers went to work ( $b = .05$ ,  $SE = .02$ ,  $p = .004$ ) and felt fatigue ( $b = .02$ ,



Table 1. Daily Level Associations Between Adolescents' Family Assistance and Mothers' Work and Fatigue

Predictor	Model 1		Model 2		Model 3	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Individual level						
Intercept	.79	(.01)***	.79	(.02)***	.75	(.04)***
Economic strain			.04	(.02)	.03	(.02)
Dual parent			-.01	(.02)		
Gender					.07	(.03)*
Birth order					-.17	(.05)**
Gender × Birth Order					.03	(.07)
First generation					.12	(.05)*
Second generation					.04	(.04)
Daily level						
Work	.05	(.02)**	.05	(.02)*	.12	(.05)**
Economic strain			.04	(.03)	.07	(.03)*
Dual parent			.02	(.02)		
Gender					-.01	(.04)
Birth order					-.12	(.09)
Gender × Birth Order					.08	(.10)
First generation					-.08	(.05)
Second generation					-.05	(.04)
Fatigue	.02	(.01)*	.02	(.01)	.01	(.02)
Economic strain			-.02	(.01)*	-.02	(.01)
Dual parent			.00	(.01)		
Gender					.03	(.02)
Birth order					.09	(.04)*
Gender × Birth Order					-.15	(.05)**
First generation					.01	(.03)
Second generation					-.02	(.02)
Weekday	-.02	(.01)**	-.02	(.01)**	-.02	(.01)**
Variance components						
Intercept	.055***		.055***		.049***	
Work	.006*		.005*		.006*	
Fatigue	.003***		.003***		.003***	

Note: Work was coded 0 = no work, 1 = work, and fatigue was coded from 0 = not at all to 4 = extremely. Weekday was effects coded such that 1 = weekday and -1 = weekend. Economic strain was centered at the mean of the sample and dual-parent home was effects coded such that 1 = dual-parent home and -1 = single-parent home. Gender was dummy coded with males = 0 and females = 1. Birth order was dummy coded as 0 = only, middle, or oldest child in family and 1 = youngest child in the family. The Gender × Birth Order interaction was created by multiplying gender and birth order terms.

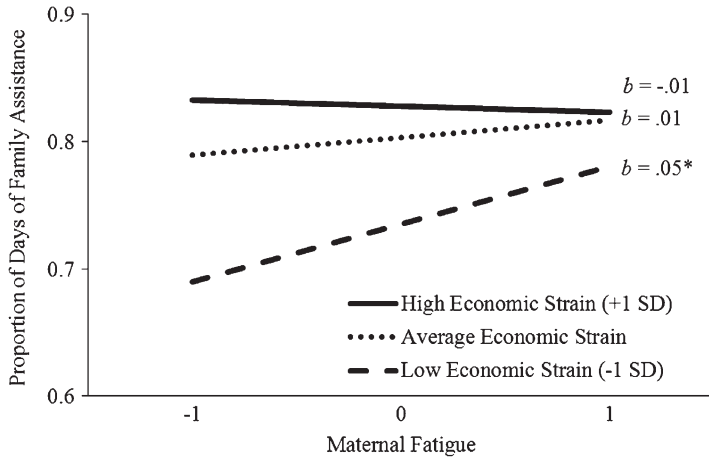
\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

$SE = .01$ ,  $p = .043$ ). Adolescents also were less likely to help their families on weekdays as compared to weekends ( $b = -.02$ ,  $SE = .01$ ,  $p = .001$ ). In addition, as shown at the bottom of column 2 of Table 1, the results indicated that variance components in these models were significant, suggesting that these associations may differ depending on individual and family characteristics.

With follow-up analyses, we tested whether adolescents' assistance behaviors were

contingent on maternal work hours and standard/nonstandard work hours. These indices were included as random effects at Level 1. The results suggested that the number of hours mothers worked and whether those hours were standard or nonstandard were not associated with adolescents' daily assistance above and beyond whether their mothers worked that day ( $bs = -.01-.00$ ,  $ns$ ). The remaining analyses reported in this article, therefore, focus only on

FIGURE 1. VARIATION IN DAILY LEVELS OF FAMILY ASSISTANCE AS A FUNCTION OF FAMILY ECONOMIC STRAIN ON DAYS OF GREATER MATERNAL FATIGUE.



Note: Although there were no differences in average levels of family assistance as function of family economic strain, on days when mothers experienced greater fatigue, children from families with low economic strain increased their rate of assistance significantly to a more comparable rate to that of their peers from families with average and high economic strain. Maternal fatigue is person centered, and 0 represents the mean of each mother's level of fatigue. \* $p < .05$ .

whether mothers worked on a particular day and their feelings of fatigue.

#### *Family and Adolescent Variations in the Response to Maternal Need*

Next, we addressed our second research question of whether adolescents' family assistance in response to maternal need varied as a function of family and adolescent characteristics.

*Family variations.* We added single- versus dual-parent household and economic strain at Level 2 to predict the average amount of family assistance on a typical day and the daily-level associations between family assistance and maternal work and fatigue. Single- versus dual-parent household was effects coded and economic strain was centered at the mean of the sample. The daily-level effect of weekday was fixed and not modeled by family characteristics.

As shown in Model 2 of Table 1, economic strain did not predict adolescents' average level of family assistance, but it did predict the extent to which daily family assistance was contingent on maternal fatigue ( $b = -.02$ ,  $SE = .01$ ,  $p = .045$ ). In order to interpret this moderating effect of economic strain, we conducted additional analyses to test the simple

slopes for adolescents from families under low ( $-1$  SD), average, and high ( $+1$  SD) economic strain. The results indicated that the individual slope for adolescents from families under low economic strain was significant ( $b = .05$ ,  $SE = .02$ ,  $p = .018$ ). As shown in Figure 1, on days when mothers felt fatigued, adolescents from families under low economic strain were more likely than usual to help their families, such that their rate of assistance was comparable to their other peers who experienced greater economic strain.

The daily contingency between family assistance and maternal need did not vary as function of whether adolescents were in a single- versus dual-parent home ( $bs = .00 - .02$ ,  $ns$ ). Therefore, the measure of single- versus dual-parent home was not included in subsequent models.

*Adolescent variations.* We examined whether the average likelihood of family assistance and the daily association between adolescents' daily family assistance and their mothers' daily work and fatigue varied as a function of adolescent characteristics. We focused on variations according to adolescents' gender, birth order, and the interaction of gender and birth order, as well as variations according to generational status. Consistent with previous

research (Cogle & Tasker, 1982; Lee et al., 2003), our initial analyses showed that the only difference in family assistance due to birth order was between youngest children and all others; therefore, we examined differences in family assistance only between youngest versus only, middle, and older children. Gender, birth order, Gender  $\times$  Birth Order interactions, and first- and second-generation dummy codes (with third generation as the baseline) were included as Level 2 predictors in the model.

As summarized in Model 3 of Table 1, females were more likely than males to provide family assistance across days ( $b = .07$ ,  $SE = .03$ ,  $p = .012$ ). Also, only, middle, and older children were more likely than youngest children to assist their families ( $b = -.17$ ,  $SE = .05$ ,  $p = .003$ ) on average, as were first-generation adolescents as compared to their third-generation peers ( $b = .12$ ,  $SE = .05$ ,  $p = .010$ ).

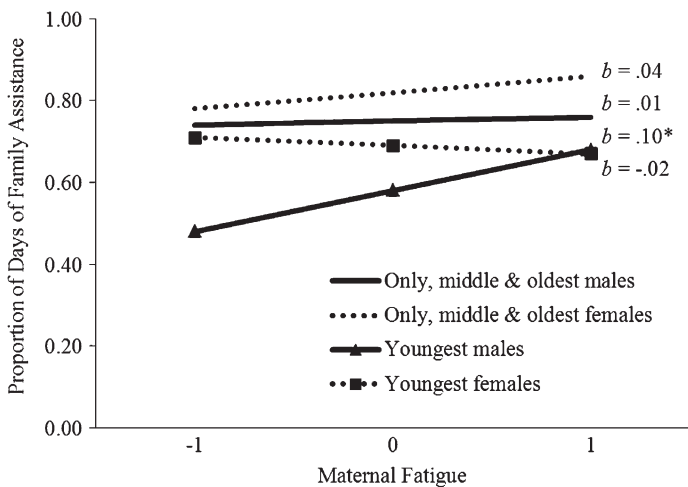
At the daily level, birth order and gender interacted to modify the daily association between maternal fatigue and family assistance ( $b = -.14$ ,  $SE = .05$ ,  $p = .006$ ). To interpret this interaction and to obtain the intercepts and slopes for each of the Gender  $\times$  Birth Order groups (i.e., only, middle, and oldest males; only, middle, and oldest females; youngest males; youngest females), we conducted separate analyses in which the gender, birth order, and

Gender  $\times$  Birth Order terms were appropriately recoded such that each of the Gender  $\times$  Birth Order groups served as baseline in the model. The results from these additional models indicated that only the slope for youngest males ( $b = .10$ ,  $SE = .04$ ,  $p = .012$ ) was significant. We used the results from these models to plot the Gender  $\times$  Birth Order interaction. As shown in Figure 2, on days when mothers experienced higher than normal levels of fatigue, youngest males provided even greater assistance to their family, indicating that maternal fatigue modified their daily level of family assistance.

Gender and birth order did not modify the daily association between assistance and maternal work, and generational status did not predict the daily contingency of adolescent help for either maternal work or fatigue.

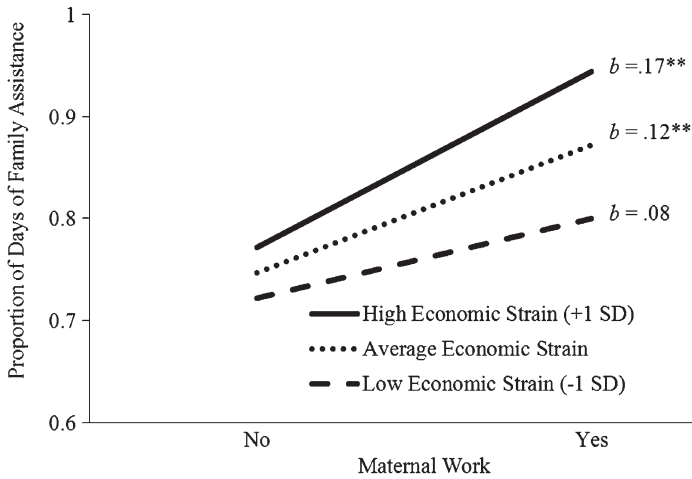
Inclusion of the adolescent characteristics in Model 3 resulted in the association between economic strain and the daily link between maternal work and family assistance becoming significant ( $b = .07$ ,  $SE = .03$ ,  $p = .013$ ). To interpret this moderating effect of economic strain, we conducted additional analyses to test the simple slopes, which indicated that adolescents from families with average ( $b = .12$ ,  $SE = .05$ ,  $p = .007$ ) and high ( $b = .17$ ,  $SE = .05$ ,  $p = .002$ ) levels of economic strain were more likely to provide family assistance at higher

FIGURE 2. VARIATION IN DAILY LEVELS OF FAMILY ASSISTANCE ACCORDING TO GENDER AND BIRTH ORDER ON DAYS OF GREATER MATERNAL FATIGUE.



Note: On days when mothers experienced high levels of fatigue, youngest males were more likely to assist their families. Maternal fatigue is person centered; thus 0 represents the mean of each mother's level of fatigue. \* $p < .05$ .

FIGURE 3. VARIATION IN DAILY LEVELS OF FAMILY ASSISTANCE AS A FUNCTION OF FAMILY ECONOMIC STRAIN ON DAYS WHEN MOTHERS WENT TO WORK.



Note: On days when mothers went to work, children from families experiencing average and high economic strain were more likely to engage in greater family assistance compared to their peers from families with less economic strain. \*\* $p < .01$ .

rates than average on days when mothers worked (see Figure 3). The moderating role of economic strain on the daily association between maternal fatigue and family assistance became nonsignificant in Model 3, although the magnitude of the coefficient did not change.

#### Variation According to the Type of Family Assistance

Last, we explored whether the daily associations between maternal need and adolescent family assistance as well as variations due to family and adolescent characteristics in this daily contingency were most evident in some family assistance tasks more than others. We conducted a final set of analyses to predict adolescents' household, sibling, and parent assistance in separate models. Each model included economic strain, gender, birth order, the Gender  $\times$  Birth Order interaction, and generation as Level 2 predictors. Only children were excluded from the analysis of sibling assistance.

As shown in Table 2, the overall daily association of maternal work with adolescent assistance was significant for all three types of family assistance (assist household:  $b = .14$ ,  $SE = .05$ ,  $p = .007$ ; assist sibling:  $b = .16$ ,  $SE = .06$ ,  $p = .006$ ; assist primary caregiver:  $b = .05$ ,  $SE = .03$ ,  $p = .038$ ).

The family and adolescent variations in response to maternal need for any type of assistance that were previously reported in Table 1, Model 3, were most evident for household assistance (e.g., cooking, cleaning). As shown in the second column of Table 2, economic strain modified the maternal work–household assistance daily association ( $b = .06$ ,  $SE = .03$ ,  $p = .025$ ), and Gender  $\times$  Birth Order modified the fatigue–household assistance daily association ( $b = -.14$ ,  $SE = .05$ ,  $p = .009$ ) in the same manner as reported in Table 1, Model 3, for any type of family assistance.

Additional variations in response to maternal need that were not evident in Table 1 included first generation predicting a significantly lower daily association between maternal work and household assistance ( $b = -.17$ ,  $SE = .05$ ,  $p = .002$ ) and gender predicting a more positive daily association between fatigue and both household ( $b = .04$ ,  $SE = .02$ ,  $p = .032$ ) and sibling assistance ( $b = .07$ ,  $SE = .03$ ,  $p = .006$ ) for females. There were no significant family or adolescent variations in providing assistance to parents in response to maternal need.

#### DISCUSSION

It is well documented that Mexican American adolescents participate in high rates of family



Table 2. Daily Level Association Between Adolescents' Specific Family Assistance Tasks and Mothers' Work and Fatigue

Predictor	Assist Household		Assist Sibling		Assist Parents	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Individual level						
Intercept	.64	(.04)***	.50	(.05)***	.09	(.02)***
Economic strain	.04	(.02)	.06	(.03)*	.05	(.02)**
Gender	.14	(.03)***	-.01	(.04)	-.03	(.03)
Birth order	-.13	(.06)*	-.45	(.05)***	.01	(.04)
Gender × Birth Order	.01	(.08)	.01	(.06)	-.02	(.06)
First generation	.11	(.05)*	.10	(.07)	.13	(.04)**
Second generation	.01	(.04)	.02	(.05)	.09	(.02)**
Daily level						
Work	.14	(.05)**	.16	(.06)**	.05	(.03)*
Economic strain	.06	(.03)*	-.01	(.03)	.02	(.02)
Gender	-.04	(.04)	-.00	(.05)	-.01	(.03)
Birth order	-.09	(.08)	-.11	(.06)	-.08	(.06)
Gender × Birth Order	.09	(.09)	.08	(.07)	.11	(.07)
First generation	-.17	(.05)**	-.04	(.08)	-.02	(.04)
Second generation	-.06	(.05)	-.09	(.05)	-.01	(.02)
Fatigue	-.00	(.02)	-.04	(.03)	-.01	(.01)
Economic strain	-.01	(.01)	-.02	(.02)	-.01	(.01)
Gender	.04	(.02)*	.07	(.03)**	.01	(.02)
Birth order	.05	(.04)	.02	(.03)	.06	(.04)
Gender × Birth Order	-.14	(.05)**	-.08	(.04)	-.03	(.05)
First generation	-.01	(.03)	.04	(.04)	.05	(.03)
Second generation	-.01	(.02)	.02	(.03)	.01	(.01)
Weekday	-.03	(.01)***	.00	(.01)	-.01	(.01)
Variance components						
Intercept	.063***		.084***		.038***	
Work	.003		.017**		.005	
Fatigue	.001		.005**		.004	

Note: Weekday was effects coded such that 1 = weekday and -1 = weekend. Economic strain was centered at the mean of the sample, and dual-parent home was effects coded such that 1 = dual-parent home and -1 = single-parent home. Gender was dummy coded, with males = 0 and females = 1. Birth order was dummy coded as 0 = only, middle, or oldest child in family and 1 = youngest child in the family. The Gender × Birth Order interaction was created by multiplying gender and birth order terms.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

assistance (Telzer & Fuligni 2009a, 2009b). In addition, well-known group differences according to gender, birth order, and generation status have been established in the literature (e.g., Lee et al., 2003; Manke et al., 1994). Less is known, however, about how family circumstances influence the day-to-day variability that may exist in adolescents' family assistance behaviors and how well-known group differences may depend on family circumstances as well. In support of the family systems and time availability perspectives, the present results indicate that mothers' daily experiences do indeed

regulate children's family assistance behaviors: Mexican American adolescents were more likely to assist their families on days when mothers went to work and felt fatigued. This daily contingency was modified by family and adolescent characteristics, with adolescents who generally engaged in low levels of assistance (i.e., youngest males and those in families with little economic strain) increasing their help when their mothers were fatigued. In contrast, daily maternal work did not appear to stimulate greater assistance among families with low levels of economic strain.

### *Family Assistance in Response to Maternal Need*

Although Mexican American adolescents participate in high rates of family assistance, our results suggest that there is great variability in this family routine across the week. In particular, adolescents' family assistance was shaped by the experiences of their mothers, thus lending support that family subsystems are interrelated and that children's behaviors do arise as a result of other family processes (Cox & Paley, 1997; Minuchin, 1985; Whitchurch & Constantine, 1993). Mexican American adolescents were more likely to help their families on days when their mothers worked or felt fatigued. As the time availability hypothesis predicts (Benin & Edwards, 1990; Cheal, 2003; Gager et al., 2009), it is likely that on these particular days mothers' work and high level of fatigue restricted the time and energy they could spend on household tasks, and thus they depended on greater assistance from their children. Therefore, maternal absence from home due to work itself contributed to children's greater level of family assistance. The findings also suggest that maternal well-being played a critical role in the amount of family assistance provided by children. On days when mothers felt greater fatigue, children were more likely to help their families. It is possible that mothers' fatigue may lead them to request greater help from their children. Alternatively, children may be cognizant of their mothers' well-being and voluntarily provide greater assistance. We were not able to establish the precise mechanisms of these associations in the current study, and future research should examine whether children are being asked to help or whether they voluntarily provide assistance.

### *Family and Adolescent Variations in the Response to Maternal Need*

The family systems framework also acknowledges that family members adapt to changes in their family environment (Cox & Paley, 1997; Minuchin, 1985); thus, we investigated whether maternal need would encourage varying levels of family assistance as a function of family or individual characteristics. Our findings provided support for previously established group differences (e.g., gender, birth order, generation) in children's average rates of family assistance (e.g., Gager et al., 2009, Lee et al., 2003), but

some of these group differences in children's average levels of family assistance diminished on days when mothers felt fatigued. For instance, although youngest males displayed the lowest level of family assistance across most days, they were nonetheless responsive to their mothers' level of fatigue. Previous findings suggested that females' family assistance may be more contingent on the day of the week (Crouter & Maguire, 1998; Manke et al., 1994) and mothers' work stress (Crouter et al., 2001), but our results suggest that younger male children also show responsiveness to daily maternal need, albeit from a normatively low level of assistance on average. Similarly, family economic strain also modified children's responsiveness to their mothers' fatigue, such that those from families facing less economic hardship became equally as likely as their peers from families under high economic strain to pitch in at home. Overall, the findings suggest that group differences are not stable and that certain daily circumstances due to maternal fatigue provide an extra push to some adolescents (i.e., children from high-SES families, youngest males) to pitch in more at home, thus making group differences less apparent on these days.

An exception to the pattern described above is that, after controlling for adolescent characteristics, adolescents from families with low levels of economic strain did not provide additional assistance to families on days when mothers worked. Instead, adolescents from families with moderate and high levels of economic strain increased their assistance on these days. It is possible that, compared to maternal fatigue, mothers' work schedules are more predictable events that trigger family roles and exacerbate group differences in assistance rather than minimize them. In addition, mothers with greater economic resources may hire outside assistance to provide child care and domestic help on the days they work (Brandon, 1999; National Institute of Child Health and Human Development Early Child Care Research Network, 1997), thereby obviating the need for adolescents to increase their assistance on those days.

### *Variation According to the Type of Family Assistance*

Our exploratory analyses to assess whether variability in family assistance was similar across different types of family assistance tasks

indicated that adolescents responded to maternal work similarly across household, sibling, and parental assistance. Much of the family and adolescent variability in response to maternal need, however, occurred within the domain of household and sibling assistance and less in helping parents directly. On the basis of previous research that has found assistance in the domains of household tasks and sibling care to be most prevalent among adolescents (Telzer & Fuligni, 2009a), perhaps there is generally more fluidity within these responsibilities that allows all adolescents, regardless of family background or individual characteristics, to pitch in when there is greater maternal need.

### Limitations

Although a key strength in this study was the use of the daily diary method with both adolescents and mothers, one should be cautious in interpreting our results. It is not clear whether the contingent nature of adolescents' family assistance is due to children's own responsiveness to maternal need or whether mothers are communicating these expectations to their children. In other words, are adolescents cognizant of mothers' work and fatigue and making the decision to voluntarily help their families or are mothers more likely to ask for help on days that they went to work or felt fatigued? Future research should examine the mechanisms (e.g., quality of the parent-child relationship) that promote adolescents' responsiveness to their parents. Also, given that only one adolescent from each family participated, we were able to examine variability due to birth order only between rather than within families. It would be valuable to investigate whether the variability due to gender and birth order would be replicated in studies that included siblings within the same family to better understand how different family structures affect the daily routines of children.

Given that our parent sample was restricted to mothers, it would be valuable for future research to include other caregivers (e.g., fathers, grandparents) in order to examine whether the contingent nature of adolescents' family assistance varies as function of who the caregiver is. Last, our study was also limited in that we did not have reports of the *amount* of time adolescents engaged in family assistance each day, which would have enabled us to

investigate the variability and contingent nature of adolescents' actual time spent assisting their family. Measurements of actual time in family assistance could help illuminate the temporal rhythms of family assistance, such as peak days of family assistance during the week and how variability in time spent assisting the family may be linked to family structure and functioning.

### Conclusion and Implications

Guided by the family systems framework, the current study illustrated that Mexican American adolescents' daily provision of family assistance is strongly linked to their mothers' daily work and well-being. The contingent nature of Mexican American adolescents' family assistance suggests that this cultural practice is likely to emphasize the importance of being responsive to the needs of their family and to provide assistance at home accordingly. In addition to helping their families on a regular basis, Mexican American adolescents provided even more assistance at home on days when their mothers went to work and felt fatigued. As such, mothers' daily lives play a critical role in reinforcing the daily maintenance of this cultural routine. Moreover, maternal fatigue generally elicited greater responsiveness among children who were otherwise least likely to help, thus suggesting that the responsibility of supporting their families is equally shared among adolescents during special circumstances. Overall, this study helps to better inform our understanding of how families operate as social systems by highlighting how parent-child linkages contribute to the great amount of variability in this important, daily cultural routine among Mexican American families.

### NOTE

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