FAMILY PROCESS

# Longitudinal Course and Correlates of Parents' Differential Treatment of Siblings in Mexican-Origin Families

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*Parents' differential treatment (PDT) is a common family dynamic that has been linked to youth development and well-being, including adjustment problems and poor sibling relationships. Much less is known, however, about the developmental course of PDT and the conditions under which parents treat their children differently in adolescence and young adulthood. This study examined longitudinal changes in mothers' and fathers' differential warmth and conflict with their two offspring from early adolescence through young adulthood and examined parents' experiences of individual stress (depressive symptoms and role overload) and marital difficulties as time-varying correlates of (changes in) PDT. We also tested crossover effects to determine whether mothers' experiences of individual stress and marital difficulties were linked to fathers' differential treatment, and vice versa. Participants were mothers, fathers, and two siblings from 246 Mexican-origin families who were interviewed in their homes on three occasions over 8 years. Multilevel models revealed that mothers' and fathers' differential conflict with their two children increased until middle adolescence and then declined into young adulthood, but there were no changes over time for parents' differential warmth. In general, both mothers' and fathers' levels of differential treatment were exacerbated by their own experiences of individual stress and marital difficulties and also by the experiences of their spouses. However, in some cases, greater stress than usual was linked to less differential treatment than usual.*

*Keywords: Adolescence; Marital Relationships; Mexican-Origin Families; Parental Differential Treatment; Siblings; Young Adulthood*

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Parents' differential treatment (PDT) is a common family dynamic that helps to explain why siblings who grow up in the same family are often as different from one another as they are from strangers (Plomin, 2011). A growing body of research has examined the

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implications of PDT for youth development and adjustment and revealed that, although youth's perceptions of its meaning may moderate its effects (Kowal & Kramer, 1997; McHale, Updegraff, Jackson-Newsom, Tucker, & Crouter, 2000), unequal, particularly less favored treatment, is linked to adjustment problems as well as poorer sibling relationships in adolescence (Conger & Conger, 1994; Richmond, Stocker, & Rienks, 2005). Much less is known, however, about the conditions under which parents treat their children differently in adolescence and into young adulthood. Some research suggests that PDT may be more evident in families that face stressful circumstances (Crouter, McHale, & Tucker, 1999). Although equal treatment of siblings is considered desirable, Henderson, Hetherington, Mekos, and Reiss (1996) argued that parents in challenging circumstances may become less conscious about maintaining equal treatment. Given the established links between PDT and youth adjustment, it is important to learn more about *why* parents treat their children differently during this developmental period.

In addition to its focus on the adjustment correlates of PDT, most prior studies have examined this family dynamic in childhood and adolescence, and longer-term longitudinal research is rare. Further, although some longitudinal studies have linked PDT and adjustment (Richmond et al., 2005; Solmeyer & McHale, 2015), to our knowledge, the *developmental trajectory* of PDT is, as of yet, uncharted. Finally, most studies have investigated European and European American families (e.g., Conger & Conger, 1994), and we know less about this dynamic in other ethnic groups. Mexican Americans are one of the largest and fastest growing ethnic minority groups in the United States (U.S. Census Bureau, 2016), and experience stressors common to other minority groups as well as unique challenges around their acculturation (Perez-Brena, Updegraff, & Umaña-Taylor, 2015; Telzer, 2010). Given changing U.S. demographics, it is important to understand the diversity of experiences within ethnic groups that impact family dynamics like PDT (McLoyd, 1998).

Accordingly, grounded in a cultural–ecological perspective (García Coll et al., 1996) and using an ethnic homogeneous design to illuminate sources of variation *within* a sociocultural group, we first charted the development of PDT from early adolescence into young adulthood using reports from two siblings from the same Mexican-origin families, focusing on parents' differential warmth and conflict, the most frequently studied domains of PDT. Next, building on the small literature suggesting that Mexican-origin parents face a range of challenging circumstances that may influence differential treatment, we assessed indices of individual stress (i.e., depressive symptoms and role overload; Crouter et al., 1999; Henderson et al., 1996), and an index of marital difficulties (i.e., parents' marital dissatisfaction), and examined their cross-time linkages with mothers' and fathers' differential treatment of two siblings from the same family. Further, drawing on family systems concepts about the connections between family subsystems (Cox & Paley, 2003), we also examined whether each parent's individual stress and marital difficulties were linked to his or her spouse's differential treatment. Marital difficulties may be particularly salient in Mexican-origin families given cultural values that emphasize tight bonds with family members (Tsai, Telzer, Gonzales, & Fuligni, 2015; Updegraff & Umaña-Taylor, 2015). Finally, we tested for potential moderating effects of sibling structure characteristics (dyad age spacing, gender constellation) in these associations.

## DEVELOPMENTAL COURSE OF PARENTS' DIFFERENTIAL TREATMENT

Parents' differential treatment is one component of the nonshared family environment and a factor in the development of sibling differences (Plomin, 2011), but we know very little about its developmental course. A body of research shows that many environmental influences make children within the same family more different rather than more similar

to each other, and these sibling differences are likely to increase over time as nonshared environmental influences accumulate (Scarr & McCartney, 1983). For instance, as youth develop, experiences with social networks, friendships, and family interactions may differ between siblings (Reiss, Neiderhiser, Hetherington, & Plomin, 2000), and given siblings' increasing autonomy across development (Steinberg & Morris, 2001), these nonshared environmental effects may be cumulative.

Beyond sibling and peer experiences, PDT is a family dynamic that may give rise to sibling differences (Mullineaux, Deater-Deckard, Petrill, & Thompson, 2009). In the face of norms about equal treatment of offspring and established links between differential treatment and youth adjustment, most parents report that they treat their children differently from one another—most often in response to their perceptions of differences in siblings' personalities, interests, abilities, and needs (McHale, Crouter, & Whiteman, 2003). Such a process may reflect gene–environment correlations, and highlights that youth are not passive recipients of environmental influences but, instead, both influence and are influenced by their exposures and experiences (Scarr & McCartney, 1983). In adolescence, as youth expand their social networks to the world beyond the family and work to establish their own identities, they may reduce their focus on family relationships (Grotevant & Cooper, 1986), and as part of this process, differences between siblings may increase as they seek distinct niches that fit their needs, interests, and skills (Ansbacher & Ansbacher, 1956). In turn, parents may respond to increasing sibling differences with more differential treatment. In an effort to advance understanding of the developmental trajectory of PDT, in this study, we charted age-related changes in PDT from early adolescence into young adulthood, testing the prediction that levels of PDT would increase over time.

## CORRELATES OF PARENTS' DIFFERENTIAL TREATMENT

Beyond the role of sibling differences as elicitors of PDT, several studies showed that individual and environmental stressors also may have implications for PDT (Crouter et al., 1999; Deal, 1996; Henderson et al., 1996). For example, cross-sectional analyses focused on European American families revealed that, in families with lower incomes, parents exhibited more PDT (Crouter et al., 1999; Henderson et al., 1996). These researchers suggested that, in addition to having fewer resources to devote to their children, parents who are stressed by financial concerns may be less able to devote attention to parenting. Crouter et al. (1999) also found that PDT was linked to stressors at the individual level: When parents reported more depressive symptoms and role overload, family members reported higher levels of PDT. Henderson et al. (1996) argued that parents who are distracted by concerns and worries that tap their psychological resources are more likely to treat their children differently, at least in part because parents become inattentive to inequities in their treatment and to their children' reactions to those inequities. In this study, we built on these cross-sectional analyses and extended this line of work to examine the longitudinal associations between both depressive symptoms and role overload and mothers' and fathers' differential treatment of Mexican-origin siblings, using a multilevel modeling approach to address the clustering of observations over time within individuals.

In some prior research, parents' marital relationship quality has been examined as a correlate of PDT under the premise that marital difficulties may lead to PDT by promoting parent–child coalitions that compensate for unsatisfying spousal relationships (Reiss et al., 1994). Consistent with this idea, several studies showed that when one spouse treated children differently but the other did not, spouses reported less positive marital functioning (Deal, 1996; Kan, McHale, & Crouter, 2008; Solmeyer, Killoren, McHale, & Updegraff, 2011). Similarly, using cross-sectional data from the same sample as this study, Solmeyer et al. (2011) found that marital love was lower among spouses in which

one parent displayed equal treatment and the other showed differential treatment (termed, an incongruent pattern). A longitudinal study of European American families likewise found that, from middle childhood through middle adolescence, incongruence in the interparental pattern of PDT was linked to lower levels of marital satisfaction (Kan et al., 2008). From a family systems perspective, however, we would expect that these processes may be *bidirectional* (Minuchin, 1985), such that lower levels of marital satisfaction may also lead to parents' displays of unequal treatment of their children. Research on Mexican-origin families emphasizes their strong values regarding family cohesion and support (Perez-Brena, Updegraff, Umaña-Taylor, Jahromi, & Guimond, 2015; Perez-Brena, Updegraff, & Umaña-Taylor, 2015), as such marital difficulties may be a particularly salient stressor for mothers and fathers in this population. Thus, we conceptualized marital difficulties (i.e., higher levels of dissatisfaction) as a potential stressor for parents, and we tested the time-varying associations between parents' experiences of marital dissatisfaction and their PDT, as reported by their offspring. As noted, we also expanded on prior research on the correlates of PDT by testing longitudinal associations from adolescence into young adulthood.

We also investigated potential crossover effects of one parent's individual stress and marital difficulties on the other's PDT. A small body of research focused on stress contagion has examined such crossover effects of husbands' and wives' stressors on one another's well-being (Burke, Weir, & DuWors, 1980; Westman & Etzion, 1995). Consistent with the family systems theory tenet of reciprocal influences among family subsystems (Cox & Paley, 2003), crossover effects refer to a process whereby one relationship partner's experiences—such as high levels of role overload—have implications for the other partner's parenting practices. Most studies of crossover between spouses' stressors have examined effects on burnout, depression, marital dissatisfaction, and work–family conflict, but within the limited literature on the contextual correlates of PDT, we found none that examined crossover effects on PDT. Some findings suggest that the crossover of stress flows from husbands to wives more so than wives to husbands (e.g., Bolger, DeLongis, Kessler, & Wethington, 1989; Crouter et al., 1999; Repetti, 1997). This pattern may emerge because studies have focused on work-related stressors; couples may be more focused on the husband's than on the wife's job (Jones & Fletcher, 1996; Westman, Etzion, & Danon, 2001). Kessler (1979) suggested, however, that women in general may be more susceptible than men to stressor crossover, because they serve as "shock absorbers," and take on their husband's stress as part of their role as kin-keepers (Johnson & Jackson, 1998). In Mexican-origin families, women's culturally grounded kin-keeper roles (Galanti, 2003) may mean that the flow of husbands' stressors to wives is particularly evident. Accordingly, in this study, we built on the literature on interspousal crossover effects, which has focused on European American samples, to examine mothers' and fathers' depression symptoms, role overload, and ratings of marital dissatisfaction as time-varying correlates of their spouses' PDT. Given findings to date and prior research highlighting traditional gender roles in Mexican-origin families, we expected that fathers' experiences of stress and marital difficulties would be linked to mothers' PDT, but that crossover effects might not be evident from mothers' experiences of stress and marital difficulties to fathers' PDT.

We also tested sibling dyad structure characteristics as potential moderators of the associations between stress and marital difficulties and PDT. As noted, sibling differences have been linked to PDT in prior research showing that, when siblings are more different, their parents tend to exhibit more PDT (Brody, Stoneman, & McCoy, 1992; McHale et al., 2003). Accordingly, we tested the moderating effects of sibling age spacing and gender constellation on parental stress/difficulties–PDT linkages to examine whether these were

more pronounced in families of siblings who were more objectively different (i.e., larger age difference; mixed-gender sibling dyad).

## CURRENT STUDY

In sum, the goals of this study were as follows: (1) to chart changes over time in mothers' and fathers' differential warmth and conflict with their children from early adolescence into young adulthood, and (2) to examine the longitudinal associations between both parents' own and their spouses' experiences of stress and marital difficulties and levels of PDT (i.e., warmth and conflict), and whether these links were moderated by sibling dyad age spacing and/or gender constellation. Using a multilevel modeling (MLM) approach, we focused on differential treatment in the domains of parental warmth and parent–child conflict given their emphasis in the literature on PDT, and we examined two specific sources of individual stress—depressive symptoms and role overload—as well as marital dissatisfaction, to investigate whether parents' stress and marital difficulties as well as those of their partners were associated with higher levels of PDT.

## METHOD

### Participants

The data came from a longitudinal study of 246 two-parent Mexican-origin families (Updegraff, McHale, Whiteman, Thayer, & Crouter, 2006). Participating families were recruited through schools in a southwestern metropolitan area. The criteria for participation at Time 1 were that: (1) family membership included a seventh grader, at least one older adolescent sibling, a biological mother, and a biological or adoptive father figure (all nonbiological father figures had lived with the target children for at least 10 years)—all of whom had to be living in the home; (2) mothers were of Mexican origin (93% of fathers also were of Mexican origin, although this was not a study criterion); and (3) fathers were employed for pay for at least 20 hours per week at the time of recruitment, but at any given time, fathers may not have been employed. Mothers, fathers, and siblings were interviewed in their homes on three occasions over 8 years.

To recruit families, letters in English and Spanish were sent to families, and follow-up telephone calls were made by bilingual staff to determine eligibility and interest in participation. Recruitment materials were developed in consultation with the project's Latino advisory board of parents and professionals in the community. Families' names were obtained from five school districts and five parochial schools. Schools represented a socioeconomic range, with the proportion of students receiving free or reduced lunch varying from 8% to 82% across schools.

At Time 1 (T1), families represented a range of education and income levels. The percentage of families that met federal poverty guidelines was 18.3%, a figure similar to the 18.6% of two-parent Mexican American families living in poverty in the county from which the sample was drawn (U.S. Census Bureau, 2000). The median family income was $40,000 ($SD$ = $45,381; range = $3,000 to over $250,000). Mothers and fathers had completed an average of 10 years of education ($M$ = 10.34, $SD$ = 3.74; $M$ = 9.88, $SD$ = 4.37, respectively). Most parents had been born outside the United States (70%); this subset had lived in the United States with an average of 12.4 ($SD$ = 8.9) years (mothers) and 15.2 ($SD$ = 8.9) years (fathers). About two-thirds of the parents were interviewed in Spanish. With respect to siblings, the sample included 68 sister–sister pairs, 55 sister–brother pairs, 57 brother–sister pairs, and 66 brother–brother pairs. Most siblings were full biological pairs ($n$ = 234; 95%). Average age spacing between siblings was 2.96 years

(*SD* = 1.63, range = 1–9), and the number of siblings living in the household averaged 3.39 (*SD* = 1.20, range = 2–8). Older siblings were 15.48 (*SD* = 1.57) years old, on average, 47% were born in Mexico, and 82% were interviewed in English. Younger siblings were 12.55 (*SD* = 0.60) years of age, on average, 38% had been born in Mexico, and 83% were interviewed in English.

Time 2 (T2) interviews were completed when older siblings averaged 20.65 (*SD* = 1.56) years of age, and younger siblings averaged 17.72 (*SD* = 0.57) years. Time 3 (T3) interviews were completed when older siblings averaged 22.57 (*SD* = 1.57) years of age, and younger siblings averaged 19.6 (*SD* = 0.66) years. We used a range of strategies to promote retention across the 8 years of the study, including a hands-on approach to data collection via the home interviews, which gave families close contact with project staff. In addition, we mailed newsletters and postcards every 3–4 months and followed up with phone calls and visits to homes if families did not return postcards. Retention rates were 75% and 70% for T2 and T3, respectively. Those who did not participate: could not be located ($n$ = 44 at T2; $n$ = 45 at T3), had moved to Mexico ($n$ = 2 at T2; $n$ = 4 at T3), could not presently participate or were difficult to contact ($n$ = 5 at T2; $n$ = 12 at T3), or refused to participate ($n$ = 10 at T2; $n$ = 12 at T3). At T2, participating families differed from nonparticipating families on T1 maternal education (*M* = 10.62, *SD* = 3.80 vs. *M* = 9.48, *SD* = 3.45) and T1 family income (*M* = $59,517, *SD* = $48,395 vs. *M* = $37,632, *SD* = $28,606, respectively). At T3, participating families differed from nonparticipating families on T1 maternal education (*M* = 10.75, *SD* = 3.75 vs. *M* = 9.35, *SD* = 3.53), T1 paternal education (*M* = 10.46, *SD* = 4.37 vs. *M* = 8.49, *SD* = 4.08), and T1 family income (*M* = $59,136, *SD* = $46,674 vs. *M* = $41,635, *SD* = $39,095). Thus, income and education (socioeconomic status) were accounted for in analyses.

## Procedure

After obtaining informed consent and assent (for youth under age 18), data were collected using in-home interviews that lasted an average of 3 hours for parents and 2 hours for youth. Interviews were conducted individually with laptop computers by bilingual interviewers; questions were read to all participants to account for variability in reading levels. Families received $100 for in-home interviews at T1 and $125 at T2, and each family member received $75 at T3. The University's Institutional Review Board approved all procedures.

## Measures

Measures were forward- and back-translated into Spanish for local Mexican dialect by two different individuals. Measures were assessed at T1, T2, and T3 unless noted otherwise. Cronbach's alphas were above .75 for all measures at all three waves, so we report the range for each measure.

Youth-reported *parental warmth* was assessed using the 8-item warmth subscale from the Child's Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965; Schwarz, Barton-Henry, & Pruzinsky, 1985). Youth used a five-point scale (1 = *not at all,* 5 = *very much*) to rate their experiences with each of their parents (e.g., "My mom/dad understands my problems and worries"). Items were averaged, with high scores reflecting more warmth. Cronbach's alphas ranged from .84 to .94.

Youth reported on *parent–youth conflict* using an adapted version of a scale by Smetana (1988) that assessed the frequency of parent–youth conflict in 11 domains (e.g., choosing activities, social life). At separate points in the interviews, youth rated the frequency of conflict with their mother and father on a six-point scale (1 = *not at all,* 6 = *several times a day*). Conflict domains were adapted to be developmentally relevant. For instance, at

T1, youth were asked about disagreements regarding "whether or not [you] can have a girlfriend/boyfriend or go out on dates," whereas in T3, youth responded about "who [you are] dating/married to." Items were averaged, with high scores reflecting more conflict. Cronbach's alphas ranged from .76 to .86.

We used the two siblings' reports of their dyadic parent–child relationship experiences to measure maternal and paternal differential warmth and conflict. To calculate the *differential treatment* variables, the younger siblings' reports of dyadic parent–child relationships were subtracted from the older siblings' reports and an absolute value was taken such that larger scores indicated more differential treatment.

Mothers' and fathers' *depressive symptoms* were assessed using the 20-item Center for Epidemiological Studies Depression Scale (Radloff, 1977). Items were rated on a four-point rating scale (1 = *rarely or none of the time* to 4 = *all of the time*) to describe their experiences (e.g., "I felt depressed," "I felt lonely") during the past month. Items were rescored on a 0–3 scale to be consistent with how the measure is scored in the literature, with higher scores reflecting more depressive symptoms. Cronbach's alphas ranged from .86 to .91.

Mothers' and fathers' levels of *role overload* were assessed with a 13-item version of the Role Overload Scale (House & Rizzo, 1972; Reilly, 1982). Items were rated on a four-point scale (1 = *strongly disagree* to 4 = *strongly agree*) and measured parents' sense that there was too much to do and not enough time to do it (e.g., "I need more hours in the day to do all the things which are expected of me"). Items were averaged, with higher scores reflecting more role overload. Cronbach's alphas ranged from .92 to .94.

Each parent reported on their *marital dissatisfaction* using a 16-item scale (Huston, McHale, & Crouter, 1986). Marital domains (e.g., marital communication, spouse support for work role, division of housework, and child care) were rated on a nine-point scale (1 = *extremely dissatisfied* to 9 = *extremely satisfied*). An exploratory factor analysis yielded a single-factor solution (Eigenvalues = 9.01 and 7.56 for wives and husbands, respectively) with factor loadings >.40 for all items. Items were reverse-coded and averaged, so higher scores indicated more marital dissatisfaction. Cronbach's alphas ranged from .92 to .95.

Covariates included mothers' and fathers' reports of dyadic warmth and conflict with each sibling and family socioeconomic status (SES). Parents reported on *parental warmth* using the parent version of the CRPBI (Schaefer, 1965; Schwarz et al., 1985). Cronbach's alphas ranged from .81 to .87. Mothers and fathers reported on *parent–youth conflict* at T1 using the same scale used by youth (Smetana, 1998) to rate their experiences with each of their children at separate points in the interview. Cronbach's alphas ranged from .73 to .91. At T1, mothers and fathers reported on their highest level of education (9 = 9th grade to 21 = PhD, JD, MD). Parents also reported their annual income at T1, and family SES was the standardized average of mothers' and fathers' education and family income. Covariates also included sibling gender (0 = females; 1 = males) and sibling dyad gender constellation (0 = same-sex dyads; 1 = mixed-sex dyads).

## RESULTS

### Analysis Plan

Given the clustered nature of the data (time within individuals), we used a MLM approach (Raudenbush & Bryk, 2002) to study the longitudinal course of PDT and its linkages with parents' stress and marital difficulties. We specified two-level models, with time clustered within individuals, and individuals clustered within families. A strength of MLM is that it accommodates missing data (e.g., utilizing the maximum-likelihood

function to estimate values of data that were missing) and effectively reduces biases and standard errors (Schafer & Graham, 2002). This approach also allowed us to test whether changes in stress or marital difficulties were linked to changes in maternal and paternal differential warmth and conflict. Analyses were conducted using PROC MIXED in SAS 9.3 (SAS Institute Inc., Cary, NC, USA).

First, we modeled the developmental course of maternal and paternal differential warmth and conflict, using younger sibling age as the metric of time. We centered at age 12 (the mean age across all younger siblings at T1) and estimated a saturated means model, in essence using an ANOVA model to estimate the mean pattern with the fewest parameters as possible. Deviance tests comparing the log likelihoods of nested models were used to determine which random variances to include for each dependent measure. All subsequent models included sibling gender, age spacing, and gender constellation of the dyad in the conditional growth curve models.

Next, to examine links between stress and marital difficulties and PDT for mothers and fathers, we tested eight two-level models. In four models, we tested the links between indices of individual-level stress (depressive symptoms and role overload) and (1) differential maternal warmth, (2) differential paternal warmth, (3) differential mother–youth conflict, and (4) differential father–youth conflict. The remaining four models followed the same pattern, but tested the links between marital dissatisfaction and each domain of PDT. We also tested both between- and within-person effects of stress and marital difficulties, as indicated by two variables: The Level 1 indicator was a time-varying, group-mean-centered (i.e., centered at each individual's cross-time average) variable; the Level 2 indicator was a grand-mean-centered (i.e., centered at the sample mean), cross-time average variable. By including both in our models, we were able to capture both within-person variation, or how an individual deviated from his/her cross-time average at each time point, and between-person variation, or how the individual's cross-time average differed from that of the rest of the sample. Thus, the Level 2 terms essentially controlled for stable individual differences and allowed us to rule out stable third variables that might otherwise explain within-individual linkages between stress and marital difficulties, and level of PDT. Additional Level 2 variables indexed between-family differences and included family SES, sibling dyad age spacing, and dyad gender constellation. Finally, to test moderators of the links between stress, marital difficulties, and PDT, we added interactions between the within-person stress and marital difficulties terms and structural factors (age spacing; dyad gender constellation). None of these interactions were significant and so were removed from the final models. Youth nativity and mothers' and fathers' reports of dyadic warmth and conflict with each sibling were included in preliminary analyses, but proved to be nonsignificant in all models (as main effects or interactions); thus, they were also removed from final models.

Effect size estimates were calculated by converting unstandardized gamma coefficients ($\gamma$) into standardized regression weights ($\beta$) by multiplying gamma coefficients by the standard deviation of the predictor variable and dividing that product by the standard deviation of the outcome variable (Whiteman, McHale, & Crouter, 2011). These standardized coefficients signify how the standard deviations in (changes in) the outcome variables correspond with (changes in) a standard deviation in the predictor variables. Unstandardized weights ($\gamma$) are presented in the tables, whereas standardized weights ($\beta$) are presented in text for significant effects.

## Developmental Trajectories of Parents' Differential Warmth and Conflict

Table 1 shows the means and standard deviations for stress and marital difficulties variables and parents' differential warmth and conflict, by mothers and fathers over time.

TABLE 1
*Means (*M*) and Standard Deviations (*SD*) for Study Variables*

| Variables | Time 1 | | Time 2 | | Time 3 | |
|---|---|---|---|---|---|---|
| | ***M*** | **(*SD*)** | ***M*** | **(*SD*)** | ***M*** | **(*SD*)** |
| Mothers | | | | | | |
| Role overload[a] | 3.12 | (0.93) | 3.00 | (1.06) | 3.06 | (0.96) |
| Marital dissatisfaction[a] | 3.17 | (1.56) | 3.00 | (1.73) | 2.95 | (1.55) |
| Depressive symptoms[a] | 15.37 | (9.73) | 14.39 | (10.66) | 15.62 | (11.39) |
| Differential mother–youth warmth[b] | 0.67 | (0.56) | 0.73 | (0.67) | 0.71 | (0.60) |
| Differential mother–youth conflict[b] | 0.93 | (0.74) | 0.69 | (0.59) | 0.58 | (0.57) |
| Fathers | | | | | | |
| Role overload[a] | 3.03 | (0.92) | 2.84 | (0.94) | 2.63 | (0.94) |
| Marital dissatisfaction[a] | 2.68 | (1.21) | 2.69 | (1.29) | 2.59 | (1.38) |
| Depressive symptoms[a] | 12.79 | (8.35) | 11.93 | (9.92) | 11.18 | (9.42) |
| Differential father–youth warmth[b] | 0.82 | (0.68) | 0.75 | (0.58) | 0.76 | (0.61) |
| Differential father–youth conflict[b] | 1.02 | (0.83) | 0.66 | (0.65) | 0.60 | (0.58) |

*Note.* [a]Parent report.
[b]Youth report.

Table 2 shows mothers', fathers', and interparent correlations of study variables. Correlations between mothers' and fathers' reports of their individual stress and marital difficulties ranged from .17 to .33, suggesting their distinct experiences at both the individual and couple levels. Mothers' differential warmth averaged 0.70 ($SD$ = 0.60) and fathers' averaged 0.79 ($SD$ = 0.64), meaning that their two children differed by almost one point on the five-point warmth scale. Mothers' differential conflict averaged 0.78 ($SD$ = 0.68) and fathers' averaged 0.82 ($SD$ = 0.76) on the six-point scale. Further, on average, older siblings reported more maternal warmth and less maternal and paternal conflict than younger siblings, but younger siblings reported more paternal warmth at T1. A series of MLMs, followed by deviance tests, revealed no change over time for mothers' or fathers' *differential warmth,* but significant cubic effects emerged for both mothers' ($\gamma$ = .002, $SE$ = .00, $p < .001$) and fathers' ($\gamma$ = .002, $SE$ = .00, $p < .001$) *differential conflict.* As Figure 1 shows, both parents' differential conflict increased steadily until age 15 and then declined into young adulthood. In addition, fathers exhibited more differential conflict with mixed-gender dyads ($\gamma$ = .21, $SE$ = .08, $p < .01$) and more differential warmth to dyads with larger age spacing ($\gamma$ = .06, $SE$ = .02, $p < .01$), but there were no such effects for mothers.

## Correlates of Parents' Differential Treatment

Beginning with the covariates in *parental stress models*, SES ($\beta = -.12$) was negatively associated with the cross-time average of mothers' differential warmth, sibling age gap ($\beta$ = .15) was positively associated with fathers' average differential warmth, and gender constellation of the dyad ($\beta$ = .14) was associated with fathers' average differential conflict such that siblings from mixed-gender dyads experienced more differential treatment. The analysis of *parental stress* (Table 3) revealed significant associations between parents' stress and their own differential treatment of offspring as well as crossover (spousal) effects of one parent's stress on the other's PDT. For role overload and differential warmth linkages, between-person effects of fathers' role overload indicated that fathers who reported more role overload, *on average*, had children who experienced both more differential paternal and more differential maternal warmth ($\beta$ = .17 and .14, respectively), on average. A significant within-person (i.e., time-varying) crossover effect for mothers' role

TABLE 2

*Correlations for Study Variables*

| | 1. RO T1 | 2. RO T2 | 3. RO T3 | 4. MD T1 | 5. MD T2 | 6. MD T3 | 7. DS T1 | 8. DS T2 | 9. DS T3 | 10. PDW T1 | 11. PDW T2 | 12. PDW T3 | 13. PDC T1 | 14. PDC T2 | 15. PDC T3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | **.17**** | .58** | .42** | .14** | .05 | .05 | .28** | .26** | .21** | .15** | .19** | .17** | .02 | .01 | .03 |
| 2. | .50** | **.26**** | .54** | .16** | .08* | −.01 | .32** | .32** | .21** | .18** | .20** | .10* | .06$^{\dagger}$ | .14** | −.03 |
| 3. | .38** | .59** | **.20**** | .10** | .09* | .09* | .32** | .34** | .33** | .19** | .12** | .12** | .14** | .09* | .01 |
| 4. | .22** | .18** | .22** | **.33**** | .52** | .46** | .27** | .10** | .11** | .14** | .03 | .08* | .01 | .01 | −.01 |
| 5. | .18** | .27** | .24** | .58** | **.22**** | .41** | .23** | .17** | .28** | .20** | −.00 | .11** | −.03 | .10* | .26** |
| 6. | .18** | .25** | .23** | .59** | .77** | **.25**** | .13** | .19** | .37** | .18** | −.19* | .06 | −.11* | −.06 | .04 |
| 7. | .44** | .36** | .26 | .49 | .24 | .30 | **.32**** | .45** | .43** | .15** | .13** | .08* | .04 | .15** | .03 |
| 8. | .29** | .35** | .31** | .28** | .36** | .21** | .52** | **.22*** | .55** | .09** | .02 | .01 | −.01 | .11** | .15** |
| 9. | .18** | .33** | .36** | .18** | .22** | .21** | .48** | .61** | **.17**** | .21** | −.09* | .04 | −.09* | .10* | .21** |
| 10. | .08** | .04 | .07* | .09** | .13** | .13** | .18** | .09** | .06$^{\dagger}$ | **.37**** | −.00 | .10** | .10** | .03 | .02 |
| 11. | .16** | .02 | .09* | .13** | .12** | .02 | .24** | .23** | .16** | .22** | **.13**** | .51** | .04 | .23** | −.07$^{\dagger}$ |
| 12. | .04 | −.05 | .02 | .26** | .09** | .20** | .10** | .02 | .13** | .05 | .41** | **.25**** | .04 | .07$^{\dagger}$ | −.06 |
| 13. | .02 | .03 | .01 | .02 | .09** | −.04 | .11** | .18** | .12** | .23** | .08** | .03 | **.59**** | .28** | .19** |
| 14. | .08* | −.04 | .10** | .01 | −.06 | −.09* | .12** | .16** | .15** | .18** | .22** | .25** | .27** | **.54**** | .32** |
| 15. | −.03 | −.15* | −.03$^{\dagger}$ | −.03 | −.03 | −.10* | .21** | .25** | .09* | −.01 | .12** | .02 | .21** | .46** | **.61**** |

*Note.* Mothers' correlations are the below diagonal, fathers' correlations are the above diagonal, and the interparent correlations are the bolded diagonal.
RO = Role overload; MD = Marital dissatisfaction; DS = Depressive symptoms; PDW = Parents' differential warmth; PDC = Parents' differential conflict; T1 = Time 1; T2 = Time 2; T3 = Time 3.

$^{\dagger}p < .10$. *$p < .05$. **$p < .01$.

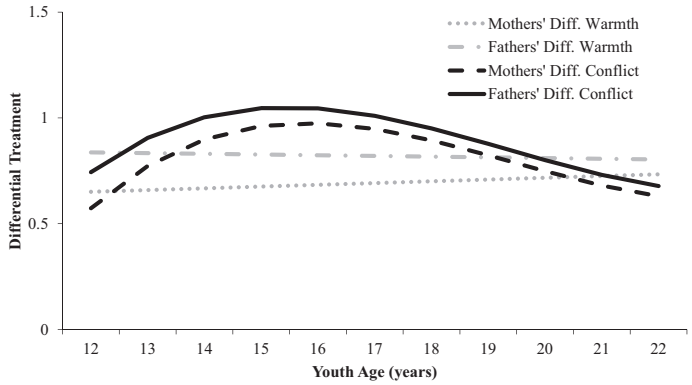


FIGURE 1. The Developmental Trajectories of Mothers' and Fathers' Differential Warmth and Conflict.

overload on fathers' differential warmth also emerged: Contrary to predictions, on occasions when mothers reported more role overload *than usual* (i.e., relative to their own cross-time average), siblings experienced less differential warmth from fathers (β = −.06) *than usual*. Turning to role overload and differential conflict, both significant between- and within-person effects emerged for mothers: In contrast to predictions, at the between-person level, when mothers experienced more role overload, *on average,* siblings experienced less differential conflict with mothers (β = −.09), on average. In addition, on occasions when mothers reported more role overload *than usual*, siblings experienced less differential conflict with both mothers and fathers (β = −.07 and −.29, respectively) *than usual*. That is, increases and decreases in mothers' overload were linked to corresponding changes in siblings' experiences of differential treatment both from mothers and fathers.

TABLE 3

*Regression Coefficients (γ) and Standard Errors (*SE*) for Parental Stress Predicting Parents' Differential Treatment*

| | **Mother differential warmth** | | **Father differential warmth** | | **Mother differential conflict** | | **Father differential conflict** | |
|---|---|---|---|---|---|---|---|---|
| **Fixed effects** | **γ** | **(*SE*)** | **γ** | **(*SE*)** | **γ** | **(*SE*)** | **γ** | **(*SE*)** |
| Family SES | −.09 | (.04)* | −.04 | (.04) | −.02 | (.05) | −.07 | (.05)† |
| Sibling age gap | .01 | (.02) | .06 | (.02)** | .01 | (.02) | −.00 | (.02) |
| Gender constellation (1 = mixed gender) | −.02 | (.06) | .01 | (.07) | .14 | (.07)† | .21 | (.08)** |
| Parent's B-P role overload | −.00 | (.04) | .13 | (.04)** | −.07 | (.05)* | .05 | (.05) |
| Spouse's B-P role overload | .10 | (.04)* | −.04 | (.05) | .03 | (.05)† | −.10 | (.05)† |
| Parent's W-P role overload | −.03 | (.03) | −.00 | (.03) | −.09 | (.03)* | .01 | (.04) |
| Spouse's W-P role overload | .00 | (.03) | −.07 | (.03)* | .05 | (.03) | −.01 | (.03) |
| Parent's B-P depressive symptoms | .01 | (.00)* | −.00 | (.00) | .01 | (.00) | .01 | (.01) |
| Spouse's B-P depressive symptoms | −.00 | (.00) | .01 | (.00)* | .01 | (.01) | .01 | (.01)† |
| Parent's W-P depressive symptoms | −.00 | (.00) | .01 | (.01) | −.01 | (.01)** | .00 | (.01) |
| Spouse's W-P depressive symptoms | .01 | (.01) | −.00 | (.01) | −.01 | (.01) | −.02 | (.01)** |
| Deviance | 1318.70 | | 1362.50 | | 1493.10 | | 1615.20 | |

*Note*. B-P = between-person-level effect, W-P = within-person-level effect.
†$p < .10$. *$p < .05$. **$p < .01$.

For depressive symptoms, significant between-person effects of mothers' depressive symptoms emerged, such that when mothers reported higher average levels of depressive symptoms, siblings experienced more differential warmth with both mothers and fathers, on average (β = .17 and .13, respectively). Significant within-person effects of mothers' depressive symptoms on both mothers' and fathers' differential conflict also emerged: In contrast to expectations, on occasions when mothers reported more depressive symptoms *than usual*, siblings experienced less differential conflict from mothers and fathers (β = −.08 and −.05, respectively) *than usual.* That is, changes in mothers' distress were linked to changes in siblings' experiences of differential treatment from *both* mothers and fathers.

Turning to the *parental marital difficulties models*, beginning with covariates, SES was negatively associated with mothers' cross-time average differential warmth (β = −.15) and fathers' average differential conflict (β = .15), sibling age gap was positively associated with fathers' average differential warmth (β = .18), and dyad gender constellation was associated with fathers' average differential conflict (β = .15), such that mixed-gender dyads experienced more differential treatment (Table 4). With respect to marital difficulties, a significant between-person crossover effect for mothers' marital dissatisfaction on fathers' differential warmth emerged, such that when mothers reported higher levels of marital dissatisfaction, *on average,* siblings experienced more differential warmth from fathers (β = .17), on average. A significant within-person effect of fathers' marital dissatisfaction on fathers' differential warmth also emerged. In contrast to predictions, on occasions when fathers reported higher levels of marital dissatisfaction *than usual*, siblings experienced less differential warmth from fathers (β = −.08) *than usual.* Finally, turning to marital dissatisfaction–differential conflict linkages, a within-person crossover effect for fathers' marital dissatisfaction on mothers' differential conflict indicated that, on occasions when fathers reported higher levels of marital dissatisfaction *than usual*, siblings experienced more differential conflict from mothers (β = .11) *than usual.*

## DISCUSSION

Parents' differential treatment is a common family dynamic that is linked to youth adjustment, but we know little about factors that predict PDT during adolescence and

TABLE 4

*Regression Coefficients (γ) and Standard Errors (*SE*) for Marital Difficulties Predicting Parents' Differential Treatment*

| | Mother differential warmth | | Father differential warmth | | Mother differential conflict | | Father differential conflict | |
|---|---|---|---|---|---|---|---|---|
| **Fixed effects** | γ | (*SE*) | γ | (*SE*) | γ | (*SE*) | γ | (*SE*) |
| Family SES | −.11 | (.04)** | −.07 | (.04) | −.06 | (.05) | −.12 | (.05)* |
| Sibling age gap | .01 | (.02) | .07 | (.02)** | .02 | (.01) | −.00 | (.02) |
| Gender constellation (1 = mixed gender) | −.00 | (.07) | .02 | (.07) | .12 | (.08) | .22 | (.08)** |
| Parent's B-P marital dissatisfaction | .03 | (.02) | .03 | (.03) | .01 | (.03) | .04 | (.04) |
| Spouse's B-P marital dissatisfaction | .01 | (.03) | .07 | (.02)** | −.05 | (.04) | .01 | (.03) |
| Parent's W-P marital dissatisfaction | −.00 | (.07) | −.08 | (.04)* | .04 | (.08) | −.03 | (.05) |
| Spouse's W-P marital dissatisfaction | −.04 | (.04) | −.01 | (.06) | .12 | (.04)* | .07 | (.08) |
| Deviance | 1257.20 | | 1340.50 | | 1438.00 | | 1572.80 | |

*Note.* B-P = between-person-level effect, W-P = within-person-level effect.
†$p < .10$. *$p < .05$. **$p < .01$.

young adulthood. Using longitudinal data collected from mothers, fathers, and two siblings on three different occasions across 8 years, our goals were to chart the course of mothers' and fathers' differential warmth and conflict with offspring from adolescence into young adulthood and to examine the longitudinal associations between parents' stress and marital difficulties and levels of PDT during this developmental period. Bringing a cultural–ecological model to bear on family processes and using a multilevel modeling analytic approach, this study also expanded on PDT research and theory by: (1) using an ethnic homogeneous design to chart age-related changes in Mexican-origin mothers' and fathers' differential warmth and conflict from early adolescence to young adulthood, (2) studying parent stress/marital difficulties–PDT linkages over time to enable examination of both between- and within-person associations, and (3) testing both parents' own and their spouses' stress and marital difficulties as correlates of mothers' and fathers' differential treatment.

## Developmental Course of Parents' Differential Treatment

Differential parent–child relationships have been described as nonshared environmental influences that drive the development of sibling differences (Plomin, 2011). Indeed, PDT may be one reason why sisters and brothers who grow up in the same family are often so different from one another (Rowe & Plomin, 1981). In the face of the significance of this family dynamic, however, we know very little about its developmental course (Conger & Little, 2010), very little about PDT processes beyond childhood and adolescence, and almost nothing about PDT in ethnic minority samples. Accordingly, to advance understanding of this common family dynamic, we used an ethnic homogeneous design with longitudinal data collected from mothers, fathers, and two siblings from Mexican-origin families, to chart patterns of change over time in PDT from early adolescence into young adulthood. Our results revealed that mothers' and fathers' differential warmth remained stable across this time period. In contrast, both mothers' and fathers' levels of differential conflict peaked when the younger sibling was in mid-adolescence and then declined into young adulthood. These patterns underscore the multidimensionality of this family dynamic, whereas differential conflict was linked to developmental changes in adolescence, and differential warmth showed no significant change from early adolescence into young adulthood. For both dimensions of PDT, however, parents averaged between a half–to a one-point difference on the five- and six-item scales we used, underscoring that differential treatment of siblings is a relatively common family dynamic. Our examination of PDT in young adulthood (Jensen, Whiteman, Fingerman, & Birditt, 2013), together with studies of PDT in midlife (Gilligan, Suitor, Kim, & Pillemer, 2013), suggests further that PDT persists throughout the life course. Research on minority groups in the United States tends to be focused on dysfunctional family processes (Garcia Coll et al., 1996; McLoyd, 1998), and so our findings add to the limited literature on normative family processes in Mexican-origin families, documenting that PDT is evident in a cultural group characterized by a strong orientation to family and communal values (Germán, Gonzales, & Dumka, 2009).

Another important contribution of this study was our incorporation of fathers. Most prior research on PDT has focused on mothers, although some findings suggest that fathers' differential treatment may be more significant for youth adjustment, at least in European/European American families (Brody et al., 1992; Tamrouti-Makkink, Dubas, Gerris, & Aken, 2004). Our findings revealed that fathers' PDT, but not mothers', was linked to sibling dyad characteristics: Fathers exhibited more differential conflict toward mixed as compared to same-gender dyads and more differential warmth when siblings were further apart in age. In follow-up tests utilizing directional difference scores, boys in

mixed-sex dyads experienced favored treatment, or less conflict with their fathers relative to their sisters; however, in the case of differential warmth, when siblings were further apart in age, there was no clearly favored sibling. The literature on father–youth relationships in Mexican-origin families is limited, but these findings are consistent with early research, primarily on European American families, showing that fathers may be more reactive than mothers to child characteristics (McBride, Schoppe, & Rane, 2002), but more research is needed to better understand the role of youth characteristics in PDT. As noted, however, we found no differences between mothers' and fathers' patterns of change over time in PDT.

### Correlates of Parents' Differential Treatment

Despite the breadth of studies demonstrating the negative implications of PDT for youth, few studies have been aimed at identifying family dynamics that may be linked to PDT. Building on cross-sectional evidence suggesting that PDT in European American families is exacerbated by stressors (Crouter et al., 1999; Henderson et al., 1996), we explored whether levels of and/or changes over time in parents' stress and marital difficulties were linked to Mexican-origin PDT during adolescence and into young adulthood. That is, in addition to the usual focus on between-family differences linking family dynamics to levels of PDT, we also expanded upon most prior PDT research using a multilevel approach in the context of longitudinal data, which allowed us to control for stable individual differences and capture the correlates of within-person variations over time in PDT.

In general, the between-group effects we detected were consistent with our hypothesis in documenting that parents' average levels of stress and marital difficulties were positively associated with their cross-time average levels of PDT. Effect sizes of role overload, depressive symptoms, and marital difficulties ranged from .07 to .17. Although smaller in size, our results are comparable to the effects of SES on PDT ($\beta$ = .12 to .15); thus, our results suggest that personal stressors may have meaningful implications for differential parenting practices. In contrast to these between-individual differences and contrary to our expectations, within-individual effects most often took the form of higher than usual levels of stress/marital difficulties being linked to lower than usual levels of PDT. For instance, more marital dissatisfaction reported by fathers was associated with more differential paternal warmth, on average, whereas on occasions when fathers reported more marital dissatisfaction than usual, they also exhibited *less* differential warmth than usual. Also at the within-group level, when mothers reported more depressive symptoms than usual, youth experienced *less* differential conflict with both mothers and fathers than usual. This pattern suggests that chronic stress and marital difficulties may give rise to more PDT overall (as documented in prior studies), but that when parents experience higher than usual levels of stress and marital difficulties, they may pull back from their involvement with both of their children. It is also possible that, when parents experience more stress and marital difficulties than usual, their children withdraw or are better behaved such that they are less likely to engender conflict and more likely to elicit warmth from parents.

Another new insight from our work was that each parent's PDT was linked to the stress/marital difficulties reported by his or her spouse. Our findings highlight the importance of studying families as *systems* within which the experiences of individuals, dyads, and larger subsystems (such as parent–older sibling–younger sibling dynamics captured in PDT) are interconnected. To do so requires gathering information about the experiences of multiple family members. For example, more role overload reported by fathers was associated with more differential paternal *and* maternal warmth, and more depressive symptoms reported by mothers was associated with more differential maternal *and* paternal warmth. Some prior literature suggested that women are more subject to crossover effects than men (Johnson & Jackson, 1998) and based on women's kin-keeper roles in

Mexican-origin families (Galanti, 2003), we hypothesized that the flow of stressor crossover would flow from husbands to wives. We did not find strong evidence in support of this hypothesis, however. Instead, mothers' and fathers' differential treatment were equally likely to be linked to the stress/marital difficulties of their spouses.

At the most general level, our findings are consistent with family systems tenets about reciprocal influences across family subsystems and underscore that subsystems should not be studied in isolation (Cox & Paley, 2003). Empirical examples of family systems processes are rare, however, at least in part because studies of families do not often extend beyond individual family members and dyads. Thus, through our focus on sibling-related dynamics, our study provided additional insight into how families operate as systems.

### Limitations and Future Directions

Although our findings make important contributions to the literature on PDT and our growing knowledge of family dynamics in two-parent Mexican-origin families, this study is not without limitations. First, our sample was not representative of the population of Mexican-origin families. We limited our sample to two-parent families given our interest in fathers and because this family structure represents over 67% of the Latino population (U.S. Census Bureau, 2016), but future studies should examine how stressor–PDT linkages operate in different family structures. In addition, in this study, we examined indices of stress and marital difficulties that have been the focus of a small literature on the correlates of differential treatment in European American families. We focused on a limited set of correlates; thus, additional research is needed to examine a broader range of sociocultural stressors that Mexican-origin parents may experience (e.g., discrimination, acculturative stress) as well as intergenerational patterns of PDT as these relate to parents' own displays of PDT. Further, youth characteristics beyond age and gender may shape their dyadic family relationships and should be examined as potential correlates of PDT and moderators of its effects (McHale & Crouter, 2003). Future studies should directly test characteristics such as temperament and personality traits as potential moderators of links between parental stressors and PDT. Finally, we focused on two siblings in each family, and an important next step toward understanding the implications of PDT across development is to examine predictors of youth's evaluations of PDT—such as their ratings of fairness, their feelings of jealousy, and their perceptions of parents' reasons for PDT to best capture complex family systems processes.

At the broadest level, however, our study advances understanding of family processes in Mexican-origin families by identifying forces that may shape a common family dynamic that is linked to youth adjustment, including by charting how dimensions of PDT change over time and are linked to parental stress/marital difficulties within this sociocultural group. These results contribute to the literature on family dynamics and shed new light on how parents' and spouses' experiences of stress/marital difficulties may have implications for youth. Although the field has witnessed substantial progress in documenting factors that shape dynamics of European American families, more research is needed about the role of individual, relational, and sociocultural characteristics in family processes within ethnic minority families, a rapidly growing segment of U.S. society.

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