

Father Involvement in Mexican-Origin Families: Preliminary Development of a Culturally Informed Measure

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Objectives: An increasing body of research has documented the significant influence of father involvement on children’s development and overall well-being. However, extant research has predominately focused on middle-class Caucasian samples with little examination of fathering in ethnic minority and low-income families, particularly during the infancy period. The present study evaluated measures of early father involvement (paternal engagement, accessibility, and responsibility) that were adapted to capture important cultural values relevant to the paternal role in Mexican-origin families. **Methods:** A sample of 180 Mexican-origin mothers (M age = 28.3) and 83 Mexican-origin fathers (M age = 31.5) were interviewed during the perinatal period. **Results:** Descriptive analyses indicated that Mexican-origin fathers are involved in meaningful levels of direct interaction with their infant. A 2-factor model of paternal responsibility was supported by factor analyses, consisting of a *behavioral responsibility* factor aligned with previous literature and culturally derived *positive machismo* factor. Qualities of the romantic relationship, cultural orientation, and maternal employment status were related to indices of father involvement. **Conclusions:** These preliminary results contribute to understanding of the transition to fatherhood among low-income Mexican-origin men and bring attention to the demographic, social, and cultural contexts in which varying levels of father involvement may emerge.

Keywords: father involvement, Mexican origin, paternal role, postnatal period

Once viewed largely through the lens of the maternal role, family research has widened its scope in recognition of the critical role fathers assume within the family context (Goeke-Morey & Cummings, 2007). One of the most influential developments to follow from dedicated study of fatherhood is the concept of paternal involvement, a theoretical construct that encompasses *engagement, accessibility, and responsibility* (Lamb, Pleck, Charnov, & Levine, 1987). This multidimensional view replaced overly simplistic measures of men’s economic contributions or frequency of father-child contact (Flouri, 2005). Engagement refers to activities through which fathers directly interact with their children (e.g., feeding, dressing, playing). Accessibility is represented by the amount of time fathers spend in the child’s presence and available to respond to the child’s needs, but not interacting with the child (i.e., father is nearby as child engages in solitary play). The final element, paternal responsibility, has been the most difficult to define and remains the least understood (Doherty, Kouneski, & Erickson, 1998; Pleck & Masciadrelli, 2004). Responsibility has been hypothesized to reflect the “managerial” tasks of fatherhood, such as arranging resources, planning for the future, and other types of indirect care (Stueve & Pleck, 2003).

Less commonly, research has related responsibility to the abstract value, meaning, and sense of identity men ascribe to the father role (Hawkins & Palkovitz, 1999). Although the tripartite involvement construct is consistently used to guide the examination of fathering, studies differ in how they operationalize and select measures to evaluate each of the three components (Pleck, 2010). For example, assessments of paternal engagement vary in the types of interaction activities that are included (e.g., caretaking, play, leisure). Measures of paternal accessibility may range from detailed time diaries (Hofferth & Sandberg, 2001) to broad measures of coresidence or frequency of contact (D’Angelo, Palacios, & Chase-Lansdale, 2012). More problematically, many existing measures of responsibility measure how “responsible” fathers are for completing various childcare tasks, overlapping with measures of engagement and obstructing its clear assessment (Pleck & Masciadrelli, 2004).

In addition to measurement issues, existing father involvement research is limited in other ways. First, middle-class, Caucasian families have provided the context for much of what has been theorized and concluded about fathering (Downer, Campos, McWayne, & Gartner, 2008). A review of father involvement research found that fewer than 4% of studies had samples comprising a meaningful number of Latino participants (Downer et al., 2008) and most focused on isolated parenting behaviors without strong conceptual grounding (Campos, 2008). Mexican-origin families represent a particularly salient environment in which to study fathers and the paternal involvement construct because Latinos are the largest ethnicity in the United States (U.S. Census Bureau, 2011) and are growing most rapidly as a result of immigration and fertility rates that exceeded all other groups (Passel, Livingston, & Cohn, 2012). Moreover, Latino families may be disproportionately

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exposed to both potential risk factors (e.g., financial stress, neighborhood violence) and protective cultural resources (e.g., strong familial support) that shape parenting practices (Coltrane, Parke, & Adams, 2004). Second, research on father involvement has largely focused on its observable components, with little attention to paternal responsibility (Parke, 2000). However, responsibility may be an important form of involvement among low-income minority families. Economic strain may require fathers to assume greater responsibility, particularly when mothers are employed outside the home (Coltrane et al., 2004). Third, questions remain as to the underlying structure of father involvement, with findings that vary based on item content and sample qualities (Pleck, 2010). For example, Pleck and Hofferth (2008) observed that a single factor provided a better fit to the data than multiple factors. Conversely, separate factors have been found to describe fathers' participation in indirect care and paternal monitoring, which may represent distinct facets of paternal responsibility (Schoppe-Sullivan, McBride, & Ho, 2004). Other research has characterized paternal responsibility as including a behaviorally oriented factor and a process-oriented component ("filling the need" vs. "seeing the need"; Doucet, 2006, p. 219). Finally, prior studies of fathering have relied disproportionately upon mother reports despite observations of significant differences between parental reports of father involvement (Mikelson, 2008).

Although father involvement includes elements that transcend across cultures (Flouri, 2005), there are ways in which cultural values uniquely influence fathering behavior. The integrative model for developmental research provides a framework to guide the study of parenting among minorities (García Coll et al., 1996). The authors suggest that to accurately describe basic developmental processes in minority groups, mainstream theories must be enhanced by the inclusion of cultural experiences. Within the model proposed by García Coll and colleagues (1996), parenting in minority families is shaped by an interaction of traditional cultural values and broader social contextual influences in the United States. Early perspectives of Latino fathers as uninvolved and lacking in emotional warmth are widely deemed inaccurate, perpetuating a broad overgeneralization of the negative "machismo" stereotype and an inaccurate unidimensional view of men within this cultural group (Mirandé, 1997). More recent conceptualizations indicate that machismo may also be associated with positive fathering, including nurturing behaviors, emotional closeness, and family protection (Arciniega, Anderson, Tovar-Blank, & Tracey, 2008).

Cabrera and Bradley (2012) also highlighted relations between demographic factors and involvement among Latino men. For example, employment, income, and education are positively associated with Latino paternal involvement (Cabrera, Ryan, Mitchell, Shannon, & Tamis-LeMonda, 2008; Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004). However, even such demographic factors must be considered within a cultural contextual framework. For example, immigration to the United States may be associated with stressors, structural barriers, and reduced capital that undermine the quality and quantity of father involvement (Capps, Bronte-Tinkew, & Horowitz, 2010). Strain within the family context may also negatively influence father involvement. Paternal engagement was lower among Mexican American parents who reported greater conflict and decreased levels of happiness in their marital relationship, particularly when fathers were less accultur-

ated (Cabrera, Shannon, & La Taillade, 2009). Acculturation processes may exert strong influence on fathering, as adaptation to American culture can include shifts in parenting beliefs and practices. Cabrera, Shannon, West, and Brooks-Gunn (2006) observed that more acculturated Latino fathers demonstrated higher levels of engagement than less acculturated fathers, however effects on other dimensions of paternal involvement were not assessed.

As suggested by the integrative model of García Coll et al. (1996), cultural values may encourage a particularly important role for fathers within Mexican-origin families. *Familism* is a core characteristic in the Hispanic culture that may bear significantly on how Mexican-origin fathers approach the father role, particularly the aspect of paternal responsibility. *Familism* describes "a strong sense of identification and attachment of individuals with their families (nuclear and extended)" (Sabogal, Marín, Otero-Sabogal, Vanoss Marín, & Perez-Stable, 1987, p. 398). These beliefs espouse the provision of instrumental and emotional support to family members and emphasize a shared sense of obligation, loyalty, and respect among family members (Germán, Gonzales, & Dumka, 2009). Prior research has found *familism* values to impact fathers' attitudes toward parenthood and the support provided to Mexican American mothers (Campos et al., 2008). Higher levels of involvement have also been found among men who more strongly endorsed family rituals, a proxy for *familism* (Coltrane et al., 2004). There is theoretical and empirical evidence to suggest a relation between *familism* and father involvement, and cultural models of parenting suggest that *familism* may encourage the fulfillment of the father role (Cabrera, Hofferth, & Chae, 2011). More specifically, *familism* describes abstract features of familial relationships, and these values may encourage Mexican-origin fathers to enact the paternal role in culturally informed representations of the nontangible, indirect qualities of paternal responsibility (e.g., encouraging emotional closeness among family members, putting family needs first). Thus, as an indication of men's duties to the family and their commitment to the provider role, Mexican-origin fathers' *familism* values may reflect a cultural embodiment of the responsibility component of paternal involvement as conceptualized by Lamb et al. (1987). Rather than evaluate *familism* as a predictor of involvement as has been done in previous research, the current study adapted existing items that measure *familism* and incorporated them in the assessment of paternal responsibility among Mexican-origin fathers.

Guided by the Lamb et al. (1987) tripartite conceptualization and the integrative model of developmental research from García Coll and colleagues (1996), the current study addressed limitations in existing research with a preliminary attempt to develop and evaluate theoretically- and culturally informed measures of paternal involvement in Mexican-origin families. Fathering in the present study was evaluated during infancy, a time during which when newborn care is often considered to be under the sole purview of the maternal role. However, early life represents a time of rapid development in which fathers may contribute substantially to their offspring's social and emotional skills (Risley & Hart, 2006). At 21 weeks after the birth of their child, fathers and mothers completed measures of paternal engagement, accessibility, and responsibility. We explored the underlying structure of paternal responsibility using a measure enriched with culturally relevant items and examined the direct and indirect ways in which fathers participate in family life during the early infancy period. The relations of

paternal involvement to important demographic and cultural variables and the degree of correspondence between maternal and paternal reports of fathering were also investigated to understand fathering within the larger social and familial context.

Method

Participants

Participants included 180 Mexican-origin women (M age = 28.3, SD = 6.23) recruited for a larger longitudinal study of maternal and infant health and 83 Mexican-origin men (M age = 31.5, SD = 7.57) recruited into a substudy of paternal mental health and father involvement during the early postnatal period. All participating men were the biological father of the infant or the current romantic partner serving in the paternal role.¹ Eligibility criteria for women and men were (a) Mexican origin (self-identified Mexican or Mexican American residing in the United States), (b) English or Spanish language fluency, (c) age 18 or older, (d) low family income (self-reported income below \$25,000 or Medicaid eligibility), and (e) delivery of a singlet baby. Sample characteristics for mothers and fathers are presented in Table 1.

Recruitment

Eligible pregnant women were invited to participate by a female, bilingual interviewer during prenatal care appointments at a community clinic that serves low-income populations. Women's participation included a prenatal home visit conducted between 26 and 38 weeks gestation and 3 home visits and 7 telephone calls during the first postpartum year. The collection of mothers' reports of paternal involvement was initiated after the onset of data collection for the larger project. Thus, a subset of women participating in the larger study had progressed beyond the relevant postnatal data collection points for the current analyses. Of 322 women who consented to the larger study, 217 women were active in the study during the targeted data collection periods. Of these, 22 women had no involvement with the baby's father. The current analyses include 180 women (83%) who completed father involvement measures during the 21 week postnatal interview (13 women could not be contacted for the interview and interviewer/equipment error precluded data collection from two women).

Permission to contact male partners was requested of women at the 6-week postnatal home visit. Men's participation included two phone calls conducted at 15 and 21 weeks postpartum. Of the 161 men available for recruitment, 21 (12%) fathers declined to participate and 47 (26%) could not be contacted. The final sample consisted of 93 fathers: 88 completed both interviews and 83 completed the 21 week interview.

Procedures

Home visit and telephone interviews with mothers were conducted in Spanish (86%) or English (14%) according to the preference of the participant. Informed consent and interview questions were read aloud to women and responses were entered by interviewers onto project laptops equipped with computer-assisted interview software. Women were compensated \$75 and small gifts

for the prenatal home visit and \$10 for each 5- to 10-minute telephone interview.

Eligible fathers were mailed two informed-consent forms and a stamped envelope in which to return one signed form prior to the first telephone interview. If the signed form was not returned before the first telephone interview, the consent form was read aloud and verbal consent was recorded using a telephone recording system before beginning the interview. Bilingual male interviewers read questions aloud to fathers in the language of his choice (80% Spanish, 20% English) and responses were entered into a computer-based survey system. Fathers were compensated \$20 for each 20- to 30-minute telephone interview.

Measures

Father involvement. In light of the absence of "gold standard" assessments of father involvement, the current study relied on strong theoretical grounding and previous empirical research to select and adapt assessments of the three components of involvement.

Engagement. Engagement was assessed with six items from the Who Does What? Questionnaire – Infant Form (Cowan & Cowan, 1988), a widely used measure of the division of childcare tasks between parents that has demonstrated high reliability with Mexican American families (Cowan, Cowan, Pruett, Pruett, & Wong, 2009). Mothers and fathers were asked to indicate the level of involvement of fathers in six tasks that involve direct engagement (e.g., feeding, changing diapers, etc.) on a scale of 1 (*mother does it all*) to 9 (*father does it all*). In recognition of the high value Latino parents place on literacy activities (Ortiz, 2004), three additional items assessed the frequency with which fathers read books, told stories, and sang songs to their children (Cabrera et al., 2006; Capps et al., 2010). Values at the midpoint of the scale indicate that mothers and fathers engage in the task in approximately equal proportions, and higher values indicate greater paternal engagement and lower maternal engagement.

Accessibility. Accessibility was measured by asking mothers and fathers to estimate the amount of time fathers spend available to attend to the child's needs in the absence of direct interaction. Two separate questions collected this information in regards to a typical weekday and weekend day (Pleck & Masciadrelli, 2004). However, participants appeared to interpret and answer these questions in different ways; some individuals provided a response of "0 hours" to indicate that fathers were always available and others responded with an estimate of "24 hours" to indicate that fathers were always available. These two items were dropped in light of the inconsistencies and this data is not reported or included in follow-up analyses.

Responsibility. Paternal responsibility was assessed using mother and father reports on a combination of 24 items supported by theory and prior empirical research. First, because theory suggests that *familism* reflects a culturally specific representation of

¹ Two women (1%) stated that their current romantic partner was not the biological father of the infant. Both women were residing with their romantic partner. One of these men was recruited into the present study, but could only be reached for the 15-week interview. One mother reported that contact with the biological father occurred once every six months, and the other reported no contact with the biological father.

Table 1
Sample Characteristics

Variable	Mothers (<i>n</i> = 180)		Fathers (<i>n</i> = 83)	
	<i>n</i>	%	<i>n</i>	%
Family income				
Less than or equal to \$5,000	23	13	—	—
\$5,001–\$10,000	32	18	7	8
\$10,001–\$15,000	49	27	10	12
\$15,001–\$20,000	24	13	25	30
\$20,001–\$25,000	23	13	12	15
\$25,001–\$30,000	10	6	9	11
\$30,001–\$35,000	7	4	7	8
\$35,001–\$40,000	3	2	3	4
\$40,001–\$45,000	—	—	1	1
\$45,001–\$50,000	—	—	1	1
\$60,001–\$65,000	1	<1	—	—
\$65,001–\$70,000	1	<1	1	1
\$75,001–\$80,000	1	<1	—	—
\$90,001–\$95,000	1	<1	—	—
Missing	5	3	7	8
Number of children in the home (<i>M, SD</i>)	2.2 (1.7)		Not collected	
Fathered children in prior relationships	Not collected		13	16
Children from prior relationships (<i>M, SD</i>)	Not collected		1.73 (.96)	
Education				
Did not attend school	1	<1	—	—
1–11 years	111	62	44	53
High school graduate/GED	48	27	20	24
Some college/vocational school	8	4	5	6
Vocational school graduate	1	<1	3	4
Associate's degree	3	2	2	2
College degree	6	3	3	4
Master's degree	2	<1	—	—
Missing	—	—	6	7
Country of birth				
Mexico	163	91	66	80
United States	16	9	11	13
Other	1	<1	—	—
Missing	—	—	6	7
Age of immigration (<i>M, SD</i>)	15.8 (7.9)		17.9 (7.7)	
Language				
Spanish	155	86	66	80
English	25	14	17	20
Marital status				
Married and living together	67	37	38	46
Married but not living together	3	2	—	—
Living with partner but not married	88	49	37	45
Not married/not living with partner	16	9	1	1
Separated	6	3	1	1
Missing	—	—	6	7
Employment status				
Not employed	160	89	13	16
Employed full-time or part-time	20	11	64	77
Missing	—	—	6	7

paternal responsibility, 10 items from the *familism* scales of the Mexican American Cultural Values Scale (MACVS; Knight et al., 2010) were included. The MACVS assesses *beliefs* in certain cultural values, rather than actual behaviors. Thus, items were modified for the current study to evaluate the degree to which fathers demonstrated culturally relevant behaviors reflective of paternal responsibility. Seven additional items were written for the present study to measure strength, bravery, and other cultural qualities that are theoretically associated with positive *machismo* and paternal duty in Mexican-origin families (Arciniega et al., 2008). Finally, seven items were included from existing scales that

are consistent with the Lamb et al. conceptualization of responsibility (i.e., indirect care activities to ensure children's basic welfare), including five items from the Who Does What? measure (Cowan & Cowan, 1988) and two items from the Paternal Involvement Scale (Bruce & Fox, 1997).

Demographic information. During the 15-week postnatal telephone interview, information was obtained on fathers' employment status, occupation, education, income, marital/partnership status, household composition, other biological children, and migration history. A comparable measure was administered to mothers during the prenatal home visit.

Acculturation. The Acculturation Rating Scale for Mexican Americans II (ARSMA II; Cuéllar, Arnold, & Maldonado, 1995) was administered to mothers during the prenatal home visit and fathers during the 15-week postnatal interview to assess parents' integration and assimilation into Mexican and American societies. The ARSMA-II consists of a 13-item Anglo Orientation Subscale and a 17-item Mexican Orientation Subscale. In the current sample, reliabilities for the Mexican Orientation subscale were high (α mothers = 0.86; α fathers = 0.86), as were reliabilities for the Anglo Orientation subscale (α mothers = 0.93; α fathers = 0.90).

Economic stress. The Economic Hardship Scale (EHS; Barrera, Caples, & Tein, 2001) was administered to women during the prenatal home visit to assess financial hardship. The EHS was developed for low-income families to measure the subjective experience of stress when available resources are insufficient for perceived needs. Four subscales evaluate overall financial strain, lack of money for necessities, need for economic adjustments/cutbacks, and inability to make ends meet (α = .68).

Marital relationship quality. Women reported on marital adjustment during the 15-week postnatal telephone call using a seven-item version of the Dyadic Adjustment Scale (Spanier, 1976). Items were selected from the original measure to assess perceptions of satisfaction and cohesion with the partnership with higher scores indicating better romantic relationship adjustment (α = .81).

Satisfaction with paternal support. Women were asked about their level of satisfaction with paternal support at 18 weeks postpartum using a single item ("Overall, how satisfied are you with the support that you get from your baby's biological father?"). Response options ranged from 1 (*not at all satisfied*) to 4 (*extremely satisfied*).

Critical social support from partner. At 18 weeks postpartum, women were asked about the frequency with which they received critical or negative social support from their current romantic partner using three questions modified from Turner and Marino (1994; e.g., "You feel that your significant other makes too many demands on you"). Responses were averaged to create a summary score with higher scores indicating more frequent negative social support in the relationship (α = .87).

Data Analyses

First, descriptive statistics explored the nature and quality of paternal engagement as reported by mothers and fathers. In light of scarce prior psychometric research on paternal responsibility and the use of a novel, culturally informed measure in the current study, exploratory factor analysis (EFA) of father reports was used to examine the structure underlying this construct. The EFA was conducted in MPlus 7 (Muthén & Muthén, 2012) using maximum-likelihood factor analysis and a type of oblique rotation (geomin rotation) that allows the factors to correlate and provides fit statistics. To determine the number of factors to be extracted, current statistical recommendations suggest a comprehensive evaluation of model fit indices (RMSEA \leq 0.08, CFI \geq 0.90, and SRMR $<$ 0.08; Hu & Bentler, 1999) and consideration of the substantive content of the items loading on each factor. The final EFA solution from father reports was subsequently used as the basis for confirmatory

factor analysis (CFA) with mother reports of paternal responsibility.

Results

Paternal Engagement

Fathers engaged in direct interaction activities with relative frequency, however both paternal and maternal reports indicated higher engagement among mothers at 21 weeks after the birth of the child (father reported $M = 3.83$, $SD = 0.93$; mother reported $M = 3.44$, $SD = 1.25$). Approximately one-quarter of mothers ($n = 41$) and one fifth ($n = 18$) of fathers reported that fathers more frequently engaged in direct interaction activities as compared with mothers.

Paternal Responsibility

Father report. EFA with the 24 responsibility items was conducted using the procedures described above. One, two, and three factor models were requested. Initial analyses revealed several items that tended to have low loadings on all factors, regardless of the number extracted. First, an item evaluating the extent to which fathers would risk their own safety to protect their family had very low variability, as all fathers responded with a "4" or "5" on a 5-point scale ($M = 4.95$, $SD = 0.22$). Second, fathers were asked about providing a sense of security for the family; this item may have been unclear because of varied interpretations of the word "security" (e.g., economic, emotional, etc.). Lastly, three items had low loadings that may have been attributable to a lack of substantive fit or poor applicability within any factor solution. For example, fathers were asked about their completion of domestic chores, an activity that may be more reflective of general household functioning than paternal involvement or parenting values. Men were also asked about their encouragement of relationships between older children and their baby, an item that may have lacked relevance for first-time fathers and those with children that did not reside with them. An item evaluating the extent to which fathers worked hard to provide for their family may have similarly lacked pertinence among unemployed men and those with irregular work schedules.

EFA with the 19 remaining items indicated that a two-factor solution provided an adequate fit to the data (RMSEA = 0.05, 90% CI = 0.01–0.08; CFI = 0.90; SRMR = 0.07). Fit indices indicated that a one-factor model was a worse fit to the data (RMSEA = 0.08, 90% CI = 0.06–0.10, CFI = 0.74, SRMR = 0.09) and was removed from consideration as a possible solution. From a statistical standpoint, three factors yielded a better fit to the data as compared with two factors (RMSEA = 0.04, 90% CI = 0–0.07; CFI = 0.95; SRMR = 0.06). However, the substantive content and theoretical cohesion of the two-factor solution deteriorated because of culturally informed items that cross-loaded in the three-factor model.

Although the fit of the aforementioned two-factor EFA was satisfactory, the low CFI prompted additional critical evaluation of the items and analyses in an effort to improve fit. The loadings of seven items were noticeably lower (0.30 to 0.40, as compared with loadings of 0.50 and higher) and appeared to differ in important ways from those items that loaded more substantially. Specifically,

four items referenced the family or extended family and were less specific to the target infant (e.g., *Bring extended family together for holidays*). Two items regarding the frequency with which fathers scheduled childcare and decided how to respond to the baby's cries may have been developmentally inappropriate for the early postnatal period when infants are less likely to be cared for by others or left to self-soothe. Finally, an item related to planning for the baby's future may have been inconsistent with the present-focused orientation that has been observed within Hispanic cultures (Zea, García, Belgrave, & Quezada, 1997) and among individuals in low-income environments to meet imminent, day-to-day demands (Lawrance, 1991). A revised EFA with these seven items removed provided a two-factor solution with a better fit to the data (RMSEA = 0.05, 90% CI = 0.00–0.10; CFI = 0.94; SRMR = 0.05). The one-factor model was a worse fit to the data (RMSEA = 0.11, 90% CI = 0.08–0.14, CFI = 0.69, SRMR = 0.10) and the three-factor model yielded better fit indices (RMSEA = 0.03, 90% CI = 0.00–0.09, CFI = 0.99, SRMR = 0.04), however loadings on the third factor were all very low and nonsignificant (–0.06 to 0.28). Therefore, analyses and interpretation proceeded with the two-factor model of paternal responsibility.

The first factor, labeled *behavioral responsibility*, consisted of six items that captured indirect services performed by the father for the infant, including planning activities and managerial tasks. The

loadings of items on this factor ranged from 0.39 to 0.62 (all significant at $p < .05$, see Table 2). Factor 2, labeled *positive machismo*, included six new and MACVS-modified items that were reflective of culturally informed familism values relevant to the paternal role. Factor loadings ranged from 0.39 to 0.84 (all significant at $p < .05$, see Table 2). The individual items on each factor were averaged to form subscale scores. Internal reliability as measured by Cronbach's alpha was 0.52 for behavioral responsibility and 0.67 for positive machismo.

Mother report. After identification of the two-factor solution of paternal responsibility by fathers' report, a CFA was conducted on a corresponding two-factor model using mother-reported data. The CFA provided a good fit to the data (RMSEA = 0.05, 90% CI = 0.02–0.07; CFI = 0.98; SRMR = 0.03). Item loadings on behavioral responsibility ranged from 0.52 to 0.92 and the internal reliability was 0.88. Positive machismo item loadings ranged from 0.87 to 0.90 and the internal reliability was 0.96 (see Table 3).

Correlations Between and Within Maternal and Paternal Reports of Father Involvement

Fathers' self-reports and mothers' informant reports of paternal engagement were significantly positively related at the 21-week postnatal time point, as were reports of positive machismo. Paren-

Table 2
Loadings of Two-Factor Father Report EFA of Paternal Responsibility Items

Final retained items	Behavioral responsibility	Positive machismo	Item source
Choose toys for the baby	.41	–.07	WDW
Think about baby when making important decisions	.62	<.01	MACVS
Deal with the doctor about the baby's health	.41	.12	WDW
Make important decisions for the baby	.54	.24	PIS
Take responsibility as a father seriously	.58	–.03	New
Be a good example for other fathers	.39	.14	New
Be strong and brave for family	–.02	.72	New
Encourage love and affection	.06	.64	MACVS
Keep family safe	.27	.74	New
Make sacrifices for the baby	.26	.49	MACVS
Put family first	–.02	.80	MACVS
Support partner so she can be a good mother	–.02	.43	New

Dropped items	Behavioral responsibility	Positive machismo	Item source	Notes
Provide a sense of security to family	.24	.06	MACVS	Drop after first EFA; varied interpretations of "security"
Do household chores	.10	.06	WDW	Drop after first EFA; poor fit/applicability
Encourage older children to care for family	.19	.19	MACVS	Drop after first EFA; poor fit/applicability
Risk own safety for family	.11	.25	New	Drop after first EFA; limited variability
Work hard to provide for family	.16	.15	New	Drop after first EFA; poor fit/applicability
Put family's needs above your own	.40	.20	MACVS	Drop after second EFA; less specific to target infant
Encourage extended family to have close relationships with baby	.30	.19	MACVS	Drop after second EFA; less specific to target infant
Decide how to respond to baby's cries	.28	.20	WDW	Drop after second EFA; developmentally inappropriate
Make plans for baby's future	.29	.06	PIS	Drop after second EFA; culturally inconsistent
Bring family together for holidays	.30	.19	MACVS	Drop after second EFA; less specific to target infant

Note. Bolded values represent items that loaded onto each factor in the final EFA, $p < .05$; WDW = Who Does What? (Cowan & Cowan, 1988); PIS = Paternal Involvement Scale (Bruce & Fox, 1997); MACVS = Mexican American Cultural Values Scale (Knight et al., 2010).

Table 3
Loadings of Two-Factor Mother Report CFA of Paternal Responsibility Items

Item	Behavioral responsibility	Positive machismo
Choose toys for the baby	.56	
Think about baby when making important decisions	.88	
Deal with the doctor about the baby's health	.52	
Make important decisions for the baby	.90	
Take responsibility as a father seriously	.92	
Be a good example for other fathers	.80	
Be strong and brave for family		.91
Encourage love and affection		.90
Keep family safe		.94
Make sacrifices for the baby		.88
Put family first		.88
Support partner so she can be a good mother		.89

Note. All CFA loadings significant at $p < .01$.

tal reports of behavioral responsibility were uncorrelated (see Table 4).

The degree of relation among the various subtypes of involvement differed between maternal and paternal reports. Among fathers, behavioral responsibility was significantly correlated with engagement and positive machismo. Fathers' self-reported engagement and positive machismo were uncorrelated. Per maternal reports, all relations among paternal engagement, behavioral responsibility, and positive machismo were significant (see Table 4).

Correlates of Paternal Involvement

Father report of paternal involvement. Higher levels of engagement were reported by fathers when mothers worked part- or full-time as compared with men with partners who did not work outside the home, $r = .39, p < .01$. In contrast, fathers' own work status was not significantly related to any index of paternal involvement. A greater number of other biological children with one's current partner was associated with higher levels of behavioral responsibility, $r = .26, p = .05$, but was uncorrelated with fathers' reports of engagement or positive machismo. Men with children from previous romantic relationships reported lower levels of engagement with the new infant that nearly reached significance, $r = -0.23, p = .06$, however there were no differences in behavioral responsibility and positive machismo between fathers with and without offspring with prior partners. Reports of family

income, public assistance, and economic hardship were not associated with any index of paternal involvement. Engagement was higher among more Anglo-oriented fathers, $r = .25, p < .05$, and families in which the mother was born in the United States as compared with when mothers were born in Mexico, $r = -0.39, p < .01$. As compared with parents who completed the interview in English, fathers and mothers who completed the interviews in Spanish reported lower levels of engagement that were marginally significant (father $r = -0.22, p = .06$; mother, $r = -0.22, p = .07$).

Mother report of paternal involvement. Women involved in a romantic relationship with the infant's biological father or father figure reported higher paternal engagement, behavioral responsibility, and positive machismo than those who were not currently partnered (r s ranging from 0.39 to 0.54, all $ps < .01$). Mothers who reported full- or part-time employment endorsed lower levels of paternal positive machismo relative to those who reported no employment, $r = -0.15, p = .05$. In contrast to fathers' reports, the relation between mother employment status and her report of paternal engagement was not significant, $r = .02, p = .86$. Consistent with father reports, family income, public assistance, and economic hardship were not significantly associated with any index of paternal involvement as reported by mothers. Maternal reports of involvement with the recently born infant did not differ based on fathers' report of children outside the current relationship. Fathers who arrived in the United States at an older age were reported to demonstrate higher levels of behavioral responsibility, $r = .33, p < .01$, however associations between mother-reported father involvement and other demographic and cultural characteristics (e.g., country of birth, language, acculturation, etc.) were not significant.

All indices of father involvement were positively associated with maternal report of dyadic adjustment (r s ranging from 0.31 to 0.55, all $ps < 0.01$) and satisfaction with postpartum partner support (r s ranging from 0.38 to 0.43, all $ps < 0.01$). Women's report of greater negative social support from their romantic partner was associated with lower levels of each index of paternal involvement (r s ranging from -0.22 to -0.30 , all $ps < 0.01$).

Discussion

A changed landscape on fathering is emerging from the past several decades of family process research. No longer is the paternal role deemed ancillary to the maternal role; rather, fathers are recognized for their strong and enduring influence on family functioning. The present study contributed to extant fathering research by developing a preliminary measure of father involve-

Table 4
Within- and Between-Reporter Father Involvement Correlations

Item	1	2	3	4	5
1. Engagement (maternal report)	1.00				
2. Behavioral responsibility (maternal report)	.64**	1.00			
3. Positive machismo (maternal report)	.61**	.87**	1.00		
4. Engagement (paternal report)	.45**	-.17	-.07	1.00	
5. Behavioral responsibility (paternal report)	.41**	.07	.01	.26*	1.00
6. Positive machismo (paternal report)	.02	.21 [†]	.22*	-.03	.23*

[†] $p < .10$. * $p < .05$. ** $p < .01$.

ment in Mexican-origin families during the infancy period, and evaluating the qualities and correlates of involvement. Informed by the integrative model for the study of child development in minority populations (García Coll et al., 1996) and using the tripartite theory of father involvement as a guide (Lamb et al., 1987), the present study suggested a multifactorial conceptual model of paternal involvement in Mexican-origin families that varies with demographic, familial, and cultural characteristics. Support for the engagement and responsibility domains of paternal involvement as proposed by Lamb et al. (1987) was observed with adaptations to capture the cultural context of Mexican-origin families. Findings from the current study are also aligned with the Cabrera and Bradley (2012) model in which father involvement is influenced by contextual factors, familial qualities, and social and demographic characteristics. Importantly, the present study suggests that cultural factors are not only correlates, but are central to the conceptualization and operationalization of father involvement in this population.

Outdated conceptualizations of Mexican and Mexican American men as uninvolved or uninterested in the paternal role are stereotypical views that fail to appreciate their important contributions to the family environment (Cabrera & Bradley, 2012). In contrast, contemporary theory suggests that Mexican and Mexican American men desire to be involved and approach fathering with egalitarian attitudes toward shared parenting responsibilities (Saracho & Spodek, 2008). Consistent with this view and prior research that has observed high rates of involvement among Latino fathers of older infants and children (Cabrera et al., 2011; Coltrane et al., 2004), results of the present study demonstrated that Mexican-origin fathers interact with their infants with relative frequency. On a nine-point scale measuring engagement, mothers and fathers reported levels of “hands on” fathering in the moderate range, slightly less than the scale’s midpoint (which represented an equal amount of infant interaction by mothers and fathers). Research during the toddler years has suggested the majority of fathering is conducted in the form of “rough and tumble” play and leisure activities (Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). Similar patterns may be observed in infancy; levels of paternal engagement in the current study were highest for active behaviors (taking the baby out and playing with the baby) and lowest for conventional caregiving activities (bathing, diapering). Fathers’ traditional gender role attitudes may also contribute to lower levels of paternal involvement in tasks commonly considered to be “feminine” or completed by mothers (D’Angelo et al., 2012).

In an attempt to measure paternal accessibility, mothers and fathers were asked to estimate the number of hours on a typical weekday/weekend day that fathers were “accessible, but not necessarily directly interacting” with their child. Evaluating the pattern of responses to the accessibility questions suggested that these items were not well understood or easy for participants to answer. Men participating in the present study often worked unpredictable hours or took job opportunities that required intermittent travel, which may have made it difficult to draw conclusions about fathers’ general day-to-day availability in the home. Future research with low-income and minority fathers that evaluates paternal accessibility on a more expansive weekly or monthly basis, or assesses the frequency of separation periods may gather more meaningful estimates of fathers’ availability.

The current study tested the factor structure of a newly adapted measure of paternal responsibility that included items that were either consistent with traditional definitions of paternal responsibility as “indirect care” or representative of Mexican-origin cultural values that reflect paternal responsibility. EFA using father report data and subsequent CFA using mother report data supported a two-factor model of paternal responsibility. In accordance with the traditional conceptualization of paternal responsibility as the abstract managerial tasks of fatherhood (Lamb et al., 1987), the *behavioral responsibility* factor reflected the frequency of fathering activities that indirectly serve the child and facilitate healthy development. Results of the current study also supported a second component of paternal responsibility among Mexican-origin men, *positive machismo*, that is informed by and consistent with familism values (Coltrane et al., 2004; Tamis-LeMonda, Kahana-Kalman, & Yoshikawa, 2009). Culture is integrated into the responsibility factor not only through the inclusion of relevant values, but with content that reflects contemporary conceptualizations of Mexican and Mexican American fathers as affectionate, egalitarian, and self-sacrificing for the benefit of the family (Saracho & Spodek, 2008). The *positive machismo* factor assesses favorable cultural characteristics associated with the paternal role, including honor, protection, and a sense of responsibility to one’s family (Cruz et al., 2011). The lack of “cultural specificity” within existing fathering measures has been noted in previous research, with suggestions to evaluate Latino fathers’ involvement in “activities that promote family togetherness” (D’Angelo et al., 2012, p. 202). Although certain activity-oriented items did not load on the *positive machismo* factor (e.g., Bring extended family together for the holidays), other items are well-aligned with the fostering of family togetherness (e.g., Encourage love and affection). Existing measures that do not include this culturally informed component may suggest an inaccurate one-dimensional view of paternal responsibility in Mexican-origin families, omitting the ways in which familism and other cultural values manifest in activities that serve the family and maintain strong familial bonds.

The pattern of correlations within and between mother- and father-reported data suggests interesting differences in perspectives of the paternal role. The strength of the relations among the subtypes of paternal involvement varied within father reports. Father-reported behavioral responsibility was correlated with positive machismo and engagement, however paternal engagement and positive machismo were not associated. In contrast, mother reports indicated significant (and stronger) relations among all subtypes of paternal involvement. It has been suggested that maternal reports of paternal involvement may reflect “family harmony” (Lamb & Lewis, 2010, p. 129), with overarching qualities of the familial context coloring how mothers view fathering. In contrast, men may hold a more nuanced perspective on their paternal role. Weaker correlations between father-reported engagement and responsibility may indicate differences in fathers’ attitudes toward the value of engagement/responsibility or the extent to which each is incorporated within men’s sense of paternal identity (Pleck, 2012). Mother- and father-reported engagement and positive machismo were positively correlated, however there was a lack of concordance in reports of behavioral responsibility. The observable qualities of paternal engagement behaviors and broad applicability of cultural values captured by positive machismo may have facilitated reporter agreement. Conversely, many

of the parenting activities that constitute the behavioral responsibility factor are covert cognitive processes that may not be readily apparent (e.g., “Thinks about the baby when making important decisions”). Mothers may not be as aware of their partners’ participation in these less tangible behaviors and may thus be less able to estimate fathers’ involvement in this domain.

Analyses also provided preliminary information about the sociodemographic and cultural correlates of paternal involvement. Fathers self-reported higher engagement when their partners were employed part- or full-time. It may be the case that employed mothers have less time to participate in direct interaction and caregiving activities, calling forth increased engagement from fathers. Father-reported engagement was also elevated when mother and fathers were more strongly oriented to majority culture, consistent with previous literature (Cabrera et al., 2006; Cabrera et al., 2011). The social context of fatherhood in the United States is one of growing normative beliefs in the importance of involved, nurturing fathers. Public policy and research initiatives (e.g., Fatherhood Research Initiative, Healthy Marriage Initiative, Fragile Families) brought nationwide exposure to these issues and increased public awareness of fathers’ family contributions beyond economic provisions (Cabrera, 2010). Fathers within families more oriented toward majority culture and the social norms for involved fathering may evidence higher levels of engagement. Social desirability tendencies may also be stronger among these fathers, exerting pressure to report levels of involvement that are aligned with prevailing public attitudes.

Mothers involved in a romantic relationship with the infant’s biological father or father figure reported greater levels of paternal involvement across all domains. As compared with motherhood, fatherhood has been viewed as part of “package deal” that is conditional on the relationship between the parents (Townsend, 2004). In the context of nonmarital or noncoresidential relationships, men may encounter barriers to paternal involvement at practical (e.g., scheduling visitation time, transportation) and emotional (e.g., interparental conflict) levels (Tach, Mincy, & Edin, 2010).

Interestingly, measures of economic hardship were not associated with maternal or paternal reports of father involvement. The impact of financial strain on fathering may emerge in later infancy or early toddlerhood concurrent with increases in children’s material needs, though similar nonsignificant relations with family income have been observed among Mexican American fathers of elementary-age children (Coltrane et al., 2004). It is possible that the collectivistic values that often characterize Mexican-origin families promote resource sharing and instrumental support that buffer against the negative impact of economic hardship (Parke et al., 2004). Additionally, the effects of income may only be evident across a wider spectrum of socioeconomic status than was present among the low-income families in the current study. Mothers’ demographic and cultural characteristics also appeared largely unrelated to maternal reports of father involvement, and it may be the case that behavioral pathways (e.g., maternal gatekeeping, modeling, coparenting conflict) relate more strongly to father involvement (Pleck & Hofferth, 2008; Schoppe-Sullivan, Brown, Cannon, Mangelsdorf, & Sokolowski, 2008).

There are several limitations to the analyses. Although the focus on low-income, Mexican-origin families was deliberate to expand fathering research to an understudied population, results cannot be

generalized to other racial, ethnic, or socioeconomic groups. The current study included both Mexico- and United States-born parents and prior research has suggested an effect of immigrant status on fathering (D’Angelo et al., 2012). Additional research is needed to evaluate the extent to which the underlying structure and correlates of fathering differ by country of birth. Men participating in the current research were also primarily resident fathers from two-parent families; results may not apply to different family structures (e.g., divorced) or fathers who do not reside with their children. Studies of the paternal role may also be characterized by a selection bias among fathers who agree to participate (Costigan & Cox, 2001), and prior research has found that familial and environmental stressors may negatively influence Mexican American fathers’ decisions to enroll (Wong, Roubinov, Gonzales, Dumka, & Millsap, 2013). Thus, levels of father involvement in the current study may not be representative of families experiencing higher levels of adversity. In the current study, mothers with participating partners reported significantly higher levels of father involvement across all domains as compared with reports of women whose partners did not enroll in the study. Fathers who chose to take part may reflect those who are generally more available, contributing to higher levels of paternal involvement. Of note, the consistency between mother and father reports of engagement and positive machismo suggests that maternal responses on these domains father involvement may serve as valid proxy reports under circumstances when paternal data cannot be collected. The current study also provided an opportunity to explore paternal involvement during infancy, a developmental period of rapid infant growth and significant transition. However, the qualities of father involvement may shift across time with children’s changing developmental needs and the results may not apply to fathers of elementary-age and adolescent offspring.

The current study used culturally adapted assessments of father involvement for Mexican-origin families and in particular, extensive modifications were made to measure paternal responsibility. Empirical research and existing theory provided a strong basis for development of the responsibility measure, however results are preliminary and qualitative studies/focus groups may identify other adaptations to the father involvement construct that account for unique cultural influences. The internal consistency of each of the father-reported responsibility factors was somewhat low as compared with maternal reports, however small sample sizes may negatively affect the accuracy of coefficient alpha (Yurdugül, 2008) and future studies with larger sample sizes are warranted. Model fit indices were also slightly better in the maternal report CFA than the paternal report EFA, which may be attributed to differences between the populations and the analytic approaches (EFA as a more liberal and “data-driven,” CFA as a more conservative and “theory driven”; van Prooijen & van der Kloot, 2001). Overall, the current study should be considered an initial investigation into the development of measures of paternal involvement with infants in Mexican-origin families.

Increasing recognition of the importance and complexity of the paternal role necessitates research that examines the nuances of father involvement, particularly within the growing population of minority fathers in the United States. The current study addressed critical gaps in extant research with an exploration of fathering in low-income Mexican-origin families, a context in which strong cultural values and environmental stressors may intersect to influ-

ence father involvement. Findings indicate a significant role for Mexican-origin fathers in direct caregiving activities during the postnatal period and suggest that engagement is more extensive than implied by previous stereotypes. Factor analyses support the inclusion of culturally informed items in the measurement of paternal responsibility and highlight a multidimensional view. Specifically, paternal responsibility among Mexican-origin fathers may be expressed not only through traditional "supervisory" parenting activities, but also with culturally specific behaviors that reflect familism values. The benefits of high-quality, involved fathering for children's development and overall family well-being are unequivocal. Understanding the varied ways minority fathers participate in parenting may provide a foundation for efforts that support a trajectory of involved fathering throughout infancy and childhood.

References

- Arciniega, G. M., Anderson, T. C., Tovar-Blank, Z. G., & Tracey, J. G. (2008). Toward a fuller conception of machismo: Development of a traditional machismo and caballerismo scale. *Journal of Counseling Psychology, 55*, 19–33. <http://dx.doi.org/10.1037/0022-0167.55.1.19>
- Barrera, M., Jr., Caples, H., & Tein, J. Y. (2001). The psychological sense of economic hardship: Measurement models, validity, and cross-ethnic equivalence for urban families. *American Journal of Community Psychology, 29*, 493–517. <http://dx.doi.org/10.1023/A:1010328115110>
- Bruce, C., & Fox, G. L. (1997, November). *Measuring father involvement among lower-income White and African-American populations*. Poster presented at the annual meeting of the National Council on Family Relations, Arlington, VA.
- Cabrera, N. J. (2010). Father involvement and public policies. In M. E. Lamb (Ed.), *The role of the father in child development* (5th ed., pp. 517–550). Hoboken, NJ: Wiley.
- Cabrera, N. J., & Bradley, R. H. (2012). Latino fathers and their children. *Child Development Perspectives, 6*, 232–238. <http://dx.doi.org/10.1111/j.1750-8606.2012.00249.x>
- Cabrera, N. J., Hofferth, S. L., & Chae, S. (2011). Patterns and predictors of father-infant engagement across race/ethnic groups. *Early Childhood Research Quarterly, 26*, 365–375. <http://dx.doi.org/10.1016/j.ecresq.2011.01.001>
- Cabrera, N. J., Ryan, R. M., Mitchell, S. J., Shannon, J. D., & Tamis-Lemonda, C. S. (2008). Low-income, nonresident father involvement with their toddlers: Variation by fathers' race and ethnicity. *Journal of Family Psychology, 22*, 643–647. <http://dx.doi.org/10.1037/0893-3200.22.3.643>
- Cabrera, N. J., Shannon, J. D., & La Taillade, J. J. (2009). Predictors of co-parenting in Mexican American families and links to parenting and child social emotional development. *Infant Mental Health Journal, 30*, 523–548. <http://dx.doi.org/10.1002/imhj.20227>
- Cabrera, N. J., Shannon, J. D., West, J., & Brooks-Gunn, J. (2006). Parental interactions with Latino infants: Variation by country of origin and English proficiency. *Child Development, 77*, 1190–1207. <http://dx.doi.org/10.1111/j.1467-8624.2006.00928.x>
- Campos, B., Schetter, C. D., Abdou, C. M., Hobel, C. J., Glynn, L. M., & Sandman, C. A. (2008). Familialism, social support, and stress: Positive implications for pregnant Latinas. *Cultural Diversity and Ethnic Minority Psychology, 14*, 155–162. <http://dx.doi.org/10.1037/1099-9809.14.2.155>
- Campos, R. (2008). Considerations for studying father involvement in early childhood among Latino families. *Hispanic Journal of Behavioral Sciences, 30*, 133–160. <http://dx.doi.org/10.1177/0739986308316658>
- Capps, R. C., Bronte-Tinkew, J., & Horowitz, A. (2010). Acculturation and father engagement with infants among Chinese- and Mexican-origin immigrant fathers. *Fathering, 8*, 61–92. <http://dx.doi.org/10.3149/ft.0801.61>
- Coltrane, S., Parke, R. D., & Adams, M. (2004). Complexity of father involvement in low-income Mexican American families. *Family Relations, 53*, 179–189.
- Costigan, C. L., & Cox, M. J. (2001). Fathers' participation in family research: Is there a self-selection bias? *Journal of Family Psychology, 15*, 706–720. <http://dx.doi.org/10.1037/0893-3200.15.4.706>
- Cowan, C. P., & Cowan, P. A. (1988). Who does what when partners become parents: Implications for men, women, and marriage. *Marriage & Family Review, 12*, 105–131. http://dx.doi.org/10.1300/J002v12n03_07
- Cowan, P. A., Cowan, C. P., Pruett, M. K., Pruett, K., & Wong, J. J. (2009). Promoting fathers' engagement with children: Preventive interventions for low-income families. *Journal of Marriage and Family, 71*, 663–679. <http://dx.doi.org/10.1111/j.1741-3737.2009.00625.x>
- Cruz, R. A., King, K. M., Widaman, K. F., Leu, J., Cauce, A. M., & Conger, R. D. (2011). Cultural influences on positive father involvement in two-parent Mexican-origin families. *Journal of Family Psychology, 25*, 731–740. <http://dx.doi.org/10.1037/a0025128>
- Cuéllar, I., Arnold, B., & Maldonado, R. (1995). Acculturation Rating Scale for Mexican Americans-II: A revision of the original ARSMA Scale. *Hispanic Journal of Behavioral Sciences, 17*, 275–304. <http://dx.doi.org/10.1177/07399863950173001>
- D'Angelo, A. V., Palacios, N. A., & Chase-Lansdale, P. L. (2012). Latino immigrant differences in father involvement with infants. *Fathering, 10*, 178–212. <http://dx.doi.org/10.3149/ft.1002.178>
- Doherty, W. J., Kouneski, E. F., & Erickson, M. F. (1998). Responsible fathering: An overview and conceptual framework. *Journal of Marriage and the Family, 60*, 277–292. <http://dx.doi.org/10.2307/353848>
- Doucet, A. (2006). *Do men mother? Fathering, care, and domestic responsibility*. Toronto, Canada: University of Toronto Press.
- Downer, J., Campos, R., McWayne, C., & Gartner, T. (2008). Father involvement and children's early learning: A critical review of published empirical work from the past 15 years. *Marriage & Family Review, 43*, 67–108. <http://dx.doi.org/10.1080/01494920802010264>
- Flouri, E. (2005). *Fathering and child outcomes*. New York, NY: Wiley. <http://dx.doi.org/10.1002/9780470713228>
- García Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Vázquez García, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development, 67*, 1891–1914. <http://dx.doi.org/10.2307/1131600tb01834.x>
- Germán, M., Gonzales, N. A., & Dumka, L. (2009). Familism values as a protective factor for Mexican-origin adolescents exposed to deviant peers. *The Journal of Early Adolescence, 29*, 16–42. <http://dx.doi.org/10.1177/0272431608324475>
- Goeke-Morey, M. C., & Cummings, E. M. (2007). Impact of father involvement: A closer look at indirect effects models involving marriage and child adjustment. *Applied Developmental Science, 11*, 221–225. <http://dx.doi.org/10.1080/10888690701762126>
- Hawkins, A. J., & Palkovitz, R. (1999). Beyond ticks and clicks: The need for more diverse and broader conceptualizations and measures of father involvement. *The Journal of Men's Studies, 8*, 11–32. <http://dx.doi.org/10.3149/jms.0801.11>
- Hofferth, S. L., & Sandberg, J. F. (2001). How American children spend their time. *Journal of Marriage and Family, 63*, 295–308. <http://dx.doi.org/10.1111/j.1741-3737.2001.00295.x>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1–55. <http://dx.doi.org/10.1080/1070519909540118>
- Knight, G. P., Gonzales, N. A., Saenz, D. S., Bonds, D. D., Germán, M., Dearnorff, J., . . . Updegraff, K. A. (2010). The Mexican American Cultural Values scales for Adolescents and Adults. *The Journal of Early Adolescence, 30*, 444–481. <http://dx.doi.org/10.1177/0272431609338178>

- Lamb, M. E., & Lewis, C. (2010). The development and significance of father-child relationships in two-parent families. In M. E. Lamb (Ed.), *The role of the father in child development* (5th ed., pp. 94–153). Hoboken, NJ: Wiley.
- Lamb, M. E., Pleck, J. H., Charnov, E. L., & Levine, J. A. (1987). A biosocial perspective on paternal behavior and involvement. In J. B. Lancaster, J. Altman, A. Rossi, & L. R. Sherrod (Eds.), *Parenting across the lifespan: Biosocial perspectives* (pp. 11–42). New York, NY: Academic Press.
- Lawrance, E. C. (1991). Poverty and the rate of time preference: Evidence from panel data. *Journal of Political Economy*, 99, 54–77. <http://dx.doi.org/10.1086/261740>
- Mikelson, K. S. (2008). He said, she said: Comparing mother and father reports of father involvement. *Journal of Marriage and Family*, 70, 613–624. <http://dx.doi.org/10.1111/j.1741-3737.2008.00509.x>
- Mirandé, A. (1997). *Hombres y machos*. Boulder, CO: Westview Press.
- Muthén, L. K., & Muthén, B. O. (2012). *MPlus user's guide* (7th ed.). Los Angeles, CA: Author.
- Ortiz, R. W. (2004). Hispanic/Latino fathers and children's literacy development: Examining involvement practices from a sociocultural context. *Journal of Latinos and Education*, 3, 165–180. http://dx.doi.org/10.1207/s1532771xjle0303_3
- Parke, R. D. (2000). Father involvement: A developmental psychological perspective. *Marriage & Family Review*, 29, 43–58. http://dx.doi.org/10.1300/J002v29n02_04
- Parke, R. D., Coltrane, S., Borthwick-Duffy, S., Powers, J., Adams, M., Fabricius, W., . . . Saenz, D. (2004). Assessing father involvement in Mexican-American families. In R. D. Day & M. E. Lamb (Eds.), *Conceptualizing and measuring father involvement* (pp. 17–38). Mahwah, NJ: Erlbaum.
- Passel, J., Livingston, G., & Cohn, D. (2012, May). Explaining why minority births now outnumber White births. *Pew Research Social & Demographic Trends*. Retrieved from <http://www.pewsocialtrends.org/2012/05/17/explaining-why-minority-births-now-outnumber-white-births/>
- Pleck, J. H. (2010). Paternal involvement: Revised conceptualization and theoretical linkages with child outcomes. In M. E. Lamb (Ed.), *The role of the father in child development* (5th ed., pp. 58–93). Hoboken, NJ: Wiley.
- Pleck, J. H. (2012). Integrating father involvement in parenting research. *Parenting: Science and Practice*, 12, 243–253. <http://dx.doi.org/10.1080/15295192.2012.683365>
- Pleck, J. H., & Hofferth, S. L. (2008). Mother involvement as an influence on father involvement with early adolescents. *Fathering*, 6, 267–286. <http://dx.doi.org/10.3149/fth.0603.267>
- Pleck, J. H., & Masciadrelli, B. P. (2004). Paternal involvement by U.S. residential fathers: Levels, sources, and consequences. In M. E. Lamb (Ed.), *The role of the father in child development* (4th ed., pp. 222–271). Hoboken, NJ: Wiley.
- Risley, T. R., & Hart, B. (2006). Promoting early language development. In N. F. Watt, C. Ayoub, R. H. Bradley, J. E. Puma, & W. A. LeBoeuf (Eds.), *The crisis in youth mental health: Critical issues and effective programs: Vol. 4. Early intervention programs and policies* (pp. 83–88). Westport, CT: Praeger.
- Sabogal, F., Marín, G., Otero-Sabogal, R., Vanoss Marín, B., & Perez-Stable, E. J. (1987). Hispanic familism: What changes and what doesn't? *Hispanic Journal of Behavioral Sciences*, 9, 397–412. <http://dx.doi.org/10.1177/07399863870094003>
- Saracho, O. N., & Spodek, B. (2008). Demythologizing the Mexican American father. *Journal of Hispanic Higher Education*, 7, 79–96. <http://dx.doi.org/10.1177/1538192707313936>
- Schoppe-Sullivan, S. J., Brown, G. L., Cannon, E. A., Mangelsdorf, S. C., & Sokolowski, M. S. (2008). Maternal gatekeeping, coparenting quality, and fathering behavior in families with infants. *Journal of Family Psychology*, 22, 389–398. <http://dx.doi.org/10.1037/0893-3200.22.3.389>
- Schoppe-Sullivan, S., McBride, B. A., & Ho, M. R. (2004). Unidimensional versus multidimensional perspectives on father involvement. *Fathering*, 2, 147–163. <http://dx.doi.org/10.3149/fth.0202.147>
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38, 15–28. <http://dx.doi.org/10.2307/350547>
- Stueve, J. L., & Pleck, J. H. (2003). Fathers' narratives of arranging and planning: Implications for understanding paternal responsibility. *Fathering*, 1, 51–70. <http://dx.doi.org/10.3149/fth.0101.51>
- Tach, L., Mincy, R., & Edin, K. (2010). Parenting as a "package deal": Relationships, fertility, and nonresident father involvement among unmarried parents. *Demography*, 47, 181–204. <http://dx.doi.org/10.1353/dem.0.0096>
- Tamis-LeMonda, C. S., Kahana-Kalman, R., & Yoshikawa, H. (2009). Father involvement in immigrant and ethnically diverse families from the prenatal period to the second year: Prediction and mediating mechanisms. *Sex Roles*, 60, 496–509. <http://dx.doi.org/10.1007/s11199-009-9593-9>
- Tamis-LeMonda, C. S., Shannon, J. D., Cabrera, N. J., & Lamb, M. E. (2004). Fathers and mothers at play with their 2- and 3-year-olds: Contributions to language and cognitive development. *Child Development*, 75, 1806–1820. <http://dx.doi.org/10.1111/j.1467-8624.2004.00818.x>
- Townsend, N. (2004). *The package deal: Marriage, work, and fatherhood in men's lives*. Philadelphia, PA: Temple University Press.
- Turner, R. J., & Marino, F. (1994). Social support and social structure: A descriptive epidemiology. *Journal of Health and Social Behavior*, 35, 193–212. <http://dx.doi.org/10.2307/2137276>
- U.S. Census Bureau. (2011). *The Hispanic population: 2010*. Washington, DC: U. S. Department of Commerce Economics and Statistics Administration.
- van Prooijen, J. W., & van der Kloot, W. A. (2001). Confirmatory analysis of exploratively obtained factor structures. *Educational and Psychological Measurement*, 61, 777–792. <http://dx.doi.org/10.1177/00131640121971518>
- Wong, J. J., Roubinov, D. S., Gonzales, N. A., Dumka, L. E., & Millsap, R. E. (2013). Father enrollment and participation in a parenting intervention: Personal and contextual predictors. *Family Process*, 52, 440–454. <http://dx.doi.org/10.1111/famp.12024>
- Yeung, W. J., Sandberg, J. F., Davis-Kean, P. E., & Hofferth, S. L. (2001). Children's time with fathers in intact families. *Journal of Marriage and Family*, 63, 136–154. <http://dx.doi.org/10.1111/j.1741-3737.2001.00136.x>
- Yurdugül, H. (2008). Minimum sample size for Cronbach's coefficient alpha: A Monte-Carlo Study. *Hacettepe University Journal of Education*, 35, 397–405. Retrieved from <http://www.egitim.hacettepe.edu.tr/english/html/journal.html>
- Zea, M., García, J., Belgrave, F., & Quezada, T. (1997). Socioeconomic and cultural factors in rehabilitation in Latinos with disabilities. In J. García & M. Zea (Eds.), *Psychological interventions and research with Latino populations* (pp. 217–233). Needham Heights, MA: Allyn & Bacon.