

# Mothers' and Fathers' Involvement With School-Age Children's Care and Academic Activities in Navajo Indian Families

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This exploratory study examined mothers' and fathers' reports of time involvement in their school-age children's care and academic activities. The study also explored the relationship between parents' socioeconomic status (SES) variables (age, education, income, work hours, and length of marriage) and their relative involvement with children. Mother and father dyads from 34 two-parent Navajo (Diné) Indian families with a second- or third-grade child participated in the study. Repeated measures analysis of variance showed that mothers invested significantly more time in children's care on demand and academic activities than fathers, but the differences in maternal and paternal perceptions of time involvement in routine care were not significant. The gender of the child did not influence the amount of time parents invested in children's care and academic activities. Mothers' involvement with children was not related to any of the SES variables. Fathers' involvement was significantly associated with work hours and length of marriage, and work hours produced significant interaction with fathers' involvement with children. Findings are discussed in light of gender role differences in parental involvement with children within Navajo families.

*Keywords:* Navajo Indian families, parental involvement, school-age children

Only recently have studies across cultures and ethnicities of parent-child socialization been examined in order to understand the diversity of the roles mothers and fathers assume in the family (Benetti & Roopnarine, 2006; Biller, 1993; Bozett & Hanson, 1991; Flouri, 2005; Hossain, Roopnarine, Ismail, Hashmi, & Som-buling, 2007; Lamb, 2004; Parke, 1996; Roopnarine & Carter, 1992). For years, a traditional two-parent family consisted of the mother assuming the role of the primary caregiver, staying at home and tending to the needs of the children, while the father assumed the role of working full-time outside the home. This scenario may be less common now than it was decades ago, but women are still the principal caregivers across cultures (see Brayfield, 1995; Hossain et al., 2005; Pleck & Masciadrelli, 2004; Roopnarine, 2002; Roopnarine & Gielen, 2005; Tamis-LeMonda & Cabrera, 2002). In view of suggestions made by cultural psychologists to investigate parenting issues within cultural contexts (for details, see Greenfield, 2000), the current study explored differences between maternal and paternal involvement with school-age children within Navajo Indian families.

Prior findings from nationally representative samples suggest that mothers are more involved in caregiving and teaching related tasks even with older children (9–12 years old) than fathers,

and fathers show higher involvement in play activities than do mothers (see Hofferth, 2003; Pleck & Masciadrelli, 2004; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). For example, findings from the 1997 Child Development Supplement of the Panel Study of Income Dynamics (PSID) data show that (biological) fathers' engagement time with 0- to 12-year-old children is 1.22 hr on a typical weekday and 2.48 hr on a weekend day in two-parent families (Yeung et al., 2001). Another analysis of the 1997 PSID data shows a similar trend in fathers' involvement with children (about 15 hr per week) but suggests that African American fathers spend less time than White or Hispanic fathers (see Hofferth, 2003, for a review). Findings from these data further suggest that fathers' involvement decreases as children grow older, from 1.0 hr for infants to 0.5 hr for 9- to 12-year-old children per day (see Yeung et al., 2001). Research on Puerto Rican families residing on the mainland suggests that fathers invested 37% as much time as mothers did in caring for preschool-age children (Roopnarine & Ahmeduzzaman, 1993). Another study suggests that Chippewa/Ojibwa Indian fathers spent about 31% as much time as mothers did with their school-age (3–11 years old) children (for details, see Coggins, Williams, & Radin, 1997; Radin, Williams, & Coggins, 1993; Williams, Radin, & Coggins, 1996). Analyzing National Household Education Survey (NHES) data, Nord and her associates report that the number of fathers who are highly involved with their school-age children is half the total of highly involved mothers (Nord, Brimhall, & West, 1998). These researchers also observe that fathers' involvement in care steadily declines as children grow older but not their involvement in children's educational activities.

Scholars suggest that parents' involvement in children's education may come through their participation in both home and school activities (for details, see Epstein, 1996; Grolnick & Slowiaczek, 1994) and that such parental involvement enhances children's

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We extend our sincere gratitude to the participants in the study and Loretta Wheeler for her kind assistance in collecting the data.

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educational achievement (Walker, Hover-Dempsey, Whetsel, & Green, 2004). In particular, findings from the 1997 PSID data show that fathers' involvement in school activities mediates the relationship between school, neighborhood, and family resources with children's school outcomes (see McBride, Schoppe-Sullivan, & Ho, 2005). It has been suggested that families that have both parents undertaking the role of disciplinarian and authoritarian and being more involved with the family have children with higher academic achievement (see Ford & Wright, 1998). Scholars also observe that parents' socioeconomic status (SES) contributes to the differences in children's cognitive development (see Entwisle & Alexander, 1995). For example, the father's involvement with children is positively related to his education (Nord et al., 1998), and parents' low SES (e.g., fewer years of education, living in a poor neighborhood) results in children having fewer learning materials at home and more daily responsibilities (Entwisle & Alexander, 1995; Shouse, 1997). Feuerstein (2000) observes that parents with high SES are involved in their children's education and stay in touch with their children's schools and activities.

With reference to the association between fathers' involvement in child rearing and the school-age children's school performance, scholars observed that fathers' involvement has a positive impact on children's school performance in Chippewa/Ojibwa Indian families (for details, see Coggins et al., 1997; Radin et al., 1993; Williams et al., 1996). In general, findings from extant research suggest that there is a link between parents' involvement in care and academic socialization with children and children's school performance (for review, see Hill, 2001; McBride et al., 2005; Roopnarine, Krishnakumar, Metindogan, & Evans, in press). Considering the link between parental involvement and children's school performance and the paucity of empirical data on parental involvement with children in Navajo Indian families, the current study is designed to explore how much or in what ways mothers and fathers are involved with school-age children's care and academic activities in Navajo Indian families on the Navajo Reservation.

### Cultural-Ecology Model of Parental Involvement

Traditionally, the social process approaches have been used to understand the nature of parent-child socialization. These approaches emphasize the comparison of developmental outcomes for children and/or adults living in contrasting social or geographical environments and often ignore the family context of children's growth (Bronfenbrenner, 1986). It is encouraging to observe that many contemporary scholars have been exploring mothers' and fathers' involvement in the family within their cultural-ecological contexts. Researchers rightfully argue that psycho-cultural approaches help us understand how parental beliefs, cultural norms, and environmental attributes influence mothers' and fathers' involvement with their children in the family (see Bronfenbrenner, 1986; Harkness & Super, 1996). Bronfenbrenner (1994) describes these sustained interaction patterns as proximal processes and provides empirical evidence that supports the idea that these interactions are very potent predictors of outcomes such as children's grade point averages at school. Because the amount and the nature of mothers' and fathers' involvement with children varies tremendously across families depending on cultural values (Lamb, 2004), we use Bronfenbrenner's ecology model as a conceptual

guide in assessing mothers' and fathers' involvement with school-age children's care and academic activities in Navajo Indian families.

The ecology model addresses how the complex nexus of interpersonal relations and proximal processes in a family's ecology influences children's growth and human functioning within a specific group (Bronfenbrenner & Morris, 1998). A number of environmental factors such as family composition, cultural values, economic practices, and historical events have important bearing on the making and shaping of the father's roles in a particular cultural setting. It is important that we examine mothers' and fathers' involvement in the family within the context of these diverse factors for the group under study (see Lerner, 1998; Weisner, 1997). Using the ecology model, several studies have shown relationships between parent-child interaction and factors within the various ecological systems (see Belsky, 1990; Roopnarine, Church, & Levy, 1990). Therefore, use of the ecology model in the current study is expected to strengthen our understanding of the specific distribution of school-age children's care and academic activities between Navajo mothers and fathers as proximal processes within their cultural-ecological setting, thereby extending the research on the model into a relatively unstudied population.

Scholars widely use Lamb, Pleck, Charnov, and Levine's (1987) three-prong model (i.e., engagement, responsibility, and accessibility) to assess parents' involvement with children. For the current study, measures for parents' involvement in care activities have been developed from the concept of parents' direct involvement (i.e., engagement) of this three-prong model. Although the concept of parental involvement in academic activities varies by a number of contextual factors (e.g., parents' SES, family structure, school practices; see Grolnick, Benjet, Kurowski, & Apostoleris, 1997), we followed Grolnick and Slowiaczek's (1994) work to measure parental involvement in children's academic activities in Navajo Indian families. This approach helped us include measures of parents' involvement in children's learning activities at home and in the school context. The next section briefly describes the cultural-ecological context of Navajo Indian families.

### Navajo Indian Families

The U.S. Census (U.S. Census Bureau, 2000) indicates that Navajos constitute 12.38% of the 2.5 million American Indian population and are the second largest American Indian group in the United States. Most Navajos live on the reservation located in New Mexico and Arizona, while some reside near the reservation as well as in other urban locations (French, 1997; U.S. Census Bureau, 2000). They are one of the fastest growing ethnic populations in the United States (Pollard & O'Hare, 1999). Currently, about 9% of the Navajo population is below the age of 5, the percentage of married-couple families is 45.4, median earnings of full-time employed men is higher than women (\$26,000 vs. \$21,000), and only 6.9% of Navajos have a college degree (Ogunwole, 2006). It appears that Navajos (along with the Pueblos) have the lowest level of income among all the American Indian groups in the United States, and about 37% of Navajo families live in poverty (Ogunwole, 2006; U.S. Census Bureau, 2000).

Traditional Navajo society is matrilineal and consists of matrilineal family groups that are organized within an extended family structure (Aberle, 1961; Howard, 1993). Members of the extended

family include an older woman and her husband, her unmarried children and married daughters, and the married daughters' husbands and children. Within the matrilineal system, women are the owners of the land and sheep, and the transfer of property follows the female line (Blanchard, 1975). Women are able to elevate their economic roles in the family as they engage in economic activities such as making clothing, baskets, and pottery and weaving rugs. Although the father is the head of the household, the mother and her children form the core of the family. He stays with his wife's family and maintains contacts with his family of origin and the outside world. Researchers (e.g., French, 1997) argue that Navajos still successfully preserve and practice their traditional cultural values and speak their own language. It appears clear from the 2000 U.S. Census data that about 68% of the Navajos use their own language at home and about 26% of Navajos do not speak English well (Ogunwole, 2006).

The cultural context of the process of parent-child socialization within Navajo Indian families is predominantly nonverbal. Elders and parents often use firm looks to communicate, and they tend to ignore inappropriate behavior during interactions (see Guillemin, 1975; John, 1998). Children are expected to learn by observation, respect their elders, and take responsibility for themselves. Navajo Indians derive their identity from family relations, clan membership, tribes, and land base positions. They highly value the aspects of interdependence and blood and clan relationships between individuals (John, 1998). Witherspoon (1975) explains that interdependence provides basic support for kinship and economic activities within Navajo communities.

The role of the mother in traditional Navajo child rearing practices is as the primary caregiver, and the major disciplinarian is not the father as in other cultural families but rather the (maternal) uncles. Grandmothers and aunts also hold responsibility in child rearing within the traditional matrilocal and matrilineal Navajo family structures. Although all members of the family are involved in child rearing, it is the grandmother who plays a very important role within the Navajo culture (Guillemin, 1975; Hauswald, 1984; John, 1998). The grandmother performs numerous child rearing tasks and remains aware of whether or not the child is reared properly (Guillemin, 1975). These anthropological and sociological reports clearly indicate that the mother uses the extended family network support to raise her children, and more recent studies on young children show that the father has an important role in early child rearing tasks (Hossain et al., 1999).

Over the last several hundred years, social, political, and economic changes have affected traditional lifestyles of men and women in American Indian families in general and Navajo Indian families in particular (see John, 1998). Factors such as mainstream education, wage incomes, missionary activities, federal policies on individual land holding, and the like have diminished the authority of traditional Navajo matrilocality. As a result, Navajo Indian men gained economic power while women lost much of their power and economic status in the family (see LaFromboise, Heyle, & Ozer, 1999). In view of such a changing context of living as well as traditional cultural gender role expectations, it will be interesting to examine the extent to which mothers and fathers are involved with their school-age children in contemporary Navajo Indian families.

## Present Study

In the present study, the focus has been placed on the involvement of the mother and father in two-parent Navajo Indian families with school-age children. Some aspects that are examined to understand how Navajo Indian parents are involved with their children's development include the attention given to children's care and their academic activities. Specifically, this study sought to explore the following objectives:

1. To compare mothers' and fathers' estimates of the amount of time they invested in children's care and academic activities; and
2. To investigate relationships between parents' sociodemographic variables such as age, education, income, work hours, and length of marriage and their involvement in children's care and academic activities.

Prior research has shown that, compared to mothers, fathers have a tendency to overestimate their involvement with children (see Coltrane, 1996; Roggman, Fitzgerald, Bradley, & Raikes, 2002). To minimize the overestimation of paternal involvement with children, many studies have used multiple data collection sources (e.g., fathers, mothers, children) to objectively assess fathers' involvement with children (see Coley & Morris, 2002; Hofferth, Pleck, Stueve, Bianchi, & Sayer, 2002; Marsiglio, Amato, Day, & Lamb, 2000). However, the assessments of fathers' involvement from multiple sources are often complex, and, in fact, a majority of studies on mothers' and fathers' relative involvement in two-parent families have collected data from a single source and/or fathers' self-reports (see Marsiglio et al., 2000; Wical & Doherty, 2005). Considering the challenge of accessing American Indian populations (see Radin et al., 1993) and the unique cultural contexts of the Navajos (e.g., nonverbal interaction styles, respect for harmony and nature, trust, geographic isolation), mothers' and fathers' self-reports were deemed an appropriate technique for collecting data on parental involvement with their children's care and academic activities. Although Navajo grandparents have historically played a significant role in child rearing, the current study did not collect any data on the level of their participation in child care. As indicated earlier, the current study was exploratory in nature, and the principle objective was to assess mothers' and fathers' involvement with school-age children.

## Method

### *Participants*

The participants in this study consisted of 34 Navajo Indian two-parent families residing on the Navajo Reservation in the southwestern United States. Families were identified and selected through schools, personal contacts, and word of mouth. Mothers and fathers were contacted in person, and about 90% of the contacted families agreed to participate. The families included in the present sample can be considered traditional, because the parents spoke both Navajo and English and were living on the reservation at the time of survey (for details, see Hauswald, 1984; Red Horse, Lewis, Feit, & Decker, 1978; Riner, 1979). Families were chosen if they had a child attending either second or third grade. The selection of the families with

second- or third-grade children provides the optimal age where the balance of parental caregiving and academic involvement would be appropriate and critical to the child's future academic profile. That is, second and third graders may still need some help with care, but they are also subjected to greater academic demands than younger children.

Thirty-three couples were married, and one couple was unmarried but living together. Demographic information about the participants is presented in Table 1. In general, they were relatively young couples married for more than 11 years, and mothers and fathers had a similar level of education, income, and number of hours worked per day. The mean age of children was 7.91 years ( $SD = 0.79$ ), and the average number of children per family was 3.56 ( $SD = 1.97$ ). Seventeen of the children were female, 14 were male, and the gender status for 3 was not reported. All participants were biological parents of their children.

The occupational profile of the employed participants showed that they worked in the administrative, clerical, technical, and professional fields. The highest numbers of mothers ( $n = 11$ ) and fathers ( $n = 15$ ) were employed in professional (e.g., teaching, accountants, planners) and technical (e.g., welders, carpenters, mechanics) positions, respectively. Five mothers and four fathers were not employed at the time of survey. Furthermore, we explored whether or not the participant families had the following housing facilities: running water, electricity, telephone, and child's own room. A majority of the participants reported that they had all these housing facilities except telephone.

### Procedures and Measures

A trained research assistant interviewed mothers and fathers in their homes. The research assistant was a Navajo college student who spoke both English and Navajo. The research assistant consulted with the Tribal Council members who expressed interest in the project. To ensure parents' participation in the project, the research assistant personally contacted potential families for data collection. Mothers and fathers were interviewed separately, and each interview was conducted in the home of the respondent. Mothers and fathers were instructed to respond to the questions in reference to the target child (i.e., second- or third-grade child). On many occasions, interviewees, due to their time commitment to family affairs and other cultural ceremonies, were unable to observe the previously agreed upon time to meet the interviewer. Therefore, the interviewer had to visit the same family several times to complete the

Table 1  
Demographic Information About the Respondents

Variables	Mother	Father
	Mean ( $SD$ )	Mean ( $SD$ )
Age (years)	34.43 (7.15)	37.59 (7.79)
Education (years)	12.59 (2.35)	12.25 (2.10)
Hours worked daily	7.09 (3.20)	7.20 (3.09)
Annual income (median)	20,000.00	22,300.00
Length of marriage (years)	11.17 (6.48)	
Child age (years)	7.91 (0.79)	
Number of children	3.56 (1.97)	
Family size	5.49 (2.02)	

Table 2  
Hours Mothers and Fathers' Invested Each Week in Children's Care and Academic Work in Navajo Indian Families

Variables	Mother	Father	$F$	$p$
	Mean ( $SD$ )	Mean ( $SD$ )		
Routine care <sup>a</sup>	15.72 (19.92)	13.91 (17.80)	<1.00	.52
Care on demand <sup>b</sup>	4.33 (3.10)	2.81 (2.34)	4.55	.04
Academic work <sup>c</sup>	5.66 (4.05)	3.75 (2.95)	7.53	.01

<sup>a</sup> Daily hygiene and appearance, playing, doing household chores, going to events with the child. <sup>b</sup> Buying clothes and other materials, help with doctor's visits. <sup>c</sup> Homework, buy school supplies, school contact, arrange tutor.

interview. The following questionnaires were used to collect the data: a Sociodemographic Questionnaire, and a Parent-Child Interaction Questionnaire (PCIQ).

**Sociodemographic Questionnaire.** The Sociodemographic Questionnaire contains 20 items concerning age; education; occupation; income; length of time couples were in the current relationship; living and/or marital status; the child's age, gender, and birth order; the total number of children in the family; and the housing condition.

**PCIQ.** Due to lack of reliable (standardized) measures for exploring maternal and paternal involvement across cultural groups, the assessment of parental involvement with children is not done uniformly across studies (for details, see Day & Lamb, 2004; Pleck & Masciadrelli, 2004; Roggman et al., 2002). Conceptualizing from previous work on parental involvement with children in diverse ethnic and cultural groups (Grolnick & Slowiaczek, 1994; Hossain et al., 1999; Lamb et al., 1987; Marsiglio, 1991; Radin et al., 1993; Roopnarine et al., 1995; Williams et al., 1996), the PCIQ was developed to assess mothers' and fathers' estimates of the amount of time they invested in several areas of children's care and academic activities. The questionnaire is primarily a global index of parental involvement with children; hence, a pretest of the questionnaire was conducted on two families (which were not included in the study) to gauge its applicability to Navajo Indian families. The pretest showed that parents were comfortable with the questions and items; it also provided opportunities to clarify several ambiguous questions and economize the duration of the interview. For example, in view of the age of the target child and proximity to school, items such as feeding the child and walking the child to school and/or school bus stop were deleted from the questionnaire.

The PCIQ has 10 items organized into three different areas of involvement. They are *routine care* (assisting the child with daily hygiene and appearance, playing with the child, doing household chores with the child, going to events or places with the child), *care on demand* (buying clothes and other materials for the child, taking the child to the doctor), and *academic activities* (helping the child with homework, buying school materials for the child, contacting the school for child's academic progress, and arranging a tutor for the child). In this study, the internal consistency for the entire measure (i.e., 10 items) was .82 (Spearman-Brown).

It may be worthwhile to note that most research on parents' involvement in caregiving tasks has been typically categorized as

basic care (e.g., cleaning, feeding, etc.), regulation of children's emotions (e.g., soothing), and play (for details, see Lamb, 2004). However, considering the developmental stage of the target children as well as the frequencies and types of care needed for the school-age children, we have conceptualized the caregiving categories somewhat differently from the typical categories of care. Specifically, routine care (can be termed as *basic care*) is assumed to be extended on a daily and/or regular basis, and care on demand is provided when a care involvement situation arises (i.e., occasionally). In short, we thought that use of two categories of care (e.g., routine care and care on demand) would help us understand the level of parents' involvement in school-age children's care that is needed occasionally or on a regular basis.

## Results

### Preliminary Analyses

Because of mixed findings on how the gender of a child influences parents' involvement with children across cultural groups, we first examined whether Navajo Indian parents in our sample reported different levels of involvement with their male and female children. Therefore, a series of repeated measures analysis of variance (ANOVA) procedures were conducted on parental involvement data using gender of parent as a within-subject variable and gender of child as a between-subjects variable. There were no significant main effects for gender of child or no significant Gender of Child x Gender of Parent interaction effects on any of the child-care and academic measures (all  $ps > .05$ ). Because of lack of a gender-of-child effect, we disregarded the gender-of-child factor in all our subsequent analyses.

### Time Spent in Child Care and Academic Activities

Mothers' and fathers' estimates of the average amount of time they spent each week in the three care and academic activities are presented in Table 2. The repeated measures ANOVA shows that mothers and fathers differed significantly in the amount of time they invested in weekly care on demand (e.g., buying clothes and other materials, help with doctor's visits),  $F(1, 30) = 4.55, p = .04, \eta^2 = .13$ , and academic activities,  $F(1, 30) = 7.53, p = .01, \eta^2 = .20$ , with their school-age children. Mothers' and fathers' time investment did not differ in the area of routine care (e.g., daily hygiene, playing, doing household chores with the child, going to events and places with the child; see Table 2).

Table 3  
*Pearson Correlations Between Sociodemographic Variables and Fathers' Involvement*

Variables	Age	Education	Income	Work hours	Length of marriage
Routine care	-.09	.16	.12	-.43*	.53**
Care on demand	-.13	.16	-.32	.12	-.06
Academic work	-.03	.18	-.25	.09	.22

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

Table 4  
*Pearson Correlations Between Sociodemographic Variables and Mothers' Involvement*

	Age	Education	Income	Work hours	Length of marriage
Routine care	-.21	.06	.21	.01	-.16
Care on demand	-.03	-.17	-.21	-.30	.04
Academic work	.15	.14	.21	-.20	.12

### Correlations Between Involvement and Sociodemographic Variables

We conducted two separate Pearson correlations to uncover the relationships between mothers' and fathers' involvement with children and sociodemographic variables (see Tables 3 and 4). None of the sociodemographic variables (age, education, income, hours of work, and length of marriage) was significantly correlated with mothers' involvement in children's routine care, care on demand, and academic activities. Fathers' involvement in routine care was negatively correlated with the number of work hours,  $r(25) = -.43, p < .05$ , and was positively correlated with length of marriage,  $r(29) = .53, p < .01$ .

Considering previous findings about the influence of sample SES characteristics on parental involvement in children's care (see Hofferth, 2003; Marsiglio, 1991) and observing the pattern of associations in the current study, we conducted additional analysis to find out whether the number of work hours influences the differences in mothers' and fathers' involvement in Navajo Indian families. A series of analysis of covariance (ANCOVA) procedures did not reveal any significant effects of the number of work hours on the outcome variables for mothers (all  $ps .05$ ); however, significant interaction was observed for fathers' involvement in care on demand,  $F(1, 28) = 5.93, p = .02, \eta^2 = .17$ .

## Discussion

The current study is an attempt to explore maternal and paternal involvement with school-age children within Navajo Indian families. Although the exploratory nature of the investigation may prevent us from generalizing the findings, the data are unique and worth reporting because they derive from an understudied ethnic minority group. Considering the suggestions by contemporary scholars to interpret parents' involvement with children within the parameters of ecological-cultural practices (Bronfenbrenner & Morris, 1998; Greenfield, 2000; Super & Harkness, 1997; Weisner, 1997), the current study explored a major parenting issue in intact Navajo Indian families: gender-of-parent differences in mothers' and fathers' perceived involvement in school-age children's care and academic activities. Furthermore, correlation analyses were conducted to unearth the influence of SES variables on maternal and paternal involvement with children.

In our sample of Navajo Indian families, mothers spent significantly more time in care on demand (e.g., buying clothes and other materials, help with doctor's visits) and academic activities than did fathers, although the effect sizes were generally very small. Mothers and fathers reported to have spent similar amounts of time in routine care with their children. Mothers' reports

showed that they allocated a greater amount of time in routine care (e.g., daily hygiene, playing, doing household chores with the child, going to events and places with the child) followed by care on demand each week, and fathers' reports of their investment followed a similar pattern. In general, fathers in our sample spent about 84% (16.72 hr vs. 20.05 hr) and 66% (3.75 hr vs. 5.66 hr weekly) of the time their wives did in the two care-related tasks and academic activities, respectively. These findings further suggest that the discrepancy between maternal and paternal investment in two-parent Navajo Indian families is less in care activities than in academic activities.

Reviewing findings from previously conducted studies on fathers, Pleck and Masciadrelli (2004) noted tremendous variation in men's levels of involvement across cultures. This variability is reflected in fathers' higher levels of participation with children per day in a U.S. representative sample (73% of the time mothers spent; Yeung et al., 2001), Canadian families (74%; Zuzanek, 2000), Malay and Chinese Malaysians (71%; Noor, 1999), and Brazilian families (77%; Benetti & Roopnarine, 2006). By contrast, lower levels of involvement were observed in Kadazan (20%; Hossain et al., 2007), Chippewa/Ojibwa Indian families (31%; Radin et al., 1993; Williams et al., 1996), African American (40%; Hossain & Roopnarine, 1993), Latino (37%; Roopnarine & Ahmeduzzaman, 1993), Malay (32%; Hossain et al., 2005), and Thai families (36%; Tulananda & Roopnarine, 1994). Among the Black Caribs of Belize (Munroe & Munroe, 1992), father involvement with young children was also noticeably low. In the current study, when compared to mothers, Navajo fathers' involvement with children tended to be higher than that of men in most other cultures. Clearly, the variation between Navajo Indian mothers' and fathers' reported time investment in care is much less than differences between mothers and fathers in other cultural groups (see Hofferth, 2003; Hossain & Roopnarine, 1993; Radin et al., 1993; Roopnarine & Ahmeduzzaman, 1993; Tulananda & Roopnarine, 1994; Yeung et al., 2001). The current findings about fathers' involvement also lend support to other scholars who report that parental role differentiation is significantly smaller in Navajo culture than in families within Anglo culture (see Abraham, Christopherson, & Kuehl, 1984; Hossain et al., 1999). If the Navajo parents' time estimates in the present study are viewed in light of what has been found on fathers in other cultural groups (see Pleck & Masciadrelli, 2004; Radin et al., 1993), Navajo fathers in this sample appear to be very involved with their school-age children.

With reference to correlations between parents' age, education, income, work hours, and length of marriage and three different areas of parental involvement in children's care and academic activities, the length of marriage and work hours appear to be important for fathers' involvement in school-age children's care. In the current sample, Navajo fathers who work longer hours have less time to invest in routine care (e.g., daily hygiene, playing, doing household chores with the child, going to events and places with the child), and fathers who have a longer relationship with their spouses invest more time in routine care. Furthermore, secondary analyses revealed significant interactions between fathers' work hours and their involvement in children's care on demand (e.g., buying clothes and other materials, help with doctor's visits). The current findings lend support to the claim that the demands of work act as an important determinant of paternal involvement with

children (see Brayfield, 1995; Ishii-Kuntz, 1994; Parke, 1996). Although extant research suggests that mothers influence adolescents' academic success in Navajo Indian families (see Willetto, 1999), the lack of a significant correlation between mothers' SES variables (e.g., age, education, income, and work hours) and their involvement with children in the current study is rather surprising. Furthermore, the lack of interaction between mothers' work hours and involvement suggests that the demands of (paid) work may not influence maternal involvement with children. However, the number of fathers' work hours has a strong impact on their involvement, especially when they need to tend to occasional care for children.

In the current study, it appears that select SES variables have a differential impact on maternal and paternal investment in Navajo Indian families. These correlational findings are in line with some prior reports (see Willetto, 1999) that suggest that age and education variables are not related to mothers' and fathers' involvement in Navajo Indian families. It would be a mistake to note the difference between maternal and paternal involvement in children's academic activities without paying attention to the recent emphasis on the value of education for Navajo children (see Cleary & Peacock, 1998; Reyhner, 1992; Willetto, 1999). Even in the geographically isolated area of the Navajo Reservation where our data were collected, there is great encouragement for children to succeed in school and pursue higher education as a way to improve their future economic security (see Brandt, 1992). Because of inconclusive reports from other studies (see Hofferth, 2003; Marsiglio, 1991), further research is needed to explore whether and how the changing context of contemporary lifestyles (e.g., modern education, dual-income) and attitudes toward gender roles might be swaying mothers and fathers to be involved with children within Navajo culture (see Blanchard, 1975; LaFromboise et al., 1999).

The different patterns of the influence of SES variables on parental involvement encourage us to explore ecological-cultural factors to understand the difference in mothers' and fathers' time investment in children's care and academic activities in Navajo Indian families. In view of the ecological-cultural context of gender roles, there might be encouragement for Navajo fathers to be involved with children. At the same time, mothers and children form the core of the household (Hamamsy, 1957; Hossain, 2001; Lamphere, 1990), and parents place higher academic demands on girls than on boys in Navajo culture (Abraham et al., 1984). Such a maternal lineage and authority structure might have encouraged mothers to be more involved with their children's academic activities than fathers. In addition, according to Navajo belief structure and the cultural-ecological context of Navajo Indian families, the mother passes on her motherly attributes and traditional values to her child through breast-feeding (Wright, Bauer, Clark, Morgan, & Begishe, 1993). Such a belief may encourage mothers more than fathers to continue to invest in their children's growth. However, the cultural interpretation of our findings can be considered very tentative, because the current study did not include any culture-specific measures to assess the pattern of maternal and paternal involvement with children in Navajo Indian families.

Unlike some previously reported findings (see Yeung et al., 2001), children's gender did not influence maternal and paternal time investment in Navajo Indian families. However, the lack of gender-of-child differences in mothers' and fathers' involvement

with their children is consistent with other findings from previously conducted research on North American and Asian samples (see Endicott, 1992; Fagan, 1996; Hofferth, 2003; Hossain & Roopnarine, 1993; Jacobs, Thomas, & Lang, 1997; Roopnarine, Lu, & Ahmeduzzaman, 1989; Sanderson & Thompson-Sanders, 2002). Scholars (e.g., Pleck & Masciadrelli, 2004) argue that the influence of a child's gender on parental involvement is perhaps much less now than it was decades ago. Furthermore, indigenous parents may tend to treat boys and girls differently as children grow older and enter the wider society and experience gender-differentiated roles and practices (see Hossain et al., 2005). Navajo Indian parents show less gender-stereotyped attitudes due to the fact that the culture recognizes more than two traditional (i.e., male and female) gender roles in the family (for details, see Jacobs et al., 1997). Although there are reports that the level of paternal involvement decreases as children grow older (see Yeung et al., 2001), we were unable to assess this due to the fact that all target children in the current study came from a single age group.

In conclusion, Navajo Indian mothers in our sample spent more time in school-age children's care on demand (e.g., buying clothes and other materials, help with doctor's visits) and academic activities than did fathers, and mothers and fathers showed egalitarian involvement in children's routine care (e.g., daily hygiene, playing, doing household chores with the child, going to events and places with the child). Navajo Indian fathers in the current study tend to spend more time in providing care than in helping children with their academic activities. It is apparent that Navajo Indian fathers in the current sample were relatively more involved with their school-age children than were fathers in families across cultural groups. The overall findings of the correlation analyses suggest that age, education, and income variables are not related to maternal and paternal involvement with children in Navajo Indian families. However, fathers' work hours appear to be an important factor influencing their involvement with children. The current findings provide an important empirical database on Navajo Indian fathers' involvement with school-age children and cast doubts about traditional notions portraying uninvolved fathering within Navajo Indian families (see Harris, 1971). The less differentiated parental involvement with school-age children and parents' similar involvement with boys and girls perhaps underscore the value of the Navajo metaphysical belief structure that emphasizes harmony and balance within the Navajo ecosystem. Clearly, future research is needed to examine how Navajo cultural belief structures influence the nature of mothers' and fathers' involvement with their school-age children.

Findings from the current study should be interpreted with a number of limitations in mind. First, in the absence of parent-child academic socialization data on American Indian families in general, and Navajo Indian families in particular, it is difficult to assess whether the mothers and fathers in this sample are more involved with their school-age children than parents in other Navajo or American Indian families. Second, due to the lack of use of cultural measures of parental involvement with children, the present findings may not be applied to all Navajo families. Third, because of the relatively small size of the sample, we were unable to focus on the mothers' and fathers' levels of involvement with school-age children as a function of parental employment status. It is difficult to obtain a large sample from this population due to its cultural and geographic uniqueness (see Radin et al., 1993), and

the small sample size as well as the geographic specificity of the sample may limit the generalizability of our findings. Fourth, the current study did not collect any data to examine the extent to which grandmothers and other maternal relatives influence the level of parental involvement with children. These limitations aside, the current findings provide some base level data to understand parental involvement with school-age children in Navajo Indian families.

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