## INTRODUCTION

Paternal involvement in children's lives has received scholarly attention in recent decades as the number of children who grow up in two-income families, single-parent households, and blended families increased. Social expectations for fathers have changed accordingly. Today, the new father - a father who cares for and is emotionally close to his children -- is the ideal (e.g., Furstenberg 1988). Recent studies show that more fathers believe in co-parenting, and time spent with children has increased among married fathers (e.g., Casper and Bianchi 2002). Yet many fathers continue to assume the role of secondary caretaker (and mothers that of primary caretaker) (Wall 2007), and the kind of child care undertaken by fathers often differ from mothers. Fathers are more likely to take part in interactive or recreational activities (such as play or helping with homework) and leave physical care (such as bathing and feeding) to mothers. Fathers also tend to exaggerate their contributions. Those who claim that they are equal sharers are not necessarily considered so by their wives (Milkie et al. 2002).

Though there may be a discrepancy between men's and women's claims, there are fathers who provide, or at least claim that they provide, physical care to their children as part of a daily routine. What kind of father does, or claims that he does, the tasks that are typically perceived as the mother's job by other fathers? What are the differences between fathers who change diapers every day and those who play with their children but say no to diapers, or help only occasionally with physical care? Is routine paternal involvement in physical care linked to how men grew up? Or is it negotiated with their partners in a given family context? Studies on determinants of paternal involvement are limited and mixed thus far.

This study examines factors associated with regular physical care of young children by fathers, using the National Survey of Family Growth, Cycle 6, 2002 (NSFG 2002). My sample
is restricted to married or cohabiting fathers who live with at least one child under age $5(\mathrm{n}=552)$. Three broad areas associated with men's level of involvement are examined: 1) men's socialization or family background, 2) men's personal characteristics (e.g. education), and 3) men's household characteristics or present family context. I conduct two sets of analyses of paternal involvement -- the first using physical care as dependent variable, and the second using play -- and compare the results. To my knowledge, this is the first study that directly compares the impact of the variables in question on these two sorts of childcare activities (physical care and play) by fathers.

## LITERATURE REVIEW

## Father's involvement in children

Recent studies show that the amount of time spent with children by married fathers has increased in the U.S. (Bianchi 2000; Bianchi, Robinson, and Milkie 2006; Bryant and Zick 1996; Sandberg and Hofferth 2001). One recent estimate is that in the year 2000 married fathers spent four more hours per week on child care compared to 1965 (Bianchi, Robinson, and Milkie 2006). Another study (Sandberg and Hofferth 2001) shows that there was an increase in children's time spent with fathers between 1981 and 1997. The hours were more significantly increased for fathers whose wives were in the labor force than for those whose wives were not: the increase was nearly six hours per week for the former whereas it was about two and a half hours per week for the latter. However, this does not mean that the first group of fathers spends significantly more time with children than those from the second group; the difference in the mean hours spent by these two groups was only .54 hours per week (in 1997).

Past studies also indicate that increasing numbers of men consider it important to participate in their children's lives. Many men express a desire to spend more time with their children (Gerson 1993; Russell 1999). Since the 1980s, the ideal paternal image was renewed to include emotional closeness and the providing of care for children (Furstenberg 1988; Griswold 1993; Messner 1993). This ideal is often labeled the new father, caring father, or androgynous father. From his interviews of fathers, Townsend (2002) concluded that the four aspects of fatherhood - provision, protection, endowment, and emotional closeness - are emphasized in these fathers' accounts. Milkie et al. (2002) report a majority of fathers responding that both parents should equally share various childrearing responsibilities. Other studies also find that many men view co-parenting as ideal and hold egalitarian attitudes towards parenting (Bittman and Pixley 1997; Burgess 1997; Pleck and Pleck 1997; Cabrera and Tamis-LeMonda 1999; Casper and Bianchi 2002; Colemen and Ganong 2004; Gerson 2002).

## Gender differences in parental involvement

Though fathers do more now than in the past, and report a belief in involved fatherhood and equal sharing of childcare, they continue to spend considerably less time with children than mothers (Casper and Bianchi 2002). On average, fathers do not share childrearing activities as much as they say they should, and often claim that they share equally -- even when their wives think this is not the case (Milkie et al. 2002). Wall's study in Canada (2007) also shows that fathers remain part-time, secondary parents. This is the case even when mothers are employed (Bianchi, Robinson, and Milkie 2006). Yeung et al. (2001) found that wife's employment, work hours, and wages had no effects on childcare time spent by fathers.

Further, the kind of parenting activities provided by fathers is gendered: fathers are more likely to take part in play and interactive activities (such as helping with homework), whereas mothers more often provide physical care for their children (such as feeding and bathing) (McBride and Mills 1993; Starrels 1994; Lamb 1997; Robinson and Godbey 1997). According to Milkie et al. (2002), while a majority of fathers believe in equal sharing of parental responsibilities, those who agree with equal sharing of physical care are fewer. For instance, 95 to $98 \%$ of fathers believe in equal sharing when it comes to monitoring, discipline, and play, while only $70 \%$ believe in equal sharing of physical care duties. In addition, "equal sharing" may not mean equal hours per day spent on childcare by mothers and fathers. One study found that fathers in intact families spend more time on childrearing on weekends than on weekdays (Yeung et al. 2001). This might indicate that mothers continue to be burdened to meet the daily needs of children, while fathers are involved with children in a more leisurely manner.

## Differences in father involvement by child's characteristics

Though children's gender appears to affect father involvement, findings from previous studies are mixed. Fathers may prefer sons and/or feel needed in the rearing of theirs sons, as fathers are more likely to marry, stay in marriage, and establish paternity formally when at least one male child is involved in the relationship (Raley and Bianchi 2006; Lundberg, McLanahan, and Rose 2007). Starrels (1994) found that, for children ages 6 to 16 , fathers are more involved with their sons than their daughters, though sons are more likely to engage in mutual activities with fathers and receive instrumental attention (e.g., money) from them, while daughters receive more affective nurturance. Heterosexual fathers appear to assume different parental responsibilities for their sons than mothers and homosexual fathers, such as responsibility for the
endowment of masculine traits and identity on boys (Kane 2006). However, some studies found no difference in kinds of paternal interaction with, or time spent on, male and female children (Snarey 1993), or few differences for children under age 5 (Marsiglio 1991). According to Lamb et al. (1988), fathers are more involved with daughters than sons.

In terms of age effects, paternal involvement tends to decrease as children grow older -and to become more gendered (i.e., fathers of school-aged children are likely to spend more time with sons than with daughters) (Barnett and Baruch 1987; Marsiglio 1991). Yeung et al. (2001) also found that fathers spend more time with infants and toddlers than with older children in both physical care and play activities.

## What kinds of fathers are more likely to be involved?

Most studies of father involvement have focused on changes over time, differences from mothers, or the impact of children's characteristics (such as age and gender). Studies on how men's characteristics determine the level of paternal involvement are limited. Some studies point out that men's education and income are associated with the level of father involvement. For example, Yeung et al. (2001) found that fathers with postsecondary education spend more time with children on weekdays, while high-income fathers spend less time with children on weekdays. A study of Israeli couples shows that lesser earnings, higher education, and fewer hours of paid work of fathers are strongly associated with greater paternal involvement in child care (Gaunt 2005). Gaunt's study also shows the effects of values held by fathers: fathers with "openness-to-change" values (such as self-direction and stimulation) are more likely to be involved with their children than those with "conservation values" (such as tradition, conformity, and security).

The findings on race and ethnicity are mixed. Rubin (1994) observed in her qualitative study that Asian and Latino fathers participated the least in domestic work (including child care), while Black fathers were the most involved. According to Yeung et al. (2001), Latino fathers spend the most time with children on weekends compared to White and Black fathers, and Black fathers spent the least time on weekends.

In sum, we know that fathers do more now than in the past, and that the level and kind of father involvement vary according to a range of factors such as gender and age of children. Still, our knowledge of the determinants of paternal involvement remains limited and some findings are contradictory. Most studies have not examined whether and how men's socialization affects paternal childcare and how these variables interact with men's current living conditions. We do not yet have a clear view of how childcare roles are negotiated within the family, and what factors influence the sharing of daily chores.

## THEORIES

## Socialization

Individuals learn to take on roles and shape their attitudes and behaviors as a result of socialization. Socialization during childhood is particularly powerful because children are usually not aware that they are being socialized. Individuals often take what they have learned in their childhood for granted and perceive it as reality, despite that this reality is constructed by society (Berger and Luckmann 1967). Though parents are by no means sole agents of socialization of children, the household is a primary setting for children to observe how family members interact in terms of gender role taking (Goffman 1977). Parents' attitudes and housework allocation are found to be influential for their children's views of gender roles:

Children who were raised by parents who held egalitarian gender role attitudes and shared housework are likely to hold egalitarian attitudes as young adults (Cunningham 2001).

Individuals may also learn to view parental involvement in a positive light when they themselves had involved parents. Evolutionary psychology suggests that parents are more likely to invest in their biological offspring (Daly and Wilson 1988). Since sons often emulate what their fathers do/did (Johnson 1975), this might imply that men who grew up with their biological fathers would be more apt to believe in active paternal involvement. In summary, it is important to consider the effects of men's upbringing on their paternal behavior.

## Culture of the new father: diffusion or adaptation?

As discussed above, our cultural ideal of fatherhood has changed to include childcare. Cultural change often occurs as people's views and attitudes gradually adapt to changed conditions in the external, physical world (Ogburn 1922). Interestingly, however, change in the ideal image of fatherhood seems to have occurred first as an ideological change. LaRossa (1988) succinctly discussed this point after observing that most fathers believe in paternal childcare, yet do not conform their actual conduct to this belief (i.e., they did not do what they believed they should). This might indicate that the culture of new fatherhood emerged through diffusion of ideas, rather than by adaptation to physical conditions as Ogburn expected. New ideas are likely to diffuse via everyday communication and the mass media (Kirk 1996). Non-traditional ideas are more likely to be adopted by those with higher education, and this might apply to the new father ideal as well.

At the same time, men are constantly evaluated against the normative definition of masculinity, or the ideology of hegemonic masculinity, and their views, attitudes, and behavior
are likely to be shaped accordingly. Hegemonic masculinity is defined in opposition to femininity (Connell 1993; Kimmel 1994). Kimmel describes the current image of hegemonic masculinity (in American society) as a man who is white, middle-class, married, devoted to work, providing for the family, heterosexual, emotionally controlled, and active in sports. Because hegemonic masculinity stands in opposition to anything feminine, engaging in traditionally female work such as physical care of young children has a potential risk of damaging men's masculine identity. So what kinds of men are more likely to violate this norm of manhood?

It is possible that men who fit perfectly to the image of hegemonic masculinity are the ones who deviate from the norm. Their ability to provide for the family might allow these men to feel secure enough about their masculine identities to comfortably and openly take part in the childcare role. However, the opposite could be the case -- and Ogburn's theory of cultural adaptation might apply here. Men who cannot conform to hegemonic masculinity, particularly those who are unable to provide for their family, might have adjusted their views of what fathers should be like. Lamont's qualitative study (2000) on working-class men is informative. She observed that these economically disadvantaged men maintain their dignity by focusing on their "moral superiority" which they define by hard work and better care provided to family. Hamer's study (2001) also suggests the strong emphasis on care by non-providing fathers. She found that non-residential, low-income, black fathers defined themselves as good fathers because they spent time with their children, and that they de-emphasized the provider role (which they could not play adequately).

As the sole-provider role becomes increasingly unachievable for men in lower-class and working-class occupations, fathers of these classes might take a more active role in childcare and derive their masculine identity from it (thus rejecting hegemonic masculinity). In other words,
these men may have adapted their views to embrace the new father image due to the pressure exerted by the economic conditions they face (i.e., this is cultural adaptation rather than diffusion). This, however, may not translate simply and directly into the reporting of high level involvement childcare. Men who believe in traditional values may not admit to their active participation in domestic work out of shame; one working-class man in Hochschild's study (1989) reported that his wife did all the housework even though he did much of it himself.

## Men's household characteristics

In nearly all societies, family roles are highly gendered. From the perspective of evolutionary biology, females invest more time and energy in offspring because females can produce only a limited number of children while males can theoretically have hundreds of them with minimal investment (Trivers 1972). However, biology is not the sole determinant of human behavior -- it interacts with social context. Gender roles are dictated by the cultural definitions of society at large and negotiated within each family. Because women have historically had less power than men, tasks traditionally assigned to women are undesirable tasks men refused to perform. Bargaining models suggest that wives gain bargaining power by contributing to household income (Lundberg and Pollak 1996). Thus, men whose partner is employed might be more likely to take on traditionally female tasks (e.g., physical care of young children) compared to men who are sole breadwinners. Further, because having more than one child increases the domestic workload, couples or mothers might perceive the previous household labor arrangement as unfair and rearrange it (i.e., by adding to fathers' household labor). In other words, the addition of children might provide some power to mothers who wish to renegotiate the allocation of housework duties.

## HYPOTHESES

A set of hypotheses are formed for three areas that might have impacts on paternal involvement: 1) men's socialization, 2) men's personal characteristics, and 3) men's household characteristics. Note that this study examines the involvement of married or cohabiting fathers who have at least one young child in their households.

## Association between socialization and physical care and play by fathers

Socialization is not easy to measure. The data allow us only to infer that certain characteristics of family background might indicate whether a man's father was more involved, whether parents had egalitarian attitudes towards gender roles, and the extent to which household tasks were shared in the man's family of origin. I hypothesize that men who were raised by their own biological father might have spent more time with their father in a positive manner, and therefore, that they themselves take a more active role both in the physical care of their children and in play. I infer that men's mother's employment might indicate less traditional gender role attitudes and shared household labor between men's parents. I hypothesize that this leads to greater involvement in childcare by men. At the same time, mother's employment might indicate decreased parenting time spent by men's parents, and men with employed mothers might not play with their children relative to those whose mother did not work for pay.

Educated mothers are more likely to hold egalitarian gender role attitudes and believe in the importance of parental involvement. Men who grew up with mothers with higher education are, therefore, expected to do both childcare and play. Because highly educated men are more likely to consider paternal involvement important (Raley and Bianchi 2006), men might have spent more time with such fathers and replicate what they have experienced when they become
fathers themselves. However, fathers of the past generation are less likely to have engaged in the physical care of their children. Thus, I expect that men's father's education has more impact on paternal leisure involvement than on physical care.

In sum, I hypothesize that men's socialization has impacts on their paternal involvement with young children in the following ways:

- Men are more likely to do both daily care and play if they were raised by their biological father.
- Men are more likely to do daily care, but not necessarily play, if their mother was employed while they grew up.
- Men are more likely to do both daily care and play if their mothers have higher education.
- Men are more likely to do play, but not necessarily daily care, if their fathers have higher education.


## Association between men's characteristics (education and SES) and daily care and play

Because diffusion of the idea of new fatherhood is more likely among the educated, I expect that educational attainment increases paternal involvement in general. As discussed above, men's income may be associated either positively or negatively. Unfortunately, the NSFG 2002 does not include data on respondents' individual income. As an indicator of the absence of provision by men, I use their employment status and hypothesize that unemployed men are more likely to do both daily care and play. The hypotheses regarding men's characteristics are, therefore,

- Men's education increases the chances of them doing both daily care and play.
- Unemployed men are more likely to do both daily care and play.


## Association between men's household characteristics and daily care and play

I expect that men do more child care when their wife or partner has more negotiating power. Wife or partner's employment and having more than one child in the family are expected to increase paternal involvement in both physical care and play. Cohabiting couples are observed to have more egalitarian views (Casper and Bianchi 2002), so men in cohabiting relationships might share childcare more equally than married fathers. As previous studies point out, having a son might increase paternal involvement, though this might not be the case for young children. My hypotheses regarding men's household characteristics are, therefore,

- Wife or partner's employment increases the chances of fathers doing both daily care and play.
- Having more than one child increases the chances of fathers doing both daily care and play.
- Cohabitation increases the chances of fathers doing both daily care and play.
- Having at least one male child under age 5 increases the chances of fathers doing both daily care and play.

In addition, the impact of household income and welfare are considered. As discussed above, income may be associated either positively and negatively. Being on welfare is another indicator of the absence of men's capacity to provide. Thus,

- Income might be associated with paternal involvement, though its direction is not certain.
- Men whose households are on welfare are more likely to do both daily care and play.


## METHOD

## Data

The National Survey of Family Growth, Cycle 6, 2002 (NSFG 2002) includes interviews of 4,928 men 15-44 years of age, which was based on a national area probability sample of households in the U.S. The response rate for males was $78 \%$. This survey asks several questions on father's involvement with children. Questions are asked separately by the residential status of child(ren) (whether the respondents live with children or not) and by the age group of child(ren) (whether children are under age 5 or between 5 and 18). For this study, I focus on men who live with at least one child under age 5. My interest is in father's daily involvement, so analyses of the level of non-coresidential father involvement are beyond the scope of this paper. I limit my study to fathers with infants and preschoolers because physical care is more intense for younger children and childcare for the young is linked to the traditional feminine role. There are 754 fathers who live with children age under 5 in the NSFG 2002.

I further limit my study to fathers who live with a partner (either a wife or cohabiting partner). The preliminary analysis showed that divorced, separated, and never-married fathers in this sample had significantly lower odds of daily involvement with children in all activities, compared to married fathers. One would expect that single fathers are more likely to care for their children compared to married fathers. The public use NSFG 2002 data do not allow me to access information regarding family composition of the respondents, but I would speculate that many of these single fathers might live with other family members (such as their parents) who might assume the primary caregiver role. The average age of these single fathers was significantly lower compared to that of the total sample (mean and median ages for all fathers with co-residential children under age 5 were 30.78 and 31.00 respectively, and 26.25 and 24.00 for these single fathers). Though it is important to examine the nature of single fathers' involvement in children's lives, these categories of men in this sample appear to have unique
characteristics (e.g., age and family composition) that need to be taken into consideration in analyses. For the present study, I focus my analyses on married or cohabiting fathers. With exclusion of divorced, separated, and never-married fathers, my sample is married or cohabiting fathers who live with child(ren) under age 5. After eliminating cases with missing data, the sample size is 552 .

## Dependent variables: daily care and play

Because the level of paternal involvement differs by the kind of activity, I set two dependent variables for my analyses: daily care for and play with young child(ren). These are dichotomous variables ( $1=$ do every day, $0=$ do none or occasionally $)$, constructed from two items in the NSFG 2002. The item used for the daily care variable is created from the question that asks how often respondents bathed, diapered, or dressed their child(ren) or helped them to bathe, dress, or use the toilet in the last four weeks. The item used for the daily play variable is based on another question that asks how often they played with their child(ren) in the last four weeks. The categories of answers (for both variables) are 1) not at all, 2) less than once a week, 3) about once a week, 4) several times a week, and 5) every day (at least once a day). Though reporting "did every day" does not necessarily mean that men shared such chores equally with their wives/partners, I infer this to indicate that these fathers have at least a sense of daily involvement as part of their role and/or routine. On the other hand, those who answered otherwise are either occasional helpers (secondary, part-time parents) or not involved with their children at all. Table 1 shows frequencies of these variables. As shown in this table, there are more fathers who play with their preschool children $(81.3 \%)$ than those who provide physical care $(50.0 \%)$ every day in this sample, which supports the findings from previous studies.

Table 1. Frequencies for dependent variable

|  | Frequencies | Percent |
| :--- | :---: | :---: |
| Daily care |  |  |
| Every day (coded 1) | 276 | 50.0 |
| None or less than once a day (coded 0) | 276 | 50.0 |
|  |  |  |
| Daily play | 449 | 81.3 |
| Every day (coded 1) | 103 | 18.7 |
| None or less than once a day (coded 0$)$ | $\mathrm{n}=552$ |  |

## Independent variables

## Men's family background

Four variables are included as indicators of men's upbringing: 1) raised by a biological father, 2) mother's employment, 3) mother's education, and 4) father's education. The first two variables are dichotomous. Raised by a biological father is constructed from the question asking "Who was the man who mostly raised you when you were growing up?" (1 = mostly raised by a biological father, $0=$ mostly raised by a stepfather, other father figure, or had father figure). Mother's employment is based on the question that asks respondents about their mothers' employment status when they were growing up ( $1=$ mother was employed, $0=$ mother did not work for pay). The preliminary analysis showed no significant differences in effects by whether men's mothers were employed full-time or part-time, so I combined both types of employment as "employed." Mother's education and father's education are recoded (from the variables for respondents' mothers' and fathers' education) as continuous variables to indicate the number of years of education. See Table 2 for frequencies for these variables as well as the rest of the independent variables.

Table 2. Frequencies for independent variables

|  | Frequencies | Percent |
| :---: | :---: | :---: |
| Men's family background |  |  |
| Relationship with father |  |  |
| Raised mostly by biological father | 461 | 83.5 |
| Raised by other father figure/no father figure | 91 | 16.5 |
| Mother's employment |  |  |
| Employed | 351 | 63.6 |
| Did not work for pay | 201 | 36.4 |
| Mother's education |  |  |
| Less than high school | 184 | 33.3 |
| High school/GED | 194 | 35.1 |
| Some college/associate degree | 91 | 16.5 |
| College or higher education | 83 | 15.0 |
| Father's education |  |  |
| Less than high school | 195 | 35.3 |
| High school/GED | 164 | 29.7 |
| Some college/associate degree | 86 | 15.6 |
| College or higher education | 107 | 19.4 |
| Men's characteristics |  |  |
| Men's education |  |  |
| Less than high school | 117 | 21.2 |
| High school graduate | 151 | 27.4 |
| Some college | 154 | 27.9 |
| College or higher education | 130 | 23.6 |
| Unemployed |  |  |
| Yes | 54 | 9.8 |
| No | 498 | 90.2 |
| Men's household characteristics |  |  |
| Marital status |  |  |
| Married | 453 | 82.1 |
| Cohabiting | 99 | 17.9 |
| Household income |  |  |
| Less than \$10,000 | 38 | 6.9 |
| \$10,000 to 19,999 | 67 | 12.1 |
| \$20,000 to 29,999 | 102 | 18.5 |
| \$30,000 to 39,999 | 75 | 13.6 |
| \$40,000 to 49,999 | 58 | 10.5 |
| \$50,000 to 59,999 | 46 | 8.3 |
| \$60,000 and more | 166 | 30.1 |
| Welfare |  |  |
| Yes | 185 | 33.5 |
| No | 367 | 66.5 |
| Wife/partner's employment |  |  |
| Yes | 307 | 55.6 |
| No | 245 | 44.4 |
| More than 1 child under age 5 |  |  |
| Yes | 167 | 30.3 |
| No | 385 | 69.7 |
| More than 1 child 18 and under |  |  |
| Yes | 353 | 63.9 |
| No | 199 | 36.1 |
| At least 1 male child under age 5 |  |  |
| Yes | 337 | 61.1 |
| No | 215 | 38.9 |
|  | $\mathrm{n}=552$ |  |

## Men's own characteristics

Two variables, men's level of education and whether they are unemployed, are included as indicators of men's characteristics. Men's education is a continuous variable the value of which indicates number of years of education received. Unemployment is a dichotomous variable $(1=$ man is currently unemployed and $0=$ man is currently employed $)$.

## Men's household characteristics

There are seven variables used as indicators of men's household characteristics: 1) cohabitation, 2) household income, 3) welfare, 4) wife/partner's employment, 5) more than one child under age 5,6 ) more than one child of any age 18 and under, and 7) at least one male child under age 5. The variable cohabit is a dichotomous variable ( $1=$ man is currently cohabiting, 0 $=$ man is married $).$ Household income is an ordinal variable $(1=$ less than $\$ 10,000,2=\$ 10,000$ to $19,999,3=\$ 20,000$ to $29,999,4=\$ 30,000$ to $39,999,5=\$ 40,000$ to $49,999,6=\$ 50,000$ to 59,999 , and $7=\$ 60,000$ and more). The welfare variable is constructed from five items. The NSFG 2002 asks the respondents whether the family received 1) any welfare/public assistance, 2) foot stamps, 3) WIC, 4) childcare services or assistance, and 5) job training or search help from social services. I define those who received any one of these services as on welfare, and created a dichotomous variable ( $1=$ on welfare, $0=$ not on welfare $)$. Wife/partner's employment is a dichotomous variable $(1=$ wife/partner employed, $0=$ wife/partner not employed $)$. Three dummy variables of child characteristics are: having more than one child under age $5(1=y e s, 0$ $=$ no , having more than one child of any age 18 and under $(1=y e s, 0=n o)$, and presence of male child under age $5(1=$ at least one child is male, $0=$ no male child, under age 5$)$.

## Control variables

The age, race/ethnicity, foreign born status, and religiosity of the respondents are controlled for. Age is a discrete variable, ranged from 16 to 45 . Mean age is 31.62 , median is 32.00. The respondents are classified as Hispanics regardless of race if they were screened as Hispanics in the NSFG 2002 data. Non-Hispanic American Indian, Alaska Native, Asian, Native Hawaiian, and other Pacific islander are combined as other races due to small number of study subjects. The race/ethnicity variables are three dummy variables: (non-Hispanic) Black, Hispanics, and Other races, with non-Hispanic White as the reference category. Because of a relatively large number of foreign born respondents ( $\mathrm{n}=179$ ), I include this variable to control for its effect. Religiosity is measured by whether respondents attend religious services regularly. It is a dichotomous variable ( $1=$ attend once or more a week, $0=$ attend less than once a week or doesn't attend at all). Frequencies for these control variables (except the age variable) are shown in Table 3.

Table 3. Frequencies for control variables

|  | Frequencies | Percent |
| :---: | :---: | :---: |
| Race/ethnicity |  |  |
| Non-Hispanic white | 271 | 49.2 |
| Non-Hispanic black | 79 | 14.3 |
| Hispanics | 178 | 32.2 |
| Other race (non-Hispanic) | 24 | 4.3 |
| Foreign born |  |  |
| Yes | 146 | 26.4 |
| No | 406 | 73.6 |
| Religiosity |  |  |
| Attend regularly | 166 | 30.1 |
| Doesn't attend regularly/at all | 386 | 69.9 |

## Analytic approach

Multivariate logistic regression models are used to examine what variables increase the odds of fathers' daily childcare and play. The first model for each dependent variable examines the effects of men's family background, the second model is to analyze the effects of men's characteristics, and the third model is for the impact of men's current family characteristics, controlling for age, race/ethnicity, foreign born status, and religiosity. The fourth model includes all the variables.

## RESULTS

## Daily care of children under age 5

Table 4 shows the odds ratios of father's daily care involvement for children under age 5 . Model 1 examines the impact of men's family background, net of effects of control variables. All the variables except mother's employment increase the odds of father's daily care of children, though not all of them are statistically significant. Being raised mostly by a biological father increases the odds of men to care for young children by $79.5 \%$, relative to those who were raised by another father figure or who had no father figure when growing up. For each additional year of mother's education, men's likelihood of doing physical care every day increases $12.3 \%$. The odds ratios of these two variables are statistically significant at the $\mathrm{p}<.05$ level and support the hypotheses.

Model 2 shows strong effects of men's own education. One additional year of men's education increases the odds of daily physical care by $18.4 \%$, and this is statistically significant at the $\mathrm{p}<.001$ level. Men's unemployment also increases the odds of daily care work by $76.7 \%$, though this is only marginally statistically significant ( $\mathrm{p}<.10$ ). These results support my hypotheses.

Table 4. Summary of logistic regression analysis for father's daily care of children, age $<5$ ( $\mathrm{n}=552$ )


In Model 3, the associations with men's household characteristics are analyzed. All the variables except "having more than one child of all ages" increase the odds of men's care work. The odds ratios of three variables -- wife or partner's employment, having more than one child under age 5, and having more than one child of all ages - are all statistically significant. Wife/partner's employment increases the odds of men's daily care work by $70.9 \%$ ( $\mathrm{p}<.01$ ) and this supports my hypothesis. Interestingly, while having more than one child under age 5 increases the odds by $71.1 \%$ ( $\mathrm{p}<.05$ ), having school age children decreases the odds by $57.4 \%$ ( $\mathrm{p}<.001$ ). Thus, the effects of having multiple children differ by age of children, and the results support my hypothesis only in terms of the presence of more than one young child. The effect of preschoolers' gender is in the expected direction (i.e., the odds for men to do physical care of preschoolers are higher for boys, compared to a family with only female preschoolers), but the odds ratio is not statistically significant in this sample.

In Model 4, all the variables are combined. The directions of associations with the independent variables remain the same for all the variables except men's household income (which is not statistically significant in all models). Two variables that are statistically significant in previous models -- men's mother's higher education and having more than one preschool child - lose significance in this model, whereas the welfare variable becomes statistically significant at the $\mathrm{p}<.05$ level. This model shows the robustness of the effects of men's higher education, whether they were raised by biological fathers, wife/partner's employment, and the presence of school age children. The odds ratios for these variables are 1.846, 1.192, 1.706, and .513 respectively.

The above results show that most of my hypotheses are supported except that men's mother's employment, men's father's education, cohabitation, household income, and gender of
preschool age children do not have statistically significant effects. As discussed above, the direction of the effect of multiple children is different (and opposite), depending on the age group of the children.

## Daily play with children under age 5

How are men's socialization, their own characteristics, and their household characteristics related to men's daily play with their young children and how does this differ from physical care participation? Table 5 summarizes the odds ratios of fathers to play with their children under age 5 every day. As in the analysis of daily care, men's education, wife or partner's employment, and having school age children have strong and statistically significant impacts. Each additional year of education increases the odds fathers will play every day with young children by $13.6 \%(\mathrm{p}<.01)$ in Model 2 and $15.9 \%(\mathrm{p}<.05)$ in Model 4. Men are more likely to play with their children regularly (by $78.3 \%$ in Model 3 and $74.7 \%$ in Model 4, both at $\mathrm{p}<.05$ ) when their wife or partner is employed, net of effects of other variables. These two associations support my hypotheses. Having school age children in the same household decreases the chances of men to play with youngsters (by 54.7\% in Model 3 and 39.6\% in Model 4). As is the case for physical care, men on welfare are likely to play with children, and the odds ratio for this is statistically significant in Model 4.

Multiple preschool children have no significant effects on daily play by fathers, though this factor has impacts on physical care. Gender of preschool children appears to have little impact on daily play by fathers. Though the odds ratios are only marginally statistically significant ( $\mathrm{p}<.10$ ), being raised by their biological father increases the odds men will play with their children every day. Other socialization variables and men's unemployment have no

Table 5. Summary of logistic regression analysis for father's daily play w/children, age $<5$ ( $\mathrm{n}=552$ )

|  | $\begin{aligned} & \text { Model 1 } \\ & \text { Odds ratio } \\ & \text { (S.E.) } \end{aligned}$ | $\begin{aligned} & \text { Model 2 } \\ & \text { Odds ratio } \\ & \text { (S.E.) } \end{aligned}$ | $\frac{\text { Model } 3}{\begin{array}{c} \text { Odds ratio } \\ \text { (S.E.) } \end{array}}$ | $\begin{aligned} & \frac{\text { Model } 4}{\text { Odds ratio }} \\ & \text { (S.E.) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Respondents' family background |  |  |  |  |
| Raised by biological father | $\begin{gathered} 1.655 \dagger \\ (.289) \end{gathered}$ |  |  | $\begin{aligned} & 1.689 \dagger \dagger \\ & (.301) \end{aligned}$ |
| Mother employed | $\begin{aligned} & 1.188 \\ & (.243) \end{aligned}$ |  |  | $\begin{aligned} & 1.174 \\ & (.252) \end{aligned}$ |
| Mother's education | $\begin{gathered} .958 \\ (.063) \end{gathered}$ |  |  | $\begin{gathered} .916 \\ (.067) \end{gathered}$ |
| Father's education | $\begin{aligned} & 1.083 \\ & (.055) \end{aligned}$ |  |  | $\begin{gathered} 1.047 \\ (.058) \end{gathered}$ |
| Respondent's characteristics |  |  |  |  |
| Education |  | $\begin{gathered} 1.136 * * \\ (.049) \end{gathered}$ |  | $\begin{gathered} 1.159 * \\ (.058) \end{gathered}$ |
| Unemployed |  |  |  | $\begin{gathered} 1.542 \\ (.449) \end{gathered}$ |
| Respondent's household characteristics |  |  |  |  |
| Cohabit |  |  | $\begin{aligned} & .795 \\ & (.308) \end{aligned}$ | $\begin{gathered} .844 \\ (.315) \end{gathered}$ |
| Household income |  |  | $\begin{gathered} .989 \\ (.069) \end{gathered}$ | $\begin{aligned} & .946 \\ & (.074) \end{aligned}$ |
| On welfare |  |  | $\begin{aligned} & 1.703 \dagger \\ & (.277) \end{aligned}$ | $\begin{aligned} & 1.852^{*} \\ & (.281) \end{aligned}$ |
| Wife/partner employed |  |  | $\begin{aligned} & 1.783 * \\ & (.246) \end{aligned}$ | $\begin{aligned} & 1.747^{*} \\ & (.252) \end{aligned}$ |
| More than 1 child under age 5 |  |  |  | $\begin{aligned} & .991 \\ & (.292) \end{aligned}$ |
| More than 1 child (all ages) |  |  | $\begin{gathered} .453 * * \\ (.296) \end{gathered}$ | $\begin{aligned} & .504^{*} \\ & (.304) \end{aligned}$ |
| Male child under age 5 |  |  | $\begin{aligned} & .986 \\ & (.243) \end{aligned}$ | $\begin{aligned} & .994 \\ & (.248) \end{aligned}$ |
| Control variables |  |  |  |  |
| Age | $\begin{aligned} & .993 \\ & (.019) \end{aligned}$ | $\begin{aligned} & .983 \\ & (.020) \end{aligned}$ | $\begin{aligned} & 1.010 \\ & (.021) \end{aligned}$ | $\begin{gathered} .993 \\ (.022) \end{gathered}$ |
| Race/ethnicity |  |  |  |  |
| Non-Hispanic white (reference) | - | - | ${ }^{-}$ | - |
| Non-Hispanic black | $\begin{aligned} & .993 \\ & (.365) \end{aligned}$ | $\begin{aligned} & .883 \\ & (.355) \end{aligned}$ | $\begin{aligned} & .620 \\ & (.382) \end{aligned}$ | $\begin{aligned} & .672 \\ & (.396) \end{aligned}$ |
| Hispanics | $\begin{aligned} & .506^{*} \\ & (.326) \end{aligned}$ | $\begin{aligned} & .546 \dagger \\ & (.314) \end{aligned}$ | $\begin{aligned} & .398^{* *} \\ & (.328) \end{aligned}$ | $\begin{aligned} & .395^{* *} \\ & (.345) \end{aligned}$ |
| Others | $\begin{aligned} & .463 \\ & (.529) \end{aligned}$ | $\begin{aligned} & .396 \dagger \\ & (.533) \end{aligned}$ | $\begin{aligned} & .402 \dagger \\ & (.537) \end{aligned}$ | $\begin{aligned} & .304^{*} \\ & (.554) \end{aligned}$ |
| Foreign born | $\begin{aligned} & .981 \\ & (.315) \end{aligned}$ | $\begin{gathered} 1.120 \\ (.306) \end{gathered}$ | $\begin{gathered} 1.060 \\ (.313) \end{gathered}$ | $\begin{gathered} 1.171 \\ (.334) \end{gathered}$ |
| Religious attendance | $\begin{aligned} & 1.119 \\ & (.247) \end{aligned}$ | $\begin{gathered} 1.106 \\ (.248) \end{gathered}$ | $\begin{gathered} 1.075 \\ (.253) \end{gathered}$ | $\begin{aligned} & .962 \\ & (.261) \end{aligned}$ |
| Constant | 2.755 | 1.676 | 5.464* | 1.502 |
| -2Log likelihood | 515.173 | 511.450 | 502.477 | 489.607 |

statistically significant effects, and cohabitation and income are not predictors of paternal involvement in both types of activities in this study.

## SUMMARY

Men's education and wife or partner's employment are found to have the strongest positive impacts on paternal daily involvement in both types of activities. For men's socialization, the effects are the most significant in physical care among men who were raised by their biological father. Men's mother's education increases the odds of physical care as well, but statistical significance diminishes in the model with all the variables. Having multiple children affects care and play differently by age of children; when a couple has school-age children, fathers are less likely to provide physical care and play with their young children under age 5 . On the other hand, having more than one preschooler increases the odds of father's daily care, but not play. Receiving welfare increases the odds of both types of childcare and is statistically significant in the model that includes all variables. Though the odds ratios are statistically significant, having at least one male child increases the chance of paternal involvement in physical care whereas child's gender has little impact on fathers' involvement in play. Men's mothers' employment, men's fathers' education, men's employment status, cohabitation, and household income are not predictors of paternal involvement in this study.

Among control variables, only the variable Hispanic has statistically significant effects and the effects are negative on both types of child care. None of the odds ratios for age, black, other races, foreign born, and religious attendance are statistically significant at the $\mathrm{p}<.05$ level.

## DISCUSSION AND CONCLUSION

The robust effects of men's education, and no or marginal effects of their parents' education and employment appear to indicate that egalitarian gender role attitudes are acquired more through secondary socialization (i.e., higher education) than primary socialization (i.e., parents). It also suggests that the ideal of new fatherhood, which is rather new, was adopted by men as part of gender egalitarianism, and therefore, that the spread of this ideal is a result of cultural diffusion rather than adaptation to changes in physical environment. However, the higher level of paternal involvement among households on welfare implies adaptation. It is possible that the ideal of new fatherhood has spread through two parallel channels (i.e., via diffusion and adaptation) which might be differentiated by social class (i.e., diffusion among the higher educated and adaptation among the economically disadvantaged). Further research on how class affects paternal involvement might clarify these relationships.

The most important aspect of men's upbringing is whether they were raised by their own biological father rather than their parents' education and employment status. This result suggests that biological fathers are more likely to relate to their children in a positive manner, and that having positive childhood experiences appears to be reproduced in men's relationships with their own children. This is not to say that men who grew up without their own father are disinterested in their own biological children. These men may be committed fathers themselves, but it is possible that they may lack direct experience in childcare and play. As the number of blended families increases and becomes institutionalized, more step-fathers today form warm relationships with their step-children, and some are dedicated to children as if they were their own (Marsiglio 2004). Thus, the observed association may not hold for future generations of fathers.

The strong, positive impacts of wife or partner's employment suggest that childcare task allocation is not driven biologically, but negotiated within the household. Mothers who work for pay are able to bargain with their husbands/partners so as to share the most demanding and unpleasant work (such as diapering). Mothers also seem to gain some power to renegotiate the allocation of housework duties with the addition of young children. This jibes well with West and Zimmerman's (1987) position that gender is an ongoing process that men and women "do" in everyday life. Fathers are also more likely to play when their wife/partner works outside the home, thus children who grow up in two-income families might fair better in our present society.

In contrast, the effects of gender and number of children imply persistent gendered division of labor by couples. The presence of older children seems to assign childcare of infants and preschoolers to mothers, as fathers' attention moves to older children. The odds ratio for preschool children's gender is not statistically significant in this study, but the direction of association differs by type of childcare; fathers do not bathe, diaper, dress, and help toilet young daughters even though they play equally with both genders of children. Previous studies suggest that fathers are more involved with their sons because they may prefer male children or perceive that the father figure is needed for sons. However, it is possible that fathers are simply hesitant to care physically for female children due to, for example, cultural expectations such as Christian sexual modesty.

In all models, Hispanic fathers are found to have smaller chances of participation in both types of childcare activities. This may be due to an ethnic culture that embraces traditional gender roles, but it is also possible that the week is gendered (i.e., fathers care for children on weekends) as Yeung et al. (2002) found. Further investigation on this association is needed.

Several limitations of my study need to be discussed. First, the dependent variables are based on men's claim that they care for or play with children every day. Strictly speaking, my study assesses what kinds of fathers have higher odds to say they do childcare/ play every day, rather than to do it every day. As discussed earlier, men often overestimate their level of contribution and a claim of daily participation does not necessarily mean that they are equalsharers. The NSFG 2002 data do not allow me to match their wives/partners' evaluation of father involvement. However, I believe we can safely assume that those men who claim that they do care/play every day are at least identifying such a role as their routine responsibility. This study informs our understanding of what factors relate to men who at least consider the importance of daily involvement in children.

Secondly, I could not include some of the important variables due to limitations of the data. The NSFG 2002 restricts the access to data on family composition in order to protect the respondents' confidentiality, and I could not obtain data on men's relationships with their children (whether biological, step, adopted, etc.). Men's level of investment on children is likely to be affected by whether their relationship is biological, step, and so forth, and I could not control for this important factor. Men's income and occupation data were also not available, and therefore, I was unable to fully assess the impact of men's inability to solely provide for the family.

Lastly, and most importantly, this study is limited to married or cohabiting fathers who live with the target child(ren) under age 5. The results cannot be applied to paternal involvement with older children, single fathers, or fathers who live away from their children. The paternal physical care variable is constructed from only one question on limited categories of care (i.e., bathe, diaper, dress, and toilet). Only several questions are asked on father involvement in the

NSFG 2002 and other questions could not be interpreted as indicators of physical care involvement. More studies are needed to assess the determinants of paternal involvement in various child care activities in diverse contexts.

Despite the above limitations, this study contributes to our understanding of paternal involvement. Fathers' roles are shaped through socialization and education, and negotiated in particular family contexts.

## References

Barnett, R.C., and Baruch, G.B. 1987. "Determinants of father's participation in family work." Journal of Marriage and the Family. 49:29-40.

Berger, Peter L. and Thomas Luckmann. 1967. The Social Construction of Reality: A Treatise in the Sociology of Knowledge. New York: Anchor Books.

Bianchi, Suzanne M. 2000. "Maternal Employment and Time with Children: Dramatic Change or Surprising Continuity?" Demography 37(4): 401-14.

Bianchi, S. M., John. P. Robinson, and Melissa A. Milkie. 2006. Changing Rhythms of American Family Life. New York: Russell Sage Foundation.

Bittman, Michael and Jocelyn Pixley. 1997. The Double Life of the Family. St. Leonard, Australia: Allen and Unwin.

Bryant, W. Keith and Cathleen D. Zick. 1996. "Are We Investing Less in the Next Generation? Historical Trends in the Time Spent Caring for Children." Journal of Family and Economic Issues 17:365-91.

Burgess, Adrienne. 1997. Fatherhood Reclaimed - The Making of the Modern Father. London: Vermilion.

Cabrera, Natasha and Catherine Tamis-LeMonda. 1999. "Perspectives on Father Involvement: Research and Policy." Social Policy Report 13(2).

Casper, Lynne and Suzanne Bianchi. 2002. Continuity and Change in the American Family. Thousand Oaks, CA: Sage.

Coleman, Marilyn and Lawrence Ganong, eds. 2004. Handbook of Contemporary Families: Considering the Past, Contemplating the Future. Thousand Oaks, CA: Sage.

Connell, R.W. 1993. "The Big Picture: Masculinities in Recent World History." Theory and Society 22:597-623.

Cunningham, Mick. 2001. "The Influence of Parental Attitudes and Behaviors on Children's Attitudes Toward Gender and Household Labor in Early Adulthood." Journal of Marriage and Family 63: 111-122.

Daily, Margo and Martin Wilson. 1988. Homicide. Piscataway, NJ: Aldine Transaction.

Furstenberg, F. F. 1988. "Good Dads - Bad Dads." Pp.193-218 in The Changing American Family and Public Policy, edited by A. Cherlin. Washington, DC: Urban Institute Press.

Gaunt, Ruth. 2005. "The Role of Value Priorities in Paternal and Maternal Involvement in Child Care." Journal of Marriage and Family 67(3): 643-655.

Gerson, Kathleen. 1993. No Man's Land: Men's Changing Commitment to Family and Work. New York: Basic Books.
$\qquad$ . 2002. "Moral Dilemmas, Moral Strategies, and the Transformation of Gender." Gender and Society 16(1): 8-28.

Goffman, Ervin. 1977. "The Arrangement between the Sexes." Theory and Society 4: 301-332.
Griswold, R.L. 1993. Fatherhood in America: A History. New York: Basic Books.
Hamer, Jennifer. 2001. What It Means to Be Daddy: Fatherhood for Black Men Living Away from Their Children. Columbia University Press.

Hochschild, Arlie with Anne Machung. 1989. The Second Shift. New York: Avon Book.
Johnson, M. M. 1975. "Fathers, Mothers, and Sex Typing." Sociological Inquiry 45: 15-26.
Kane, Emily W. 2006. "'No Way My Boys Are Going to Be Like That!': Parents' Responses to Children's Gender Nonconformity." Gender \& Society 20(2): 149-76.

Kimmel, Michael. 1994. "Masculinity as Homophobia: Fear, Shame, and Silence in the Construction of Gender Identity." Pp.119-141 in Theorizing Masculinities, edited by Harry Brod and Michael Kaufman. Thousand Oaks, CA: Sage

Kirk, Dudley. 1996. "Demographic Transition Theory" Population Studies 50: 361-387.
Lamb, M. E., P. Hwang, A. Broberg, F. Brookstein, G. Hult, and M. Frodi. 1988. "The Determinations of Paternal Involvement in a Representative Sample of Primiparouse Swedish Families." International Journal of Behavior and Development. 2: 433-449.

Lamb, Michael, ed. 1997. The Role of the Father in Child Development. Somerset, NJ: John Wiley.

Lamont, Michele. 2000. The Dignity of Working Men: Morality and the Boundaries of Race, Class, and Immigration. New York: Russell Sage Foundation.

LaRossa R. 1988. "Fatherhood and Social Change." Family Relations 37:451-57.
Lundberg, S., and R.A. Pollak. 1996. "Bargaining and Distribution in marriage." Journal of

Economic Perspectives 10(4): 139-158.
Lundberg, Shelly, Sara McLanahan, and Elaina Rose. 2007. "Child Gender and Father Involvement in Families." Demography 44:79-92.

Marsiglio, W. 1991. "Paternal Engagement Activities with Minor Children." Journal of Marriage and the Family 53:973-986.
$\qquad$ . 2004. Stepdads: Stories of Love, Hope, and Repair. Rowman \& Littlefield Publishers.

McBride, B.A., and G. Mills. 1993. "A Comparison of Mother and Father Involement with Their Preschool Age Children." Early Childhood Research Quarterly 8:457-477.

Messner, M. 1993. "'Changing Men' and Feminist politics in the U.S." Theory and Society 22:723-37.

Milkie, Melissa, Suzanne Bianchi, Marybeth Mattingly, and John Robinson. 2002. "Gendered Division of Childrearing: Ideals, Realities, and the Relationship to Parental Well-being." Sex Roles 47:21-38.

Ogburn, William. 1922. Social Change. New York: Huebsch.
Pleck, E.H. and J.H. Peck. 1997. "Fatherhood Ideals in the United States." In The Role of the Father in Child Development, edited by M.E. Lamb. New York: John Wiley.

Raley, Sara and Suzanne Bianchi. 2006. "Sons, Daughters, and Family Processes: Does Gender of Children Matter?" Annual Review of Sociology 32:401-21.

Robinson, J. P., and G. Godbey. 1997. True for Life: The Surprising Ways Americans use Their Time. University Park, PA: Pennsylvania State University Press.

Rubin, Lilian B. 1994. Families in the Fault Line. New York: Harper Collins.
Russell, Graeme. 1999. Fitting Fathers into Families: Men and Fatherhood Role in Contemporary Australia. Canberra, Australia: Department of Family and Community Service.

Sandberg, John F. and Sandra L. Hofferth. 2001. "Changes in Children's Time with Parents: United States, 1981-1997." Demography 38(3):423-36.

Snarey, J. 1993. How Fathers Care For the Next Generation. Cambridge, MA: Harvard University Press.

Starrels, M. 1994. "Gender differences in Parent-child Relations." Journal of Family Issues 5:148-65.

Townsend, Nicholas W. 2002. The Package Deal: Marriage, Work, and Fatherhood in Men's Lives. Philadelphia: Temple University Press.

Trivers, Robert L. 1972. "Parental Investment and Sexual Selection." Pp.134-179 in Sexual Selection and the Descent of Man 1871-1971, edited by Bernard Campbell. Chicago: Aldine.

Wall, Glenda. 2007. "How Involved Is Involved Fathering?: An Exploration of the Contemporary Culture of Fatherhood." Gender and Society 21(4): 508-527.

West, C. and D.H. Zimmerman. 1987. "Doing Gender" Gender and Society 1: 125-151.
Yeung, W. Jean, John F. Sandberg, Pamala E. davis-Kean, and Sandra L. Hofferth. 2001. "Children's Time with Fathers in Intact Families." Journal of Marriage and Family 63:136-54.

