Generational Differences in Children's Externalizing Behavior Problems

Ui Jeong Moon and Sandra L. Hofferth

Ui Jeong Moon: ujmoon@umd.edu; Sandra L. Hofferth: hofferth@umd.edu

Abstract

This study examines the effects of time spent with parents and peers on generational differences in children's externalizing behavior problems in immigrant families. Using the Child Development Supplement and Time Diaries from the Panel Study of Income Dynamics, we found that first and second generation children exhibited fewer externalizing behavior problems than did third generation children, despite their lower socioeconomic status. First and second generation children spent more time with either one or both parents, and less time with peers, on the weekend day than did third generation children. We found a marginal but beneficial effect of time spent with fathers on the weekday, but not on the weekend day. The implications are that time spent with fathers on weekdays differs from time spent with fathers on the weekend, and that promoting immigrant father involvement on the weekday through school or community programs could benefit immigrant children.

Keywords

Immigrant children; externalizing behavior problems; acculturation; parent and peer time; time diaries

Children of immigrants are the fastest growing segment of America's child population (Hernandez, 2004). Whereas earlier immigrants were mainly of European origin, the largest constituent groups of today's growing immigrant population hail from Latin America and Asia. It was formerly assumed that immigrants' psychological and physical health status would improve along with their socioeconomic status, and that these improvements would be the inevitable result of adapting to American culture; however, more recent studies have found that immigrants who have been in the U.S. the longest tend to have the worst health, and that their children's health is even worse. Children's externalizing behavior problems, for example, have been shown to worsen over the generations. More studies are needed to explore the aspects of generational differences that cannot be explained by SES alone, and to
understand how traditional values, beliefs and behaviors play a role in children's health and adjustment among immigrant families.

The current study focuses on children's externalizing behavior problems as indicators of problematic development, because childhood externalizing behavior problems are predictive of a variety of later social and life adjustment difficulties, including school failure and juvenile delinquency (Rubin et al., 1995). In this study, we examine whether there are differences in externalizing behavior problems among children according to their parents' immigrant status, and explore whether time spent with parents and with peers may mediate the generational effect on externalizing behavior problems.

Theory and Review of the Literature

Immigration and Children's Externalizing Behavior Problems

Externalizing behavior problems involve difficulty in managing and controlling behaviors, can emerge throughout a child's development, and lead to lifelong problems (U.S. Department of Health and Human Services, 2001). Socioeconomic disadvantage is the most important risk factor for behavior problems, because accessing social supports and resources can be difficult, and children's needs may go unmet (McLoyd, 1990). Children from families that have recently immigrated would seem to be the most vulnerable to externalizing behavior problems, given their parents' lower education level and income (Hofferth, 1999). They have an added disadvantage, as they face language problems, discrimination and cultural conflicts in their new country (Gil et al., 1994; Gil & Vega, 1996). For these reasons, we might expect the risk of children's behavioral problems to be higher among recent immigrants (Rogler et al., 1991); we might also expect children's behavior problems to improve as their socioeconomic status improves, with more secure employment and higher income, better education, and greater mastery of English in subsequent generations (Harris, 1998).

However, recent research suggests that children whose families have recently immigrated exhibit better behavioral health than do children from families that immigrated longer ago, sometimes even including native-born Whites. Greater length of time in the U.S. has been reported to be related to increased externalizing behavior problems among children (Morales et al., 2002), and this problem worsens over the course of generations (Gonzales et al., 2008; Harris, 1998). This downward trend is often called the Immigrant Paradox, and it applies mostly to Latin and Asian immigrants. Latin and Asian countries' traditional values, which place a greater emphasis on family ties and cohesion compared to European/American culture, have been shown to play a role in protecting children from the adverse effects of poverty and language limitations (Gonzales et al., 2008; Sabogal et al., 1987). Generally, the traditional culture held by immigrants hailing from Latin or Asian countries is referred to as collectivism. In collectivistic cultures, children are taught the importance of interdependence and reliance on the group (Barratt, 1993; Delgato-Gaitan, 1994); these are cultures in which the group is considered more important than the individual, and self-assertion is discouraged (Markus & Kitayama, 1991). Children are more comfortable belonging to a group, and seem to prefer having their time structured by socially desirable norms, rather than being driven by individual motivation and their own interests. This explains why children in the first
generation are less prone to antisocial behavior and delinquency, and also why they interpret their parents' tight behavior controls as warmth and acceptance; both lead to positive outcomes for these immigrant children (Kim, 2005; Lau & Cheung, 1987). Meanwhile, later generations of children may lose protective features of the indigenous culture and thus become more susceptible to behavior problems (Gonzales et al., 2008).

Generational Differences and the Amount of Time Spent with Parents and Peers

Parents' values and beliefs are key determinants in shaping children's daily life (Hofferth, 2009). In many cultures, parents expect their children to take on more responsibilities and to develop an increased sense of familial obligation as they mature (Fuligni et al., 1999; Kim, 2005). American parents have a different set of beliefs and expectations for children. Children are encouraged to develop independence and self-reliance (Barratt, 1993; Delgato-Gaitan, 1994). Therefore, they are provided with more free time in order to give them opportunities to explore their interests, practice decision making, and develop their own motivations (Larson & Verma, 1999). Parents expect increasing detachment and separation from family as their children grow (Le & Stockdale, 2005). The free time that opens up as children spend less time with parents is usually spent with peers. Peer relationships in European/American culture are prioritized over time spent playing alone; peers function as socialization agents, and interactions with peers allow children to develop autonomy, self-confidence, and independence (Elder, 1969). Therefore, parents who have recently immigrated may spend more time with their child because familial obligations and time with family are prioritized. In contrast, parents from later immigrant generations, who are more used to mainstream American cultural norms, may grant their children more free time and/or more time with peers; for these parents, strict parental control is regarded as something that restricts children's ability to exercise their autonomy.

The Role of Time with Parents and Peers in Immigrant Families

Time with parents and child behavior problems—A fair amount of research has been conducted on immigrants' parenting practices and their effects on children, and quite a sizable body of research (Chao, 1994; Kim & Wong, 2002) suggests that parenting constructs and measures developed by Western researchers cannot adequately capture the cultural meaning of parenting dimensions or their effects on children in immigrant families. Increasingly, researchers are investigating what happens when traditional values in immigrant families are lost, and the toll this takes on children. First-generation immigrant children who lose the traditional value of collectivism have been shown to be at increased risk for behavior problems compared to children who retain their traditional values (Florsheim, 1997; Gonzales et al., 2008; Szapocznik & Kurtines, 1993). Similarly, Le and Stockdale (2005) found that more acculturated Hispanic and Asian adolescents exhibited more delinquent behaviors than did less acculturated adolescents. Losing traditional values means losing the cultural component that has emphasized familial ties and cohesion, strengthened the bond between parents and child, and played a role in protecting children from behavior problems (Florsheim, 1997; Le & Stockdale, 2005). For immigrant families, reduced time with parents may mean less time for parents to transmit their traditional values and beliefs (Kao, 2004; Updegraff et al., 2006). This increasing distance from parents may well increase the incidence of children's behavior problems. Thus, immigrant parents who
capitulate to their children’s demands for more unsupervised time may be doing their children a disservice.

In addition to the research documenting the adverse effect of reduced time with parents on children’s behavior problems in immigrant families, there is also empirical research on the benefits of more parental engagement in children’s activities. Studies have shown that parental engagement in children’s lives has a generally positive effect, regardless of cultural orientation or immigrant vs. non-immigrant status. Even activities deemed “unstructured” or “less demanding,” which have been correlated with poor cognitive development and behavior problems, can be beneficial to children when they occur in the company of a parent (Crouter et al., 2004; Hofferth & Sandberg, 2001).

In sum, there are many potential benefits of parents and children spending more time together. For immigrant families, the time children spend with their parents is especially important. It is possible that parent-child time in immigrant families may compensate for their disadvantaged status, just as it does for unstructured or less demanding activities in non-immigrant families. There may be also the added benefit that parent-child time in immigrant families provides an opportunity for parents to transmit their traditional values while keeping pace with their children’s acculturation, which may reduce these children’s behavior problems (Kim et al., 2009).

**Time with peers and child behavior problems**—Children in later generation immigrant families are likely to pull away from traditional cultural values (e.g., familial obligation and interdependence) and rely instead on peer-approved American values, beliefs and behaviors (e.g., independence and self-direction) (Gil et al., 2000). Pantin et al. (2003) claim that “peers are a primary acculturating agent for Hispanic immigrant adolescents” (p. 474). They conclude that American values, beliefs, and behaviors that are learned from peers lead children to shift their cultural orientation faster than their parents, and that time spent with peers, without parents, is likely to expose children to negative and antisocial behaviors. The risk is maximized when children have immigrant parents, who are not used to American culture and thus do not understand the prevalence of risky behaviors and other problems in the environment or community in which they reside (Pantin et al., 2003). Similarly, Updegraff and her colleagues (2006) found that more time with peers in Mexican American immigrant families was related to risky behaviors and delinquency. Most studies about peer influences on immigrant children have reported that increased time with peers was associated with problem behaviors (Chan, 1999; Cook, et al., 2009). Even in safe neighborhoods, spending more time with peers increased externalizing behavior problems (Pettit et al., 1999).

**This Study**

The overall aim of this study is to examine whether time spent with parents and time spent with peers can help explain generational differences in children’s externalizing behavior problems. Presumably, traditional cultural components are diminishing over the generations, so we compare generational status instead of measuring acculturation directly.
The first objective is to identify whether generational differences in children's externalizing behavior problems exist in the immigrant population.

**Hypothesis 1**—If the theory of positive assimilation applies, then behavior problems will be lower in third compared with first and second generation children. If the theory of decline in cultural traditions and values applies, then they will be higher in third generation children.

The second objective is to examine whether the amount of time spent with parents and peers differs according to generational status.

**Hypothesis 2**—Parents of first and second generation children, who are likely to retain the more traditional value of the importance of familial obligation, will spend more time with children than parents of third generation children.

**Hypothesis 3**—Parents of third generation children are more likely to believe in the importance of socialization through peer relationships; therefore, children in the third generation will spend more time with peers.

The third objective is to examine the influences of time with parents and peers on children's externalizing behavior problems.

**Hypothesis 4**—More time with parents will lead to fewer behavior problems if the benefit of parental engagement is also applicable to immigrant populations.

**Hypothesis 5**—More time with peers will lead to more behavior problems if the large body of previous research on the negative effects of peer influence among immigrant children is supported.

**Data and Methods**

**Data**

We used the Panel Study of Income Dynamics (PSID), an ongoing nationally representative longitudinal survey, which has been gathering detailed socioeconomic, demographic, psychological and behavioral data from individuals since 1968. In 1997 the PSID added a refresher sample of 441 immigrant families who had immigrated to the U.S. after 1968 and who were not married to persons who were living in the U.S. at the time of the original PSID sample selection in 1968. Interviews and assessments were conducted in Spanish, English, and several other languages, according to respondents' preferences. Also in 1997, the PSID included the first Child Development Supplement (CDS I), which was administered to the parents of children aged 0-12; up to two of their children were then assessed using standardized measures. Interviews were conducted in the preferred language of the parent respondent and assessments were conducted in either English or Spanish. The first wave of the CDS (CDS I) included 3,563 children from 2,380 families, with a response rate of 88%. In the second wave (CDS II), when the same families were recontacted in 2002 and 2003, 2,907 out of 3,191 eligible children and adolescents aged 5-18 completed interviews, with a
response rate of 91%. A third wave (CDS III) was conducted in 2007-2008, when the youngest were 10 years of age.

Each year in which the CDS was administered, the study collected Time Diaries, which are 24-hour records detailing the children's activities, the start and end times for these activities, the people who accompanied the child, and the location of the activities. Two time diaries were collected, one for a randomly chosen weekday and one for a randomly chosen weekend day. Excluding secondary activities, the total hours per child for each of the two time diaries amounted to 24. Of the children who participated in CDS I, 81% had complete time diaries.

This study used a pooling procedure to maximize the immigrant sample. The data from 378 children of immigrant families ages 3 through 12 in CDS I were merged with the data from 100 children ages 5 through 8 in CDS II, who would have been 0 to 2 years old in CDS I and thus not eligible to provide information relevant to our study on children's behavior problems. Excluding 13 children whose primary caregiver was not their biological, step, or adoptive mother or father, analyses for this study were based on 465 children for whom information from both the time diary and CDS was available.

**Measures**

**Generational status**—In this study, “first generation” refers to children who were born outside the United States, “second generation” refers to children who were born in the U.S. to foreign-born parents, and “third generation” refers to children who were born in the U.S. to U.S.-born parents. Because of the small number of first generation children, all of whom arrived before age 12, we grouped the first and second generations together and compared this group with third generation children to examine generational differences between the two groups. The sample included 238 first and second generation children, most of whom are Hispanic or Asian (90%). Among 227 third generation (native born) children, 188 (83%) identified themselves as White or Black. Dinh et al. (2002) found that parents’ foreign-born nativity is strongly associated with their traditional cultural orientation; for example, familial support and obligation are important for Mexican immigrant families. We did not measure traditional culture directly.

**Behavior problems**—Children's behavior problems were measured using the Behavior Problems Index. This index measures the frequency and type of child behavior problems for children aged 3 or older, as reported by the primary caregiver, using 30 items originally developed by Peterson and Zill (Peterson & Zill, 1986) from the Achenbach Child Behavior Checklist. The primary caregivers were instructed to choose one of the choices, “(1) often true,” “(2) sometimes true,” or “(3) not true,” for the target child's behaviors. These were recoded so that higher scores indicate more behavior problems. Twenty-five cases were identified in which there was at least one missing value out of 30 items. Twenty-four cases had one to four missing values, and one had seven missing values. For missing values, we substituted the mean value of the item. No significant difference in reliability was found before and after substituting the mean value in place of missing data. The 30 items of the Behavior Problems Index are widely used to differentiate internalizing behavior problems from externalizing behavior problems. From factor analysis via the oblique rotation, 13
items were identified as externalizing problems, with a reliability of $\alpha = 0.83$. The scale includes children's aggressive, disruptive, and delinquent behaviors. Example items are: “He/she is impulsive or acts without thinking,” “He/she cheats or tells lies,” and “He/she bullies or is cruel or mean to others.” We used standardized factor scores for each individual for the externalizing behavior problem scale.

**Time with parents and peers**—In each year in which the CDS was administered, the study collected diaries on the type, duration, location, and companionship for the child's daily activities for one weekday and one weekend day. For each activity, the person(s) who accompanied the child, such as (step)father, (step)mother, grandparents, (step)sibling, friend, and/or non-relative adult, is identified. The level of involvement is identified as “parent is present,” “parent participates in the child's activity,” or “parent is not with the child.” We calculated the total weekday time and total weekend time during which either one or both parents participated in the child's activities during non-school times in order to arrive at a figure for “time with either parent,” “time with father only,” “time with mother only,” and “time with both parents.” “Time with peers” was defined as time children spent with friends, unsupervised by their parent(s), in order to arrive at a figure for “time with peers.” Again, time with peers was calculated for one weekday and one weekend day.

**Demographic variables**—Individual and family characteristics that might influence the child's behavior problems were used as control variables. Individual characteristics include the child's gender and age. Child gender was coded as 0 for boy and 1 for girl. The child's age was used as a continuous variable ranging from 3 to 12. Family socioeconomic status was assessed through measures of parents' education and family income. Parental education level was determined primarily according to the mother's education, but the father's education was used in the case of 17 single father families. Education level was divided into three categories: less than a high school education, completed high school, and some college education or more. Five missing values for parental education were substituted with the mean value of the group with the same race/ethnicity and generational status. Five missing values for family income, all from the data collected in 2003, were substituted with the relevant 1997 family income values and coded using the 1997 federal poverty line. Poverty was coded such that a 0 indicates a family income greater than or equal to the poverty line and 1 indicates a family income less than the poverty line. Using information about the number of working parents in each family, families were categorized into six different family types: two-parent family with both parents employed, two-parent family with the father employed, two-parent family with the mother employed, two-parent family with both parents unemployed, employed single parent family, and unemployed single parent family.

**Analysis**

Descriptive analysis was used to show mean differences between first/second generation and third generation children in behavior problems, time spent with parents and with peers, and demographic variables. Structural equation modeling (SEM) using Mplus v 6.0 was used to examine the hypothesized model based on the literature, shown in Fig. 1. Specifically, we used path analysis to test the influences of generational status and time with parents and
peers on children’s externalizing behavior problems as well as the influences of generational status on time with parents and peers simultaneously. Path analysis also provided the results of the indirect influence of generational status on child’s outcome through time with parents and peers. The ratio of the parameter estimate to its standard error is a z-test (Muthen & Muthen, 1998-2010). There were no missing values in any of the measured variables. Each path in the model was estimated, controlling for the child’s age and gender, parents’ socio-economic status, and family structure dummy variables. We did not include child’s race/ethnicity as a covariate in order to avoid problems of multicollinearity with child’s generational status, as multicollinearity increases the incidence of Type II errors. Standardized coefficients were used to compare the relative importance of different variables in the model, and an unstandardized coefficient was used to compare the direction and magnitude of variables across the models (Stage, Carter & Norma, 2004).

Results

Descriptive Statistics

Demographic and outcome differences—Table 1 shows the means and standard deviations of children’s externalizing behavior problems, along with individual and familial background for all children in the first or second generation and the third generation. Third generation children scored significantly higher on the externalizing behavior problems index than did first or second generation children ($p < .01$). The average age of all children was 7.5 years, with no difference in average age between generations. There were more girls in the first/second generation group than in the third generation group.

As substantial previous research has noted, families that have recently immigrated are more disadvantaged, with a lower socio-economic status. Almost 59% of foreign-born parents had less than a high school education, 17% had completed high school, and 24% had completed some college or more. In comparison, 21% of native-born parents had less than a high school education, 30% had completed high school, and almost 50% had completed some college or more. More families in the first and second generations (30%) had an income less than the federal poverty line compared to families in the third generation (16%). First/second generation children were significantly more likely to live with two parents (86%). More children in the first/second generation belonged to a two-parent family with a working father and a nonworking mother (45%) or to a two-parent family with both parents unemployed (9%) than did those in third generation (20% and 2%, respectively). The proportion of first/second generation children belonging to two-parent families with both parents employed (29%) was lower than that of children in the third generation group (49%). The relatively lower incidence of employment among mothers in immigrant families might be due to language limitations, lack of relevant working skills in the U.S., or difficulty accessing job information.

Time with parents and peers—Table 2 shows the amount of time parents engaged in the child’s activities and the amount of time the child spent with peers on the weekend day and the weekday, by generation. One or both parents actively participated in the child’s activities for an average of 5.6 hours on the weekend day, and for about three hours on the weekend day.
weekday. The weekend time differed significantly by generation, as third generation children experienced less time (about 5 hours) of parental engagement than did first and second generation children (6.15 hours). There was no statistically significant difference between generations in parental time on the weekday. We also examined the time parents spent with their child according to whether only the mother, only the father, or both parents were engaged. Mothers averaged 2.24 hours on the weekend day and 1.88 hours on the weekday. Fathers averaged 0.84 hours on the weekend and 0.53 hours on the weekday. Average times for maternal and paternal involvement in the child's activities did not differ by generation on either day. The average amount of time both parents spent involved together in their child's activities was 2.53 hours on the weekend, and 0.66 hours on the weekday. The weekend time significantly differed by generation, as third generation children had less time with both parents engaged than did first and second generation children. This shows that the significant difference in parent-child time that emerged between first/second generation and third generation children was mainly the result of a difference in the amount of time they spent with both parents together, rather than any small differences in the amount of time mothers or fathers engaged with their children separately.

Third generation children spent twice as much time with peers without parental surveillance on the weekend day than did children in the first or second generation (average 1.87 hours vs. 0.91 hours). No significant generational difference in amount of time spent with peers was found on the weekday.

**Structural Analysis Results**

The top panel of Table 3 depicts time during which either parent engaged in the child's activities. After controlling for child and family characteristics, child generational status was significantly negatively associated with the amount of time parents engaged in the child's activities on the weekend day ($b = -1.20, p < .01$) with an effect size of .33. Third generation parents spent less time than first/second generation parents with their children on weekend days. Generation was significantly positively related to time spent with peers ($b = 0.73, p < .01$), indicating that third generation children spent more time with peers on the weekend. The effect size is .31, suggesting that the group of third generation children spent, on average, about one-third of a standard deviation more time with peers than did the first and second generation children. In examining the path between time with parents/peers and children's externalizing behavior problems, the amount of time spent with parents did not affect children's behavior, but increased time with peers on the weekend was marginally related to increased externalizing behavior problems ($b = 0.04, p < .10$). There was no significant indirect effect of generational status on child externalizing behavior problems through the time spent with either parent nor through time spent with peers on either day.

The second panel of Table 3 depicts time during which only the mother engaged in the child's activities. The direct effect of generational status was still positive and strong after accounting for the effect of time with mother and peers and covariates ($b = 0.26, p < .05$). Later generational status predicted children spending less time with their mothers on the weekday ($b = -0.46, p < .05$), and more time with peers on the weekend day ($b = 0.73, p < .01$). The amount of time spent with their mothers on either day did not influence children's
behavior problems. And controlling for time during which only the mother engaged in the child’s activities made the association between time with peers and children’s externalizing behavior problems recede to non-significance.

The third panel of Table 3 depicts time during which only the father engaged in the child’s activities. The direct effect of child generational status was positive and strong ($b = 0.27, p < .05$). Third generation children tended to spend more time with their fathers on the weekday than did their earlier generation peers ($b = 0.26, p < .05$). The greater amount of time with their fathers on the weekday was associated, in turn, with marginally fewer externalizing behavior problems in children ($b = -0.08, p < .10$). However, paternal weekday time had no significant mediating effect on children’s behavior problems (test not shown). Although increased time with their fathers on the weekend day was associated with increased children’s behavior problems, there was no association between generation and fathers’ weekend day time and, therefore, no negative indirect effect. The pattern of results for time with peers when time with only the father was controlled was similar to the pattern for time with peers when time with only the mother was controlled. Third generation children spent more time with peers, unsupervised by parents, on the weekend day compared to first or second generation children ($b = 0.73, p < .01$), but the increased time with peers did not have a significant effect on children’s behavior problems.

The last panel of Table 3 depicts time during which both parents engaged in the child’s activities. Child generational status was significantly negatively associated with the amount of time both parents engaged in the child’s activities on the weekend day ($b = -0.87, p < .01$), with an effect size of .29. On the weekend day, third generation children spent less time with both father and mother together did than first/second generation children. Amount of time spent with both parents on the weekday did not differ by child generational status. The amount of time spent with both parents on either day did not influence children’s behavior problems.

There was no significant indirect effect of generational status on child outcome through the time spent with parents (either mother or father or both) and time spent with peers on either day.

Influence of covariates—Table 4 demonstrates the influence of generational status and family background on children’s externalizing behavior problems, excluding time with parents and peers. Third generation children had significantly higher externalizing behavior problems. Girls were less prone to behavior problems than were boys. Children whose parents had completed some college or more tended to have marginally fewer externalizing problems. Children with an employed single parent were significantly more likely to exhibit externalizing behavior problems. The effect size is .36, suggesting that the children who were in single parent families with a working parent exhibited, on average, more than one-third of a standard deviation more externalizing behavior problems than did children who had two employed parents.

Table 5 shows the influence of the covariates on time with parents and with peers. Child’s age was a major determinant of the amount of time spent with either parent, as older
children spent less time with either parent on the weekend day and the weekday. Having a single parent reduced the amount of time the child spent with parents on the weekend day, and children whose families were below the poverty line spent less time with their parents on the weekday.

Time spent with only the mother was also influenced by the child's age. Older children spent significantly less time with only their mother on either day. Mothers spent more time engaged in their female child's activities on the weekend day than their male child's activities. When both parents were unemployed, the mother spent less time with her child on the weekend day. Mothers spent more time with their child on both days in the case of families in which the parents had completed high school, and in single-parent families.

In contrast to the general effect of child's age on time spent with either parent and time spent with the mother only, the amount of paternal weekend time was not affected by the child's age (see Table 5); however, the child’s age influenced paternal weekday time. In the case of female children, fathers were less likely to engage in the child's activities on the weekend day. Parents’ high school education predicted fathers spending less time participating in the child's activities on the weekday. Single unemployed fathers spent less time with their child on the weekend day. In families in which both parents were unemployed and in single parent families, fathers spent less time with their child on the weekday.

The amount of time during which both parents engaged in their child's activities on either day was influenced by neither the child’s age nor gender. Children in single-parent families obviously had less chance to be with both parents at once, even when the non-resident parent engaged in the child's activities. Children whose families were below the poverty line spent less time with both parents on the weekday.

Older children spent more time with peers. In a two-parent family in which the mother did not work, or in a single parent family in which the parent worked, children spent less time with peers. In the first case, it may be that more maternal availability led to less time with peers, and in the second case, it may be that children were being supervised by other responsible adults or were at a day care center. Meanwhile, in the case of two-parent families in which the mother worked and the father did not, children spent more weekday time with peers. Across models, the effect of covariates on time spent with peers was the same.

**Discussion and Implications**

The purpose of this study was to examine the association between child generational status and externalizing behavior problems, and the influence of time spent with parents and peers. Children in families that had recently immigrated were likely to have less educated parents and to be poorer than third generation children, but they had fewer externalizing behavior problems. In other words, the “immigrant paradox,” which has been observed by researchers who have conducted recent studies on the relationship between generational status and immigrant health, was also found in the relationship between generational status and children’s externalizing behavior problems.
Our results indicate that scores for children's externalizing behavior problems were lower in first and second generation children than in third generation children. According to Hypothesis 1, this finding supports the theory of decline in cultural traditions and values across generations rather than positive assimilation theory. Hypothesis 2 was partially supported, but only for weekend day time. Regarding the amount of time that both parents or either parent engaged with the child, parents of first or second generation children spent more time with their child on the weekend day than did parents of third generation children. When we looked at time spent with only the mother and time spent with only the father separately, the pattern of the results changed. Neither maternal nor paternal engagement was affected by generational status on the weekend day. However, on the weekday, time spent with mothers was significantly greater for first and second generation children compared to third generation children, and time with fathers was significantly less for first and second generation children. Considering that our analyses controlled for the family's economic circumstances and maternal employment status, the reduced time third generation children spent with their mothers on the weekday might be explained by changes in parenting values or attitudes. The increased time third generation children spent with their fathers (compared to their first and second generation counterparts) might be due to a greater awareness of European/Americanized cultural expectations regarding paternal behaviors, leading these fathers to feel more responsible for child care (Hofferth, 2003).

Hypothesis 3 was supported only for weekend day time, as third generation children spent more time with peers on the weekend than did children in the first or second generation. Considering that time is limited to 24 hours a day, reduced time with parents on the weekend might lead to third generation children spending more time with peers. In addition, there is less variability in access to peers during weekdays, when children are in school.

Hypothesis 4, which refers to the potential beneficial effect of parental engagement, was partially supported. Increased time with fathers on the weekday led to fewer children's behavior problems. Previous research has shown that children benefit from spending more time with their fathers, but results from the current study indicate that this benefit applies to our sample only in the case of time spent with fathers on the weekday. We reasoned that it is not easy for many fathers to find time to spend with their child on weekdays because of their work schedule (Hofferth, 2001; Yeung et al., 2001). Therefore, if a father makes more time for his child despite his work situation, this demonstrates more parental effort and affection, possibly making the time he shares with his child more beneficial. Meanwhile, the significant negative effect of spending more time with fathers on the weekend needs further study; perhaps this negative effect varies depending on the type of children's activity in which the parent participates. This finding may be related to previous research suggesting that fathers tended to involve themselves in relatively less demanding and unorganized activities (Yeung et al., 2001), and that the time less educated parents shared with their children did not benefit children's adjustment (Crouter et al., 2004).

Additional analysis showed that among the Hispanic subsample, a group in which generational status is relatively well distributed compared to the other race groups in our sample, fathers spent more time with their children on the weekday ($b=1.09, p<.01$), and
there was also a statistically significant mediating effect of increased paternal time on reducing children’s externalizing behavior problems ($b=-0.12, p<.05$) (not shown in table).

Hypothesis 5, about the negative effect of time with peers, was not supported; we found that there was only a marginal adverse effect of increased time with peers on children’s externalizing behavior problems. This finding is consistent with previous research demonstrating that peers have a negative influence on immigrant children, given that peer-approved behaviors tend to be more disruptive and aggressive. However, this marginal effect did not explain the relationship between children’s immigrant generational status and increased externalizing behavior problems.

One implication of this line of research is that the quality of time spent with parents may differ according to whether the shared activity occurs on a weekday or on a weekend day. Specifically, weekend parental time and weekday parental time were affected differently by familial conditions, and also had different effects on children’s behavior problems. For example, there was a strong effect of child gender on both maternal and paternal involvement in weekend activities, but child gender had no effect on the amount of time spent with either parent on the weekday; this may reflect the fact that parental time on the weekday tends to be for general child care (Yeung et al., 2001), but parental time on the weekend was for child-specific activities. Also, our finding that paternal involvement on the weekend had a negative effect on children’s behavior problems, whereas paternal involvement on the weekday had a positive effect, suggests that there may be contextual differences in children’s activities during the week versus on the weekend. As such, if there exists a qualitative difference between the weekdays and weekend days in terms of paternal time, fathers may need guidance about how to be involved in their child’s weekend activities in more constructive ways. Fathers’ involvement can be promoted through their child’s school/class or through community programs for immigrant families. It may be accompanied by information about how paternal involvement plays a role in supporting the quality of mother and child relationships in addition to benefiting father and child relationships. Fathers’ involvement cannot be substituted (or replaced), but rather supplemented. Fathers can expect to experience benefits from shared time with their child as a buffer against work-related or other emotional stresses, too. Policies that support children and their immigrant parents as one unit may expect better outcomes than when children and parents are targeted as individual subjects to be acculturated.

**Summary and Limitations**

We found that despite their lower socioeconomic status, children in families that have recently immigrated were likely to exhibit fewer externalizing behavior problems than were third generation children. This generational difference was also observed in the amount of time parents participated in their child’s activities; the amount of weekday time during which only the mother engaged was greater in first or second generation families than it was in third generation families. However, fathers’ active engagement in their child’s weekday activities was greater for third generation children than for first or second generation children. Neither reduced time with either parent, maternal engagement, nor time with both parents had any significant effect on children’s externalizing behavior problems; meanwhile,
increased paternal engagement on the weekend was adverse, and increased paternal engagement on the weekday was beneficial. For children's time spent with peers, third generation children spent more time with peers on the weekend day than did first and second generation children. But despite worries about peers exerting a negative influence, there was no significant negative effect of increased time with peers on children's externalizing behavior problems. Even though we found some causal association between generational status and parental and peer engagement, and the expected effect on children's externalizing behavior problems, our results indicated that neither time with parents nor time with peers played a significant mediating role. Previous research (Dinh et al., 2002) found a significant beneficial mediating effect of parental involvement for Hispanic children's problem behaviors, but this involvement was limited to educational activities, such as checking homework and grades, or engaging in conversation about school life.

The strength of this study is that we used time diaries to examine immigrant generational differences in children's daily time allocation and the resulting effects on children. Time research has been quite widely used in America since 1997, when the PSID appended the time diary to CDS, but researchers have not yet studied the total time American immigrant parents spend engaged in their children's activities, nor the total time American immigrant children spend with peers, without parental surveillance. This way of measuring parental engagement can contribute to understanding American immigrant children and families' adjustment patterns, complementing previous studies on generational differences in immigrant parenting behaviors and styles.

**Limitations**

One limitation of this research is that the composition of children's race/ethnicity differed according to generational status. Ninety percent of first or second generation children were Hispanic or Asian, whereas 80% of third generation children were White or Black. This made it difficult to separate the effect of children's race/ethnicity from that of their generational status. Our findings for the first and second generation may reflect patterns caused by cultural similarities among Hispanics and Asians; the findings for the third generation, on the other hand, may reflect patterns that have to do with the cultural similarity of Europeans and Americans. However, among the Hispanic subsample, in which multiple generations were more evenly distributed (at least in comparison to other racial/ethnic groups in our sample), a clear connection emerged between the time parents spent with their children and children's externalizing behavior problems. Increased paternal time on the weekday had a significant mediating effect on children in this subsample. This suggests that the current study's findings reflect immigrant generation status, and are not just due to the racial/ethnic composition of the generational groups. Ideally, research should be conducted with large samples; unfortunately, however, there are no other studies with detailed time diary data.

There are a few other, more minor, limitations of the current study. Although we controlled parents' employment status to examine parental engagement on both the weekend and the weekday, we did not have information about the parents' work schedules. Some parents may have worked on the weekend rather than on the weekday, or worked a night shift. Secondly,
studies using longitudinal data will be the best way to understand the dynamics of immigrant families over time. This cross-sectional study cannot explain changes in parents' and children's interests over time, and can only show differences by generation. Lastly, it would be beneficial to conduct a more thorough examination of the types of activities in which parents and peers participated. Substantial research indicates that children's behavior problems vary depending on activity type, which means that it might be useful to delineate activities into categories such as structured/unstructured, and demanding/less demanding (Crouter et al., 2004; Hofferth & Sandberg, 2001; Larson & Verma, 1999). Future research may need to consider the quality of the time spent with children's significant others as a way to identify whether the influences of specific activities alter or mediate the effects of time spent with whomever accompanies the child.

Our study observed the phenomenon of the immigrant paradox, which has previously been identified in studies on academic achievement (Jeong & You, 2013): third generation children were likely to exhibit more externalizing behavior problems than first and second generation immigrant children. Our results suggest a possible benefit of fathers' engagement in their child's weekday activities in reducing their child's externalizing behavior problems.

Acknowledgments

Support for this study was provided under center grant R24-HD041041 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development.

References

Barratt MS. Early childrearing in Japan: Cross-cultural and intracultural perspectives. Early Development and Parenting. 1993; 2(1):3–6.
Chan RW. Social contexts, adolescent misconduct, and psychological adjustment among Chinese-American and Filipino-American adolescents. Diss, Section B: The Sciences and Engineering. 1999; 60(6-B):2981.
Chao RK. Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. Child Development. 1994; 65(4):1111–1119. [PubMed: 7956468]
Cook WK, Hofstetter CR, Kang M, Hovell MF, Irvin V. Rethinking acculturation: A study of alcohol use of Korean American adolescents in Southern California. Contemporary Drug Problems. 2009; 36(1-2):217–244. [PubMed: 22563133]
Crouter AC, Head MR, McHale SM, Tucker CJ. Family time and the psychosocial adjustment of adolescent siblings and their parents. Journal of Marriage and Family. 2004; 66(1):147–162.
Delgado-Gaitan, C. Socializing young children in Mexican American families: An intergenerational perspective. In: Greenfield, PM.; Cocking, RR., editors. Cross-cultural roots of minority child development. Hillsdale, NJ: Erlbaum; 1994. p. 55-86.
Dinh KT, Roosa MW, Tein J, Lopez VA. The relationship between acculturation and problem behavior proneness in a Hispanic youth sample: A longitudinal mediation model. Journal of Abnormal Child Psychology. 2002; 30(3):295–309. [PubMed: 12041714]
Elder GH. Peer socialization in school. Educational Leadership. 1969; 26:465–473.
Florsheim P. Chinese adolescent immigrants: Factors related to psychosocial adjustment. Journal of Youth and Adolescence. 1997; 26(2):143–163.
Fuligni AJ, Tseng V, Lam M. Attitudes towards family obligations among American adolescents with Asian, Latin American, and European Backgrounds. Child Development. 1999; 70(4):1030–1044.
Gil AG, Vega WA, Dimas JM. Acculturative stress and personal adjustment. Journal of Community Psychology. 1994; 22(1):43–54.
Gil A, Vega W. Two different worlds: Acculturation stress and adaptation among Cuban and Nicaraguan families. Journal of Social and Personal Relationships. 1996; 13(3):435–456.
Gil A, Wagner E, Vega W. Acculturation, familism and alcohol use among Latino adolescent males: Longitudinal relations. Journal of Community Psychology. 2000; 28(4):443–458.
Gonzales N, German M, Kim SY, George P, Fabrett FC, Millsap R, et al. Mexican American adolescents’ cultural orientation, externalizing behavior and academic engagement: The role of traditional cultural values. American Journal of Community Psychology. 2008; 41(1-2):151–164. [PubMed: 18085435]
Harris, KM. The health status and risk behavior of adolescents in immigrant families. In Children of Immigrants: Health, Adjustment, and Public Assistance. In: Herendez, DJ., editor. Committee on the Health and Adjustment of Immigrant Children and Families, Board on Children, Youth, and Families. Washington, DC: National Academic Press; 1998.
Hernandez DJ. Demographic change and the life circumstances of immigrant families. The Future of Children. 2004; 14(2):17–48.
Hofferth SL. Public assistance receipt by Mexican American and Cuban American children in native and immigrant families. In: Hernandez, D., editor. Children of immigrants: Health, adjustment, and public assistance. Washington, DC: National Academy Press; 1999. p. 546-583.
Hofferth SL. Race/ethnic differences in father involvement in two-parent families; Culture, context, or economy? Journal of Family Issues. 2003; 24(2):185–216.
Hofferth SL. Changes in American children's time-1997 to 2003. International Journal of Time Use Research. 2009; 6(1):26–47. [PubMed: 20852679]
Hoffferth SL, Sandberg JF. How American children spend their time. Journal of Marriage and the Family. 2001; 63(3):295–308.
Jeong Y, You H. The influence of family capital on children’s working memory in new immigrant families in the United States. International Journal of Human Ecology. 2013; 14:41–51.
Kao G. Social capital and its relevance to minority and immigrant populations. Sociology of Education. 2004; 77(2):26–47.
Kim E. Korean American parental control: Acceptance or rejection? Ethos. 2005; 33(3):347–366.
Kim, SY.; Wong, VY. Assessing Asian and Asian American parenting: A review of the literature. In: Kurasaki, SOKS.; Sue, S., editors. Asian American mental health: Assessment theories and methods. New York, NY: Kluwer; 2002. p. 185-201.
Kim SY, Chen Q, Li J, Huang X, Moon UJ. Parent-child acculturation, parenting, and adolescent depressive symptoms in Chinese immigrant families. Journal of Family Psychology. 2009; 23(3):426–437. [PubMed: 19586205]
Larson RW, Verma S. How children and adolescent spent time across the world: Work, play, and developmental opportunities. Psychological Bulletin. 1999; 125(6):701–736. [PubMed: 10589300]
Lau S, Cheung PC. Relations between Chinese adolescents' perception of parental control and organization and their perception of parental warmth. Developmental Psychology. 1987; 23(5):726–729.
Le TN, Stockdale GD. Individualism, collectivism, and delinquency in Asian American adolescents. Journal of Clinical Child and Adolescent Psychology. 2005; 34(4):681–691. [PubMed: 16232065]
Markus HR, Kitayama S. Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review. 1991; 98(2):224–253.
McLoyd VC. The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. Child Development. 1990; 61(2):311–346. [PubMed: 2188806]
Morales L, Lara M, Kington R, Valdez R, Escarce J. Socioeconomic, cultural, and behavioral factors affecting Hispanic health outcomes. Journal of Health Care Poor Underserved. 2002; 13(4):477–503.
Muthen, LK.; Muthen, BO. Mplus user’s guide. Fifth. Los Angeles, CA: Muthen & Muthen; 1998-2010.
Pantin H, Schwarts SJ, Sullivan S, Coatsworth JD, Szapocznik J. Preventing substance abuse in Hispanic immigrant adolescents: An eco-developmental, parent-centered approach. Hispanic Journal of Behavioral Science. 2003; 25(4):469–500.

Int J Hum Ecol. Author manuscript; available in PMC 2016 December 01.
Peterson JL, Zill N. Marital disruption, parent-child relationships, and behavioral problems in children. Journal of Marriage and the Family. 1986; 48(2):295–307.

Pettit GS, Bates JE, Dodge KA, Meece DW. The impact of after-school peer contact on early adolescent externalizing problems is moderated by parental monitoring, perceived neighborhood safety, and prior adjustment. Child Development. 1999; 70(3):768–778. [PubMed: 10368921]

Rogler LH, Cortes DE, Malgady RG. Acculturation and mental health status among Hispanics: Convergence and new directions for research. American Psychologist. 1991; 46(6):585–597. [PubMed: 1952420]

Rubin KH, Chen X, McDougall P, Bowker A, McKinnon J. Waterloo Longitudinal Project: Predicting internalizing and externalizing problems in adolescence. Development and Psychopathology. 1995; 7(4):751–764.

Sabogal F, Marin G, Otero-Sabogal R, Van Oss Marin B, Perez-Stable EJ. Hispanic familism and acculturation: What changes and what doesn’t? Hispanic Journal of Behavioral Sciences. 1987; 9(4):397–412.

Stage FK, Carter HC, Norma A. Path analysis: An introduction and analysis of a decade of research. Journal of Education Research. 2004; 98(1):5–12.

Szapocznik J, Kurtines WM. Family psychology and cultural diversity. American Psychologist. 1993; 48(4):400–407.

U.S. Department of Health and Human Services. Mental Health: Culture, Race, and Ethnicity-A Supplement to Mental Health: A Report of the Surgeon General. Rockville, MD: U.S Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services; 2001.

Updegraff KA, McHale SM, Whiteman SD, Thayer SM, Crouter AC. The nature and correlates of Mexican-American adolescents' time with parents and peers. Child Development. 2006; 77(5):1470–1486. [PubMed: 16999812]

Yeung WJ, Sandberg JF, Davis-Kean PE, Hofferth SL. Children's time with fathers in intact families. Journal of Marriage and Family. 2001; 63(1):136–154.
Figure 1. Conceptual model for influence of generational status and time with parents and peers on children’s behavior problems in immigrant families.
Table 1
Means of child behavior problems and family background

| Variables                  | All          | 1st/2nd      | 3rd          |
|----------------------------|--------------|--------------|--------------|
| N                          | 465          | 238          | 227          |
| Behavior problems          |              |              |              |
| Externalizing problems     | 0.00         | -0.15        | 0.16         |
| Family background          |              |              |              |
| Generation                 |              |              |              |
| 1st generation             | 11%          |              |              |
| 2nd generation             | 40%          |              |              |
| 3rd generation             | 49%          |              |              |
| Child age                  | 7.54         | 7.54         | 7.54         |
| Girls                      | 49%          | 55%          | 43%          |
| Parents’ education         |              |              |              |
| Less than high school      | 40%          | 21%          | ***          |
| High school                | 23%          | 30%          | **           |
| Some college or more       | 36%          | 50%          | ***          |
| Poverty                    | 23%          | 16%          | ***          |
| Family structure & employment |           |              |              |
| Two parent working         | 39%          | 49%          | ***          |
| Father working & mother non-working | 33% | 45% | 20% |
| Mother working & father non-working | 2% | 3% | 2% |
| No working parents         | 6%           | 2%           | **           |
| Single head working        | 13%          | 17%          | *            |
| Single head non-working    | 7%           | 4%           | 10%          |

*p < .01,

**p < .001.
### Table 2

Means of time with parents and peers by generation

| Variables                        | N   | Mean | SD  | Mean | SD  | Mean | SD  |
|----------------------------------|-----|------|-----|------|-----|------|-----|
| **Time with parents:**           |     |      |     |      |     |      |     |
| Time either parent engaged       | 465 | 5.61 | 3.59| 6.15 | 3.61| 5.03 | 3.49|
| Weekend day                      | 238 | 5.03 | 3.49|      |     |      |     |
| Weekday                          | 227 | 5.03 | 3.49|      |     |      |     |
| Time mother only engaged         | 227 | 2.27 | 2.68|      |     |      |     |
| Weekend day                      | 227 | 2.27 | 2.68|      |     |      |     |
| Weekday                          | 227 | 2.27 | 2.68|      |     |      |     |
| Time father only engaged         | 227 | 0.86 | 1.67|      |     |      |     |
| Weekend day                      | 227 | 0.86 | 1.67|      |     |      |     |
| Weekday                          | 227 | 0.86 | 1.67|      |     |      |     |
| Time both parents engaged        | 227 | 1.87 | 2.75|      |     |      |     |
| Weekend day                      | 227 | 1.87 | 2.75|      |     |      |     |
| Weekday                          | 227 | 1.87 | 2.75|      |     |      |     |
| **Time with peers:**             |     |      |     |      |     |      |     |
| Time spent with peers            | 227 | 1.87 | 2.75|      |     |      |     |
| Weekend day                      | 227 | 1.87 | 2.75|      |     |      |     |
| Weekday                          | 227 | 1.87 | 2.75|      |     |      |     |

*** p < .001, 
** p < .01, 
* p < .05, 
*p < .10 two-tailed test

*a Time in hours
### Table 3
Path coefficients of time with parents and peers

| Independent variables          | Time with either parent |         | Time with peers |         | Externalizing behavior problems |         |
|-------------------------------|-------------------------|---------|-----------------|---------|---------------------------------|---------|
|                               | Weekend day             | Weekday | Weekend day     | Weekday |                                 |         |
| Generation                    | b (SE)                  | Beta    | b (SE)          | Beta    | b (SE)                          | Beta    |
|                               | -1.20 (0.36)            | -0.17** | -0.12 (0.23)    | -0.02   | 0.73 (0.24)                     | 0.15**  |
| Either parent-weekend day     |                         |         |                 |         | 0.07                            |         |
| Either parent-weekday         |                         |         |                 |         | -0.03                           |         |
| Peer time-weekend day         |                         |         |                 |         | 0.02                           |         |
| Peer time-weekday             |                         |         |                 |         | 0.01                           |         |
| Time with mother only         |                         |         |                 |         |                                 |         |
| Generation                    | -0.36 (0.28)            | -0.06   | -0.46 (0.19)    | -0.12*  | 0.73 (0.24)                     | 0.15**  |
| Mother only-weekend day       |                         |         |                 |         | 0.02                           |         |
| Mother only-weekday           |                         |         |                 |         | 0.04                           |         |
| Peer time-weekend day         |                         |         |                 |         | 0.03                           |         |
| Peer time-weekday             |                         |         |                 |         | 0.01                           |         |
| Time with father only         |                         |         |                 |         |                                 |         |
| Generation                    | 0.04 (0.17)             | 0.01    | 0.26 (0.11)     | 0.12*   | 0.73 (0.24)                     | 0.15**  |
| Father only-weekend day       |                         |         |                 |         | 0.06                           |         |
| Father only-weekday           |                         |         |                 |         | -0.08                          | -0.09*  |
| Peer time-weekend day         |                         |         |                 |         | 0.03                           |         |
| Peer time-weekday             |                         |         |                 |         | 0.00                           |         |
| Time with both parents        |                         |         |                 |         |                                 |         |
| Generation                    | -0.87 (0.30)            | -0.14** | 0.08 (0.10)     | 0.04    | 0.73 (0.24)                     | 0.16**  |
| Both parent-weekend day       |                         |         |                 |         | 0.01                           |         |
| Both parent-weekday           |                         |         |                 |         | 0.00                           |         |

- **p < 0.05
- ***p < 0.01

*Int J Hum Ecol. Author manuscript; available in PMC 2016 December 01.*
### Dependent variables

|                  | Time with either parent | Time with peers | Externalizing behavior problems |
|------------------|--------------------------|-----------------|---------------------------------|
|                  | Weekend day | Weekday | Weekend day | Weekday |                                |                                |
| **Independent variables** | b (SE)  | Beta | b (SE)  | Beta | b (SE)  | Beta | b (SE)  | Beta |
| Peer time-weekend day | 0.03(0.02) | 0.06 |            |            |            |            |            |            |
| Peer time-weekday | 0.01(0.02) | 0.01 |            |            |            |            |            |            |

N = 465

*** p < .001,
** p < .01,
* p < .05,
# p < .10 two-tailed test

Controlling for child's age and gender, parents' education level, family poverty, and family structure.
Table 4
Influence of generation and covariates on child's externalizing behavior problems

|                        | Externalizing problems |       |       |
|------------------------|------------------------|-------|-------|
|                        | b         | (SE) | Beta  |
| Generation             | 0.27      | (0.10)| 0.13  **|
| Child age              | -0.01     | (0.02)| -0.02 |
| Girls                  | -0.18     | (0.09)| -0.09 *|
| Parents' education     |           |      |       |
|                        | (ref. less than high school) |       |       |
| High school            | 0.18      | (0.12)| 0.08  |
| Some college or more   | -0.19     | (0.12)| -0.09 +|
| Poverty                | -0.19     | (0.12)| -0.08 |
| Family structure & employment (ref. two parents working) |       |       |       |
|                        |           |      |       |
| Father working & mother non-working | 0.01     | (0.11)| 0.00  |
| Mother working & father non-working | 0.30     | (0.31)| 0.05  |
| No working parents     | 0.24      | (0.21)| 0.05  |
| Single head working    | 0.36      | (0.15)| 0.12  *|
| Single head non-working| 0.20      | (0.21)| 0.05  |

N = 465

*** p < .001,

** p < .01,

* p < .05,

+ p < .10 two-tailed test
Table 5

Influence of covariates on hypothesized mediators

| Variable                      | Time with either parent | Time with mother only | Time with father only | Time with both parents | Time with peers |
|-------------------------------|-------------------------|-----------------------|-----------------------|------------------------|-----------------|
|                               | Weekday                 | Weekday               | Weekday               | Weekday                | Weekday        |
|                               | b (SE)                  | Beta                  | b (SE)                | Beta                   | b (SE)         |
| Child age                     | -0.23(0.36)             | -0.17**               | -0.13(0.04)           | -0.14***               | -0.12(0.05)    |
| Girls                         | -0.12(0.06)             | -0.02                 | 0.03(0.21)            | 0.01                   | -0.38(0.15)    |
| Burns' education (ref. less   | 0.36(0.32)              | 0.05                  | 0.17(0.28)            | 0.03                   | 0.76(0.34)     |
| than high school)             |                         |                       | 0.76(0.34)            | 0.11*                  | 0.51(0.24)     |
| High school                   |                         |                       | 0.11*                 | 0.11*                  | -0.14(0.20)    |
| Some college or more          | -0.10(0.41)             | -0.01                 | -0.04(0.26)           | -0.01                  | 0.21(0.09)     |
| Poverty                       | -0.44(0.42)             | -0.05                 | -0.58(0.27)           | -0.10*                 | -0.32(0.33)    |
| Family structure (ref. two    |                         |                       |                       |                        |                |
| parent working)               |                         |                       |                       |                        |                |
| Father working & mother      | -0.20(0.48)             | -0.03                 | -0.21(0.70)           | -0.04                  | 0.10(0.31)     |
| mother non-working            |                         |                       | 0.14(0.21)            | 0.03                   | 0.13(0.18)     |
| Mother working & father      | -1.42(0.19)             | -0.06                 | -0.22(0.70)           | -0.01                  | -0.29(0.58)    |
| father non-working            |                         |                       | 0.02                  | 0.01                   | 0.17(0.30)     |
| No working parents            | -1.90(0.73)             | -0.12**               | -0.89(0.47)           | -0.09*                 | -1.28(0.57)    |
| Single head working           | -1.20(0.52)             | -0.11*                | -0.00(0.33)           | -0.01                  | 1.60(0.40)     |
| Single head non-working       | -2.04(0.73)             | -0.15**               | 0.04(0.47)            | 0.00                   | 1.53(0.56)     |

N = 465

*** p < .001,
** p < .01,
* p < .05,
+ p < .10 two-tailed test