

영유아 시기의 어머니 취업이 모-자녀 관계에 미치는 영향에 관한 종단적 연구

A Longitudinal Approach to the Effects of Early Maternal Employment on Mother-Child Relationship

서울대학교 생활과학연구소
연수연구원 장영은

Seoul National University Research Institute of Human Ecology
Researcher : Young Eun Chang

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<Abstract>

The purpose of this study was to provide better understanding of longitudinal effects of early maternal employment on mother-child relationship using 1364 families participating the NICHD Study of Early Child Care in the U.S. Based on the information on maternal employment from 6 months after the child's birth, three employment groups were created: mothers who had always worked more than 30 hours per week, mother who had worked part-time or had been inconsistently employed, and mothers who had never worked. At 36 months, mothers who had extensively employed for the first 36 months showed significantly lower level of supportive presence compared to mothers who had never worked. Mothers who had partly employed for the first year of child's life displayed higher level of supportive presence at 36 months compared to mothers in the other two 12 month employment groups. No other significant employment group differences were found in the mothers' respect for child's autonomy and hostility at 36 months. At first grade, mothers in three employment groups were not different in their relationship with their child. The findings suggested that maternal employment, specifically early extensive maternal employment, does not consistently predict lower quality of mother-child interaction in two or three years later.

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Correspondence concerning this article should be addressed to Young Eun Chang, College of Human Ecology, Department of Child Development and Family Studies, Seoul National University.

Tel: 82-2-880-6821 Fax: 82-2-871-2506 E-mail: utpoo@sun.ac.kr

본 연구는 미국 NICHD Study of Early Child Care에 참여하는 1364 가족을 대상으로 하여 어머니의 초기 취업이 이후 어머니-자녀 관계에 미치는 영향을 종단적으로 밝혀보고자 하였다. 자녀 출생 이후 6개월부터의 취업에 관한 데이터를 이용하여 자녀의 영유아기 시기에 언제나 일주일에 30시간 이상 취업해 왔던 어머니, 파트타임으로 취업해왔거나 일부 기간 동안만 일했던 어머니, 그리고 늘 전업주부였던 어머니 집단으로 나누어 자녀가 36개월일 때와 초등학교 1학년일 때 세 집단 간 어머니의 지지행동, 자녀 자율성 존중, 적대감의 정도를 비교하였다. 자녀 연령 36개월까지 언제나 취업했던 어머니는 전혀 취업하지 않은 어머니에 비해 낮은 수준의 지지행동을 36개월에 보였다. 자녀 생후 1년 동안 부분적으로만 일했던 어머니는 다른 집단 어머니에 비해 유의하게 높은 수준의 지지행동을 보였다. 이외의 36개월에 관찰된 변수들에서는 유의한 집단 차이가 존재하지 않았다. 초등학교 일학년 때 모-자녀 관계에서는 어머니의 36개월까지의 취업집단 및 1학년 때 취업집단 사이 모두 유의한 집단차를 찾을 수 없었다. 전반적인 결과는 어머니의 취업, 특히 영유아기의 초기 취업이 2-3년 이후 어머니가 자녀와 가지는 상호작용의 질에 일관되게 부정적인 영향을 주지는 않는다는 점을 시사하였다.

주제어(Key Words): 어머니 취업(maternal employment), 모-자녀 관계(mother-child relationship), 종단적 연구(longitudinal study)

I. Introduction

Developmental Issues of the Effects of Maternal Employment

The influences of maternal employment on children's developmental outcomes and mother-child relationships have been a focus of research interest for many years. The research prior to 1960 was mostly focused on maladjustment among children of working mothers (e.g., Cummings, 1944; Glueck & Glueck, 1957; Mathews, 1934), reflecting public concerns about the consequences of mothers' absence from home (Stolz, 1960). More recent research still tends to examine only the negative sides of the maternal employment (Barling, MacEwen, & Nolte, 1993), partly as a result of the notion that maternal absence due to employment is detrimental, especially for infant attachment (Gottfried, Gottfried, & Bathurst, 1995).

Studies in this area have been extensively focused on the potential impacts of *early* maternal employment and/or child care on child development. Some studies have specifically focused upon maternal employment in the *first* year (e.g., Bates, Marvinney, Kelly, Dodge, Bennett, & Pettit, 1994; Baydar & Brooks-Gunn, 1991; Belsky & Rovine, 1988; NICHD Early Child Care Research Network, 1997; Vaughn, Gore, & Egeland, 1980; Waldfogel, Han & Brooks-Gunn, 2002) and others the *first two* and *three* years (e.g., Belsky, 1999; Belsky & Eggebeen, 1991; Caruso, 1996; Crockenberg & Litman, 1991; Harvey, 1999). Although the findings are not consistent, theories and empirical evidence suggest that the child's age when maternal employment occurs is one of the important factors to consider in studying the effects of maternal

employment because early years of children's development, especially their first year of life is when children start to form the relationships with others, primarily with mother, which in turn play a fundamental role in healthy development for later well-being.

The importance of establishing selective relationships with a caregiver during the infancy is stressed in Bowlby's (1982) ethological theory. Infants develop their own gestures and signals (e.g., crying, smiling, and following) that promote and maintain proximity to a caregiver - *attachment behaviors*. The first year of life is the crucial period during which the mother-child bond emerges and is consolidated based on interactions between the infant and mother. Bowlby's maternal deprivation perspective suggests that separation from parents can have the potentially harmful effects on the development of attachment among young infants. The theoretical importance of the caregiver's emotional and physical availability during the first year of life raises the question of whether early maternal employment and/or child care prevent infants from forming a bond with the parents and undermine the mother's ability to provide sensitive and responsive care.

Belsky (1999; 2001) concluded that early, extensive and continuous maternal employment during the first year predicted less harmonious parent-child relations at age 1 and more disobedience and aggressiveness between age 3 and 8. Two recent longitudinal studies (Brooks-Gunn, Han, & Waldfogel, 2002; Waldfogel, et al., 2002) revealed that early maternal employment predicted low cognitive outcomes among 36 month-old children. These findings imply that early maternal

employment, especially during the first year of life, can be developmentally influential.

One of the reasons why the findings about the effects of maternal employment on children's development do not converge might be because many other factors besides a dichotomous variable of whether the mother is working or not come into play in the paths between maternal employment and child outcomes. The main factor of interest of this study is the quality of mother-child relationship since it has been the center of the debates on the detrimental effects of early maternal employment as an important predictor that explains differences between children of working mothers and of home-stay mothers.

Effects of Employment on the Mother-Child Relationship

One of the rationales for the assumption of negative effects of mothers' working is based on maternal deprivation perspective (Gottfried, et al., 1995). According to this view, employed mothers spend less time with their children and lose many opportunities for interaction; therefore the mother-child relationship is less stable and secure than that of a non-working mother and child (e.g., Belsky & Rovine, 1988). However, it may be a myth that stay-at-home mothers spend more quality time with children. Mothers who work definitely have less time to spend with their children, but that does not mean that they have less quality time. Even though employed mothers spend less time caring for their children than do unemployed mothers (Bryant & Zick, 1996), they seem to compensate for lost time by spending more time with their children during non-working hours, evenings and weekends, and by spending the time more intensively paying attention to the child. For example, employed mothers interact more with their infants during the evening hours than nonemployed mothers (Zaslow, Pedersen, Suwalsky, Cain, & Fivel, 1985).

A number of studies show that the quality of relationship between a mother and her child is often better among employed mothers than among unemployed mothers in terms of warmth, sensitivity, coercion and responsiveness (Broom, 1998; Crockenberg & Litman, 1991; Zaslow, et al., 1985). For example,

mothers who used nonmaternal child care for their children provided different patterns of care than mothers who did not use child care. They spent their time with their children in more social interaction, such as communication, soothing, proximity, and emotional exchanges, during nonworking hours than did the mothers of home-only toddlers (Ahnert, Rickert, & Lamb, 2000). Different patterns of care were also found in the parent-child relationships of school-age children. Both parents in employed-mothers households with school-age children engaged in reading or homework activities more frequently than did parents in households where the mothers did not work (Zick, Bryant, & Osterbacka, 2001). Employed mothers talked more to their children and showed more positive interactions than did full-time homemaker (Hoffman & Youngblade, 1999).

Aronson and Huston (2001)'s analyses of data from NICHD Study of Early Child Care revealed that working mothers spent more time in paid work and less time in other activities than did fulltime home mothers. However, proportionally, they reduced their time in household, leisure, organizational, and social activities more than time spent engaged in infant care. Even though employed mothers had less time for infant care, they compensated for the time lost by increasing the proportion of social interaction time in the total time with the child. Employed mothers spent a higher proportion of the total time in social interaction with infants and a lower proportion in instrumental child care such as changing and feeding than did nonworking mothers (Aronson & Huston, 2001). Contrary to public belief, the findings suggest that despite increases in labor force participation, working mothers spend as much or more time with their children than they did several decades ago (Bianchi, 2000; Sandberg & Hofferth, 2001).

The developmental importance of early maternal employment, especially initiated in the first 4-6 months after the birth, in the quality of mother-child interactions was supported by several studies. Maternal employment during early infancy predicted less positive affect, sensitivity, and responsiveness in mother-infant interactions (Campbell, Cohn, & Meyers, 1995; Clark, Hyde, Essex, & Klein, 1997). In one Korean study, mothers who worked less amount of time showed more

positive parenting behaviors and the author concluded that the significant relation between amount of maternal working hours and parenting behavior was related to greater availability in time the mothers who worked part-time were able to spend with their child (김윤숙, 1989). On the other hand, other investigations of toddlers and preschoolers found positive effects of nonmaternal care use on maternal behavior (Caruso, 1989; Crockenberg & Litman, 1991) or did not find significant main effect of maternal employment on mother-child interaction (Stuckey, McGee & Bell, 1982). Two studies (Gottfried, Gottfried, & Bathurst, 1988; Owen & Cox, 1988) compared the quality of home environments provided by families of employed and nonemployed mothers using Home Observation for Measurement of the Environment (HOME: Caldwell & Bradley, 1984), which includes a subscale of observed maternal responsiveness. No significant differences in maternal responsiveness in mother-child interaction were found between employed and unemployed mothers of 5- and 7-year-old children (Gottfried, et al., 1988) and mothers of 3-month-old infants (Owen & Cox, 1988). In a Korean study, employed mothers tended to show greater sensitivity and respect for their children, encourage rule conformity and be more interested in their children's daily lives (이옥, 현은강, 최보가, 이귀옥, 이숙, 조성연, 2002).

Nonmaternal care, which for young children is highly correlated with maternal employment, does not consistently predict poor interaction between the mother and the child (Burchinal, Bryant, Lee, & Ramey, 1992; Braungart-Rieker, Courtney, & Garwood, 1999; Caruso, 1989; Egeland & Heister, 1995; Gottfried, et al., 1988; Hock, 1980). For example, Burchinal and her colleagues (1992) found that the amount of nonmaternal care did not predict responsiveness in the mother's interaction with her child. Previous findings from the NICHD Study of Early Child Care showed that child care was a small but significant predictor of maternal sensitivity and child engagement. More hours of child care predicted less maternal sensitivity and less positive child engagement from 36 months (NICHD Early Child Care Research Network, 1999). However, the effect size of child care on mother-child relationship was smaller than those of other maternal and familial factors (e.g., maternal education,

ethnicity, maternal depression).

Collectively, there is not consistent support for the notion that children of employed mothers lose an important part of their relationship with their mothers because they spend less time with their own mothers and more time with other caregivers. It does not appear that maternal employment itself harms the quality of mother-child relationship. Children of employed mothers are not in a situation that is parallel to Bowlby (1952)'s observation of children in institutions, who had seriously impaired mental and physical health. Many working mothers try to make the best use of their limited time by spending time with their children rather than in other activities and more in quality interaction rather than in physical child care activities. And nonworking mothers do not generally spend all of their available time in quality interactions with their children.

In the current study, using vast information on mothers' employment and observational data on mother-child interaction from birth to school age, the difference in the quality of mother-child relationship when mothers engage in different amounts of employment is examined. Given the developmental importance of maternal employment in early childhood, additional comparisons are performed using mother's employment status in earlier time periods.

Present study

Newborns reflexively behave in a way that facilitates the establishment of interactive behavior patterns with caretakers. Infants smile at the people who take care of them and gradually form bonds to important caregivers (Hetherington & Parke, 1993). During the toddler years, children become more efficient in expressing their desires to others (Bronson, 1974). The quality of caregiving and early experiences with mother or other adults plays an important role in the development of children's prosocial behavior, social skills, social competence, self-esteem and problem behaviors (김정희, 문혁준, 2003; 이숙, 최정미, 2003; Brownell & Brown, 1992; Hetherington & Parke, 1993; Maccoby & Martin, 1983). The examination of maternal employment at this early age as one of factors related to the quality of mother-child relationship later on is important given that it predict children's future

behavior (e.g., Rose, Rose, & Feldman, 1986).

This study investigates two research questions. First, do mothers interact with their children differently when they engage in different amounts of employment? Is the pattern of group difference consistent between 36 months and first grade? Second, does early maternal employment have the time-lagged effects on mother-child relationship two or three years later? In other words, does the quality of mother-child relationship differ later on depending on the amount of maternal employment during the earlier years of the child's life?

II. Methods

Participants

Participants in the NICHD Study of Early Child Care were recruited from 31 hospitals located in or near Little Rock, AR; Irvine, CA; Lawrence, KS; Wellesley, MA; Philadelphia, PA; Pittsburgh, PA; Morganton, NC; Charlottesville, VA; Seattle, WA; and Madison, WI. During selected 24-hour sampling periods during the first eleven months of 1991, 8,986 mothers giving birth were visited. Of 8,986 mothers of potential participants, 5,265 mothers were eligible and agreed to receive a

phone call. In selecting participants, the following criteria were used to exclude cases from the pool of 8,986 potential subjects born during the hospital recruitment periods: (a) mothers younger than 18 years of age at the time of the child's birth (3.8% of potential subjects); (b) families who did not anticipate remaining in the catchment area of the study for at least the next three year (5.4%); (c) infants of multiple births, those with obvious disabilities, or those who remained in the hospital more than 7 days postpartum (6.8%); (d) mothers with medical problems or acknowledged substance abuse, or who were placing their infants for adoption (4.3%); (e) mothers who did not speak English (4.4%); (f) mothers who lived more than an hour from the lab site or who were enrolled in another study (9.2%); (g) mothers who lived in neighborhoods (generally high rise projects) deemed by police too unsafe for visitation (1.5%); and (h) other exclusions (2.7%). Of the mothers who were eligible, 1.5% (81 mothers) refused to be interviewed in the hospital, and 3.4% (184 mothers) asked not to be called when they returned home.

A random sampling plan was adapted to ensure that the recruited families represented demographic diversity. Of 1,525 families selected through this sampling, 1,364 (89%) completed the one-month

(Table 1) Means and Standard Deviations of All Analytic Variables in Full Study Sample

	M	SD	N
Demographic Characteristics			
White, non-Hispanic (%)	78.20		949
African American (%)	11.30		137
Hispanic or other (%)	10.50		127
Mother's age at 1 mo. (year)	28.39	5.60	1213
Mother's education at 1 mo. (year)	14.34	2.50	1213
Prop. of time partnered at 36mo (%)	85.60	31.42	1213
Prop. of time partnered at first grade (%)	84.53	29.51	1034
# of children at 36 mos.	2.13	1.00	1213
# of children at first grade	2.40	.95	1025
Mean income to needs ratio: 6-36mos.	3.66	2.82	1211
Mean income to needs ratio: 6mos.-first grade	3.71	2.72	1033
Child=Boy (%)	51.40		624
Child=Firstborn (%)	45.09		547
Mother-Child Relationship (36 months)			
Supportive presence	5.28	1.32	1156
Respect for child's autonomy	5.29	1.10	1156
Hostility	1.35	.81	1156
Mother-Child Relationship (First grade)			
Supportive presence	5.16	1.38	996
Respect for child's autonomy	5.26	1.16	996
Hostility	1.53	.93	996

interview and became the study participants. At the time of recruitment, 53% of the recruited mothers were planning to work full-time in the child's first year of life, 23% were planning part-time employment, and 24% were planning no employment during the child's first year of life. After one month after the child's birth, 39% of mothers were not employed, 51% were employed but on leave, and 10% were employed.

At 36 months, 1213 families stayed in the study. Of mothers participating the study, 68.8% were employed and worked about 22 hours per week. When the children were first grade, 1034 children and their parents continued to be enrolled in the study. Of mothers in the study at this time, 75.7% were employed and worked about 26 hours per week. The demographic characteristics of the study sample are shown in Table 1.

Procedures

Children and their families participating in the NICHD Study of Early Child Care were followed from the children's birth to first grade. Face to face assessments in home, university labs and child care settings were conducted when the children were 6, 15, 24, 36, 54 months old and at their kindergarten and first grade years. Additional telephone interviews were conducted with mothers every 3-4 months between major assessments to update demographic information, including employment information of mother.

Demographic Characteristics. Mother's age, Mother's education (years of school completed at child's birth), a dichotomous variable of child's birth order (1=firstborn), and the child gender (1 = boy) were included as covariates in the analyses. Mothers reported *number of children in household*. *Partner status* was the proportion of epochs during which the mother reported a husband/partner was present. Mothers also reported their family income at 6, 15, 24, 36, 54 months, kindergarten and first grade. The family's *income-to-needs ratio* was computed from U.S. Census Bureau tables as the ratio of family income to the appropriate poverty threshold for each household size. In the current analyses, the ratios were averaged from 6 months to the time of follow-ups.

Mother-Child Relationship. Three measures of mother-child relationship were included: supportive

presence, respect for child's autonomy, and hostility. Mothers' supportive presence, hostility, and respect during their interaction with the child were observed in lab setting at 36 months and first grade. The interactions between mother and child were videotaped in semi-structured 15-minute observations. The tasks provided a context for assessing age-appropriate qualities of maternal behavior. At 36 months, the observation procedures followed a three-boxes procedure in which mothers were asked to show their children age-appropriate toys in three containers in a set order (see Vandell, 1979). Interaction activities included two tasks that were too difficult for the child to carry out independently and required the parent's instruction and assistance. In addition, a third activity was included that encouraged play between mother and child. At 36 months, washable markers, stencils, and paper were in the first container, dress-up clothes and a cash register were in the second, and Duplo blocks with a picture of a model were in the third. The mother was asked to have her child play with the toys in each of the three containers and to do so in the order specified. In the first grade visits, the first activity involved mother and child in operating an Etch-A-Sketch together to draw a picture of house and tree on the screen. The second activity was a pattern block activity in which the child is asked to use colored shapes to fill in three geometric cutout frames. The third activity was a card game 'One-up; One-down'.

Research assistants who had attended centralized training sessions collected data. Each data collector passed certification procedures based on a common certifier's review of videotapes of the data collector administering the procedures. The certification procedures were designed to ensure that standard data collection procedures were used across the sites.

Videotapes of the mother-child interactions were shipped to a central location for coding by raters who were blind to other information about the families. Inter-coder reliability was determined by assigning two coders to 19-20% of the tapes randomly drawn at each assessment period. Coders were unaware of which tapes were assigned to double coding, and reliability assessments were made throughout the period of coding.

Three 7-point rating subscales of mother-child

interaction measure were used as indicators of maternal sensitivity: supportive presence, hostility, and respect for child's autonomy. The rating scales were adapted from Egeland and Heister (1993). Internal consistency estimates of each subscale based upon the repeated measures (ANOVA) described in Winer (1971, p.287) were .81, .82 and .72 at 36 months and .89, .88, and .81 at first grade, respectively. Pearson's correlations indicating inter-coder agreement were .69, .70, and .56 at 36 months and .80, .79, and .68 at first grade.

III. Analysis Plan

Definition of Groups

Mothers were divided into three employment status groups on the basis of their reports of amount of employment per week at repeated personal and telephone interviews throughout the child's life. Given that the prior empirical findings suggest that maternal employment may have larger effects when mothers start to work early and work extensively, the employment categorization included two extreme employment groups: mothers who had *always extensively* worked full time since 6 months after the child's birth and mothers who had *not* worked. Mothers who did not belong to these two extreme groups, in other words those who worked sporadically and/or most worked part-time, but not full-time, were categorized in the *middle* group. Since the theoretical predictions of the present study applied most clearly to mothers with consistent patterns of employment or nonemployment, the best test of these predictions can be carried out using the "pure" extreme groups.

Recently, Brooks-Gunn and her colleagues (2002) used 30 hour or more per week as the cutoff for full-time maternal employment. This cutoff of 30 hours a week was also used in the previous studies of NICHD Early Child Care Research Network (1998; 2000) for "extensive" child care. In the NICHD Early Child Care Research study (1998), 10 or fewer hours per week was used as the cutoff for exclusive mother care. In the current study, three employment status groups were determined based upon the mothers' reports on the number of hours

at all jobs per week collected when the child was 6, 9, 12, 15, 24, 36, and 54 months old, as well as at kindergarten and first grade. Mothers had who worked 30 hours or more per week each and every epoch beginning by 6 months of age and continuing until the time of the assessment of mother and child outcomes were categorized as *extensively employed* ($N = 322$ at 36 months, $N = 183$ at first grade). Mothers who had never worked more than 10 hours per week, combining all jobs, were in the not *employed* group ($N = 241$ at 36 months). At first grade, mothers who had never worked more than 10 hours per week and mothers who were employed briefly (i.e., not more than 25% of the all the epochs mother responded) part-time (but never full-time) were included in the not employed group ($N = 145$).

Those who were not included in these two groups were in the middle group ($N = 652$ at 36 months, $N = 706$ at first grade). Mothers in the middle group worked an average of 18 to 21 hours from 6 months to 36 months and 19 to 25 hours per week from 6 months to first grade. Although the mean hours per week at work implies that mothers in this group worked part-time, examination of frequencies of work hours at each epoch (not shown) revealed that, at each time, 30.3% (6 months) to 49.9% (first grade) of the mothers worked 30 hours or more per week. Therefore, this middle group includes mothers of fairly mixed types and amount of employment experiences. Some of them may have returned to the full-time work and quit later for various reasons and others may have stayed home at first and returned to work as their children grew older.

At 36 months, 87.9% of the mothers had reported their work hours at all 6 epochs; 99.6 % mothers had reported their work hours at least 3 times. At first grade, of 1034 mothers, 71.3% had responded to the work hour questions at all 13 phone and personal interviews; all mothers had reported work hours at least 6 times from the child's birth to first grade.

Analyses Strategy

The major purpose of the study was to determine whether the quality of mother-child relationship differed across the families of with different maternal employment statuses. The descriptive statistics for the

constructs included in the measure of mother-child interaction in the three employment groups at 36 months and first grade were first summarized and compared using Analyses of Covariance (ANCOVA) with Univariate GLM (General Linear Modeling) technique and post-hoc tests were performed when significant group differences were found in ANCOVA. Control variables included mothers' age, mothers' education, mean income-to-needs ratio, proportion of time the mother was partnered, number of children in household, child=boy, and child=firstborn. These factors were known to affect mothers' (especially employed mothers') child rearing behaviors (문혁준, 2003). To examine time-lagged effects, the current study adopted a longitudinal approach using earlier employment groupings in the models predicting mother and child outcomes two or three years later. Specifically, 36 months analyses were repeated using the first year employment groups; first grade analyses were repeated using the groupings for the first 3 years of life.

IV. Results

Employment Group Description

Prior to the main group comparisons, descriptive analysis on the demographic characteristics of three employment groups was performed. At 36 months, three employment groups were different in five out of nine demographic variables. The extensively employed mothers were likely to be older ($M=29.54$, $SD=4.94$, $F(2,$

$1210) = 12.49$, $p<.001$) and to have higher education ($M=14.75$, $SD = 2.35$, $F(2, 1210)= 5.90$, $p<.01$) and more family income, compared to mothers in the other groups. Mothers who had not worked had more children ($M=2.63$, $SD=1.13$, $F(2, 1210) = 41.46$, $p<.001$) and their target child was less likely to be firstborn ($M=.31$, $SD=.46$, $F(2, 1210) = 12.67$, $p<.001$) compared to extensively working mothers and inconsistently/part-time working mothers. The results appear in Table 2.

Mother-Child Relationship in Three Employment Groups

First, differences in the quality of mother-child relationship for three concurrent employment groups were tested. At 36 months, mothers who had had different employment experiences for last three years did not show significant difference in their interaction behaviors with their children except in their supportive presence ($F(2, 1138)=3.80$, $p<.05$). Mothers who had extensively worked since the child was 6 months showed less supportive presence ($M=5.27$, $SD=1.16$) compared to mothers who had stayed home full-time with their child ($M=5.33$, $SD=1.38$). However there was no significant main effect of 36 months employment group for respect for child's autonomy and hostility. At first grade, no significant difference in the levels of supportive presence, respect for autonomy and hostility in mother-child relationship was found implying that cumulative experiences of extensive employment did not have long-term detrimental influence on the quality of relationship between mother and child. Interestingly enough, although not significantly, the middle group showed lower scores both in supportive

(Table 2) Means and Standard Deviations of Demographic Characteristics of 36-month Employment Groups

	Ext. Employed		Not Employed		Middle		Group Comparison
	M	SD	M	SD	M	SD	
African American	.09	.28	.13	.34	.12	.32	$F = 1.51$
Hispanic or other	.10	.30	.09	.30	.11	.31	$F = .10$
Mother's age	29.53 _a	4.95	28.75 _a	6.05	27.69 _b	5.63	$F = 12.49^{***}$
Mother's education	14.75 _a	2.35	14.14 _b	2.78	14.22 _b	2.45	$F = 5.90^{**}$
Income-to-needs ratio	4.41 _a	2.84	3.15 _b	3.03	3.48 _b	2.66	$F = 16.98^{***}$
Partner at home	.87	.30	.83	.35	.86	.31	$F = 1.27$
# of children	1.93 _a	.94	2.63 _b	1.13	2.05 _a	.92	$F = 41.46^{***}$
Child=boy	.50	.50	.49	.50	.53	.50	$F = 1.17$
Child=firstborn	.46 _a	.50	.31 _b	.46	.50 _a	.50	$F = 12.67^{***}$

Notes. Means with different subscripts differ at $p<.05$ in the Tukey honestly significant difference comparison. $p <.05$. ** $p <.01$. *** $p <.001$.

(Table 3) Means and Standard Deviations of Mother-Child Relationship of Concurrent Employment Group

	Ext. Employed		Not Employed		Middle		Group Comparison
	M	SD	M	SD	M	SD	
36 months Mother-Child Relationship							
Supportive presence	5.27 _a	1.16	5.33 _b	1.38	5.28 _{ab}	1.37	$F = 3.80^*$
Respect for autonomy	5.30	.99	5.32	1.11	5.29	1.14	$F = 2.30$
Hostility	1.32	.69	1.35	.81	1.42	.87	$F = .62$
First grade Mother-Child Relationship							
Supportive presence	5.26	1.26	5.33	1.32	5.10	1.43	$F = 2.02$
Respect for autonomy	5.31	1.14	5.46	1.08	5.21	1.18	$F = .75$
Hostility	1.51	.84	1.53	.92	1.50	.90	$F = .33$

Notes. Means with different subscripts differ at $p < .05$ in the Tukey honestly significant difference comparison.

* $p < .05$. ** $p < .01$. *** $p < .001$.

presence and respect for autonomy compared to the other two employment groups (Table 3). This finding may suggest that cumulative changes and instability in employment have negative effects on mother-child relationship especially by decreasing supportiveness and respect in mother-child relationship.

Time-lagged effects of earlier employment experiences of mothers were examined in the following set of analyses. Results present in Table 4. Mothers who had partly worked for the child's first year of life showed higher level of supportive presence ($M=5.40$, $SD=1.27$) compared to mothers who extensively worked ($M=5.28$, $SD=1.23$) or who stayed home ($M=5.22$, $SD=1.42$) for 12 months after the child's birth. However no significant difference was detected between the two extreme employment groups (i.e., extensively employed and never employed). For the other variables, group differences were not detected. Overall pattern of the scores at 36 months, however, suggests that mothers who stayed home all the time for

the first 12 months, compared to mothers in the other two employed groups, displayed less supportive presence and respect for child's autonomy and greater hostility during the observation of mother-child interactions. Consistently, even when mothers had worked more than 30 hours per week until the child was as young as three years old, the quality of relationship mother and child shared when the child was first grade was not essentially different from that of mothers who had worked less or not worked at all for the first three years of child's life (Supportive presence, $F(2, 970)=.15$, n.s.; Respect for child's autonomy, $F(2, 970) = 1.15$, n.s.; Hostility $F(2, 970) = 1.60$, n.s.).

V. Discussion

The current findings from employment group comparisons including comparisons between extreme groups suggest that the mother does not develop

(Table 4) Means and Standard Deviations of Mother-Child Relationship of Earlier Employment Group

	Ext. Employed		Not Employed		Middle		Group Comparison
	M	SD	M	SD	M	SD	
36 months Mother-Child Relationship							
Supportive presence	5.28 _a	1.23	5.22 _a	1.42	5.40 _b	1.27	$F = 4.52^*$
Respect for child's autonomy	5.32	1.04	5.20	1.19	5.39	1.04	$F = 2.51$
Hostility	1.36	.80	1.42	.89	1.34	.69	$F = .94$
First grade Mother-Child Relationship							
Supportive presence	5.30	1.26	5.09	1.46	5.12	1.41	$F = .15$
Respect for child's autonomy	5.32	1.12	5.31	1.22	5.21	1.17	$F = 1.15$
Hostility	1.47	.82	1.48	.90	1.58	.99	$F = 1.60$

Notes. Means with different subscripts differ at $p < .05$ in the Tukey honestly significant difference comparison.

* $p < .05$. ** $p < .01$. *** $p < .001$.

essentially negative relationship with her child even when she is extensively employed or she goes back to work early in her child's life. The findings are consistent with some previous investigations of toddlers and preschoolers that did not find significant main effect of maternal employment on mother-child interaction (Gottfried, et al., 1988; Owen & Cox, 1988; Stuckey, et al., 1982). Moreover, by categorizing mothers based on their extensiveness of employment, the current study attempted to detect the threshold where maternal employment started to affect mother-child interactions. The findings suggest that the relation between employment and quality of mother-child relationship might not be that simple.

At 36 months, mothers who had extensively worked displayed lower level of supportive presence compared to mothers who had stayed home by the time of observation. This might imply that extensively employed mothers who had not spent enough time with their child could lack supportiveness in their interactions with their child in playing and teaching situation. However, for the other variables mothers were not different depending on the amount of employment from 6 months to 36 months making it difficult to conclude that extensive employment might harm the quality of relationship between mother and child. Neither did cumulative employment up to first grade predict differences in quality of mother-child relationship. In conclusion, the findings does not yield consistent evidence that maternal employment, specifically greater amount of maternal employment, is decisively related to poorer quality of mother-child relationship. Instead, the pattern of lower ratings of maternal sensitivity, especially at first grade implies that instability of maternal employment status might have long-term effects on mother-child relationship when the child reaches school age calling for future investigations.

Longitudinal approach was adopted to investigate the effects of early employment on later mother-child relationship. The comparisons using earlier employment groups suggest that early maternal employment might not harm mother-child relationship two or three years later. Moreover, significantly higher level of supportive presence at 36 months of mothers who had been partly

employed for the first year after the child's birth of compared to mother who had extensively worked or mothers who had stayed home suggests that maternal employment during the child's first year, especially part-time employment or late return to work, may be rather beneficial for mother-child relationship. The current study however did not differentiate mothers between those who had extensively worked for the first few years and then stayed home later and who had stayed employed throughout two or three years later. Since, in the current data, the majority of mothers who started to work early tended to stay employed later, such grouping was not feasible. However, such approach could provide more information on the developmental importance of early maternal employment.

There still exist a body of findings that support the detrimental effects of early maternal employment, especially initiated in early infancy on maternal sensitivity, responsiveness and children's attachment to their mothers (Belsky, 1999, 2001; Campbell, et al., 1995; Clark, et al., 1997). Inconsistency in findings might be due to the complexity of the picture. Whether mothers are employed or not, a range of contextual factors determine the quality of the mother-child relationship. It is worthwhile to take into account the factors that moderate the effects of mothers' employment status on their parenting and their interaction with the child. For example, mothers' satisfaction with the roles or psychological well-being can affect the size and direction of the effects of employment status on the mother-child relationship. Regardless of employment status, mothers' feelings about their roles predict their psychological well-being, which, in turn affects the quality of mother-child relationship and parenting behaviors (Barling, et al., 1993; Lerner & Galambos, 1988; MacEwen & Barling, 1991). The experiences of maternal roles are affected by social attitudes toward employed women (Lerner & Galambos, 1988) and by mothers' personal beliefs and attitudes about maternal employment (Chang & Huston, 2001). It suggests that future research go beyond the simple distinction of working vs. not working mothers. Also it would be helpful to examine more diverse factors from different ecological niches that could influence mothers' experiences and children's developmental

process when the mother is at work or at home. Those factors might include the characteristics of child care (e.g., type, amount, quality, availability, mother's satisfaction, etc.), father's attitudes toward maternal employment, and child's personality and temperaments. In a Korean study, quality of child care and mothers' psychological well-being turned out to affect working mothers' parenting behaviors (박성연, 임미리, 2002).

Several limitations should be addressed. First, the sample does not include sufficient number of disadvantaged families, which limits examination of the meaning of maternal employment in mother-child relationship for those in poverty or without a partner. Therefore, generalization of these findings to the population in other contexts or cultures should be limited. It is expected that Korean mothers could display different pattern of group differences. Since there exists little findings comparing interaction behaviors of working mothers and non-working mothers with their child longitudinally in Korean literature, collection of data over time on mothers and their young children might be a valuable start for a cross-cultural study.

Also, the fact that the majority of the families in the study had more than one child in the household calls for caution in interpretation the effects of maternal employment. Mothers with more children tended to stay home, yet it is also possible that mothers who did not work decided to have more children. In the current study, there was no information about maternal employment before the birth children prior to the target child. The lack of information on mother's relationship with other children than the target child could have limited the current study's ability to investigate the interactive influences between maternal employment and mother's experiences of having older or young children and making decisions of employment.

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