

# The Relation Between Mothers' Attitudes Toward Maternal Employment and Social Competence of 36-Month-Olds: The Roles of Maternal Psychological Well-Being and Sensitivity

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**Abstract** The relation of mothers' attitudes on the effects of maternal employment on children, psychological well-being, sensitivity of the mother, and children's socioemotional development were examined in mothers who worked full time (consistently) and mothers who were unemployed during their children's early years of growth from 6 months of age. Longitudinal observations of 1,213 mothers and children from age 1 to 36 months from the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care were analyzed using structural equation models. Mothers and children benefited when maternal attitudes were consistent with the mothers' actual employment status. Among consistently employed mothers, those with positive attitudes about employment had better psychological well-being. When mothers who were unemployed, they believed that maternal employment would have positive consequences for their children's development, they preferred working outside home and they were more likely to show a low level of psychological well-being and poor quality of mother-child relation. Additionally, maternal well-being mediated the relation between a mother's attitudes and a child's social competence. For both groups, better psychological well-being of mothers was positively related to better child's socioemotional outcome. Maternal sensitivity, however, did not mediate the relation between maternal attitudes and child's social outcomes. The findings shed light on the need for a sensitive measure of characterizing mothers who work versus those who stay at home in order to better understand the effects on a child's development.

**Keywords** Maternal employment · Attitudes · Psychological well-being · Sensitivity · Social competence

## Introduction

The past few decades have witnessed a steadily increasing labor force participation of mothers with young children. Between 1975 and 2008, labor force participation of mothers with children under the age of three almost doubled, increasing from 34.3 to 59.6 % (US Department of Labor 2009). However, a more dramatic increase was found in the proportion of labor force participants consisting of mothers with infants. According to reports using data from the 1984–1985 and the 1996 panels of the US Census Bureau's Survey of Income and Program Participation (SIPP), only 17 % of new mothers who had had their first baby between 1961 and 1965 were working by the time the child was 12 months of age (O'Connell, 1990). Between 1981 and 1985, 56 % of new mothers were working within 12 months after childbirth (Smith et al. 2001). This rate has stayed fairly stable, with 53.5 % of mothers returning to work within 1 year of childbirth in 2005 (Cohany and Sok 2007).

The increase in employment of mothers with very young children has led to a large body of research studying the effects of mothers' working on child development, mother-child relationships, and mothers' psychological well-being. Studies on the influence of maternal employment on children's developmental outcomes have extensively focused on the potential impacts of early maternal employment and/or child care on child development. Some studies have specifically focused on maternal employment in the first year of the child's life (e.g. Bates et al. 1994; Baydar and Brooks-Gunn 1991; Baum 2003; Belsky and Rovine 1988;

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Berger et al. 2008; Hill et al. 2005; NICHD Early Child Care Research Network [NICHD ECCRN] 1997a; Waldfogel et al. 2002), and others in the first 2 and 3 years of the child's life (e.g. Belsky 1999; Belsky and Eggebeen 1991; Caruso 1996; NICHD ECCRN 2003). These empirical findings on the effects of maternal employment during the toddler years do not converge on a consistent conclusion. Longitudinal studies have found that a high degree of non-maternal care during the early years (Belsky 1988; Belsky and Rovine 1988; NICHD ECCRN 2003), mothers' early return to full-time work within 12 weeks of giving birth (Berger et al. 2005), or first-year employment (Baum 2003; Berger et al. 2008; Han et al. 2001) are associated with negative socioemotional development of children, including weaker attachment, greater behavior problems, and low social competence, whereas several investigators (Harvey 1999; Ruhm 2004) did not observe these negative associations. In fact, some have found positive effects of non-maternal care on children's developmental outcomes such as independence and social skills (Hoffman and Youngblade 1999).

The developmental importance of early maternal employment in the quality of mother-child interactions has also been supported by several studies. Maternal employment during early infancy predicted negative effects on sensitivity, responsiveness, or discipline in mother-infant interactions (Berger et al. 2008; Campbell et al. 1995; Clark et al. 1997), although some have found positive effects (Berger et al. 2008; Crockenberg and Litman 1991; Hoffman and Youngblade 1999) or no effect at all (Stuckey et al. 1982). Collectively, there is no consistent support for the notion that children of employed mothers have a hampered mother-child relationship because they spend less time with their mothers and more time with other caregivers. These inconsistent findings indicate that maternal employment *per se* does not predict a child's development, and calls attention to the potential role of individual variations in maternal and family characteristics.

One reason for these inconsistencies may be that decisions about maternal employment differ in meaning and consequences across families. Specifically, there may be variability in maternal well-being and child outcomes for the families of employed mothers or stay-at-home mothers as a function of personal, familial, or societal factors. In order to understand the effects of maternal employment on family functioning and child development, we must consider these various factors that range from considering the mother's personal feelings about caring for young children to examining the belief system of society as a whole regarding mothers' working outside the home (Clarke-Stewart and Allhusen 2005; Waldfogel 2006). In short, the proximal processes involved in the family are likely to vary as a function of individual differences among persons,

including individual belief systems and family interpersonal relationships (Bronfenbrenner and Morris 1997; Gottfried et al. 1995). Bronfenbrenner (1982) has emphasized that a social address, for example, whether the mother is employed or a homemaker, can be understood only by examining the process involved—how she responds to experiences as a working mother or a homemaker.

One important factor appears to be beliefs and attitudes about employment. Families and children are not always at an advantage because mothers are at home all the time. In a review of studies, Repetti et al. (1989) concluded that employment benefits women physically and psychologically, particularly in women with positive attitudes about employment. The greater the mother believed that maternal employment had negative effects on their children, the greater were the strains they experienced in trying to balance their roles as employee and mother (Goldberg et al. 1992; Jackson and Huang 1998). In an analysis of the NICHD Study of Early Child Care data, employed or student mothers with positive beliefs reported less parenting stress, less role strain, and more satisfaction with their decision to work or to attend school than did mothers who believed maternal employment could be detrimental for children's development (Chang and Huston 2001). Accordingly, the primary hypothesis of the present study is that the effects of beliefs and attitudes about maternal employment on mothers and on children differ according to the status of maternal employment.

Mothers' values, beliefs, and attitudes about working also affect their interpretation of particular situations and experiences. Depending on how mothers interpret and value maternal employment, the psychological and emotional experiences of maternal employment are assumed to differ for mothers, other family members, and, in particular, the children. The focus on employed mothers' attitudes and beliefs provides an incomplete picture; it is likely that the well-being of unemployed mothers and the impact this has on their children's development also depend on their beliefs about maternal employment; that is, the congruence between what mothers believe and what they do may be important in determining the mothers' psychological well-being and the quality of their interaction with children. There also is a possibility that mothers' stress and psychological well-being affect their perception and interpretation of maternal employment in one study, Hock and DeMeis (1990) divided women into four groups: employment-preference/employed, employment-preference/home, home-preference/employed, and home-preference/home. They reported that women who preferred to work but stayed home showed significantly more symptoms of depression, supporting the previous finding of Stafford (1984) who also used the four groups and reported that homemakers who wanted a career had the lowest self-

esteem of all the groups. Klein and fellows (1998) also reported that among mothers with 1 year-old infants, the women who were most distressed were either homemakers who preferred to be working or employed women, for whom work was relatively high in salience but who took longer maternal leaves. Unfortunately, the possible reciprocal relations between maternal beliefs and psychological well-being of mothers have not been addressed in the previous research.

It might be that mothers whose attitudes conflict with their actual behaviors are likely to feel distress and dissatisfaction, which may in turn preclude sensitive mothering. Mothers with discrepant situations were also quicker to become impatient with their children compared to mothers whose attitudes were consistent with their child care use (Everson et al. 1984). Further, these mothers had higher levels of stress and depression (Hock and DeMeis 1990), suffered from insecure mother-child attachments (Hock 1980), and had lower quality parent-child interactions (Stuckey et al. 1982). Gottfried et al. (1988) have found that working mothers' positive attitudes toward maternal employment and the dual roles of career and family were related to greater educational stimulation, more positive family involvement, more maternal involvement with child, and more democratic rule regulation. These results support the previous finding by Hoffinan (1963); working mothers who were satisfied with their work displayed more affection and used less severe discipline with their children. On the other hand, when Stuckey et al. (1982) studied 40 mother-father-preschool child triads, including 20 employed and 20 non-employed mothers, there was an increased negative effect in the mother-child interactions in families experiencing incongruence between parents' attitudes and the mother's employment status. Similarly, Yarrow et al. (1962) reported earlier on the detrimental effects of inconsistency: nonworking mothers who wanted to work, but did not work out of a feeling of 'duty to mothering', showed the most problems in child rearing. These mothers had difficulties in control, were less confident in their role as a mother, were emotionally less satisfied in their relationships with their children, and had low scores on "adequacy of mothering".

In a study completed by NICHD ECCRN (1998), developmental outcomes for children in full-time maternal care were compared to those for children in full-time non-parental care (which correlates highly, but not perfectly, with full-time employment). For children in full-time non-parental child care, mothers' favorable views of the benefits of maternal employment on child functioning were related with greater social competence and fewer behavior problems at 36 months of age. On the other hand, for children who had been exclusively in maternal care for their first 36 months, mothers' positive attitudes toward the

consequences of maternal employment for children were significantly correlated with children's lower level of social skills and greater problem behaviors. In an earlier study of Farel (1980), children of nonworking mothers, whose attitudes and work behavior were congruent, performed better on measures of school adjustment and competence. These findings are consistent with the hypothesis that children benefit when mothers' attitudes about employment coincide with their employment status (Gottfried et al. 1988; Stuckey et al. 1982). However, the path through which the consistency or inconsistency affects children's developmental outcome has not been fully examined.

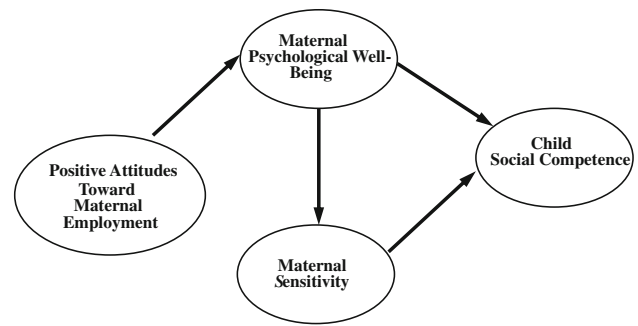
To summarize, there are individual differences in mothers' values and beliefs regarding the positive and negative effects of employment on families and children. However, a mother's work status does not always correspond to maternal beliefs. The inconsistency or incongruence for both employed and unemployed mothers may generate discomfort and further, mildly affect the psychological well-being of their children. This, in turn, affects their relationships with their children and consequently, the child's socioemotional development.

There is some direct evidence that maternal well-being and mother-child interactions mediate the effects of employment on children's socioemotional development. Lerner and Galambos (1988) found that, for full-time employed and full-time stay-at-home mothers, low maternal satisfaction in their roles as working mothers *or* as homemakers predicted high levels of rejection in their relationships with their toddlers, which in turn, predicted a difficult temperament in the child. In a later study of working mothers (MacEwen and Barling 1991), mothers' role conflict and dissatisfaction with work roles affected mothers' negative mood and cognitive difficulties. Negative mood and cognitive difficulties were associated with more rejection and punitive parenting behavior, which led to increased behavior problems in the child, such as attention difficulties, anxiety, withdrawal, and conduct disorder. A follow-up study of homemakers (Barling et al. 1993) replicated the significant association among mothers' role experiences (e.g. homemaking satisfaction, financial equity, perceived skills, and role overload), psychological well-being, parenting, and children's behavior problems. Additionally, Crockenberg and Litman (1991) have found that employed mothers who are not satisfied with their work roles use more negative control in their interactions with their children, which predicts more defiant behaviors in their children. Interestingly, associations among mothers' role satisfaction, mother-child interactions, and child behavior are stronger for employed mothers than for unemployed mothers.

Collectively, these findings suggest that maternal employment does not solely and directly influence

children's psychosocial development. Rather, mothers' well-being and the quality of the mother-child relationship mediate the effects of maternal employment on child development. Depending on the family's needs, mothers' preferences, and cultural background, maternal employment may enhance or negatively impact maternal well-being and positive parenting, which in turn, influence developmental outcomes. When employment status improves the mothers' well-being and the mother-child relationship, there are likely to be positive effects on children. When employment status is a stressor, it generates lower maternal well-being and reduced mother-child interaction quality, and the effects on children can be negative. However, little attention has been paid to the relations between mothers' beliefs and attitudes and the child's developmental outcomes. This study extends earlier research in several respects. First, this study attempted to understand the greater picture, connecting mothers' beliefs, psychological well-being, quality of mother-child relations, and child's social competence by including all relations into one model. By examining the mediating role of mothers' well-being and maternal sensitivity, the study aimed to more closely examine the ways in which the beliefs and attitudes of mothers affect their children's development. Second, the study included mothers' beliefs on the consequences of maternal employment for children's development, which previous studies have not done (Greenberger et al. 1988). Third, the study included non-working mothers in order to investigate the internal process in which 'not working' influences the lives of both the mother and child, which has not frequently been studied in the areas of maternal employment and child development. Moreover, a range of sociodemographic variables and family-construct variables (e.g. mother's age at birth of child, mother's education, family income, child gender, child ethnicity, birth order of the child, and number of children) that are likely to influence mother's employment and mother/child variables were included in the present study (Baum 2003; Bachu and O'Connell 2001; Belsky and Eggebeen 1991; Greenberger and O'Neil 1990; Waldfogel et al. 2002) on the basis of prior findings on the selective effects of those variables.

In the present study, the National Institute of Child and Human Development Study of Early Child Care (NICHD-SECC) data from birth to 3 years are used to examine the links between: (a) beliefs and attitudes and maternal psychological well-being (b) maternal psychological well-being to and mothers' relationships with their children, and (c) maternal psychological well-being, mother-child relationship, and child outcomes. We hypothesized that maternal beliefs would predict maternal well-being in different ways depending on maternal employment status. For mothers who worked consistently, more positive



**Fig. 1** The conceptual model

beliefs about employment status were expected to predict greater psychological well-being. In contrast, among full-time stay-at-home mothers, more positive beliefs and attitudes about maternal employment were expected to predict poorer maternal well-being. In both groups, maternal well-being was expected to both directly and indirectly influence children's socioemotional outcomes through its direct impact on sensitivity. That is, no differences in the relations among mothers' psychological well-being, maternal sensitivity, and children's socioemotional outcomes were expected regardless of the mother's employment status. The conceptual model is presented in Fig. 1.

## Method

### Participants

Participants in the NICHD Study of Early Child Care were recruited from 10 sites around the United States. The sampling plan and selection are described in NICHD Early Child Care Research Network (1997b). The sampling plan excluded mothers under 18 years of age, mothers who did not speak English, and low-birth-weight babies; 1,364 families completed the one-month interview and were included as study participants. At the time of recruitment, 53 % of the recruited mothers were planning to work full-time during the child's first year of life, 23 % were planning part-time employment, and 24 % were planning no employment. One month following the child's birth, 39 % of mothers were unemployed, 51 % were employed but on leave, and 10 % were employed. The families enrolled in the study included 24 % ethnic-minority children (i.e. not non-Hispanic Euro-American), 11 % mothers without a high school education, and 14 % single mothers. About 24 % of the families reported a family income below the poverty line.

After 36 months, of the 1,213 mothers who remained in the study, 68.8 % were employed and worked about 22 h

per week. These participants differed from the 148 children who were recruited but were lost during follow-up. Mother participants had significantly more education ( $M = 14.4$  years vs. 13.6 years), higher family incomes (income-to-needs ratio:  $M = 2.9$  vs. 2.2), were older ( $M = 28.4$  years old vs. 25.9 years old), and were more likely to have a husband or partner in the household (87 vs. 75 %) at the beginning of the study. The children were less likely to be African-American (11 vs. 24 %) and more likely to be European-American (78 vs. 62 %).

Data Collection Procedures and Design

Data for this study were collected from the time the children were 1 month of age through 36 months of age. At 1 month, basic demographic information about the child and family as well as mothers completed extensive questionnaires during home visits at 1, 6, 15, 24, and 36 months were gathered. Additional telephone interviews were conducted with mothers every 3–4 months between major assessments in order to update employment and demographic information. When the children were 36 months of age, data on maternal psychological functioning, children’s behavioral functioning, and mother-child interactions were gathered at home and in the university laboratory.

For the current study, mothers and children were categorized based on maternal employment status. Categorization depended on reports of the hours of employment per week during repeated personal and telephone interviews throughout the child’s life. Given that prior empirical findings suggest that maternal employment may have greater effects when mothers start to work early and work extensively, the employment categorization included two extreme employment groups: mothers who had consistently worked full time since 6 months after the child’s birth and mothers who had not worked at all after the child had been born. At 36 months, 321 and 241 mothers, respectively, met the criterion for each employment group. Since the theoretical predictions of the present study applied most clearly to mothers with consistent patterns of employment or unemployment, the best test of these predictions can be carried out using these “pure” extreme groups. The descriptive statistics of the study sample of 562 families were presented in Table 1.

Measures

*Positive Attitudes Toward Maternal Employment*

Mothers’ beliefs on the consequences of maternal employment for children were assessed 1 month after the child’s birth. Mothers completed the “Attitude toward Maternal Employment” questionnaire, a slightly modified

**Table 1** Means and standard deviations of all analytic variables of the study sample

	<i>M</i>	<i>SD</i>	<i>N</i>
Demographic characteristic			
White, non-hispanic (%)	78.2		562
African American (%)	11.3		562
Hispanic or other (%)	10.5		562
Mother’s age one mo. after birth of child (year)	29.19	5.46	562
Mother’s education one mo. after birth of child (year)	14.49	2.56	562
Prop. of time partner was present at 36 mos. (%)	85.32	32.43	562
# of children at 36 mos.	2.23	1.08	562
Mean income to need ratio: 6–36 mos.	3.87	2.99	561
Child = boy (%)	49.00		562
Child = firstborn (%)	39.68		562
Attitude toward maternal employment			
Belief about employment at one mo.	1.14	7.51	562
Ideal status = full-time home at 1 mo.	.40	.49	562
Ideal status = full-time home at 6 mos.	.37	.48	553
Ideal status = full-time home at 15 mos.	.32	.47	554
Ideal status = full-time home at 24 mos.	.33	.47	546
Ideal status = full-time home at 36 mos.	.31	.46	562
Psychological well-being			
Depression	8.90	8.22	556
Parenting stress	34.60	6.42	553
Satisfaction with role	3.96	1.06	562
Maternal sensitivity			
Supportive presence	5.29	1.26	537
Respect for child’s autonomy	5.30	1.04	537
Hostility	1.34	.74	537
Child social development			
Social expressiveness	34.98	3.09	543
Compliance	23.11	3.33	543

version of the Beliefs about Consequences of Maternal Employment for Children questionnaire (Greenberger et al. 1988). Of the 11 items in the measure, six describe the negative effects of maternal employment (e.g. “Children are less likely to form a warm and secure relationship with a mother who is working full time”), and five are statements of the positive consequences of maternal employment (e.g., “Sons of working mothers are better prepared to cooperate with a wife who wants to both work and have children”). The total score is computed with the negative effects reverse-coded. Higher scores denote more favorable attitudes toward maternal employment ( $\alpha = .88$ ).

Mothers’ ideal statuses of employment were assessed at 1, 6, 15, 24 and 36 months. Mothers were asked, “If you could have your ideal situation, what would it be right

now?” and they selected from “work full time,” “work part time,” “go to school full time,” “go to school part time,” “combine work and school full time,” “combine work and school part time,” and “be at home full time.” Out of the five measurement time points, the proportion of the time when mothers reported that their ideal status was ‘full-time home was calculated.

### Maternal Psychological Well-Being

Mothers’ psychological well-being at 36 months was indicated by assessing depression, parenting stress, and social support. *Maternal depression* was measured using the center for epidemiological studies depression scale (CES-D; Radloff 1977). The CES-D is composed of 20 statements that describe how people feel about themselves. Mothers were asked to rate their feelings during the past week on a 4-point scale. Depression scores were calculated by summing the items. Higher values denote higher levels of depressive symptoms. Internal reliability of the measure was high with  $\alpha = .91$ . *Parenting stress* was assessed using the parenting experiences measure adapted from the parent-role quality scale (Barnett and Marshall 1991), which consists of ten negative items and ten positive items about mothers’ experiences as parents. Internal reliability was also high (Cronbach’s  $\alpha = .79$ ). *Satisfaction with current role* was assessed at the 36-month home interview by asking mothers the degree to which they were satisfied with their decision about their employment. Responses were rated on a 5-point Likert scale ranging from 1 = “Very Dissatisfied” to 5 = “Very Satisfied.”

### Maternal Sensitivity

Three measures of maternal sensitivity at 36 months 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 the lab (for the procedure, see Vandell 1979). 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. Seven-point rating subscales for each of the three areas were used to assess the indicators of maternal sensitivity. Internal consistency estimates of each subscale were .81, .82, and .72, and Pearson’s correlations indicating inter-coder agreement were .69, .70, and .56, respectively.

### Social Competence

Social competence was also assessed at 36 months with the Adaptive Social Behavior Inventory (ASBI; Hogan et al. 1992). Mothers rated their children on a three-point scale

reflecting the frequency of occurrence in children’s behaviors. Two subscales from the ASBI were used as indicators of social competence: social expressiveness and compliance. The *social expressiveness* scale (13 items) covers sociability and empathy, and the *compliance* scale (10 items) measures prosocial engagement and cooperation. In the sample of the current study, the Cronbach’s alpha was .77 for social expressiveness and .83 for compliance.

### Maternal, Child and Family Controls

Mother’s *age*, mother’s *education* (years of school completed at child’s birth), two dichotomous variables of the child’s *ethnicity* (‘child = African-American, non-Hispanic’ and ‘child = Hispanic or other;’ non-Hispanic European American omitted), the child’s birth order (firstborn = 1), and the child’s *gender* (1 = boy), which were all measured at birth, were included as covariates in the analyses. Two family structure-related variables, *partner status*, indicated by the proportion of 3–4 month time periods from the child’s birth to 36 months of age during which the mother reported a husband/partner was present, and the *number of children in household at 36 month-interview*, were included. The family’s *income-to-need ratio* was computed using the US Census Bureau tables as the ratio of family income to the appropriate poverty threshold for each household size and averaged from 6 to 36 months. This ratio was computed from maternal interview items collected at each home visit. The *income-to-need ratio* computed at each time period was averaged to represent better information on the *overall* financial status of the family instead of an income level at a specific time point (see NICHD ECCRN 1997a, b, 2003).

## Results

Before testing the conceptual model, two employment groups were compared. As expected, mothers who worked consistently were more positive about the developmental consequences of maternal employment compared to mothers who did not work ( $t = 15.44, p < .001$ ). These two employment groups also differed on the ideal employment status. Mothers who did not work most often desired to stay home full time. Mothers who did not work reported a significantly higher level of parenting stress ( $t = -3.31, p < .001$ ), yet, they had greater satisfaction with their current role at 36 months than did mothers who had worked consistently ( $t = -2.30, p < .05$ ). These two groups did not differ on depression level, maternal sensitivity, or any of the child outcome measures (see Table 2 for detail).

**Table 2** Differences between employed and unemployed mothers at 36-months

	Continuously employed (N = 321)		Unemployed (N = 241)		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Demographic characteristic					
White, non-hispanic (%)	.81	.39	.77	.42	1.11
African American (%)	.09	.28	.13	.34	−1.58
Hispanic or other (%)	.10	.30	.09	.30	.42
Mother’s age (year)	29.53	4.95	28.75	6.05	1.69
Mother’s education (year)	14.75	2.35	14.14	2.78	2.82*
Mean income-to-need ratio	4.41	2.84	3.15	3.03	5.03***
Prop. of time partner was at home	.87	.30	.83	.35	1.52
# of children	1.93	.94	2.63	1.13	−8.05***
Child = boy	.50	.50	.49	.50	.23
Child = firstborn	.46	.50	.31	.46	3.63***
Attitude toward employment					
Belief about employment	4.71	6.11	−3.58	6.54	15.44***
Ideal status = FT home (one mo)	.27	.45	.58	.50	−7.68***
Ideal status = FT home (six mo)	.22	.45	.58	.50	−9.24***
Ideal status = FT home (15 mo)	.20	.40	.48	.50	−7.24***
Ideal status = FT home (24 mo)	.19	.39	.53	.50	−8.85***
Ideal status = FT home (36 mo)	.17	.38	.49	.50	−8.59***
Psychological well-being					
Depression	8.33	7.57	9.67	8.98	−1.91
Parenting stress	33.8	6.17	35.63	6.62	−3.31***
Satisfaction with role	3.81	.97	4.08	1.16	−2.30*
Maternal sensitivity					
Supportive presence	5.26	1.16	5.33	1.38	−.61
Respect for child’s autonomy	5.29	.99	5.32	1.11	−.35
Hostility	1.32	.69	1.35	.81	−.46
Child social development					
Social expressiveness	35.1	2.94	34.75	3.26	1.02
Compliance	23.2	3.40	22.95	3.24	−.40

Degree of freedoms for the *t* test varied from 535 to 560, depending on the number of respondents of each measure. \* *p* < .05. \*\*\* *p* < .001

The latent variable structural equation modeling (SEM) was adopted as the major analysis technique in order to determine whether maternal attitudes toward employment predicts mothers’ psychological well-being and their sensitivity in interactions with their child, as well as to test whether maternal employment attitudes affect the child’s social development at 36 months. The hypothesized models were estimated using Amos 18 (Arbuckle 2009). The overall model fit was indicated by the various goodness-of-fit indices. Since each index reflects only a particular aspect of fit, the use of multiple indices of overall fit is encouraged to be used in order to determine the soundness and plausibility of a model (Bollen 1989; Hoyle and Panter 1995). In the present study, the comparative fit index (CFI; Bentler 1990), Tucker-Lewis Index (TLI; Bentler 1990), the root mean square error of approximation (RMSEA; Browne and Cudek 1993; Steiger 1990), along with  $\chi^2/df$ , were used. Missing

data were dealt with the full information maximum likelihood (FIML) procedure (Arbuckle 2009; Blunch 2008).

SEM requires an assumption of measurement invariance in order to carry out a between-group comparison such that the relations of latent variables with each of their indicators can be identical across groups (Cheung and Rensvold 2002; Meredith 1993; Widaman and Reise 1997). To examine this assumption, intercepts, factor loadings, and uniqueness values for measures of all of the latent constructs in the SEM were constrained to be identical across the groups. The restrictions resulted in extremely well-fit models for all multiple group analyses completed (all CFIs  $\geq$  .956, all TLI  $\geq$  .908; all RMSEAs  $\leq$  .039; and  $\chi^2$  ratios  $\leq$  1.59). The systematic differences in the pathways among mothers’ beliefs, maternal psychological well-being, maternal sensitivity in interactions with the child, and child outcomes were tested among the latent variables constrained

to be equal across employment groups. Significant changes in  $\chi^2$  statistics were interpreted as indicating that there were significant systematic differences across the two employment groups in the causal relationships among maternal beliefs, psychological well-being, mother-child relationship, and child's socioemotional outcomes.

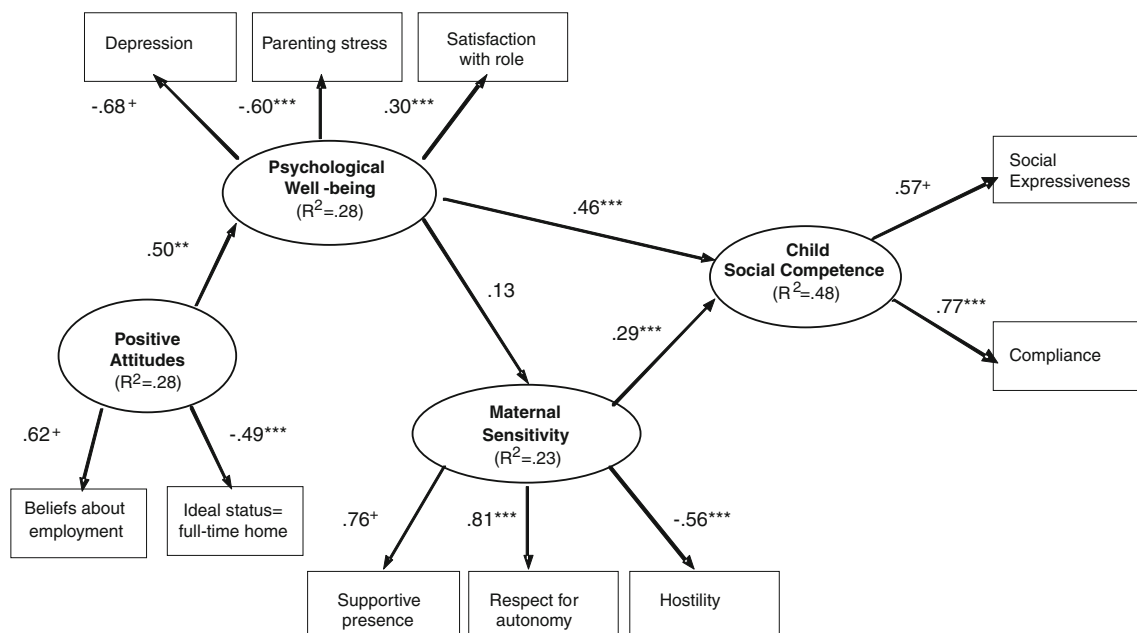
The first set of analyses tested the theoretical models hypothesizing the relations among maternal attitudes, psychological well-being, sensitivity, and child social competence by employment group. The models are illustrated in Fig. 2 for consistently employed mothers and Fig. 3 for unemployed mothers. The results include the standardized path coefficients and the values of the  $z$  test associated with each parameter estimate. In the model, the direct paths from covariates to each latent construct are not shown; however, they were included in the analyses.

As depicted in Fig. 2, when the model was tested for mothers who had consistently been working from 6 months after the child's birth to 36 months, mothers' positive attitudes toward employment were related to better psychological well-being ( $\beta = .50, p < .01$ ). Maternal psychological well-being in the consistently employed mothers was directly related to the social competence of the child when the child was 36 months old ( $\beta = .46, p < .001$ ). In sum, in the consistently employed mothers' group, positive beliefs about maternal employment influenced child's social competence through its positive effects on mothers' psychological well-being. Mothers' psychological well-being was, however, not significantly related to mothers' sensitivity in the interaction with their children. Sensitivity of working mothers predicted greater social

competence among their child ( $\beta = .29, p < .001$ ). Furthermore, the decomposition of the standardized effects shown in Table 3 revealed that working mothers' positive attitudes had significant indirect effects on a child's social development ( $\beta = .22, p < .05$ ) through mediation of mothers' psychological well-being. The overall model fit was good (CFI = .959; TLI = .907, RMSEA = .042; and  $\chi^2/df = 1.56$ ).

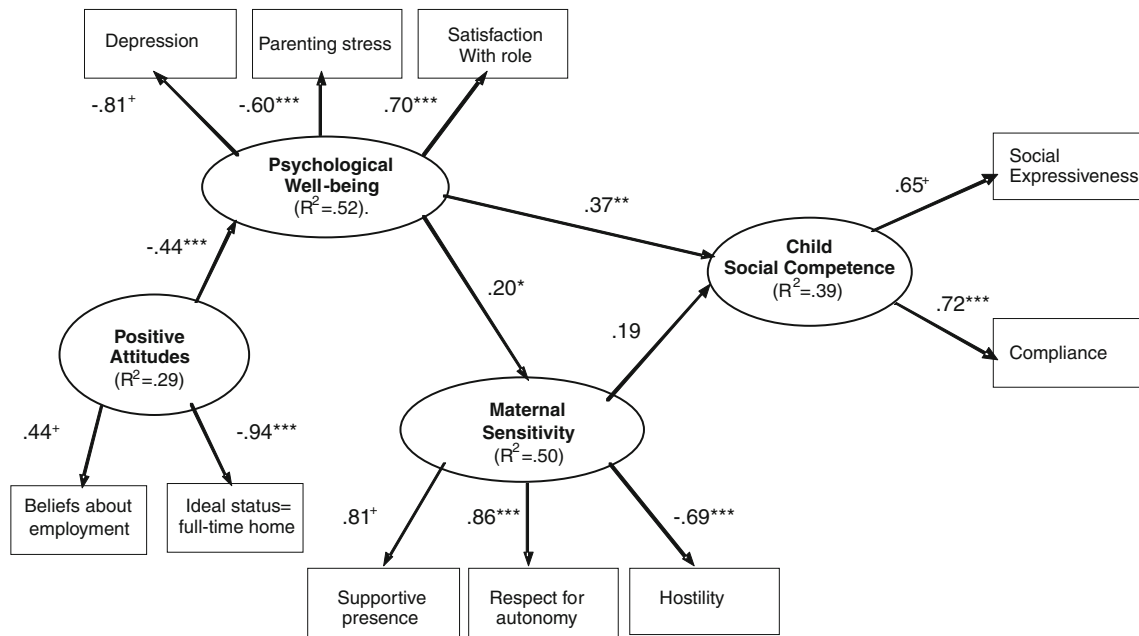
Results for unemployed mothers are presented in Fig. 3. Unemployed mothers reported poorer psychological well-being when they held positive beliefs about maternal employment. They also had less preference to stay home full time in contrast to consistently employed mothers ( $\beta = -.44, p < .001$ ). Similar to employed mothers, children of unemployed mothers with better psychological well-being showed greater social competence at 36 months ( $\beta = .37, p < .01$ ). Mothers with better psychological well-being also manifested greater sensitivity in observed mother-child interactions ( $\beta = .20, p < .05$ ); however, mothers' sensitivity in the unemployed group was not significantly related to the child's social competence at 36 months ( $\beta = .19, n.s.$ ). The significance test of standardized total, direct and indirect effects, as shown in the right column of Table 3, indicated a negative indirect effect of mothers' favorable attitudes toward maternal employment of stay-at-home mothers on children's social competence ( $\beta = -.15, p < .05$ ). The model fit indexes indicated that the model fit the data very well (CFI = .980, TLI = .955; RMSEA = .035,  $\chi^2/df = 1.29$ ).

In order to examine whether the direction and magnitude of relations of mothers' attitudes toward employment to



**Fig. 2** Model for employed mothers predicting child's social competence at 36 months ( $N = 321$ ).  $\chi^2 (85, N = 321) = 132.33, p < .001$ . Paths from the control variables are not shown, but were estimated. \*\*  $p < .01$ , \*\*\*  $p < .001$ . +variables used to set the scale for the latent construct





**Fig. 3** Model for unemployed mothers predicting child’s social competence at 36 months ( $N = 241$ ).  $\chi^2$  (85,  $N = 241$ ) = 109.52,  $p < .05$ . Paths from the control variables are not shown, but were estimated. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . +variables used to set the scale for the latent construct

**Table 3** Decomposition of standardized effects for structural equation models predicting child social competence at 36 months

Predictor	Dependent variable	Consistently employed			Unemployed		
		Total effect	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect
Positive attitude	Maternal well-being	.49*	.49*	–	–.43**	–.43**	–
	Maternal sensitivity	.07†	–	.07†	–.08**	–	–.08*
	Social competence	.22*	–	.22*	–.15*	–	–.15*
Maternal well-being	Maternal sensitivity	.14†	.14†	–	.19†	.19†	–
	Social competence	.46**	.42*	.04†	.34†	.31	.03
Maternal sensitivity	Social competence	.28**	.28**	–	.16	.16	–

To estimate significance of the effects, a bootstrapping procedure (a bootstrap sample of 1,000 was specified) and a bias corrected percentile method were performed. Bootstrapping cannot be performed with any missing data. A second dataset was generated using the listwise deletion of cases with missing data across the set of analysis variables (for consistently employed  $N = 298$ , for unemployed  $N = 224$ ). For these results, the sample size is smaller than the sample used for SEM model testing. Slight discrepancies between the standardized parameter estimates presented in the table and those provided for the final model are due to the sample size difference

†  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$

mothers’ psychological well-being, maternal sensitivity, and child social competence differ as a function of maternal employment, multiple-group comparisons between consistently employed mothers and unemployed mothers were done. There were significant group differences in the relations of mothers’ attitudes, psychological well-being, sensitivity, and mother-reported social competence between the two employment groups ( $\Delta\chi^2$  (4) = 31.49,  $p < .001$ ). Comparisons of each path revealed that the path from maternal attitudes to psychological well-being was the only path that was significantly different ( $\Delta\chi^2$  (1) = 30.48,  $p < .001$ ). The summary data of the path

coefficients, model fit indices, and model comparisons are shown in Table 4.

**Discussion**

The primary goal of the present study was to explore the role of mothers’ attitudes toward maternal employment as an indirect influence on their children’s socioemotional development. The results supported the prediction that, among mothers who were employed full-time during their children’s early years, those with positive attitudes about

**Table 4** Summary of standardized path coefficients, model fit, and group comparisons of models predicting social competence of a 36-month child

Employment	Path coefficient				Model fit index			
	Belief → Well-being	Well-being → Sensitivity	Well-being → Social competence	Sensitivity → Social competence	CFI	TLI	RMSEA	$\chi^2/df$
Employed	.50**	.13	.46***	.29***	.959	.907	.042	1.56
Unemployed	-.44***	.20*	.37**	.19	.980	.955	.035	1.28
$\Delta\chi^2(1)$	30.48***	.23	.26	.25				
Overall model difference: $\Delta\chi^2(4) = 31.49***$								

$N = 321$  for consistently employed and  $N = 241$  for unemployed group. \*\*  $p < .01$ . \*\*\*  $p < .001$

maternal employment had better psychological well-being. In contrast, among mothers who were not employed, those with positive attitudes and beliefs about maternal employment had lower levels of psychological well-being than did mothers who believed that maternal employment was possibly harmful to children. For both groups of mothers, those with better psychological well-being rated their children as more socially competent than did mothers who were unhappy. This study presents strong and consistent evidence that mothers' positive beliefs about maternal employment predict better psychological well-being for employed mothers, confirming previous findings that employed mothers were psychologically better off when they expected the beneficial effects of employment for their children (Chang and Huston 2001; Goldberg et al. 1992; Klein et al. 1998). Unemployed mothers were happier and more satisfied when they preferred staying at home and believed maternal employment could have negative consequences for children's development, supporting the study of Hock and DeMeis (1990), in which both working mothers and homemakers reported greater psychological well-being when their preferences for employment or unemployment matched their actual employment status.

In the consistently employed group, where we observed a positive relation between favorable attitude toward maternal employment and psychological well-being, positive beliefs predicted greater social competence through the path of positive beliefs, leading to better psychological well-being, and increased social competence in the child. The finding is also consistent with previous evidence that children benefit when maternal attitudes and preferences match with the mother's actual employment (Barling et al. 1993; Crockenberg and Litman 1991; MacEwen and Barling 1991). The mediation of psychological well-being between maternal attitudes and child social competence provides a possible explanation for the previous finding: the child who was in full-time non-maternal child care showed greater social competence when the mother held the belief that maternal employment had benefits for children's development, whereas a child receiving full-time

maternal care showed less social competence when the mother believed in the benefits of maternal employment (NICHD ECCRN 1998). Furthermore, the present study extends previous findings by assessing the mother's general beliefs about the benefit and cost of maternal employment on child development separate from her own situation instead of merely relying on employment status.

Maternal sensitivity was also expected to be a mediator of the effects of mothers' psychological well-being on child outcomes. There was partial support for the prediction that mothers' well-being would predict maternal sensitivity, and that more sensitive mothers would have children with greater social competence. This relation of mothers' well-being to sensitivity was found in unemployed mothers but not in employed mothers. Mothers' well-being was not related to maternal sensitivity in mother-child interaction among employed mothers. The quality of mother-child interaction, however, did not predict child social competence in the unemployed group. Working mothers' sensitivity predicted their child's greater social competence. Despite the finding that maternal sensitivity was not a meaningful mediator from mothers' beliefs and well-being to child outcome, among unemployed mothers, mothers' favorable attitudes toward maternal employment predicted lower psychological well-being, which in turn, was significantly associated with observed maternal sensitivity in the interaction with their 3-year-olds. The finding suggests that parenting quality of full-time stay-at-home mothers be influenced by their beliefs and attitudes toward maternal employment.

Since children of unemployed mothers spend more time in the exclusive care of their mothers than do children of consistently employed mothers, it might be expected that variations in maternal well-being and sensitivity would have greater effects (positive or negative) on the socio-emotional development (see Howes 1990). Belsky (1990) argued that a shift of some of the locus of influence on children's development from family to the child-care setting can explain the attenuated effects of family predictors in the case of children who are in full-time non-parental care. However, others did not find differential patterns of

association between family factors and child functioning across groups experiencing different amounts of non-maternal care (Clarke-Stewart et al. 1994; NICHD ECCRN 1998). In the current study, it was expected that the associations among maternal well-being, sensitivity, and child outcomes would not vary with the amount of employment. Results indicated that maternal well-being was consistently associated with the social competence of the child in both extreme employment groups. However, maternal sensitivity was only associated with mothers' perceptions of children's social competence in the consistently employed group but not for mothers who did not work. On the other hand, mothers' well-being was associated with the quality of maternal behaviors in the interaction with children among unemployed mothers who spent more time with their child. This suggests the need for further investigation of the predictive power of parenting behaviors for child outcomes between working versus stay-at-home mothers. In the present study, the level of maternal sensitivity did not differ between the two groups of mothers. It is possible that when working mothers spend relatively less time with their child, the quality of mother-child interaction during that limited time of the day becomes more effective and powerful in developing social competence of their child compared to mothers who spend almost all day with the child. It is also possible that sensitivity in the parenting behaviors of stay-at-home mothers is more vulnerable to the effects of psychological well-being compared to that of full-time working mothers.

This finding is noteworthy in that the models included a series of demographic characteristics as covariates. The descriptive analyses revealed that the employment groups differed in demographic characteristics and attitudes but not on the measured personality characteristics or observed sensitivity in interactions with their children. Previous findings suggested that mothers' beliefs and attitudes were also related to the demographic characteristics (Greenberger and O'Neil 1990; Hock, et al. 1984). Therefore, in the present study, these group differences were controlled for in the analyses, yet, the effects of maternal attitudes on the psychological well-being remained intact across models. Moreover, within each employment group, the variability in attitudes was limited, making it less likely that the relations of attitudes to other variables would be demonstrated.

One important feature of this study is the inclusion of stay-at-home mothers. Most studies have focused on the psychological well-being of stay-at-home mothers in relation to personal preference, but mothers' beliefs and attitudes have rarely been taken into account. The findings from the present study suggest that mothers with positive attitudes toward employment may experience distress from remaining out of the workforce and that distress may

translate into a less positive environment for their children. While great attention has been paid to the multiple roles of working mothers, their struggle with different spheres of responsibility and their conflict with traditional social expectations for mothers with young children may have been underestimated. This finding sheds light on the importance of general beliefs and attitudes that are presumably closely related to and affected by social values and expectations for women with young children, particularly in the lives of mothers who stay at home full-time.

One of the important issues to consider when interpreting the results is that mothers' beliefs were measured only once, at 1 month after the child's birth. In the preliminary analyses for the current study, mothers' beliefs were moderately correlated with other related constructs (e.g. work commitment, amount of employment, gain and strain from combining work and family, work-family conflict) until their child reached the first grade. Based on these results, it appears that mothers' beliefs are fairly stable over time and could be used to predict attitudes at 36 months. Additionally, by including mother's ideal status from 1 to 36 months, an effort was made to account for the mother's personal preference for employment as the child aged. Nevertheless, the absence of follow-up information on the mothers' beliefs limits the opportunity to examine any changes in their beliefs. It is still possible that mothers' attitudes and beliefs change over time as they are integrated with the mothers' experiences as a working mother or as a stay-at-home mother and the child's adaptation to his/her situation. For example, parenting stress can influence mothers' attitudes toward maternal employment: when a full-time stay at home mother experiences higher than expected level of parenting stress, she might change her negative attitudes and think that a mother and child could benefit from maternal employment. Moreover, it should be noted that the majority of the families in this study had more than one child in the household. There was no information about maternal beliefs before the birth of other children prior to the target child. This lack of information combined with the absence of follow-up information about mothers' beliefs and preferences for employment could have limited our ability to investigate the interactive influences between maternal attitudes toward employment and mother's experiences with older or younger children. A longitudinal approach to examine the changes in mothers' beliefs would help further clarify the interactive relations among maternal beliefs and attitudes, psychological well-being, and mother's employment history.

Another limitation to this study is that SEM itself does not prove causal relations among the variables. There may be other possible causal directions (e.g. bi-directional relations between mothers' well-being and child

outcomes), additional relations, and the role of variables not included in the model. For example, it is possible that mothers who are psychologically more adjusted put forth more effort in reducing the inconsistency between what they do and what they believe is good for their children.

In sum, our findings support the notion that the developmental outcomes for children of working mothers and of non-working mothers vary depending on how mothers evaluate their child's experiences of maternal absence due to maternal employment. This suggests that future research should go beyond evaluating the simple distinction of working and non-working mothers. The present study leaves some intriguing questions to be answered in future research. For example, a longitudinal study to examine the changes in mothers' beliefs about maternal employment may be helpful in providing a better picture of how maternal beliefs change over time. It would also be useful to examine a variety of factors from different ecological niches that could influence mothers' experiences and children's developmental process when the mother is at work or at home. These factors might include the characteristics of child care, father's attitudes toward maternal employment, child's personality and temperament, and cultural differences in expectation for exclusive maternal care and evaluation of maternal employment. Overall, this study extends previous findings and highlights the need for a more sensitive measure of characterizing mothers who work versus those who stay at home in order to better understand the effects on a child's developmental trajectory.

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