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Factors Related to Maternal Employment Status Following The Premature Birth of an Infant

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Abstract

A sample of 110 two-parent families whose preterm infants were less than 37 weeks gestation, appropriate for gestational age, and free of major congenital anomalies were recruited from two level-III intensive care nurseries. At 3 months postpartum, 40 mothers (36.4%) were employed, 15 (13.6%) stated they were on a leave of absence, and the remaining 55 mothers (50%) were not employed. Although not significantly different on demographic or infant morbidity variables, employed mothers were significantly more employment-oriented and reported less choice and satisfaction with employment status than nonemployed mothers. In addition, employed mothers were employed more hours prenatally and reported prenatal plans to be employed sooner after the infant's birth than nonemployed mothers. Employed mothers also perceived more support from others for their employment and greater financial necessity and availability of child care than nonemployed mothers. Higher scores on employment orientation were correlated with higher maternal education level, fewer children, more hours employed, higher total support for their employment, higher financial necessity, and less choice and satisfaction with employment status.

Controversy persists regarding the effect of a mother's employment on the child's development. Studies show that an important intervening variable is the consistency between the mother's desired and actual employment status (Benn, 1986; Farel, 1980; Hock & Clinger, 1980; Hoffman, 1961). However, it is not known how situational variables affect the mother's attitudes toward employment or her employment behavior. Therefore, the effect that situational variables have on the consistency between desired and actual employment status is not clear.

One such situational variable, premature birth of an infant, can affect employment consistency in two ways. First, women who, prior to delivery, planned to be employed after the child's birth may feel less free to do so because of their guilt about the child's health status or fear for the child's well-being. In addition, finding adequate alternate care is more difficult when the child has special needs. Second, the financial demands surrounding the preterm birth may necessitate the mother's postnatal employment regardless of what the mother's preference might be.

The purpose of this study was to describe differences in demographic, attitudinal, and infant morbidity variables between women who were employed by the time the premature infant was 3 months old and those who were not. In addition, the relationships among demographic, attitudinal, and infant morbidity variables were explored.

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Although research has explicated the relationship between maternal employment status and demographic, attitudinal, and employment-related variables in families with healthy children, there is little research regarding how these factors operate in families with pre term infants. With increasing rates of premature birth and survival, it is important to understand the effect that prematurity has on maternal employment status and ultimately the effect that employment consistency has on the premature infant's development.

The reasons women with healthy children give for their employment range from financial necessity to increased autonomy and contact with other adults (Alvarez, 1985; Ferree, 1976; Plunkett, 1980). Demographic variables often have been related to maternal employment status. Wives' employment has been associated with husband's lower financial status (Eggebeen, 1988; Hiller & Philliber, 1980; Smith-Lovin & Tickamyer, 1978), a relationship which is strengthened by controlling for family life cycle stage (Gordon & Kammeyer, 1980). Maternal employment has been related to higher educational levels (Eggebeen; Hock, Gnezda, & McBride, 1984; Smith–Lovin & Tickamyer), higher prestige jobs (Hiller & Philliber) and history of being employed before marriage (Smith–Lovin & Tickamyer). In addition, the longer primiparous women were employed prenatally, the earlier they were employed postnatally, controlling for education (McLaughlin, 1982).

Number of children in the family has been investigated as a possible determinant of employment. Smith-Lovin and Tickamyer (1978) and Safilios-Rothschild (1970) found that employed women had fewer children; however, number of children in the family and the family's income level may interact to influence employment status (Gordon & Kammeyer, 1980). Age of child may also affect employment, with mothers of preschool children being less likely to be employed than mothers with older children (Eggebeen, 1988; Molm, 1978).

Attitudes toward employment playa significant role in mothers' employment. Women are more likely to be employed when they approve of women's employment (Molm, 1978; Greenstein, 1986). In interviews conducted during the early postpartum period, Hock et al. (1984) found that women who planned to stay home after the birth of their first child were more home-oriented and believed more strongly in exclusive maternal care for infants.

Method

Sample

A convenience sample of 110 families was recruited from two level-III intensive care nurseries (NICU) close to the time of discharge. Criteria for inclusion in the study were that the infant was less than 37 weeks gestation, appropriate for gestional age (AGA), hospitalized in the NICU for more than 1 week but less than 3 months, free of anomalies that would preclude developmental progress, and had a mother who was living with a male partner acting as the father.

Parents had been living together for a mean of 5.4 years (*SD* = 3.95). Most were married (*n* = 106,96.4%). Number of children in the family ranged from 1 to 5 (median and mode = 2). Mean age was 30.69 years (*SD* = 6.07) for fathers and 28.16 (*SD* = 5.06) for mothers. Parents were predominantly white (*n* = 206, 93.6%) with 6 black (2.7%) and 4 (3.6%) classified as other. All fathers but one were employed (99%), four of them (3.6%) part time. Forty mothers (36.4%) were employed, 30 of them (27.3%) full time. Fifteen mothers (13.6%) stated they were on a leave of absence. The remaining 55 women (50%) were not employed. Four mothers (3.6%) and 6 fathers (5.5%) had not completed high school; 96 mothers (87.3%) and 82 fathers (74.5%) finished high school; and 10 mothers (9.1%) and 22 fathers (20%) graduated from college.

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Twenty-five families (22.7%) had family incomes of less than $20,000 per year; 51 (46.3%) had incomes between $20,000 and $40,000; and 33 (30%) reported incomes higher than $40,000. Based on Hollingshead's Four Factor Index (1975) for socioeconomic status, 3 families (2.7%) were in Group I (lowest), 12 (10.9%) in group II, 46 (41.8%) in Group III, 40 (36.4%) in group IV, and 9 (8.2%) in Group V (highest).

Fifty-nine (53.6%) of the preterm infants were male. Mean birthweight was 1784.2g (*SD* = 527.9) and mean gestational age at birth was 32.6 weeks (*SD* = 2.3). Average length of stay in the NICU was 31.6 days (*SD* = 16.6). Age of infants at the time of interview ranged from 11 to 23 weeks with a mean age of 13.7 weeks (*SD* = 1.87). In other words, since 13 weeks was considered to be equal to 3 months, 98 infants (89.1%) were seen within 2 weeks of their 3-month birthday. The remaining 12 infants (10.9%) were seen at 4 to 5 months of age.

Procedure

A neonatologist at each site identified and contacted potential subjects. All of the families who were approached by the neonatologist agreed to be contacted by the investigator. A letter was sent that briefly described the study and identified the interviewer. A follow-up telephone call was made to determine whether the family was interested in participating in the study.

Data for this study were collected as part of a larger, longitudinal study of parental reactions to the premature birth of an infant. The majority of the data were collected in a 2.5-hour home visit using both interview and self-complete formats. Information about the infant's NICU stay was collected from the infant's hospital record *after* the home visit by the research assistant at each site so that the interviewer's knowledge of the infant's NICU course was limited to what the families told them.

Instruments

The mother's degree of choice about her employment status and her satisfaction with that choice were measured with one item each on a 10-point scale, with 10 as high choice or high satisfaction. Mothers were asked to rate the availability of child care, financial necessity, and financial comfort on items, using an 8-point Likert scale with *strongly agree* as 1 and *strongly disagree* as 8. Other points on the scale were not explicitly defined. Means less than 4.5 for these single items were categorized as agreement and means of 4.5 and higher were categorized as disagreement.

Mothers also rated perceived support for staying home from spouse, parents, friends, and the baby's physician on an 8-point Likert scale. Total support for staying home was computed by summing the responses on these four items. Because internal consistency for this scale was very low (alpha = .34), caution is necessary in interpreting results based on the total scale.

Home/employment orientation was measured with 10 items that mothers rated on the same 8-point Likert scale. The scale consisted of items from Hock's published scales on exclusivity of maternal care and work/home orientation (Hock et al., 1984) and items from an instrument used by Tiedje (1987). Although the scale was originally conceived as measuring two concepts, home/employment orientation and exclusivity of maternal care, factor analysis supported the extraction of only one factor which accounted for 36% of the variance. Two items had low factor loadings and were deleted. The home/employment orientation score was created by summing the remaining eight items, with higher scores indicating stronger employment orientation. These items are listed in Table 1. Cronbach's alpha for the 8-item scale was .80.

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Results

Mothers reported on their employment status and how many hours per week they were employed. Based on the mother's categorization of her employment status at 3 months postpartum, the study sample was divided into three groups, employed (EM), leave of absence (LOAM), and nonemployed (NEM). Although two groups had been planned, the third group became necessary when some women identified themselves as LOAM. Since the LOAM option was not on the interview form, women who identified themselves as such may see themselves as neither employed nor nonemployed.

Demographic Variables

Differences among groups were investigated with analysis of variance with Scheffé tests for post-hoc comparisons. Women in each group were not significantly different in age, education, number of children, number of reproductive failures, or socioeconomic status. Correlations between the demographic variables and number of hours employed were not found to be significant.

Mothers' occupations were classified into nine groups using Hollingshead's (1975) schema and given scores for occupational prestige with menial service as 1 and higher executives as 9. *Housewife* was not included in the groupings as it does not describe the mother's potential occupational prestige. When the 28 women identifying themselves as housewives were omitted, group differences in mean occupational prestige scores were not significant.

A significant association between prenatal employment status and postnatal employment status, $\chi^2(2, N = 109) = 28.05$, $p < .001$, was obtained. Thirty-nine EM (97.5%), 30 NEM (55.6%), and all of the LOAM were employed prenatally. Both the EM ($M = 39.4$, $SD = 11.6$) and the LOAM ($M = 38.7$, $SD = 4.0$) were employed significantly more hours per week prenatally than NEM ($M = 17.7$, $SD = 17.9$), $F(2, 106) = 29.8$, $p < .005$. When women who were not employed prenatally were excluded, differences in mean number of hours employed prenatally were no longer statistically significant, $F(2, 82) = 2.53$, $p = .09$ (EM: $M = 40.4$, $SD = 9.8$; NEM: $M = 34.1$, $SD = 16.0$; LOAM: $M = 38.7$, $SD = 4.0$).

There was a significant association between prenatal plans and actual behavior at 3 months, $\chi^2(2, N = 110) = 35.6$, $p < .001$. When asked about their prenantal plans for employment after the baby's birth, 29 EM (72.5%), 8 NEM (14.5%), and 3 LOAM (20%) had planned to be employed by the time the child was 3 months old. When women who planned not to be employed after the baby's birth were excluded, EM ($M = 2.95$ months, $SD = 1.89$) planned to be employed sooner than NEM ($M = 12.36$ months, $SD = 15.75$), $F(2,69) = 7.59$, $p = .001$. The mean for LOAM ($M = 7.0$ months, $SD = 4.49$) was not significantly different from the other two groups. In addition, when women who planned not to be employed after the baby's birth were excluded, EM ($M = 34.6$ hours, $SD = 10.6$) reported plans to be employed for more hours postnatally than NEM ($M = 23.8$ hours, $SD = 16.0$), $F(2,68) = 4.6$, $p = .01$. Again, the mean for LOAM ($M = 30.5$ hours, $SD = 14.3$) was not significantly different from the other two groups.

Attttudtnal Vartables

Analysis of variance with Scheffé tests for post hoc comparisons were used to investigate differences among groups. Employed mothers and LOAM expressed a significantly higher employment orientation than NEM. Employed mothers reported having less choice about their employment decision than NEM. The mean for the LOAM group was not significantly different from the other two groups. In addition, EM and LOAM were less satisified with their decision (see Table 2). Number of hours employed per week was significantly

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correlated with degree of choice and satisfaction and with home/employment orientation, $r = –.45$, $–.34$, $.38$, respectively, $p < .001$.

Nonemployed mothers agreed that their employment was not financially necessary, but EM disagreed. Although mothers in all three groups agreed that money was tight, the trend was for EM and LOAM to agree more strongly. Employed mothers agreed that child care was available while NEM and LOAM disagreed. Employed mothers perceived more total support for employment than NEM (see Table 2). Financial necessity, $r = .30$, $p = .001$, financial comfort, $r = –.19$, $p = .02$, and availability of child care, $r = .16$, $p = .05$, were significantly related to hours employed; however, mothers' total support scores were not.

Morbidity

The relationship between employment status and infant morbidity was investigated. There were no significant differences in infants across employment status groups using analysis of variance with Scheffé tests for post-hoc comparisons. Chi-square tests did not reveal significant associations between employment status and specific medical interventions, the presence of specific complications of prematurity, type of delivery, or home apnea monitoring. For the most part, the infants in this study were not severely compromised by their prematurity. None of the infants were discharged on oxygen or enteral feedings, although most ($n = 70$, 63.6%) were sent home with apnea monitors.

By the 3-month interview, average length of time home from the hospital was 9.06 weeks ($SD = 2.63$) for EM infants, 9.27 weeks ($SD = 3.17$) for NEM infants, and 9.11 weeks ($SD = 2.77$) for LOAM infants. Differences noted were not significant. Mothers were asked how many times the infant had been sick since coming home from the hospital. Responses ranged from none to three for EM ($M = .53$, $SD = .75$), from none to three for NEM ($M = .69$, $SD = .79$), and from none to one for LOAM ($M = .36$, $SD = .50$). Again, the differences noted were not significant. In addition, mothers' ratings of their infant's health on the 8-point Likert scale did not differ significantly by group, and these ratings were not correlated with hours employed per week.

Relationships Between Demographic and Attitudinal Variables

Higher employment orientation scores were associated with a higher maternal education level, $r = .32$, $p = .001$, fewer children, $r = –.24$, $p = .001$, less choice, $r = –.23$, $p = .009$, and satisfaction, $r = –.16$, $p = .05$, and more hours employed per week, $r = .38$, $p < .001$. Socioeconomic status based on the father's education and occupation, number of years living together, and mother's age did not significantly correlate with home/employment orientation.

Mothers' ratings of availability of child care, $r = .22$, $p = .01$, and financial necessity, $r = .20$, $p = .02$ were significantly related to home/employment orientation, but financial comfort was not. Higher home orientation was associated with more total support for staying home, $r = .32$, $p = .001$, and with more support from spouse, $r = .29$, $p = .002$, from friends, $r = .47$, $p < .001$, and from the baby's physician, $r = .22$, $p = .01$.

Discussion

Many of the findings from this study are consistent with previous research with full-term infants. Numbers of hours employed per week was related to mothers' education, previous employment, number of children, and attitudes toward employment. The effects of the partner's income on the mother's employment status could not be investigated; however, higher number of hours employed was related to reports of higher financial need and lower financial comfort. In contrast to previous research, occupational prestige was not different across employment status groups.

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For the most part, women who wanted to be employed were employed, and women who wanted to stay home were not employed. As most of the women in the study were doing what they wanted to do and had planned to do, it appears that the premature birth did not affect their consistency between actual and desired employment status. Indeed, infants in this study did not differ significantly across groups on any of the indicators of neonatal morbidity. These results are contrary to Cohen's (1978) findings of lower birthweights for preterm infants with employed mothers.

A word of caution is necessary, however, because the means for the infant morbidity indicators suggest that the current sample contains mostly healthy preterms. Had families with moderately or severely affected preterm infants been better represented in the sample, more inconsistency between the mother's desired and actual employment status may have been evident.

Identification of a third employment group, those on leave of absence, represents a change in the conceptualization of employment status from previous studies. The responses of the LOAM did not consistently align with either EM or NEM, and often the means were between the means of the other two groups. This suggests that LOAM do not perceive themselves as employed or not employed, but somewhere in between. Including LOAM in either the EM or the NEM group would have obscured some of the differences obtained between EM and NEM and may account for the discrepancies seen in previous research.

Several questions can be raised about the LOAM group. Is the LOAM status defined by the employer or by the mother? Are these women being paid during the LOAM period? And, more importantly, does the LOAM classification represent a rationalization or coping mechanism for women who think of themselves as employees but who are not currently employed? Conversely, do women who prefer to stay home identify themselves as LOAM in response to social pressures to be employed? More research is necessary to further describe this group of women.

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Table 1

Home/Employment Orientation Scale Items

1. Working outside the home makes me more interesting and intellectually stimulating to my husband/partner.[1]
2. Working outside the home helps me to better appreciate the time I spend with my child(ren).[1]
3. My life would not be complete without a career.[1]
4. Working outside the home causes or would cause me to miss out on some of the rewarding aspects of being a parent.
5. If I stayed home, it would be difficult to go back to my job/career later.[1]
6. I prefer staying home with my child(ren).
7. Working outside the home makes me feel good about myself.[1]
8. I find fulfillment in being a full-time mother.

[1] Items reverse scored.

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Table 2

Comparison of Attitudinal Variables by Employment Status Using Analysis of Variance

	Employed (*n*=40)		Nonemployed (*n*=55)		LOAM (*n*=15)	
Variables	***M***	**(*SD*)**	***M***	**(*SD*)**	***M***	**(*SD*)**
Home/employment orientation	33.38[a]	(12.23)	21.98[ab]	(10.73)	31.36[b] ***	(13.74)
Amount of choice	5.08[a]	(3.63)	8.76[a]	(2.45)	7.07 ***	(2.89)
Satisfaction	6.35[a]	(2.89)	8.75[ab]	(1.96)	6.87[b] ***	(2.90)
Not financially necessary to be employed	5.93[a]	(2.34)	3.64[a]	(2.64)	4.67 ***	(2.77)
Money is tight	2.95	(2.11)	3.98	(2.86)	2.80 *	(1.47)
Child care available	3.88	(2.79)	5.15	(2.67)	5.33 *	(2.74)
Summative support scale	21.9[a]	(4.76)	18.85[a]	(5.84)	19.8 **	(4.95)

Note: Pairs of letters indicate which groups were significantly different on post hoc testing.

* $p < .10$

** $p < .05$

*** $p < .001$.