

Combining employment with breastfeeding

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Abstract

Objective: The objective of this study was to determine the effect of maternal working conditions on breastfeeding.

Methods: This cross-sectional, analytical study which has fundamentally descriptive features was carried out between January 2005 and January 2006 in the well child clinic of a university hospital in Istanbul. Mothers of these babies were grouped according to their working status using the layered randomized sampling method. The study comprised data from 54 working and 57 non-working mothers.

Results: Half of the working mothers in the study had begun to work before their children were six months old. Of all the mothers, 12.9% had stopped breastfeeding due to reasons related to going back to work. There was no statistically significant difference between working and non-working mothers in terms of exclusive breastfeeding and total breastfeeding durations.

Conclusions: The findings indicate that a working mother can continue breastfeeding if she can find appropriate support.

Key words: breastfeeding, working, mothers, maternity leave.

Introduction

Despite awareness of the many advantages of breastfeeding, its rates often fall short of recommended practice. According to the results of the 2008 Turkish Demographic and Health Survey (TDHS), 22% of babies aged 4-5 months were exclusively breast-fed [1]. Breastfeeding initiation rates at birth are quite high in Turkey but the exclusive breastfeeding rate is below the desired levels [2, 3].

In the last decade, more women have chosen to breastfeed their infants. However, returning to work can be a significant barrier to successful breastfeeding. For many new mothers, the combination of

breastfeeding and employment may require a major effort and/or lifestyle changes [4-7]. Most findings indicate a negative relationship between the probability of breastfeeding and postpartum return to work [8-11]. For working women, the challenge of balancing breastfeeding and paid work has been reported to be an important reason for weaning in the first 6 months [12]. Postpartum maternity leave may have a positive effect on breastfeeding among full-time workers, particularly for those who experience psychosocial distress [12].

Understanding the nature and level of competition between breastfeeding and employment is important for policy development dealing with paid or unpaid maternity leaves. Increased maternity benefits are potentially expensive to employers, but may be offset by improved infant health, greater employee morale and productivity [7].

In Turkey, according to labor regulations, the duration of ordinary maternity leave is 8 weeks before delivery and 8 weeks after delivery. If the mother wishes, the period of 5 weeks before the delivery can be transferred and added to the 8-week leave after delivery, thereby extending the postpartum leave to a total of 13 weeks. The duration of unpaid maternity leave after delivery is two year. Every mother is allowed to have paid breastfeeding breaks that total 1.5 hours a day. During these breaks, a working mother can go to her home and nurse her baby [13].

Supporting working women may help to increase the ratio of breastfeeding and protect the health of both children and society, and, in the long run, will contribute to improving the country's economy [2, 14]. On the other hand, the working mother can be a good role model in the community [2, 3].

Understanding the nature and the level of competition between breastfeeding and employment is important for policy development, especially given the increased pressure for benefits such as paid or

unpaid maternity leave. To our knowledge, there are no reported studies on the problems of working mothers in relation to breastfeeding in Turkey.

The aim of this study was to evaluate the effect of maternal working conditions on breastfeeding.

Methods

Study Design, Setting and Sample

This cross-sectional, analytical study which has fundamentally descriptive features was carried out between January 2005 and January 2006 in the well child clinic of a university hospital in Istanbul. The babies are enrolled to this clinic soon after delivery and followed up every month until 6 months of age, every 3 months between 6 and 18 months of age, and every 6 months thereafter.

In the well child clinic, every child has a personal health record, and the data are digitally saved and stored. The computer records of 420 children who were between 12-30 months of age created the universe of the study. Mothers of these babies were grouped according to their working status using the layered randomized sampling method. A sample of 111 participants was required out of a population of 420 at a confidence interval (0.73-0.81) of 95%. Data was gathered from 122 mothers using the simple randomized sampling method. Data from 11 mothers who had worked for a period before and after delivery but had quit work were excluded. The study comprised data from 54 working and 57 non-working mothers.

The criteria used in selection of the mothers are listed below:

1. To be the mother of an infant 12-30 months of age
2. To be primiparous
3. To have delivered in a hospital
4. To have an infant with a gestational age of 37 weeks or more
5. To have an infant with no major congenital anomalies
6. To have no impediment to breastfeeding
7. To be working before and after delivery (for mothers in the working group)

The Data Collection Procedures

The data were collected by a questionnaire designed by the researchers. Following the preparation

of the questionnaire, it was sent to two specialists in Department of Pediatri. Required corrections in the questionnaire were made in light of comments of specialists. Final version of the questionnaire consisted of total 40 questions. Data that described the mother, her working life, breastfeeding behaviour and her care of the baby were obtained through a comprehensive questionnaire. Before collecting the data, the questions were tested by a pilot study. The questionnaire was applied to the mothers by trained interviewers during a home visit.

Definitions of types of breastfeeding: Breastfeeding terms and definitions used in this study are those internationally recommended by the World Health Organization.

Initiation of breastfeeding after the birth: Initiation of breastfeeding within the first hour of life

Exclusive breastfeeding: That is the infant only receives breast milk without any additional food or drink, not even water

Total breastfeeding duration: The total length of time that an infant receives any breast milk at all.

Ethical considerations

Before the study, written approval was obtained from the university management office and from faculties in which the study would be carried out. In cooperation with the faculty managements, participants were informed about the purposes of the study. They were assured of confidentiality and voluntary participation. Informed consent was obtained from all participants. To protect the privacy and anonymity of the information, the participants were reminded not to write their names on the questionnaire.

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Statistical analysis

The data were analysed using the Statistical Package for the Social Sciences version 11. A chi-square test, t test and Mann Whitney tests were used for comparisons among categorical variables. A significance level of $p = 0.05$ was accepted for all analysis.

Results

A total of 122 mother were invited to participate in the study and 111 completed the baseline questionnaire (54 working, 57 non working mothers).

Table 1 shows the characteristics of the mothers in the two groups. The age women ranged from 19-42 years, with an average age of the working mothers 31.5 years (SD=4.4) and non working mothers 26.4 years (SD=3.9). The mean age and the mean years of education of the working mothers were significantly high (Table 1).

According to the responses of the mothers, 94% of the working women and 89.5% of the non-working women had received advice or support on breastfeeding from medical personnel.

The problems with breastfeeding after the birth who working and non working mothers difference were not statistically significant (Table 2)

The mean duration of exclusive breastfeeding in the first 6 months who working and non working mothers were not difference statistically significant (Table 2).

At the time of the study, 79.6% of the working mothers and 70.2% of the non-working mothers

had stopped breastfeeding. The mean duration of total breastfeeding who working and non working mothers were not difference statistically significant (Table 2).

There was no statistically significant difference in the duration of exclusive breastfeeding and total breastfeeding between mothers who began working 6 months before or after delivery (Table 3).

Of the working mothers, 76% had benefited from their maternity leave (11% between 1 and 2 months, 37% between 3 and 6 months, and 28% between 6 and 12 months). Of these mothers, 9.7% stated that they had difficulties in obtaining maternity leave.

Almost half (49.1%) of the 27 mothers who had begun to work before the baby was 6 months old had been able to take “breastfeeding breaks”. Mothers had taken “breastfeeding breaks” by leaving work 1.5 hours early, not going to work once a week, going home or to the baby care center during the day, or by adding these breaks to their maternity leave. The reasons for not having “breastfeeding breaks” were part-time work, long distances between home and work, or lack of permission from the employer.

Table 1. Characteristics of the Mothers

Variable	Working mothers (n=54)	Non-working mothers (n=57)	Comparison
Age mean (mean± SD years)	31.5 ± 4.4	26.4 ± 3.9	t:6.37, p<.001
Education level (mean± SD years)	14.2 ± 2.8	9.9 ± 3.5	MWU= 6.2, <.001
Marriage (mean± SD years)	4.8 ± 2.5	3.9 ± 1.6	MW U=1.7, p<.05

t: t test, MWU: Mann Whitney U test, SD: Standard deviation

Table 2. Breastfeeding Practices and Working Situation

Variable	Working mothers (n=54)	Non-working mothers(n=57)	Comparison
Initiation of breastfeeding after delivery (%)	38.9	61.2	$\chi^2=0.65, p>.05$
Problems with breastfeeding (%)	53.7	40.4	$\chi^2=1.99, p>.05$
Exclusive breastfeeding rate under 6 months of age (%)	64.2	43.6	$\chi^2=4.63, p<.05$
Exclusive breastfeeding duration (mean± SD days)	141.3 ± 62.2	126.9 ± 69,2	t:1.14, p>.05
Ttotal breastfeeding duration (mean ± SD months)	12.8±5	14.4±6,8	MWU=1.31,p>.05

t: t test, MWU: Mann Whitney U test, SD: Standard deviation

Table 3. Duration of Breastfeeding and Working Status

Variable	Time of starting work		Comparison
	Working before 6 months (n:27)	Working after 6 months (n:27)	
Exclusive breastfeeding (mean± SD)	122.4 ± 76.7 days	149.5 ± 5.9 days	MWU=2.0, p>0.05
Total breastfeeding (mean± SD)	12.2 ± 4.9 months	13.2 ± 5.1 moths	t=0.62, p>0.05

t: t test, MWU:Mann Whitney U test, SD: Standard deviation

Only one-third of the mothers had a day care center at their workplace. Of the working women, 14.8% continued breastfeeding by going home or to the workplace day care center during the day.

Of all mothers who began to work after delivery, 16.6% breastfed their babies by expressing milk. Six of them expressed their milk in an empty room and the rest did so in the kitchen, behind closets or in the toilet. Five of the mothers used manual breast pumps, while others used electrical pumps or their hands. Mothers stored their milk in the administrator's/office refrigerator.

Of working mothers who stopped breastfeeding, 53.5% and 40% of non-working mothers said that they had not succeeded in breastfeeding their babies as long as they wanted. Of the working mothers, 37.2% stated that they had stopped breastfeeding because they could not produce milk anymore and 21% because their babies constantly wanted to suckle. On the other hand, 25% of the non-working mothers quit breastfeeding because they could not produce milk anymore and 57.5% because their babies were always in need of milk. Of all working mothers, 12.9% stated that beginning to work prevented them from continuing to breastfeed their babies.

When we matched the educational status of the mothers, we found that working mothers with a school attendance of 11 years or less breastfed their babies for 7 ± 4.5 months whereas non-working mothers of the same level of education breastfed their babies for 14 ± 7 months. There was a statistically significant difference between these groups ($U=2.36$, $p<0.05$). The negative impact of working conditions on lactation was significant among mothers with low levels of education. Mothers with higher levels of education (working or not) breastfed their babies for longer periods. This finding indicated that it was not the working status of mothers but their educational level that had an impact on the duration of breastfeeding. In general, the total duration of breastfeeding became longer as exclusive breastfeeding time increased (working mothers $r=0.36$, $p<0.05$, non-working mothers $r=0.58$, $p<0.01$).

Discussion

In accordance with the recommendations of the World Health Organization the Turkish Ministry of Health also states that children should be exclusive-

ly breastfed for the first 6 months of life, and breastfeeding should be continued at least until two years of age [1, 15]. According to TDHS data, 22% of infants aged 4-5 months are exclusively breast-fed [1]. In our study, 64% of the non-working mothers and 44% of the working mothers had exclusively breastfed their babies during the first six months of life. The exclusive breastfeeding rate among babies attending this unit was higher than the average rate reported for the country [1]. The general negative impact of employment on breastfeeding duration has been reported by some researchers. Research has found that the duration of leave from work significantly and positively affects the duration of breastfeeding [7, 9, 11]. In this study, which was carried out in a well child unit of a baby-friendly hospital, no distinctive difference was observed between working and non-working mothers in terms of breastfeeding ratios and duration. This can be explained by the higher educational level of the working mothers and by the breastfeeding counselling they received from the well child unit. In the unit where the research was carried out, the breastfeeding counselling service was regularly conducted. Valdes et al showed that good support was important for a successful breastfeeding rate among working mothers [2]. Our results showed that working was not an obstacle in breastfeeding, if good counselling and a support system could be provided.

In our study, one-fourth of working mothers used the right of unpaid maternity leave, and one-tenth of these women had experienced problems in taking their unpaid leave. Mothers have the right to take "nursing breaks" of 1.5 hours every day for a period of six months. In our study, almost half of the mothers who had begun to work before 6 months were not able to have breastfeeding breaks. In big cities like Istanbul, where the mother's home and workplace are far away from each other, breastfeeding breaks cannot be used appropriately. However, in the event these breaks cannot be used appropriately, extending the period of paid leave after delivery or granting permission to work part-time can be effective in supporting breastfeeding [6, 8]. The results of some studies indicated that mothers who worked part-time or who were not working outside the home were more likely to continue breastfeeding relative to those working full-time [7, 8]. In the present study, since no mot-

her was working part-time, the impact of part-time working on lactation could not be analyzed.

One-third of the working mothers had a day care center in their workplaces and around fifteen percent continued to breastfeed by going to this center. Baby care facilities near or within the workplace appeared to be important for the promotion of breastfeeding [2, 9]. In our study, 16.6% of the working mothers reported that they pumped their breasts. Expressing breast milk has been associated with longer breastfeeding duration and mothers who had access to their infant during the working day were reported to have a longer duration of breastfeeding than those without access [9, 11]. Wolfe et al. showed that expressing **milk** on a regular schedule, compared with occasional, was positively **associated** with maternal employment [11]. For mothers whose work separates them from their infants, milk expression can help them continue to provide their infant with milk and maintain their breastfeeding. Providing a suitable environment for working mothers to express and store their milk should be taken into consideration; this is an issue of human rights [6, 10]. Day care centers at the place of employment are another option for employers to consider in reducing conflict among breastfeeding employees while cutting costs for themselves. On-site child care can make breastfeeding more manageable as it allows a mother to actually nurse her baby during breaks. The convenience of on-site accessibility benefits employers by reducing employee time spent away from work, and would likely decrease time-based conflict for working mothers as well.

In our study, 12.9% of the mothers stopped breastfeeding after they started working. Vogel et al reported this as 9.4 % [16]. In another study, employment status was the second strongest significant predictor of breastfeeding at 6 months after delivery [7]. The findings of these studies showed that mothers stopped breastfeeding if they planned to start working. The reasons for stopping breastfeeding has been examined in many studies [8, 17, 18].

According to our findings, half of the working mothers started to work before their babies were 6 months old. Fein and Roe found that full-time but not part-time employment delayed the initiation of breastfeeding or reduced the duration [8]. In a multivariate model of occupational factors, re-

turning to work within 6 weeks was the strongest predictor of breastfeeding cessation [12]. Guendelman et al. showed that short postpartum maternity leave among full-time working mothers was associated with a higher risk of early breastfeeding cessation [12]. When the mother and baby are separated early, this causes stress for both and negatively affects breastfeeding. Working part-time would make it easier for the baby and mother to get used to the mother's working life. The right to have part-time work after the period of paid maternity-leave should be granted to mothers [6, 8, 12]. According to Guendelman et al. the negative effects of short (<12 weeks) postpartum maternity leave may be stronger in subgroups of women working in inflexible or non-managerial jobs [12].

In our study, the duration of breastfeeding increased with the duration of maternal education. Many other studies also found a significant relationship between education and breastfeeding [12, 17, 19]. Rossem et al. reported that educational differences were in effect in starting breastfeeding and its continuation in the first 2 months of life, but not in breastfeeding continuation between 2 and 6 months [19].

Conclusions

There was no statistically significant difference between working and non-working mothers in terms of exclusive breastfeeding and total breastfeeding durations. One-third of mothers stopped breastfeeding because they began working. These results indicate that a working mother continues breastfeeding if she finds appropriate support. Our findings led us to think that merely establishing maternity leave policies without encouraging their use and making them economically feasible is not a sufficient measure in promoting breastfeeding.

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