**Breastfeeding Duration in Mothers Returning to Employment in Greece**

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**Abstract**

Breast milk benefits are many and not only for the neonatal and infancy but cover the protection of maternal health and family welfare. Breast milk is a unique treasure of life, health and wellbeing of the child, mother, family and society in general. The purpose of this study was to investigate working mother’s return to work influence on duration breastfeeding. This descriptive study was conducted in Greece during 2012. The population of the study consisted of the 645 Greek women (n=508) and non Greek (n=136) who reside in Greece. The data were collected using a questionnaire form developed by the researcher consisting of 48 variables. 67.3% of the questionnaire participants were employees. 68.8% of participants took pregnancy leave, 5.1% unpaid leave and 24.6% worked part time. 10.5% of participants worked in facilities that accommodated a private area and/or specific time slots to facilitate breastfeeding mothers to collect their milk during their working hours. It was found that employees participate exclusively breastfed for significantly longer (4 months / average 6,1 ± 6,9) than those who were not working (3 months / 5 ± 6,7). The participants who took pregnancy leave, unpaid leave and those working part-time exclusively breastfed for five months, three months and three months respectively. Also, participants who worked in a place no special place or specific time to facilitate breastfeeding mothers to collect milk during working hours to breastfeed exclusively for significantly longer (5 months) compared with participants working without specific time or in a place where there was this possibility (3 months). Breastfeeding is more likely to be maintained as late mother returned to work or work part time. It is very important to promote breastfeeding, provide maternity leave be given to mothers who return to work opportunities and facilities for smooth adjustment.

**Keywords:** Breastfeeding duration, exclusively breastfed, employees

**1 Introduction**

Many mothers believe that breastfeeding and work are incompatible. One of the most common causes to which they attach mothers discontinue breastfeeding is that mothers must return to work. The information of the mother and the position of the society towards the working mother who is breastfeeding is a very important factor for this purpose. While the number of new mothers at work increases, early return to work discourages women from breastfeeding or causes to interrupt early. Current guidelines and recommendations of the World Health Organization (WHO) and UNICEF strongly encourage facilities to be provided and the ability to smoothly adapt to mothers returning to work. There are ways of combining the two, so that mothers can fulfill their roles as productive and reproductive members of society, without sacrificing a role for the sake of another [1].

It is generally assumed that the rates and breastfeeding practices do not meet the recommendations of the WHO and UNICEF. Also, the objectives and recommendations proposed by the national health policy programs and scientific associations have not been performed. In some countries, initiation rates of breastfeeding is very low. Moreover, in countries where initiation rates are high, there is a significant decline in breastfeeding in the first six months. The rate of exclusive breastfeeding at six months is low throughout Europe apart from the Scandinabian countries [2,3,17].

Modern living where the pace of life is very fast, long working hours, minimal leisure programs and people distant from nature is not conducive to the promotion of breastfeeding. Moreover, the situation is exacerbated in a society with lack of breastfeeding culture, where for decades the majority of women do not breastfeed, there is lack of breastfeeding support centers, qualified staff in nursing and legislation supporting breastfeeding mothers while not applying the relevant provisions of the International Code on Marketing of milk [4].

The factors that enable women to breastfeed in the workplace is allowing time for breastfeeding or milk export during working hours and a clean, quiet and accessible place for breastfeeding. In addition a general attitude in the business or facility that encourages breastfeeding. The policy of protection of motherhood provides a supportive framework. This can include job retention postpartum, providing paid leave after childbirth, break-paid childcare, childcare facilities at the workplace or in nearby places, protection from discrimination and flexible part-time programs for parents [5]. On a broader level, the promotion of breastfeeding is associated with factors such as the particular legislation regarding maternity leave, maternity leave and the existing health system, social practices and information to raise awareness of the benefits of breastfeeding, as well as practical production, marketing, distribution and advertising of breastmilk substitutes [6,7].

**2 Subjects and Methods**

It is a non-experimental cross-sectional study conducted in Athens in April 2012, with a duration of six months. The study sample consisted of 645 Greek women (n = 508) and non-Greek women (n = 136) living in Greece over two years. They were selected by convenience sampling (imports in the hospital and mothers whose children were enrolled in nurseries). The 104 (16.1%) women in the sample had just given birth and were located in the hospital and the remaining 541 (83.9%) had recently given birth but under two years ago. We developed a questionnaire in which the design offered the possibility to evaluate the reliability and validity through the audit process-retest group of experts in two rounds following the method of Delphi. The questionnaire consisted of 48 variables divided into 8 parts and axles and then conducted a pilot study on a sample of 30 mothers who had similar characteristics with the characteristics of those who were to be included in the final sample. To compare the proportions we used Pearson's x2 test or Fisher's exact test where appropriate. For controlling the type I error, due to multiple comparisons, using the Bonferroni correction whereby the level of significance was 0.05 / n (n = number of comparisons). Significance levels were bilaterally and statistical significance was set at 0.05. For the analysis we used the statistical program SPSS 18.0.

**3 Results**

The mean age of participants was 32.4 years (± 5,3 years). The majority of participants were married with the rate reaching 93.8%. Still, the 78.9% of participants were Greek women and 21.1% of non-Greeks. The 87.6% of participants were Christian and 77.0% lived in an urban area. Most of the participants were high school graduates with the rate reaching 38.4%, followed by graduates of University with a percentage of 36.0%. 46.4% of participants had a monthly family income between 1000 and 2500 euros. 50% of participants had at least two children. The mean age of the participants at the birth of their last child was 30.5 years (± 5,4 years) (Table 1).

**Table 1: Demographics of the participating**

|  |  |  |
| --- | --- | --- |
|  | **Ν** | **%** |
| **Ηλικία, μέση τιμή±SD** | 32,4±5,3 |  |
| **Marital status** | married | 604 | 93,8 |
| Divorced  | 30 | 4,7 |
| unmarried | 7 | 1,1 |
| widow | 3 | 0,5 |
| **Ethnicity**  | Greek | 508 | 78,9 |
| Other  | 136 | 21,1 |
| **If you are an immigrant, how many years you live permanently in Greece? mean ± SD** | 11,2±6,1 |  |
| **Religion**  | Christian  | 565 | 87,6 |
| Catholic | 22 | 3,4 |
| Muslim | 44 | 6,8 |
| Other  | 14 | 2,2 |
| **Place of residence** | Αστική | 491 | 77,0 |
| Ημιαστική | 88 | 13,8 |
| Αγροτική | 59 | 9,2 |
| **Educational level** | Illiterate | 25 | 3,9 |
| Municipal | 30 | 4,7 |
| High School | 43 | 6,7 |
| Lyceum | 246 | 38,4 |
| University  | 231 | 36,0 |
| Master / doctoral | 66 | 10,3 |
| **Monthly family income** | <1000 euro | 251 | 39,2 |
| 1000-2500 euro | 297 | 46,4 |
| >2500 euro | 92 | 14,4 |
| **How many children do you have? mean ± SD Median** | 2,0±0,9 | 2 (1-2) |
| **How old were you when you gave birth to your last child? mean ± SD 30,5 ± 5,4** | 30,5±5,4 |  |

In the study sample, 67.3% of participants work during their pregnancy and in particular 43.7% of those in the private sector and 42.3% in public. The 68.8% of participants took pregnancy leave, the maternity leave 66.4% and 30.3% sick. Also, 39.1% of participants took child-care leave, 5.1% unpaid leave and 24.6% of the participants worked part time. 10.5% of participants worked in facilities that had special places or special opening to facilitate breastfeeding mothers to collect milk during working hours (Table 2).

**Table 2: Labour of participating**

|  |  |  |
| --- | --- | --- |
|  | **Ν** | **%** |
| **Worked during the previous pregnancy?**  | No | 210 | 32,7 |
| Yes  | 432 | 67,3 |
| **Did you leave your job during the previous pregnancy your child?** |  |  |
| **Royalty pregnancy / childbirth** | No | 159 | 31,2 |
| Yes | 350 | 68,8 |
| **Duration (months), mean ± SD Median**  | 2,8±2,1 | 2 (2 - 2) |
| **maternity leave** | No | 170 | 33,6 |
| Yes | 336 | 66,4 |
| **Duration (months), mean ± SD Median** | 2,7±1,6 | 2 (2 - 3) |
| **Download Sick** | No | 350 | 69,7 |
| Yes | 152 | 30,3 |
| **Duration (months), mean ± SD Median** | 4,2±2,3 | 4 (2 - 6) |
| **maternity** | No | 304 | 60,9 |
| Yes | 195 | 39,1 |
| **Duration (months), mean ± SD Median** | 7,7±2,1 | 9 (6 - 9) |
| **Part-time work** | No | 374 | 75,4 |
| Yes | 122 | 24,6 |
| **Duration (months), mean ± SD Median** | 18,8±14,3 | 12 (6,5 - 24) |
| **Unpaid leave** | No | 468 | 94,9 |
| Yes | 25 | 5,1 |
| **Duration (months), mean ± SD Median** | 6,3±4,2 | 6,5 (3 - 10) |
| **Your work has special areas or special opening to facilitate breastfeeding mothers to collect their milk during their working hours?** | No  | 433 | 89,5 |
| Yes  | 51 | 10,5 |

Also, 39.1% of participants took child-care leave, 5.1% unpaid leave and 24.6% of the participants worked part time. 10.5% of participants work in facilities that are special places or special opening to facilitate breastfeeding mothers to collect milk during working hours (Table 2). Specifically, participants who took pregnancy leave breastfed for five months, those who took maternity leave breastfed for four months and those who took sick leave breastfed for 3 months. Also, participants who worked in a place with no special features or special opening to facilitate breastfeeding mothers to collect milk during working hours to breastfed for 5 months (Table 3).

**Table 3: Duration of exclusive breastfeeding participating depending on their job details**

|  |  |  |
| --- | --- | --- |
|  | **Duration of exclusive breastfeeding (months)** | **P** **Mann-Whitney** |
| **Mean ± SD** | **median** |
| **Worked during the previous pregnancy?** | No | 5±6,7 | 3 (0 - 7) | **0,018** |
| Yes | 6,1±6,9 | 4 (0 - 9) |  |
| **Did you leave your job during the previous pregnancy your child?** |  |  |  |
| **Royalty pregnancy / childbirth** | No | 4,2±5,6 | 2 (0 - 6) | **<0,001** |
| Yes | 7,2±8,6 | 5 (1 - 10) |  |
| **maternity leave** | No | 4,4±5,8 | 2,5 (0 - 6) | **0,004** |
| Yes | 6,6±8,3 | 4 (0,1 - 9) |  |
| **Download Sick** | No | 4,2±5,6 | 2 (0 - 6) | **0,044** |
| Yes | 5,6±7,3 | 3 (0 - 8) |  |
| **maternity** | No | 5,4±7,3 | 3 (0 - 8) | 0,731 |
| Yes | 4,8±5,9 | 3 (0 - 7) |  |
| **Part-time work** | No | 5,5±7,2 | 3 (0 - 8) | 0,207 |
| Yes | 4,2±5,4 | 3 (0 - 6) |  |
| **Unpaid leave** | No | 5,2±6,9 | 3 (0 - 7) | 0,863 |
| Yes | 5,1±6,6 | 3 (1 - 6) |  |
| **Your work has special areas or special opening to facilitate breastfeeding mothers to collect their milk during their working hours?** | No | 5±6,8 | 3 (0 - 7) | **0,030** |
| Yes  | 5,9±5,3 | 5 (1,5 - 9) |  |

66.2% of participants who had taken pregnancy leave exclusively breastfed, percentage of 67.5% of participants who had taken maternity leave exclusively breastfed, and 63.3% of participants who had taken sick leave breastfeed exclusively. Very high percentage 82.4% of participants whose work has special areas or special opening to facilitate breastfeeding mothers to collect their milk during the hours applied to exclusive breastfeeding (Table 4).

**Table 4: Rates of exclusive breastfeeding participating depending on their job details**

|  |  |  |
| --- | --- | --- |
|  | **exclusive breastfeeding** | **P Pearson's x2 test** |
| **No**  | **Yes**  |
| **N** | **%** | **N** | **%** |
| **Worked during the previous pregnancy?** | No | 52 | 25,4 | 153 | 74,6 | 0,108 |
| Yes | 133 | 31,1 | 295 | 68,9 |  |
| **Did you leave your job during the previous pregnancy your child?** |  |  |  |  |  |  |
| **Royalty pregnancy / childbirth** | No | 117 | 33,8 | 229 | 66,2 | **0,001** |
| Yes | 31 | 19,9 | 125 | 80,1 |  |
| **maternity leave**  | No | 108 | 32,5 | 224 | 67,5 | **0,024** |
| Yes | 39 | 23,4 | 128 | 76,6 |  |
| **Download Sick** | No | 55 | 36,7 | 95 | 63,3 | **0,021** |
| Yes | 92 | 26,7 | 253 | 73,3 |  |
| **Maternity**  | No | 86 | 28,7 | 214 | 71,3 | 0,512 |
| Yes | 60 | 31,1 | 133 | 68,9 |  |
| **Part-time work** | No | 107 | 28,8 | 264 | 71,2 | 0,599 |
| Yes | 37 | 31,1 | 82 | 68,9 |  |
| **Unpaid leave** | No | 138 | 29,9 | 324 | 70,1 | 0,301 |
| Yes | 5 | 20,0 | 20 | 80,0 |  |
| **Your work has special areas or special opening to facilitate breastfeeding mothers to collect their milk during their working hours?** | No | 134 | 31,4 | 293 | 68,6 | **0,043** |
| Yes  | 9 | 17,6 | 42 | 82,4 |  |

When asked what were the reasons that forced the participants to stop breastfeeding is returning to work was the third cause interruption of breastfeeding rate of 16.1%.

**4 Discussion**

From the analysis of the survey results we found that Greek women breastfeed exclusively at a significantly lower rate compared with the participants who came from another country. Singh et al (2007) found that immigrant women, regardless of ethnicity breastfed exclusively for longer than the indigenous women [8].

We also found differences in exclusive breastfeeding rates depending on the educational level of the participants. Specifically, it was found that participants who were high school graduates exclusively breastfed at a significantly higher rate compared to participants who were university graduates (p = 0,007). The link between educational qualifications and duration of exclusive breastfeeding was found in several studies. It was found that mothers with educational level less than high school nursing and less a factor negatively associated with exclusive breastfeeding [9,10].

This study found that workers participating exclusively breastfed for significantly longer (4 months / average 6,1 ± 6,9) than those who were not working (3 months / average 5 ± 6,7). We also found a significant positive correlation as participants who took pregnancy leave (5 months), postpartum (4 months) or sick (3 months) exclusively breastfed for significantly longer compared with participants who did not get one of these licenses. Participating in working party are special areas and particularly special opening to facilitate breastfeeding mothers to collect milk during working hours to breastfeed exclusively for significantly longer (5 months) compared with participants working in part that there was this possibility (3 months). Finally, the Greeks believed in a significantly higher percentage that mothers who stopped breastfeeding due to return to work would continue breastfeeding if facilitated compared with non-Greeks. The maternity and employment facilities is obvious that advocate the protection and breastfeeding [14,16]. In a study of Gilmour et al. (2013) three themes, proximity, flexibility, and communication, were identified relating to the factors impacting on women and their choices to breastfeed or wean on returning to work [11]. Similar results were found in a study of Ahmadi & Moosavi (2013) where the rate of formula use was significantly higher in mothers who had less than 6 months of maternity leave, those who did not have a suitable nursery or place to milk themselves and preserve the milk in their workplace, those working more than 6 hours per day, and those who could not take a breastfeeding break[12].

Participants were given permission pregnancy, childbirth or sick breastfed exclusively at a significantly higher rate compared to participants who had not received such authorization. Participating whose work has special areas or special opening to facilitate breastfeeding mothers to collect milk during working hours to breastfeed exclusively at a significantly higher rate compared to participants whose work had no such space. In a similar study Cooklin et al. (2008) examined the impact of the mother's return to work during exclusive breastfeeding at 3 and 6 months. The results showed that only 39% of mothers who worked breastfeed their children, while 56% of mothers who were not working breastfeed their children. The return of the mother that the work associated with early cessation of breastfeeding [13].

**5 Conclusion**

Investigating rates of breastfeeding among working women concludes that maternity leave and flexible working conditions have a positive impact on the duration of breastfeeding[18]. While the number of new mothers at work increases, an early return to work discourages women from breastfeeding or causes them to interrupt early. It is very important to promote breastfeeding, provide maternity leave in the private and public sector for at least three to six months. To provide facilities and opportunities for a smooth adjustment for mothers returning to work. Breastfeeding is more likely to be maintained as slowly returning to work mother. Working and Breastfeeding can be combined with appropriate planning, patience and perseverance . The benefits to the working mother and the child are many.

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