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Research Article

Breastfeeding Continuation After Return to Work: Barriers, Adaptation Strategies, and Determinants among Moroccan Mothers

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Abstract

Background: Breastfeeding offers optimal nutritional, immunological, and developmental benefits for infants. Despite high initiation rates, exclusive breastfeeding remains difficult to sustain among employed mothers, particularly in middle-income countries. Evidence from Morocco remains limited, although women's workforce participation continues to rise. This study aimed to assess breastfeeding practices among active mothers, identify workplace and sociocultural barriers to continuation after returning to work, and explore the strategies used to maintain lactation.

Methods: A descriptive cross-sectional study was conducted between January and June 2024 among 150 employed mothers attending the maternity and pediatric departments of the Mohammed VI University Hospital Center in Tangier, Morocco. Eligible participants were mothers aged 20 - 45 years who had resumed work within one year postpartum and breastfed for at least one month. Data were collected through structured interviews and analyzed using descriptive statistics and chi-square tests. Qualitative responses were examined thematically.

Results: Breastfeeding initiation was high (94%), although only 36% achieved exclusive breastfeeding for six months. Early return to work (72%) was significantly associated with early cessation ($p < 0.01$). Major barriers included workload (68%), absence of lactation rooms (61%), and short maternity leave (56%). Support from employers and families was positively associated with breastfeeding continuation ($p = 0.02$). Mothers adopted several coping mechanisms, notably milk expression (42%), schedule adjustments (38%), and mixed feeding (31%), though these strategies seldom compensated for structural limitations.

Conclusion: Breastfeeding continuation among Moroccan working mothers is strongly constrained by workplace conditions, limited institutional support, and sociocultural pressures. Although many mothers attempt to maintain lactation through individual strategies, systemic interventions-such as extended maternity leave, breastfeeding-friendly workplace policies, and culturally sensitive counseling-are necessary to improve breastfeeding outcomes nationally.

Keywords: *Breastfeeding; Working Mothers; Lactation Support; Maternity Leave; Workplace Barriers; Infant Nutrition; Morocco; Public Health Policy*

Introduction

Breastfeeding is widely recognized as a fundamental public health intervention that improves child survival, growth and development, while also providing important health benefits for mothers [1,2]. International and national guidelines recommend exclusive breastfeeding for the first six months of life, followed by continued breastfeeding alongside appropriate complementary foods up to two years and beyond [3,4]. In Morocco, national survey data have highlighted the importance of breastfeeding for child health and nutrition outcomes [5]. Exclusive breastfeeding during this critical window has been associated with reduced infectious morbidity, improved neurodevelopment and long-term protection against non-communicable diseases in various populations, including those in North Africa [1,2,6].

Despite these well-documented benefits and clear recommendations, exclusive breastfeeding rates remain below targets in many regions, particularly among women engaged in paid employment [4,7,8]. Population-based surveys and workplace studies frequently report high breastfeeding initiation, but a rapid decline in duration and exclusivity after the early postnatal period, often coinciding with the mother's return to work [4,7,9,10]. Structural and organizational factors in the workplace, including limited maternity leave, lack of breastfeeding facilities and rigid schedules, have been identified as key determinants of early cessation of breastfeeding [7,8,11,12].

At the same time, the proportion of women participating in the labour market has increased in many countries, including Morocco and other Arab settings, and many mothers now resume work within a few months after childbirth [5,9,13]. In this context, reconciling breastfeeding and employment represents a major challenge, especially where maternity protection policies are weakly implemented, workplace cultures are not supportive of breastfeeding, and sociocultural perceptions around milk expression and breastfeeding in public remain ambivalent [13-15]. Evidence indicates that longer paid maternity leave, rights to breastfeeding breaks, access to lactation rooms and supportive managerial attitudes can substantially improve breastfeeding outcomes among employed women [8,11,16-18].

However, data on workplace barriers, coping strategies and employer support remain limited in many low- and middle-income settings, particularly in North Africa, and few studies have documented how working mothers practically adapt their breastfeeding practices when returning to work [6,9,19,20]. Understanding these dynamics is crucial for designing context-appropriate interventions and informing policy makers.

Aim of the Study

The present study aimed to describe breastfeeding practices among working mothers, identify workplace and environmental barriers, explore coping strategies used to maintain breastfeeding, and examine factors associated with breastfeeding continuation in our setting.

Methods

Study design and setting

This study employed a descriptive cross-sectional design conducted between January and June 2024 at the Mohammed VI University Hospital Center in Tangier, Morocco. The hospital serves a mixed urban and semi-rural population from the northern region of the country and provides comprehensive maternal and child health services. The objective was to assess breastfeeding practices among employed mothers and identify workplace- and context-related determinants influencing breastfeeding continuation after returning to work.

Study population

Eligible participants were mothers aged 20 - 45 years who had returned to work within the first year postpartum and had breastfed their infants for a minimum of one month. Mothers of infants with congenital, metabolic, or chronic conditions affecting feeding were excluded, as were mothers who never initiated breastfeeding. A total of 150 eligible working mothers were recruited using convenience sampling during routine pediatric or maternity consultations.

Data collection procedures

Data were collected through structured face-to-face interviews using a pretested questionnaire available in French and Arabic. The questionnaire comprised the following components:

1. Sociodemographic and occupational characteristics.
2. Breastfeeding practices, including initiation, exclusivity, duration, and reasons for cessation.
3. Workplace environment, including availability of lactation rooms, work schedules, employer and family support, and maternity leave.
4. Perceived barriers to breastfeeding continuation.
5. Adaptive and coping strategies employed after returning to work.

The tool incorporated both closed-ended items and open-ended questions to capture complementary quantitative and qualitative perspectives.

Data analysis

Quantitative data were entered and analyzed using IBM SPSS Statistics version 25. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to describe participant characteristics and breastfeeding indicators. Associations between categorical variables were assessed using chi-square tests, with a significance level set at $p < 0.05$.

Qualitative responses were analyzed using thematic content analysis. Open-ended answers were reviewed line-by-line, coded inductively, and grouped into major themes reflecting workplace challenges, sociocultural influences, motivations, and maternal coping strategies.

Results

Participant characteristics

A total of 150 working mothers were included in the study. The mean age was 32.4 ± 4.6 years, with most participants aged 30 - 39 years (60%). The majority were married (96%) and university educated (51%). Employment sectors were distributed as follows: 41% in the public sector, 39% in private companies, and 19% self-employed. Nearly two-thirds of mothers (68%) reported working full-time, while 32% had part-time or flexible schedules.

Variable	Category	n (%)
Age (years)	20 - 29	38 (25.3)
	30 - 39	90 (60.0)
	≥ 40	22 (14.7)
Education level	Primary	12 (8.0)
	Secondary	61 (40.7)
	University	77 (51.3)
Marital status	Married	144 (96.0)
	Single/Other	6 (4.0)
Occupation	Public sector	62 (41.3)
	Private sector	59 (39.3)
	Self-employed	29 (19.4)
Work schedule	Full-time	102 (68.0)
	Part-time/flexible	48 (32.0)

Table 1: *Sociodemographic and occupational characteristics of participants.*

Breastfeeding practices

Breastfeeding initiation was high, reported by 94% of mothers. However, only 36% achieved exclusive breastfeeding for the recommended six months. The mean duration of exclusive breastfeeding was 4.1 ± 1.6 months.

A substantial proportion (72%) returned to work before six months postpartum. Early return to work was significantly associated with early cessation of exclusive breastfeeding ($p < 0.01$).

Mixed feeding emerged as a common transitional strategy, particularly among full-time employees.

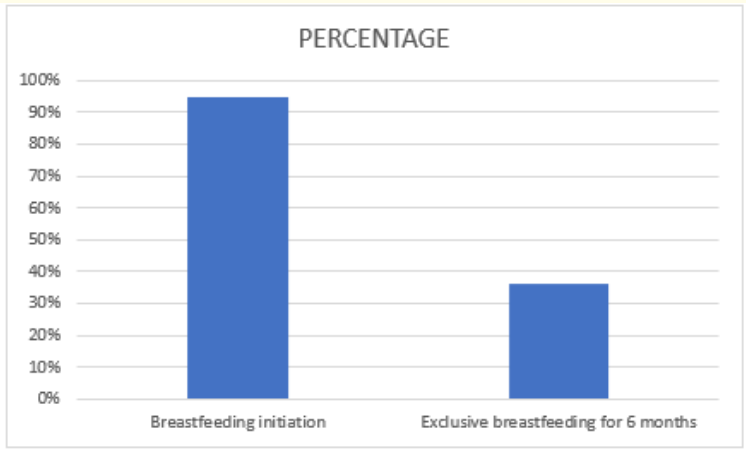

Figure 1: *Breastfeeding initiation vs exclusive breastfeeding.*

Workplace and environmental barriers

Mothers identified multiple workplace-related obstacles to breastfeeding continuation. The most frequently cited barriers included (Table 2):

- Workload and fatigue: 68%.
- Absence of dedicated lactation rooms: 61%.
- Short maternity leave: 56%.
- Lack of milk-storage facilities: 41%.
- Social pressure or stigma: 33%.

Employer and family support played a critical role in breastfeeding success. Mothers who reported receiving workplace support had significantly higher continuation rates ($p = 0.02$).

Coping strategies and adaptation

Despite these constraints, many mothers reported adopting specific coping strategies to maintain breastfeeding. The most common approaches were milk expression (n = 63, 42.0%) and adjusting feeding or pumping schedules around work demands (n = 57, 38.0%), followed by mixed feeding (n = 47, 31.3%) and negotiating flexible working hours (n = 24, 16.0%). A smaller proportion were able to arrange temporary telework (n = 14, 9.3%). These coping strategies, detailed in table 2 reflect mothers' efforts to adapt their breastfeeding practices to a work environment that is often not supportive of lactation.

Category	Item	n (%)
Workplace barriers	Workload/fatigue	102 (68.0)
	No lactation room	91 (60.7)
	Short maternity leave	84 (56.0)
	No milk-storage facilities	62 (41.3)
	Social pressure/stigma	49 (32.7)
Coping strategies	Adjusted feeding/pumping schedule	57 (38.0)
	Mixed feeding	47 (31.3)
	Flexible hours	24 (16.0)
	Milk expression	63 (42.0)
	Temporary telework	14 (9.3)

Table 2: *Workplace barriers and coping strategies reported by mothers.*

Associations with breastfeeding continuation

Multivariate analysis was not performed; however, bivariate tests showed that:

- Early return to work was the strongest predictor of early cessation ($p < 0.01$).
- Employer support, including schedule flexibility and emotional encouragement, significantly improved breastfeeding persistence ($p = 0.02$).
- Education level, type of employment, and maternal age showed no statistically significant associations with breastfeeding duration.

Variable	Association with breastfeeding duration	Statistical test	p-value	Interpretation
Early return to work	Strongly associated with early cessation	X^2	0.01	Significant
Employer support*	Associated with longer breastfeeding duration	χ^2	0.02	Significant
Maternal education level	No clear association	χ^2	0.25	Not significant
Type of employment	No clear association	χ^2	0.10	Not significant
Maternal age	No clear association	χ^2	0.18	Not significant

Table 3: *Univariate analysis of factors associated with breastfeeding duration (χ^2 test).*

Discussion

In this sample of working mothers, breastfeeding initiation was high, but only a minority achieved exclusive breastfeeding for the recommended six months. This pattern of good initiation followed by early decline in exclusivity is consistent with findings from other urban and semi-urban populations in North Africa and the Middle East, where return to work during the first postpartum months is common [6,7,19,21]. The mean duration of exclusive breastfeeding observed in our study is comparable to that reported in similar middle-income contexts and confirms a persistent gap between recommended practices and real-life conditions for employed women [8,15,22].

Early return to work emerged as a central determinant of early cessation of exclusive breastfeeding. Mothers who returned to work before six months postpartum were significantly more likely to discontinue exclusive breastfeeding, in line with previous studies showing that shorter maternity leave and early resumption of employment are strong predictors of early weaning in Morocco and neighbouring

countries [9,10,18,19,23]. Several authors have reported that extending the duration of maternity leave, facilitating a progressive return to work and guaranteeing breastfeeding breaks can increase both the duration and exclusivity of breastfeeding among employed mothers [11,16-18,23]. Our findings add to this body of evidence by highlighting the magnitude of this effect in a context where a substantial proportion of women resume work within the first six months.

Workplace-related constraints were highly prevalent in this study. Heavy workload and fatigue, absence of a dedicated lactation room, short maternity leave and lack of storage facilities for expressed milk were among the most frequently cited barriers. These obstacles closely mirror those described in other settings, where inadequate physical infrastructure, rigid schedules and high work demands are major obstacles to breastfeeding at work [7,8,14,18,19,24,25]. In addition, approximately one-third of participants reported social pressure or stigma related to breastfeeding in the workplace, suggesting that organizational culture and colleagues' attitudes may discourage mothers from expressing milk or breastfeeding during working hours [13,17,20]. Taken together, these findings indicate that structural and psychosocial barriers frequently coexist, creating an environment in which breastfeeding is perceived as difficult or incompatible with professional responsibilities.

Despite these substantial constraints, many mothers reported adopting individual coping strategies to sustain breastfeeding. The most common approaches were milk expression, adjusting feeding or pumping schedules around work demands and using mixed feeding as a transitional strategy. Negotiating flexible working hours and arranging temporary telework were less frequent but reported as helpful when available. Similar strategies have been documented in other qualitative and quantitative studies among employed mothers, who describe pumping during breaks, breastfeeding intensively before and after work, or combining breast milk with formula to cope with time and space limitations at work [18-20,24,25]. These behaviours illustrate a high level of motivation and personal investment in maintaining breastfeeding, but they also show that much of the adaptation burden is placed on mothers rather than on institutions.

Employer support played a prominent role in breastfeeding continuation in our sample. Mothers who reported supportive employers, including schedule flexibility and emotional encouragement, had significantly higher breastfeeding persistence. This result is consistent with previous work demonstrating that supervisor support, positive workplace culture, dedicated lactation rooms and explicit breastfeeding-friendly policies are associated with longer breastfeeding duration among employed women [7,21,22,25]. Employer support appears to operate both through practical facilitation, by allowing time and space for milk expression, and through psychosocial mechanisms, by validating mothers' breastfeeding decisions and reducing perceived stigma. Strengthening managerial awareness and integrating breastfeeding support into occupational health and human resources policies could therefore have a substantial impact on breastfeeding outcomes in similar contexts [11,16].

Interestingly, maternal age, education level and type of employment were not significantly associated with breastfeeding duration in our analysis. The literature on these sociodemographic factors is heterogeneous, with some studies reporting longer breastfeeding among older or more educated mothers, while others find no consistent association after adjustment for working conditions and support variables [10,15,22,24]. In our study, it is possible that the dominant influence of workplace constraints overshadowed any potential effect of age or education, or that the relative homogeneity of the sample in terms of educational attainment and employment limited the variability needed to detect such associations. This finding reinforces the idea that structural conditions, rather than individual characteristics alone, may be the primary drivers of breastfeeding trajectories among employed women [7,24].

This study has several strengths. It focuses specifically on working mothers, a group that is particularly vulnerable to early breastfeeding cessation yet often under-represented in breastfeeding research [6,7,19]. It also provides detailed quantitative data on workplace barriers and coping strategies, offering a nuanced understanding of how women navigate breastfeeding in a professional environment. However, some limitations must be acknowledged. First, the cross-sectional design does not allow causal inference between exposure to workplace conditions and breastfeeding outcomes [5,24]. Second, all data were self-reported and may be affected by recall bias or social desirability bias, particularly regarding breastfeeding duration and workplace support [13,20]. Third, multivariate analysis was not performed, which

limits the ability to control for potential confounders and to quantify independent associations. Finally, the study was conducted in a single setting, which may reduce the generalizability of the findings to other regions, sectors or informal employment contexts [5,9,19].

Despite these limitations, the findings have important implications for policy and practice. Interventions to promote breastfeeding among working women should move beyond individual counselling and explicitly address workplace conditions and social protection policies. Priority actions could include extending paid maternity leave, enforcing regulations on breastfeeding breaks, ensuring access to private lactation rooms and safe storage facilities, and training employers and supervisors to provide active support [8,11,16,18,23]. Integrating breastfeeding promotion into occupational health programs and broader maternal and child health strategies may contribute to a more enabling environment for employed mothers [11,17,24]. Future research should evaluate the impact of specific workplace interventions on breastfeeding duration, using longitudinal designs and including diverse employment settings and sectors [19,24].

In summary, this study confirms that early return to work and lack of workplace support are major barriers to exclusive breastfeeding among employed mothers. At the same time, the coping strategies reported by participants illustrate their strong motivation to maintain breastfeeding despite suboptimal conditions. Shifting from a model that relies primarily on individual adaptation to one that emphasizes institutional responsibility and supportive workplace policies is essential if breastfeeding recommendations are to be realistically achievable for women who combine motherhood with paid work [1-4,11,16,24].

Conclusion

This study highlights the substantial gap between breastfeeding intentions and breastfeeding continuation among employed mothers in Morocco. Although initiation rates remain high, returning to work within the first six months represents a major barrier to maintaining exclusive breastfeeding. Workplace constraints-including the absence of lactation rooms, inadequate maternity leave, and rigid schedules-combined with sociocultural pressures, significantly compromise mothers' ability to sustain optimal feeding practices. Despite these challenges, many women demonstrate resilience and adopt adaptive strategies to continue breastfeeding; however, these individual efforts remain insufficient in the absence of structural support.

The findings underscore the urgent need for integrated national policies that promote breastfeeding-friendly environments both within healthcare settings and in the workplace. Strengthening maternity protection, encouraging employer engagement, and implementing culturally sensitive public-health interventions are essential to improving breastfeeding outcomes. Future longitudinal research is warranted to evaluate the long-term effects of workplace breastfeeding policies and to guide evidence-based reforms tailored to Moroccan mothers.

Conflict of Interest

The author declares no conflict of interest. No external funding was received for this research.

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