# Predictors of breastfeeding duration on mothers who return to work: a systematic review

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#### **Abstract**

**Introduction:** the idea of continuing breastfeeding and work raises conflicting demands on the mother. Work correlates with early termination of breastfeeding and full-time work is associated with a shorter duration of breastfeeding than working part time.

**Objective:** we aimed to systematically explore literature relat-

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Key words: breastfeeding duration; return to work; systematic review.

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©Copyright: the Author(s), 2023 Journal of Public Health in Africa 2023; 14(s2):2569 doi:10.4081/jphia.2023.2569 ing to factors related to breastfeeding duration in mothers returning to work.

**Materials and Methods:** this research uses systematic review where systematic review is carried out following a combination of selected reporting items for systematic review and meta-analysis.

**Results:** many selected articles were found related to factors affecting the duration of breastfeeding in breastfeeding mothers who returned to work.

**Discussions:** delaying return to work until at least 15 weeks postpartum indicates a long duration of breastfeeding (at least 6 months). Part-time work is also positively related to the duration of feeding.

**Conclusions:** employment and early return to work, support from social environment, perception of milk production, higher maternal occupational and education, household income, delaying return to work at least 15 weeks postpartum, working part time and longer maternity leave are predictors of breastfeeding duration on mother return to work.

#### Introduction

Breastfeeding is the foundation of child survival, nutrition and development as well as maternal health. The World Health Organization (WHO) recommends exclusive breastfeeding for the first 6 months of life, followed by continuing breastfeeding with appropriate complementary foods for up to 2 years or more.<sup>1</sup>

According to the central statistics agency, the exclusive breast-feeding coverage in Indonesia in 2020 was 69.92%, while in central Java Province it was 76.30% (Central Statistics Agency, 2020). Nationally, based on Basic Health Research in 2018, it shows that the proportion of exclusive breastfeeding in infants aged 0-5 months is still low, namely 37.3%, partial breastfeeding 9.3% and predominant breastfeeding 3.3%.

The mother's work is cited as a major potential obstacle in exclusive breastfeeding and is a factor that can reduce the duration of breastfeeding.<sup>3</sup> The time the mother returns to work has an impact on the duration of breastfeeding.<sup>4</sup> In studies related to the duration of breastfeeding with the length of maternity leave, with mothers returning to work early for economic reasons more likely to give formula milk to their babies at the age of 6 months.<sup>5</sup>

The mother's employment status has a significant negative relationship to the success of the mother in providing exclusive breastfeeding. These results suggest that working mothers increase the frequency of failure of exclusive breastfeeding. These results are no different from some studies on exclusive breastfeeding in different countries. Working mothers will face several obstacles in giving exclusive breastfeeding to their babies, including: time allo-



cation, quality of togetherness with the baby, workload, stress, and the mother's confidence to give exclusive breastfeeding will be affected. Working mothers have low confidence in being able to give exclusive breastfeeding.<sup>6</sup>

For many women overpaid work is a necessity and mothers face the challenges of work as well as breastfeeding. Work related characteristics affect breastfeeding continuation among working women such as how quickly women returning to work and whether they work full time or part time.<sup>7–9</sup>

The idea of continuing breastfeeding and work raises conflicting demands on the mother. Work correlated with early termination of breastfeeding and full time work was associated with a shorter duration of breastfeeding than working part time. <sup>10–12</sup> Research looking at maternity leave and breastfeeding duration, shows that maternity leave is positively related to breastfeeding duration, especially for mothers with less flexible work, and longer leave is associated with prolonged breastfeeding <sup>10</sup>.

The socio-demographic characteristics of the mother are associated with the duration of exclusive feeding. The study showed that older, married, multiparous mothers, of high social class or non-smokers, would breastfeed longer. Occupational characteristics of the mother can also affect the duration of feeding. In the early 2000s, research in the UK and the Netherlands showed that mothers' jobs, in particular full-time jobs, were negatively related to breastfeeding. The characteristics of the mother's occupation, in particular the time the mother returns to work and the status of full/part-time work, relate to the duration of breastfeeding exclusively.

The aim of this paper is to systematically explore literature relating to factors related to breastfeeding duration in mothers returning to work.

### **Materials and Methods**

A systematic review was conducted following a mix of preferred reporting items for systematic review and meta-analysis (PRISMA). The databases ScienceDirect, SpringerLink, CINAHL, ProQuest, SAGE journals, and PubMed) were searched using the keywords breastfeeding duration, exclusivity, returning to work, statistical results and data, with no restrictions on the year of publication. The reference list of the identified papers was also examined with a focus on predictors affecting breastfeeding duration, breastfeeding practices and reasons for stopping breastfeeding after the mother returns to work back to work.

Most of the articles identified in the search specifically about the duration of breastfeeding in nursing mothers returning to work. A flowchart was developed in accordance with PRISMA guidelines for summarizing articles obtained in a literature search. PRIS-MA is used to illustrate the references that have been found, the number of exceptions and the criteria and the number of eventual inclusion in the full review. The PRISMA flow diagram of the search strategy is presented in Figure 1. All papers on the duration of breastfeeding in returning to work nursing mothers are considered for inclusion. In the results, the literature has been classified according to: the duration of breastfeeding, the practice of breastfeeding and the reasons why women after returning to work the duration of breastfeeding becomes short. In addition, the results and other implications of disclosure are also included. In each section, the identified types and qualities of the papers are described, and the papers are summarized and presented in Table 1.

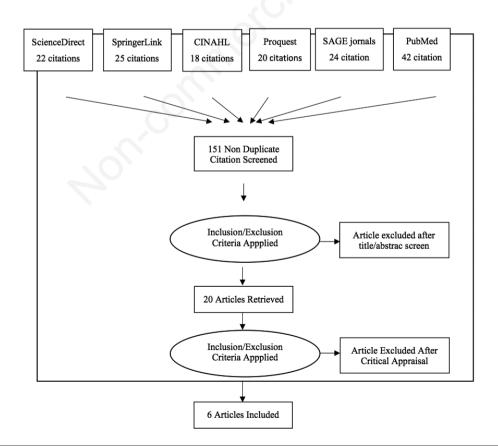


Figure 1. Database search.

#### **Results**

Based on the results of article searches, 6 selected articles were obtained related to factors that affect the duration of breastfeeding in breastfeeding mothers who return to work. The article is summarized in the form of columns whose names are researchers and journals, research titles, research methods, locations, participants and research results. Then the author conducts an analysis of the summarized article. A summary of the research on factors affecting breastfeeding duration in returning to work breastfeeding mothers is illustrated in Table 1.

Results from a systematic review showed that work was negatively related to the mother's ability to breastfeed over a long period of time. Those who do not work are more likely to breastfeed longer. In mothers who work part-time, self-employed mothers breastfeed longer than mothers who work as employees.

#### Discussion

Regarding leave during labor, the results of this study suggest that delaying returning to work can facilitate longer breastfeeding. The variable which has previously shown a significant association with the duration of breastfeeding i.e. maternal education is a strong predictor of continuing to breastfeed after returning to work. 18–21 Maternal education explains higher opportunities for initiation and duration of breastfeeding. 8.22.23 Mothers with high educated may have more controls over their work and schedules, which means they can relax for breastfeeding friendly work environment.

Duration of feeding is also affected by support.<sup>24</sup> From various literature shows that workplace support plays a role in the duration of breastfeeding after returning to work.<sup>2,25,26</sup> Organizational as well as managerial support increases the duration of exclusive breastfeeding by almost double. Co-worker support is critical in

Table 1. Studies exploring factors affecting breastfeeding duration in breastfeeding mothers returning to work.

Study	Study participants	Study design	Aim studies	Results
Skafida V. 2012 <sup>10</sup>	3,034 breastfeeding mothers returning to work	Cohort	Exploring the relationship between mother's work and maternity leave with breastfeeding duration	Two factors associated with shorter breastfeeding duration are work san return to work early.  More flexible working conditions and longer working leave will help working mothers in breastfeeding.
Ortega et al. 2021 <sup>13</sup>	250 mothers who breastfeed 6 to 35 months postpartum who work in the same institution since delivery, single and sufficient pregnancy months and good maternal health	Cross-sectional	To identify factors associated with the duration of feeding in working mothers	Factors associated with short breastfeeding duration in working mothers are work, support from the social environment and low perception of breast milk production.
Bai et al. 2015 <sup>14</sup>	1,738 mothers who returned to work after giving birth and followed for 12 months or had their babies weaned	Prospective longitudinal cohort study	To reach the factors affecting the duration of breastfeeding in mothers returning to formal postpartum work	The average duration of breastfeeding among mothers returning to work after 10 weeks postpartum was 13.1 weeks and 5 weeks for mothers returning to work within 6 weeks. Higher work and education of mothers are associated with a longer duration of breastfeeding.
Campos et al. 2022 <sup>15</sup>	2,156 mothers with children aged 6-36 month	Cross-sectional	To find out if household income moderates the relationship between the mother's employment status and breastfeeding $\geq 6$ months	The relationship between the mother's work varies and the duration of breastfeeding according to household income. Households with low incomes are likely to be breastfed > 6 months. Households with high incomes are likely to have their babies not breastfed.
Guillain et al. 2019 <sup>16</sup>	Mothers aged 18 years or older numbered 8,009 mother-daughter pairs followed for 1 year	Cohort	To describe the initiation of breastfeeding and the duration of breastfeeding as well as the duration of maternity leave for the mother returning to the workplace	Delaying return to work for at least 15 weeks postpartum indicates a long duration of breastfeeding (at least 6 months). Part-time work is associated with the duration of feeding.
Aikawa et al. 2015 <sup>17</sup>	84 mothers worked with children aged 6 to 24 months.	A cross-sectional	To know the factors related to the work of the mother and the practice of breastfeeding	Mothers who return to work after 3 months are 4.15 times more likely to breastfeed. Long maternity leave will extend the duration of breastfeeding

the decision to continue breastfeeding.<sup>27,28</sup>

There is a positive relationship between longer leave and duration of breastfeeding.<sup>29</sup> Mothers who aim to breastfeed longer differ in socio-economic and educational background as well as self-confidence and aspirations of mothers.<sup>30</sup> Mothers may also have different jobs, with different working conditions and flexibility of work, and different patterns of returning to work and taking maternity leave. The mother's work is the main reason for the short duration of breastfeeding and even the cessation of breastfeeding. Studies from Ghana, Kenya, Brazil, Ecuador, and the Democratic Republic of the Congo concluded that the short duration of maternity leave correlates with the short duration of breastfeeding.<sup>31–36</sup> Duration of maternity leave (<3 months) is associated with a low duration of breastfeeding at 2 and 3 months compared to leave of 3 months or more.<sup>37</sup>

The mother's control over time and space at work also contributes to the duration of feeding. Workplaces can provide more flexible work options. Flexibility of work schedule, division of work, location of work contributes to improved work-family balance so as to increase the duration of breastfeeding.<sup>38-41</sup>

## **Conclusions**

Predictors of breastfeeding duration on mother who return to work are early return to work and employment, support from the social environment, the perception of milk production, higher maternal occupational and education, household income, delaying return to work at least 15 weeks postpartum, working part time and longer maternity leave.

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