



# The influence of returning to work on maternal breastfeeding in nursing workers

*A influência do retorno ao trabalho no aleitamento materno de trabalhadoras da enfermagem*

*La influencia de la reincorporación al trabajo sobre la lactancia materna en trabajadoras de enfermería*

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## ABSTRACT

**Objective:** to analyze the influences of returning to work on maternal breastfeeding in mothers who are Nursing workers. **Method:** a qualitative research developed through a semi-structured form, using Google Forms, with 49 female Nursing workers in the state of Rio de Janeiro. The data were submitted to lexicographic analysis, with the aid of the *Interface de R pour Analyses Multidimensionnelles de Textes Et de Questionnaires* (IRAMUTEQ) software, by the Word Cloud and Descending Hierarchical Classification methods. **Results:** leverage of the text corpus was 88.24%, generating four classes of text segments. The main influences of returning to work on breastfeeding reported by the participants were as follows: lack of support from the management and coworkers, need for an adequate place and time for milking breast milk and decrease in milk production due to factors inherent to the work, in addition to overload and unhealthy working environments in Nursing. **Conclusion and implications for the practice:** the identification of these factors enables understanding the demands of the participating nursing mothers and points to the need for innovative strategies, which guarantee the workers' rights, as well as infrastructure adaptations in their work environments.

**Keywords:** Breastfeeding; Nursing team; Maternity leave; Working women; Return to work.

## RESUMO

**Objetivo:** analisar a influência do retorno ao trabalho de mães trabalhadoras da enfermagem no aleitamento materno. **Método:** pesquisa qualitativa, desenvolvida por meio de formulário semiestruturado, via *Google Forms*, junto a 49 trabalhadoras de enfermagem do estado do Rio de Janeiro. Os dados foram submetidos à análise lexicográfica, com auxílio do software *Interface de R pour Analyses Multidimensionnelles de Textes Et de Questionnaires* (IRAMUTEQ), pelo método de Nuvem de Palavras e Classificação Hierárquica Descendente. **Resultados:** o aproveitamento do corpus textual foi de 88,24%, gerando quatro classes de segmentos de texto. As principais influências do retorno ao trabalho na amamentação relatadas pelas participantes foram: a falta de apoio dos chefes e colegas de trabalho, a necessidade de local e tempo adequados para ordenha do leite materno, a diminuição na produção de leite por fatores inerentes ao trabalho e sobrecarga e ambientes insalubres de trabalho na enfermagem. **Conclusão e implicações para a prática:** a identificação desses fatores possibilita a compreensão das demandas das nutrízes participantes e aponta para a necessidade de estratégias inovadoras, que garantam o direito das trabalhadoras, assim como adequações de infraestrutura em seus ambientes laborais.

**Palavras-chave:** Aleitamento materno; Equipe de enfermagem; Licença maternidade; Mulheres trabalhadoras; Retorno ao trabalho.

## RESUMEN

**Objetivo:** analizar la influencia de la reincorporación al trabajo sobre la lactancia materna de madres lactantes trabajadoras de enfermería. **Método:** investigación cualitativa, desarrollada a través de un formulario semiestructurado, con utilización de *Google Forms*, con 49 trabajadoras de enfermería en el estado de Río de Janeiro. Los datos fueron sometidos a análisis lexicográfico, con el auxilio del software *Interface de R pour Analyses Multidimensionnelles de Textes Et de Questionnaires* (IRAMUTEQ), por los métodos de Nube de Palabras y Clasificación Jerárquica Descendente. **Resultados:** el aprovechamiento del corpus textual fue del 88,24%, y se generaron cuatro clases de segmentos textuales. Las principales influencias de la reincorporación al trabajo sobre la lactancia materna señaladas por las participantes fueron: falta de apoyo de jefes y compañeros, necesidad de disponer de lugar y tiempo adecuados para el ordeño de la leche materna, disminución de la producción de leche por factores inherentes al trabajo y sobrecarga e insalubridad de los ambientes de trabajo en enfermería. **Conclusión e implicaciones para la práctica:** la identificación de estos factores permite comprender las demandas de las madres lactantes participantes y señala la necesidad de adoptar estrategias innovadoras, que garanticen los derechos de las trabajadoras, además de adaptaciones de infraestructura en sus ambientes de trabajo.

**Palabras clave:** Lactancia materna; Equipo de enfermería; Permiso de maternidad; Mujeres trabajadoras; Reincorporación al trabajo.

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## INTRODUCTION

Breastfeeding contributes countless benefits to the health of children and mothers, with exclusive breastfeeding being recommended until the child's sixth month of life, and complemented with other foods until the child is two years old or more<sup>1</sup>. However, despite knowledge of the benefits, the onset, duration and exclusivity of breastfeeding remain lower than recommended by the health authorities in many settings around the world<sup>2</sup>.

This reality occurs not only in underdeveloped countries, but also in those with high socioeconomic development, such as Denmark and the Netherlands<sup>3</sup>. The causes of early weaning are associated with social changes, lifestyle, urbanization and industrialization, among others. In Australia, high working hours, combined with early return to work activities, act as barriers for mothers in the breastfeeding process<sup>2</sup>. In Brazil, one of the most evident reasons for weaning is professional activity outside the home environment<sup>1</sup>.

Women who work outside their homes tend to introduce the bottle early in time, as the return to work contributes to the occurrence of low breast milk production, resulting from the interruption of the breastfeeding routine associated with the introduction of artificial milk. In addition, the mothers' lack of knowledge about the laws protecting nursing mothers is considered a risk factor for early weaning<sup>4</sup>.

The Organization for Economic Cooperation and Development (OECD), constituted by 37 developed countries such as Germany, Canada and Denmark, advocates paid maternity leave for a minimum of three months, with the support of public income linked to this benefit. The United States is the only OECD member country that does not have the right to paid maternity leave under its legislation<sup>5</sup>.

Despite not being part of the OECD, Brazil has maternity leave of at least four months for working mothers, which is an advance in women's rights. Currently, the Brazilian Consolidation of Labor Laws (*Consolidação das Leis Trabalhistas*, CLT) determines maternity leave from 120 to 180 days, starting from the eighth gestational month, with 180 days being mandatory in the public service and optional for private sector companies. According to this legislation, the working mother is guaranteed two half-hour breaks during her workday, so that she can breastfeed her child<sup>4</sup>.

Although breastfeeding breaks are provided for by law, many mothers experience barriers to continuing breastfeeding when returning to work and, consequently, interrupt it earlier than recommended or intended. Thus, for breastfeeding workers to be able to breastfeed for two years or more, in the exclusive modality for the first six months, it is essential that they receive support from their employers after the maternity leave. In addition to this support, it is necessary for the woman to have a social support network, facilitating the process of taking the child to the workplace, for example, and other aspects that contribute to encouraging continued breastfeeding<sup>6</sup>.

Although care for breastfeeding women and the guidelines on breastfeeding are a multidisciplinary duty, usually in the health services, these actions are considered attributions of the

Nursing team<sup>7</sup>. However, despite the knowledge acquired in their professional practice by the mothers who are Nursing workers, the challenges and difficulties of returning to work can present themselves to them in different ways, due to work overload, shifts, especially night shifts, and on-duty schedules, turning the Nursing work routine itself into a barrier to the breastfeeding process<sup>8</sup>.

A study carried out with breastfeeding mothers who are Nursing workers, aged from 25 to 35 years old and who work in a tertiary-level hospital in Pakistan, pointed out that the main barriers found for continuity of breastfeeding when they return to work after a maternity leave are inflexible hospital policies, which almost seemed aimed at forcing mothers who are Nursing workers to abandon breastfeeding, the short duration of the maternity leave offered (42 days) and working a week on night shifts, before returning to day shifts. This same study showed that the mothers who wanted to continue breastfeeding resorted to several strategies, for example, asking to live in the hospital with the baby<sup>9</sup>.

The scientific literature points to several factors that can generate early weaning; however, it is noteworthy that Nursing is a mostly female profession, developed by women in childbearing age, and that a large percentage already has or will have children in the future. Nevertheless, only one international study was found that proposes to discuss the influences that returning to work can generate on breastfeeding in this population segment. In addition, the Brazilian literature also presents few contributions, which reinforces the importance of carrying out the study given the different realities, characteristics and legislation that deal with the theme. That said, it was possible to ask: How does returning to work activities interfere with breastfeeding among Nursing workers? Which specific characteristics of the work environment influence breastfeeding among Nursing workers?

Therefore, this research aims at analyzing the influences of the return to work of mothers who are Nursing workers on breastfeeding.

## METHOD

This is a descriptive study with a qualitative approach, whose elaboration and description met the recommendations set forth in the Consolidated Criteria for Qualitative Research Reporting (COREQ), considering the benefits and challenges of an online survey<sup>10</sup>. The research participants were nurses and nursing technicians from the state of Rio de Janeiro who have children up to ten years old. The children's age limit was defined in order to enable the mothers to recall the experiences and a description of what they went through in relation to the breastfeeding practice, considering that their children are still in childhood. The exclusion criterion adopted was mothers, Nursing workers, who had never breastfed.

Data collection was carried out in August and September 2020. The Nursing workers were invited to participate in the study through an Invitation Letter sent by social media such as *Facebook*, *Instagram* and *WhatsApp*. Those who expressed interest in participating were sent a link to answer the form.

For recruitment of the participants, the snowball technique was used, in non-probabilistic sampling<sup>11</sup>. Reference chains were used to locate possible participants; therefore, the first ones were invited by indication of the research team itself and later by indications made by the participants. Data collection was interrupted when the answers started to present recurrence of ideas and practices regarding the experience of returning to work and continuity of breastfeeding<sup>12</sup>.

A semi-structured form, prepared for this study and converted to online format through the *Google Forms* platform, was used to produce data, containing three parts. The first part of the form included data to characterize the participants, including age, marital status, number of children, professional category, time of professional training, specialization and employment contract. The second part included questions related to labor aspects and to those referring to the return to work. Finally, the third part had the following questions: 1) How did returning to work influence breastfeeding? 2) Which aspects of your job do you think could positively or negatively influence breastfeeding?

The sociodemographic data were entered into an Excel® spreadsheet, by double check, processed in the IBM®SPSS program, version 21, and analyzed using descriptive statistics with measures of central tendency (mean, median, maximum and minimum) and dispersion (standard deviation). The content of the forms was submitted to lexicographical analysis, with the aid of the *Interface de R pour Analyses Multidimensionnelles de Textes Et de Questionnaires* (IRAMUTEQ) software.

To build the textual corpus, the texts were organized in a text editing file and separated by a command line, enabling processing by the IRAMUTEQ program. A double review of the text was performed, seeking to correct typos, punctuation, spelling and standardization of acronyms. The use of quotation marks, apostrophes, hyphens and dollar signs was excluded.

IRAMUTEQ is a data processing tool that organizes texts by similarity of terms. From a large data volume, classes and divisions emerge that organize the most relevant terms, which can be presented in the form of a word cloud and Descending Hierarchical Classification (DHC) through a dendrogram<sup>13</sup>. It is noteworthy that, for data interpretation, from the DHC, the active forms (adjective, supplementary adverb, unrecognized forms, common noun, supplementary nouns and verb) for each class of segments and text that obtained a value  $\geq 3.84$  and a p-value  $< 0.05$  in the chi-square ( $\chi^2$ ) test were used, revealing statistical significance in the association of words (lexicons) in their respective class.

From this processing, the sense nucleus of the text segments in each class was analyzed, searching for the most significant words, enabling description and categorization by thematic axes of the lexical contents captured in the answers, through thematic analysis. This type of analysis includes reading the diverse evidence produced, coding the meaning units, that is, significant words or expressions that organized the contents of the answers through interpretation and inference proposals, and analysis of the thematic categories generated by the IRAMUTEQ

software, where an attempt was made to establish articulations between the data and the research conceptual frameworks<sup>14</sup>.

The ethical aspects of research involving human beings, determined by Resolution No. 466/2012 of the National Health Council, were respected. Data collection was initiated after the project was approved by the Research Ethics Committee, under Opinion No. 4,160,498 and CAAE 346546200.8.0000.8160. All the participants expressed their consent through the “I read and agree” option in the online form, after clarification about the research, by reading the Free and Informed Consent Form, available online and for download. Anonymity of the research participants was guaranteed, through their identification by the terms “Enf” when nurses (“*Enfermeiras*” in Portuguese) and “Tec” when nursing technicians, and their respective Arabic numbers, for example, Enf1, Enf2 and Tec1, Tec2.

## RESULTS

The study included 49 (100.0%) Nursing workers, them being 42 (85.7%) nurses and 7 (14.3%) nursing technicians, with a mean age of 33 (SD=4.4; Min=23; Max=42), mostly married (n=38/77.6%), having an only child under 10 years old (n=39/79.6%) and residents in the city of Rio de Janeiro (n=18/38.3%).

In relation to the participants’ training, only 14 (28.6%) had a specialization in the maternal-child area. The professional training time when returning to work after the first child was from 1 to 5 years for 19 (38.8%) participants, followed by 6 to 10 years for 19 (38.8%) participants. Upon returning to work, 17 (34.7%) Nursing workers had more than one employment contract.

It is noteworthy that, when asked if they had the desire to continue breastfeeding when they went back to work, 46 (93.9%) of the participants said yes and, of these, 18 (39.0%) did not define a specific time: they would breastfeed for as long as it was good or possible for them. When asked if they received support to continue breastfeeding after returning to work, 42 (85.7%) stated that they received support from family members and 29 (59.2%) of the participants reported support from her coworkers. In relation to the management, there is a decrease, in which only 13 (26.5%) stated to have received support from it to continue breastfeeding after returning to work, as shown in Table 1.

The textual corpus consisted of 49 texts and 85 text segments, with a total of 3,019 word occurrences, with 662 distinct words and 371 with a single occurrence (hapax). Through the Word Cloud, one of the IRAMUTEQ data processing methods used in this study, it was possible to graphically present the words with the highest frequency in the text, in which the size of each word is proportional to the number of times it was repeated, that is, keywords with the greatest recurrence in the textual corpus are identified (Figure 1).

In this way, the word cloud was a starting point for the analytical process of the corpus, and it is possible to recognize that the less prominent words point to several aspects that exert an influence on breastfeeding and are directly related to the highlighted terms, including the most recurrent: work (93),

**Table 1.** Descriptive and quantitative data of the participants' characterization (n=49). Rio de Janeiro, Brazil, 2020.

Variables	N (%)
<b>Specialization in the maternal-child area</b>	
Yes	14 (28.6)
No	35 (71.4)
<b>Area of specialization</b>	
Pediatrics and neonatology	09 (64.3)
Obstetrics, women's health and breastfeeding	05 (35.7)
<b>Professional training time when returning to work after the first child</b>	
01-05 years	19 (38.8)
06-10 years	19 (38.8)
11-15 years	09 (18.3)
>16 years	02 (4.1)
<b>More than one employment contract when returning to work</b>	
Yes	17 (34.7)
No	32 (65.3)
<b>Desire to continue breastfeeding when they went back to work</b>	
Yes	46 (93.9)
No	2 (4.1)
They weren't sure at the time	1 (2)
<b>Age until which they intended to breastfeed their children</b>	
Up to 06 months old	02 (4.0)
Up to 01 year old	09 (19.0)
Up to 02 years old	17 (36.0)
Up to 03 years old or more	01 (2.0)
They did not define a specific time; they would breastfeed until it was good or possible for them	18 (39.0)
<b>Received support from the family members</b>	
Yes	42 (85.7)
No	02 (4.1)
The family members were indifferent	05 (10.2)
<b>Received support from the coworkers</b>	
Yes	29 (59.2)
No	07 (14.3)
The coworkers were indifferent	13 (26.5)
<b>Received support from the management</b>	
Yes	13 (26.5)
No	10 (20.4)
The management was indifferent	26 (53.1)

breastfeeding (54), lactation (46), maternal (40), milk (36), return (n) (30), negative (24) and milking (21).

DHC allowed for the segmentation of the textual corpus into classes of text segments (TSs) and their terms, in which the central

ideas arising from the participants answers' were evidenced. Thus, the hierarchical analysis retained 85 TSs, classifying 75 of them, with 88.24% leverage and forming four classes, that is, four groups of TSs that have similar and correlated terms among each other and different from the others.

In the dendrogram, the textual corpus was divided into two groups. The first consists of Class 2 in green, constituting 24.0% of the TSs; and the second is made up by a subdivision comprising Class 1 in red, which makes up 26.7% of the TSs, which was subdivided and gave rise to Classes 3 and 4, in light blue and purple, corresponding to 29.3% and 20.0% of the text segments, respectively (Figure 2).

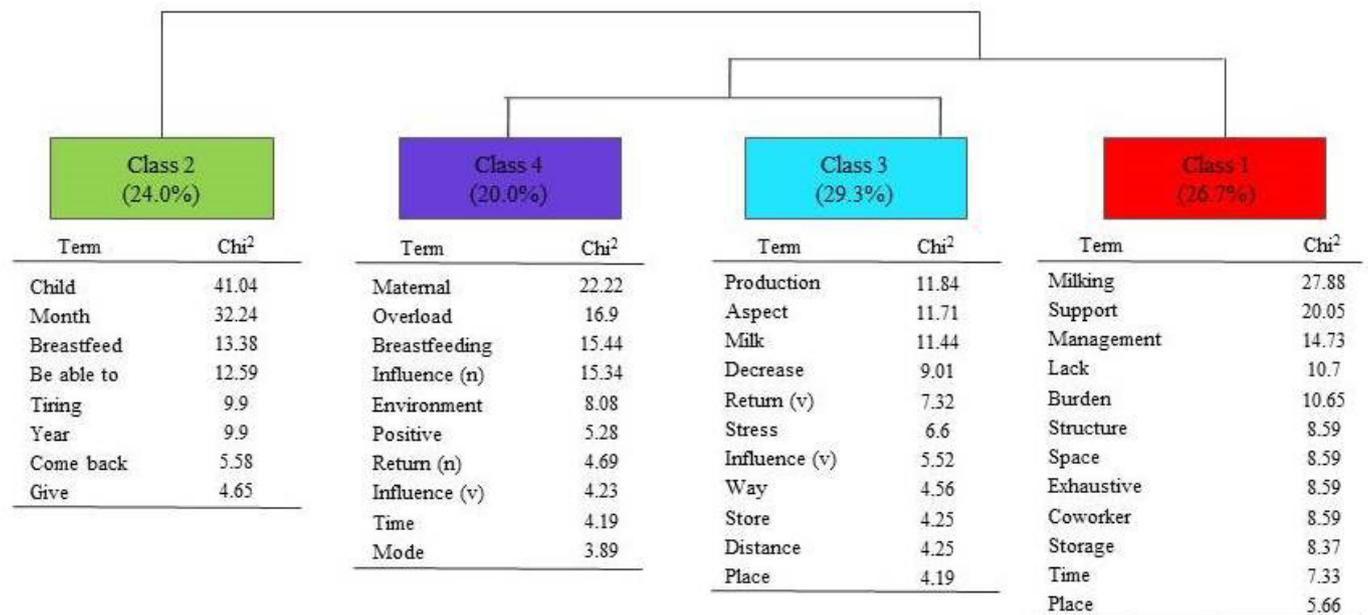
In view of the processing of the corpus by the software, it is possible to understand that Classes 1, 3 and 4 are associated with each other and are opposed, in lexical terms, to Class 2. The text segments of each cluster were retrieved and interpreted in detail, based on the principles of thematic analysis, aiming to understand their sense nuclei.

**Class 1 - Labor aspects that exert an influence on breastfeeding**

Class 1 presents the text segments with a significant association in descending order; among them, the terms that stood out ( $p < 0.0001$ ) were milking and support. In addition to that, other terms were also connected ( $p < 0.05$ ), including: management, lack, burden, structure, space, exhaustive, coworker, storage, time and place. In this class, the participants' answers listed various aspects of the work environment in which they work that exert influences, both positive and negative, on breastfeeding.



**Figure 1.** Word Cloud with the occurrence of terms about the influences of Nursing workers returning to work on breastfeeding. Rio de Janeiro, Brazil, 2020. Source: IRAMUTEQ software, 2021.



**Figure 2.** Dendrogram corresponding to the Descending Hierarchical Classification with significant words. Rio de Janeiro, Brazil, 2020. Source: Elaborated by the authors, based on data generated from the IRAMUTEQ software, 2021.

As negative influences, the terms “milking” and “support” associated with the word “lack” were predominantly mentioned in this class. In the participants’ notes, it can be noticed that this word refers to the lack of support from the managers and coworkers about the decision to continue breastfeeding after returning to work. In addition to that, structural problems in the work environment were recurrent, such as lack of adequate time and place to extract and store breast milk. Similarly, they reported the high workload as an aspect that influences breastfeeding in a negative way.

*[...] the exhaustive workload, the lack of adequate time for milking in the work environment and, also, of adequate space, the lack of support from the managers, among other factors, negatively influence breastfeeding [...]* (Enf25).

*[...] not having support, not having space for milking, having a rigid work organization, which doesn't allow breaks or inflexible hours, they exert a negative influence [...]* (Enf9).

*[...] extensive workload, not having breaks for milking, not having breaks to eat and drink liquids, lack of physical structure for milking and storage of human milk exert a negative influence [...]* (Enf26).

In this same class, it was possible to identify reports of work aspects that exert a positive influence on breastfeeding, also related to the terms “milking” and “support”. For them, in addition to the support from coworkers and the management, having adequate space and time in the workplace for milk extraction and storage are the main positive influences to maintain breastfeeding.

*[...] for me, the support from the coworkers and the management, understanding of possible delays and having space for milk extraction and storage exert a positive influence on breastfeeding [...]* (Enf9).

*[...] my work team always supported me at the milking time and helped me with whatever was necessary, which was a positive influence for me [...]* (Enf25).

*[...] better receptivity by the supervisors and managers, an appropriate and comfortable place for breastfeeding or for withdrawing milk when necessary are aspects of work that exert a positive influence on breastfeeding [...]* (Tec5).

The participants mentioned the support from the managers and coworkers, in addition to the adequate space for milking and storage of breast milk, as aspects that can exert both negative and positive influences. In addition, the work overload that leads to exhaustion and the lack of time that prevents breast milk extraction represented intervening factors with a negative influence.

### **Class 2 - Maintenance of breastfeeding after returning to work**

In Class 2, the active forms that presented a significant association ( $p < 0.0001$ ) in descending order were child and

month. The other words that also show a connection between these terms ( $p < 0.05$ ) are as follows: breastfeed, manage to, tiring, year, come back and give.

Through the participants’ answers, this Class presented how returning to work interfered with continuity of breastfeeding, presenting the difficulties experienced by the mothers, such as refusal to breastfeed by their children after returning to work. In addition to that, some lexical contents present reports of feelings such as tiredness and frustration in the breastfeeding process after the end of the maternity leave.

*[...] when I went back to work my son stopped breastfeeding and he no longer wanted the breast [...]* (Enf12).

*[...] after returning to work, I only had the opportunity to breastfeed during the period I was at home or when I was leaving in the morning. It was very tiring and frustrating [...]* (Tec5).

*[...] returning to work was shocking. The relationship I had with my daughter changed. I could no longer breastfeed her on demand as I would like to, because I was going to be far from her from 12 to 14 hours [...]* (Enf3).

In addition to that, some text segments present in this class listed strategies resorted to by the mothers to be able to maintain breastfeeding, such as extracting the milk to be offered to the baby while they were working and offering milk through the cup instead of the bottle so that there was no confusion of nipples.

*[...] after returning to work I was extracting and storing the milk for the nights I was on duty [...]* (Enf35).

*[...] I had to extract and save the milk for my mother-in-law to offer my daughter a cup. It was quite tiring as I had to get up very early to milk [...]* (Enf1).

*[...] when I went back to work I had in mind that I would breastfeed as much as I could. So I was taking the milk at night so that they would give it to him in the nursery [...]* (Enf36).

*[...] when I returned to work, I started to milk and leave it to be offered to my baby when I wasn't there [...]* (Enf39).

The working mothers reported frustration for not being able to maintain breastfeeding as they would like, due to the interruption of free demand. For this reason, the participants needed to develop strategies to maintain breastfeeding after the end of their maternity leaves, especially offering breast milk through the support network when they were absent.

### **Class 3 - Decrease in breast milk production due to returning to work**

The active forms of Class 3, which presented a significant association ( $p < 0.005$ ) in descending order, were as follows: production, appearance, milk, decrease (v). The other words

that also show a connection between these terms ( $p < 0.05$ ) are as follows: return (v), stress, influence (v), way, store, distance and place.

Through the textual fragments, it was possible to observe, in the participants' answers, how the decrease in the frequency of breastfeeding directly interfered in the production of breast milk by the mothers who are Nursing workers after returning to work. The drop in milk production, mentioned repeatedly by the participants, also reveals the unhappiness for interrupting breastfeeding sooner than they intended.

*[...] although I had a wonderful production, unfortunately my milk dried up one month after I returned to work [...]* (Enf31).

*[...] since I went back to work, my milk production has been gradually decreasing. I intended to continue, but I think that I won't have any milk left soon [...]* (Enf40).

*[...] returning to work made me give up breastfeeding faster [...]* (Enf11).

*[...] returning to work stopped my milk production [...]* (Tec7).

The participants reported the physiological process of decreased breast milk production when free demand was suspended. Returning to work caused the milk production of these workers to gradually decrease until it stopped completely, in a period that varied from seven days to eight months, culminating in the early weaning of their babies, according to the reports. This fact directly interferes in the decision of the working mothers to continue breastfeeding since, when milk production is reduced, the breastfeeding process becomes even more difficult.

#### **Class 4 - Aspects of the Nursing work that exert an influence on breastfeeding**

In Class 4, the active forms that presented a significant association ( $p < 0.0001$ ) in descending order were the following terms: maternal, burden, breastfeeding and influence (n). The terms "environment", "positive", "return (n)", "influence (v)", "time" and "mode" presented a significant connection among the others ( $p < 0.05$ ).

In this class, through textual fragments, it was possible to observe specific aspects of the Nursing work routine that exert positive and negative influences on breastfeeding, especially work overload due to on-duty shifts. On the other hand, understanding the importance of breastfeeding and the correct management for the functioning of this practice is a positive aspect of the Nursing profession that has a protective effect on continuity of breastfeeding.

*[...] the strenuous workload has a negative influence [...]* (Enf30).

*[...] increasing the team would positively influence breastfeeding, as the overload on the shifts is a negative influence [...]* (Enf8).

*[...] knowledge about breastfeeding management constitutes a positive influence on breastfeeding [...]* (Tec4).

*[...] the lectures given to the patients made us go even deeper into the subject matter, which I think has been a positive influence [...]* (Enf37).

It can then be perceived that some aspects of the Nursing profession are configured both as positive and as negative in breastfeeding. However, most of the answers reported a negative influence, especially those related to work shifts, work overload in Nursing teams and the unhealthy environment.

*[...] several entities recommend and encourage breastfeeding. Being at the center of care promoting health, Nursing should more actively support the professionals who work in the area and are breastfeeding. The unhealthy environment and work overload exert a negative influence on breastfeeding [...]* (Enf5).

*[...] sectors with a high exposed viral load are negative influences on breastfeeding [...]* (Enf42).

*[...] workload, distance from work and unhealthy environment are factors that exert a negative influence on breastfeeding [...]* (Enf18).

In summary, it can be concluded that Classes 1, 3 and 4 refer to the immediate influences of returning to work while breastfeeding among mothers who are Nursing workers, in contrast to Class 2, which points out the consequences of this effect and the ways to confer continuity the breastfeeding process.

## **DISCUSSION**

The findings of this research reveal that most of the participants wanted to continue breastfeeding when they returned to work, but the lack of support from the managers and coworkers was presented as one of the main difficulties experienced. This aspect is in line with the literature, which points out support in the workplace as a crucial and positive aspect in the duration of breastfeeding<sup>15</sup>. The manager's act of verbally encouraging this desire has been shown to be contributory, as well as it generates commitment, improves productivity and reduces absenteeism and job dissatisfaction<sup>14-17</sup>, becoming even more relevant during the initial period after returning to work, considered as a critical moment for continuity of breastfeeding<sup>18</sup>.

A study conducted in Nebraska, USA, suggested that providing breastfeeding support in the workplace is the key to increasing breastfeeding rates among female workers. Most of the women who felt supported by their employers were able to fulfill their desire to continue breastfeeding and were satisfied with the experience of returning to work<sup>16</sup>; such support was rarely mentioned among the participants in this research.

The Nursing workers participating in the research considered the fact of not having time during the workday or a suitable place

to extract and store milk as a negative influence on breastfeeding. It is noteworthy that breaks to breastfeed or extract breast milk are guaranteed by law, in two half-hour intervals during the workday<sup>18,19</sup>.

In line with the statements, the literature points to the physiological need for emptying the breasts since, as they are away from their children, the women need to alleviate discomfort and pain, in addition to maintaining milk production<sup>18</sup>. However, the participants point out that this practice may be unfeasible, a fact also described in a study that reports the factors and consequences for the maintenance of breastfeeding in formal female workers, including the distance between the workplace and the residence or day care center<sup>19</sup>.

An adequate and private breastfeeding room with inputs for milking the breasts is crucial and, in addition to contributing significantly to continuity of breastfeeding, it has a low implementation and maintenance cost for the organization<sup>17,18</sup>, which again reinforces the importance of building these lactation environments, as highlighted by the participants of this research.

Despite understanding the benefits of breastfeeding, the participants also considered going back to work as an influence for weaning earlier than intended and reported a feeling of frustration. For many mothers, the act of breastfeeding is the main moment between them and their children, providing interaction, love, affection, trust and bonding, in addition to representing an essential element for the baby's health<sup>20</sup>.

Agreeing with what was exposed by the breastfeeding mothers who are Nursing professionals, a study carried out with working women revealed that not breastfeeding as they would like becomes a difficult time and an abrupt break of the mother-infant bond and, as a consequence of the interruption of free demand breastfeeding and long working hours, the mothers needed to develop strategies to be able to maintain breastfeeding. Extraction of the breast milk to be offered in the absence of the nursing mothers was also cited as the first strategy for continuity of breastfeeding, in the same way as in the findings of this research<sup>21</sup>.

In addition to that, it was shown that a good support network is necessary to assist in this process, especially to offer extracted milk to the baby in their absence, and the majority stated receiving support from their family members to continue breastfeeding after returning to work. Several studies show that the family, and especially the partner, represents the primary network providing assistance, support and understanding in decision-making. Therefore, the family support network is essential for women to be successful in breastfeeding<sup>21,22</sup>.

Despite these strategies adopted, the physiological process of decreased milk production was reported, and the cause can be mainly attributed to unfavorable work environments that increase stress in the workplace and the time of distancing between mother and child<sup>15,18</sup>. This fact is also described in the literature, in which the main hormones released in situations of prolonged stress or anxiety are cortisol and adrenaline, which, associated with

decreased baby's suction, can inhibit the action of prolactin and oxytocin, harming milk production and excretion<sup>23,24</sup>.

Specifically about the Nursing work, long working hours and on-duty shifts were reported as factors that exert a negative influence on breastfeeding. In the meantime, an integrative review on the precariousness of the Nursing work highlights that a considerable part of these workers have longer monthly working hours when compared to other professions, which can be justified by the need to supplement their income, leading them to seek other employment contracts, contributing to the increase in both physical and emotional wear out<sup>25</sup>.

Unhealthy environments are also highlighted, mentioned by the workers and described as a reality for the Brazilian Nursing professionals, which are often associated with work overload<sup>24</sup> and work-related stress, among other aspects<sup>26</sup>. Added to this scenario is the frequent exposure to infections, both for working in health care and regarding exposure, given the difficulty accessing good quality Personal Protective Equipment<sup>27</sup>. Considering these aspects pointed out in the literature, the mothers' reports about the impossibility of breastfeeding their babies during the workday is extremely relevant.

On the other hand, a positive aspect of the Nursing work, highlighted in the reports, is the privileged knowledge acquired by the nursing mothers during their training and also in their professional routines regarding the importance and correct management of breastfeeding. This aspect can be justified by the fundamental role that nurses play in assisting women, especially in the process of support and guidance during pregnancy, puerperium and breastfeeding<sup>28</sup>.

However, for the experience of breastfeeding after returning to work to be positive, different strategies are needed, such as those cited by a study carried out in Ethiopia, in which flexible hours at the workplace, with the possibility of returning home after completing the tasks and choosing the most convenient work shift, being one of the most important aspects cited to be offered to breastfeeding mothers<sup>15</sup>. Another strategy mentioned in the literature is the expansion of the Nursing work team to maintain adequate patient care and make up for absences for breaks devoted to milking, milk storage and cleaning, which can easily last up to 45 minutes<sup>29</sup>.

Such strategies mentioned could be widely disseminated in Brazilian institutions with Nursing female staff. If a mother working in a hospital setting is not supported in her breastfeeding experience after returning to work, she may not be able to meet her personal breastfeeding goals and, in a cyclical fashion, frustration with breastfeeding can influence her ability, as a professional, to continue being a breastfeeding advocate for the patients and their families<sup>29</sup>.

## **CONCLUSIONS AND IMPLICATIONS FOR THE PRACTICE**

This study contributed to the understanding of the influences of the return to work of breastfeeding mothers who are Nursing

workers on breastfeeding, pointing out the following as the main negative influencing factors: the lack of support from managers and coworkers, the need for an adequate place and time to extract breast milk, and the decrease in milk production due to factors inherent to work, in addition to overload and unhealthy work environments in Nursing. The support network and the knowledge acquired in training and in the professional practice were the main factors in exerting a positive influence on breastfeeding.

The research results allow for an advance in knowledge regarding the demands of the participating nursing mothers, directing to the pressing need for innovative strategies that guarantee labor rights, as well as infrastructure adaptations in their work environments, providing comfort and safety in the process of breastfeeding continuity, at the time of returning to work.

The limitations of the study are based on the single geographical context defined and on the data collection format, in view of the pandemic scenario and of the recommendations for social isolation. Research studies with larger samples are needed in order to corroborate the results found. In addition to that, the children's age limit established for the research may have generated memory gaps among the participating mothers; however, the reports presented were sufficient to understand the study objective given the recurrence, homogeneity and consistency in the quality of the answers about the experience of returning to work and continuity of breastfeeding. Furthermore, data collection using an electronic form may not have been able to capture all the richness of the participants' statements that a face-to-face interview can offer.

## AUTHOR'S CONTRIBUTIONS

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