

Original Article

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Continuing breastfeeding upon returning to work: feelings, challenges and strategies of breastfeeding nurses

Continuidade do aleitamento materno no retorno ao trabalho: sentimentos, desafios e estratégias de enfermeiras nutrízes

Continuidad de la lactancia materna al reincorporarse al trabajo: sentimientos, retos y estrategias de madres enfermeras

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ABSTRACT

Objective: To describe feelings, challenges and strategies related to the continuity of breastfeeding after returning to work in the perception of lactating nurses.

Method: Descriptive, exploratory, qualitative study, with snowball sampling. Data collection occurred virtually between August and September 2020 in the State of Rio de Janeiro. *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* software and a thematic analysis were used.

Results: 42 breastfeeding nurses participated and cited fear, missing the child, anguish, and pleasure in returning to work. Challenges such as lack of infrastructure for pumping the breast in health services, unfavorable scales, and multiple jobs were reported. Support networks,

listening spaces, and appropriate times and places for breast milk pumping were mentioned as strategies.

Conclusion: Different feelings and challenges for the continuity of breastfeeding upon returning to work were identified; some strategies found were common to other working women while others related to the specific nursing work context.

Descriptors: Breast feeding. Return to work. Nurses. Qualitative research. Emotions.

ABSTRACT

Objetivo: Descrever sentimentos, desafios e estratégias relacionados à continuidade do aleitamento materno no retorno ao trabalho na percepção de enfermeiras nutrizes.

Método: Estudo descritivo, exploratório, qualitativo, com amostragem por bola de neve. A coleta de dados ocorreu virtualmente entre agosto e setembro de 2020 no Estado do Rio de Janeiro. Utilizou-se o *software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* e a Análise Temática.

Resultados: Participaram 42 enfermeiras que citaram medo, saudade, angústia e prazer no retorno ao trabalho. Foram relatados desafios como falta de infraestrutura para ordenha nos serviços de saúde, escalas desfavoráveis e múltiplos vínculos. Foram mencionadas como estratégias redes de apoio, espaços de escuta, horários e locais adequados para ordenha.

Conclusão: Foram identificados distintos sentimentos e desafios para a continuidade da amamentação no retorno ao trabalho; algumas estratégias encontradas foram comuns às mulheres trabalhadoras e outras relacionadas ao contexto laboral da enfermagem.

Descritores: Aleitamento materno. Retorno ao trabalho. Enfermeiras e enfermeiros. Pesquisa qualitativa. Emoções.

RESUMEN

Objetivo: Describir sentimientos, desafíos y estrategias relacionados con la lactancia materna al regresar al trabajo, según la percepción de enfermeras lactantes.

Método: Estudio descriptivo, exploratorio y cualitativo con muestreo de bola de nieve. La recolección de datos se llevó a cabo virtualmente entre agosto y septiembre de 2020 en el estado de Río de Janeiro. Se utilizaron el *software IRAMUTEQ* y una Revisión Temática.

Resultados: Participaron 42 enfermeras lactantes que mencionaron sentimientos como miedo, nostalgia, angustia y placer al volver al trabajo. Los desafíos incluyeron falta de infraestructura para extracción de leche en los servicios de salud, horarios desfavorables y múltiples compromisos. Estrategias mencionadas incluyeron redes de apoyo, espacios de escucha y momentos y lugares adecuados para la extracción de leche.

Conclusión: Se identificaron diferentes sentimientos y desafíos relacionados con la lactancia materna al regresar al trabajo, con estrategias comunes a otras mujeres trabajadoras y otras específicas del contexto de enfermería.

Descriptores: Lactancia materna. Reinserción al trabajo. Enfermeras y enfermeros. Investigación cualitativa. Emociones.

INTRODUCTION

Work activities out of the domestic environment are one of the greatest influences towards discontinued breastfeeding, despite the countless benefits it brings to child, mother, and society⁽¹⁾. The lack of support from employers to continue breastfeeding after going back to work is one of the main obstacles for working women, although Brazilian legislation guarantees their job during pregnancy up and for up to six months of breastfeeding⁽²⁾.

In Brazil, mother's leave lasts for 120 in private companies, though it can be prolonged to last as much as 180 days. The same is true for some public services. Another right of women is that they can take two thirty-minute brakes during their work journey for breastfeeding⁽²⁾.

Mothers who go back to work during the breastfeeding period, sometimes feel frustrated and worried as they cannot continue breastfeeding, which is a risk for the health of the mother-child dyad⁽³⁾. In this context, the challenges found are associated with the need for more flexible schedules, brakes to breastfeed or pump breast milk, adequate places to pump and store the milk, support from work colleagues, and available nurseries at work or near it⁽⁴⁾.

These challenges tend to be increased when the mother is a nursing worker, since they already experience overload and work stress due to long work journeys, night shifts, multiple jobs, and unsafe environments inherent to the profession⁽⁵⁾. This is added to the absence of nurseries and spaces to pump milk or breastfeed in the health institutions they work^(5,6). Considering the above, we believe that breastfeeding nurses have to deal with challenges that are unique and related to their profession, in addition to those faced by other women to continue breastfeeding as they go back to work. These challenges must be clarified by scientific research, in order to provide new evidence on the topic and help design strategies to promote, protect, and give specific, adequate support to this population. This necessity justifies the current study.

Considering work in shifts, daily workloads longer than 8 hours, the exposure to biological risks, and the physical structure of health services itself, it may be relevant to understand the perceptions of nurses who are breastfeeding regarding the process of continuing to breastfeed after a return to work, as these may help clarify this unique context they are a part of. This also recommends the need for studies on the subject that analyze the perceptions of people who experienced this process directly.

As a result, our guiding question was: How do nurses who are breastfeeding perceive the continuity of this activity in their return to work? Thus, our goal was to describe the feelings, challenges, and strategies related with the continuity of breastfeeding in the return to work of nurses who are in this period.

METHOD

Descriptive and exploratory study with a qualitative approach, carried out using an online form from August to September 2020, following the Consolidated Criteria for Reporting Qualitative Research (COREQ)⁽⁷⁾. An online form was chosen because this

period/year of data collection means it took place during the COVID-19 pandemic, which restricted personal access to people due to the high transmissibility of the Sars-CoV-2 virus,

The following inclusion criteria were considered: living in the state of Rio de Janeiro and having 10-year-old or younger children. The exclusion criterion was: the nurse did not breastfeed. Sampling used the snowball technique, consisting in a chain where one participant indicates others among their contacts⁽⁸⁾. This justifies the geographical requirements, since it is an early study on the topic, and the chain of acquaintances of the researchers are in Rio de Janeiro, allowing the sample to be homogeneous. At first, we invited participants through social media platforms: *Facebook®*, *Instagram®*, *Twitter®*, and *WhatsApp®*. Then, after the nurses accepted participation online by signing the informed consent, they received an access link to fill in a Google Form. The sample size was determined considering the suggestions of the manual of the software used for qualitative data processing. We worked with a minimum of 20-30 texts to carry out a robust and consistent analysis, and considered only the forms filled within the period of data collection of two months, a period previously determined⁽⁹⁾. It should be noted that lexicometric software analyses are sensible to the size of the corpus, and larger corpora generate more terminal classes and reach more detailed results, as happened in this study⁽¹⁰⁾. Additionally, several qualitative studies have used this software to process data from qualitative research, forming their sample with more than 20 participants and considering homogeneous groups, as is the case of this research⁽¹¹⁻¹³⁾.

The first stage of our data collection instrument included participant characterization and questions about individual and professional aspects, such as age, marital state, number of children, time since graduation, specialization, number of jobs, type of institution where the participant work, time working in the institution, work shifts, and function. For the variables number of jobs, when the nurses mentioned more than one job, the following questions were applied to both jobs: type of job contract, type of institution, time working in the institution, work scale, and role they occupied in the institution.

The second part included questions regarding their work, such as: duration of maternity leave, whether they wanted to continue breastfeeding after going back to work; whether there was support to do so from superiors, colleagues and relatives to continue breastfeeding; whether they had a specific time to breastfeed during their work journey; and whether there were available places to pump and store milk.

The third part of the instrument addressed the following questions: 1) What feelings you experienced as you went back to work after your maternity leave? 2) In your opinion, what are the main challenges experienced by a mother who is a nurse and is breastfeeding, as

she goes back to work? 3) What strategies would you suggest to improve your work environment as to enable breastfeeding?

We analyzed the data from the individual, professional, and work questions using descriptive statistics and central tendency measures (mean, median, maximum, and minimum) and dispersion measures (standard deviation), in the IBM® software SPSS, version 21. Data from the discursive responses of participants was processed using the software *Interface de R pour Analyses Multidimensionnelles de Textes Et de Questionnaires* (IRAMUTEQ)⁽¹⁴⁾.

This processing used two text corpora elaborated from the responses given to the third part of the forms. The first corpus addressed the first question, and the second, the questions two and three. The corpora were separated as such since the first question specifically addresses feelings; therefore, its responses were more subjective and unrelated with the concrete practice of breastfeeding at work. It is worth noting that all material was adequately reviewed and organized in a text-editing software file and separated by a command line. Also, all acronyms were standardized, and we excluded quotation marks, apostrophes, hyphen, and dollar signs, thus enabling proper processing via IRAMUTEQ.

For the first corpus, we considered a similitude analysis that allows recognizing co-occurrences of words, in addition to determining the connections between them, in order to help identifying the structure of the text corpus. In this analysis, we considered the active forms: adjective, common nouns, and verbs. To the second corpus we applied the Descending Hierarchical Classification (DHC), which allows organizing the content in classes formed by lexical approximation, since, through these analyses, the software can organize data in a dendrogram, in order to illustrate the relationships between the classes presented^(14,15). To form the DHC, we used the active forms: adjectives, adverbs, unrecognized forms, common nouns, supplementary nouns, and verbs. This analysis considered lexicons with values of 3.84 and $p\text{-value} < 0.05$ in the chi-squared test (χ^2), with statistical significance in the association of works in their respective classes.

The results of the processing were, later, analyzed using the core meanings of the text segments of each halo formed in the similitude analysis, as well as each class generated by DHC through a thematic analysis. Thus, we aimed to establish a connection between processed data and the conceptual markers of the research⁽¹⁶⁾. To understand the subject being studied, we attempted, starting with inference and interpretation, to understand the cores of meaning produced by participant responses, raising questions about their central ideas and counterpointing information from scientific literature associated with the topic.

This study respected ethical and legal principles and was approved by the Research Ethics Committee according with Resolution 466/12 from the National Council of Health, under protocol 4.160.498 and CAAE 34654620.8.0000.8160. Additionally, we followed recommended procedures for research with human beings that involve at least one stage in virtual environments⁽¹⁷⁾. We guaranteed the anonymity of participants by identifying them with a letter "N", for nurse, followed by a number indicative of the order in which they participated - e.g., N01, N02, and so on.

RESULTS

42 nurses (100.0%) participated, with a mean age of 34 years (SD=4.4; Min=23; Max=42), mostly married (n=33/78.6%), who lived with their partners (n=36/85.7%) and had only one child below the age of 110 (n=34/81.0%), resident in the metropolitan region of the state of Rio de Janeiro, in the city of Rio de Janeiro (n=28/66.6%), with an income above five minimum wages (n=32/76.2%).

Regarding participant formation, only 14 (33.3%) were specialized in mother-child care; of them, 9 (64.3%) were specialists in pediatrics and neonatology, while five (37.5%) were specialized in obstetrics, women's health, and breastfeeding. The time of professional formation in the return to work after the first child was from 6 to 10 years for 17 (40.5%) nurses, from 1 to 5 for 15 (35.7%), from 11 to 15 for 9 (21.4%), and of 16 or more for one (2.4%) of the breastfeeding nurses.

Among the interviewees, 21 (50.0%) took advantage of a six-month maternity leave, 12 (28.6%) had a four-month long one, five (11.9%) had more than six months of leave, and three (7.1%) were on leave or less than four months. 95.2% of them wanted to continue breastfeeding when they came back to work, and 16 (38.1%) of these women did not determine a specific period of time, aiming to breastfeed for as long as it was possible. It stands out that, when asked about whether they received support to breastfeed after coming back to work, 37 (88.1%) stated that relatives gave them support, while 25 (59.5%) were supported by work colleagues. However, only 12 (28.6%) received support from their superiors to continue breastfeeding after coming back to work.

Regarding their work environment, 18 (42.9%) nurses declared they did not have breaks to breastfeed, 29 (69.0%) did not have an adequate place to pump their milk, and 28 (66.7%) did not have a good place in their workplace to store the milk. This is shown in Table 1.

Table 1 - Characterization of breastfeeding nurses regarding aspects of breastfeeding when coming back to work (n=42). Rio de Janeiro, Brazil, 2020

Variables	N (%)
Maternity leave duration** (months)	
Less than 4	03 (7.1%)
4	12 (28.6%)
6	21 (50.0%)
More than 6	05 (11.9%)
Wish to continue breastfeeding after going back to work	
Yes	40 (95.2 %)
No	02 (4.8 %)
How long the nurse wanted to breastfeed her children (n=40)	
Up to 6 months	02 (4.8%)
Up to 1 year	08 (19.0%)
Up to 2 years	14 (33.3%)
No previously determined time, they would breastfeed for as long as it was good or possible to do so	16 (38.1%)
Support from relatives	
Yes	37 (88.1%)
No	01 (2.4%)
Relatives were indifferent	04 (9.5%)
Support from work colleagues	
Yes	25 (59.5%)
No	05 (11.9%)
Colleagues were indifferent	12 (28.6%)
Support from superiors	
Yes	12 (28.6%)
No	07 (16.7%)
Superiors were indifferent	23 (54.8%)
Breaks for breastfeeding	
Yes	06 (14.3%)
Yes, but it was not used	09 (21.4%)
Yes, but it was used to pump breast milk	05 (11.9%)
Yes, but it was used to leave work earlier	04 (9.5%)
No	18 (42.9%)
There was an adequate place to pump breast milk	
Yes	13 (31.0%)
No	29 (69.0%)
There was an adequate place to store maternal milk**	
Yes	13 (31.0%)
No	28 (66.7%)

Source: Database, 2020.

**Missing variable.

27 (64.3%) of participants had a single job, while the others 15 (35.7%) had two, with different characteristics, as they went back to work (Table 2). Most nurses worked in public institutions, having worked in direct nursing assistance from 1 to 5 years, from 40 to 44 hours/week.

Table 2 - Work and institutional characteristics at the time of returning to work after the end of the maternity leave (n=42). Rio de Janeiro, Brazil, 2020

Nurses with a single job	N (%)
Type of institution where they worked	
Public	21 (77.8%)
Private	05 (18.5%)
Philanthropic	01 (3.7%)
Time working in the institution (complete years)	
1 to 5	19 (70.4%)
6 to 10	05 (18.5%)
11 to 15	02 (7.4%)
16 or more	01 (3.7%)
Work shift (hours)	
40-44 hours/week	17 (63.0%)
30 work hours/week	09 (33.3%)
24 work hours/week	01 (3.7%)
Function	
Direct care nursing	20 (74.1%)
Nursing coordination	03 (11.1%)
Nursing teaching	04 (14.8%)
Did not go back to the second job from the maternity leave	0 (0.0%)
Total N of participants	27 (100.0%)

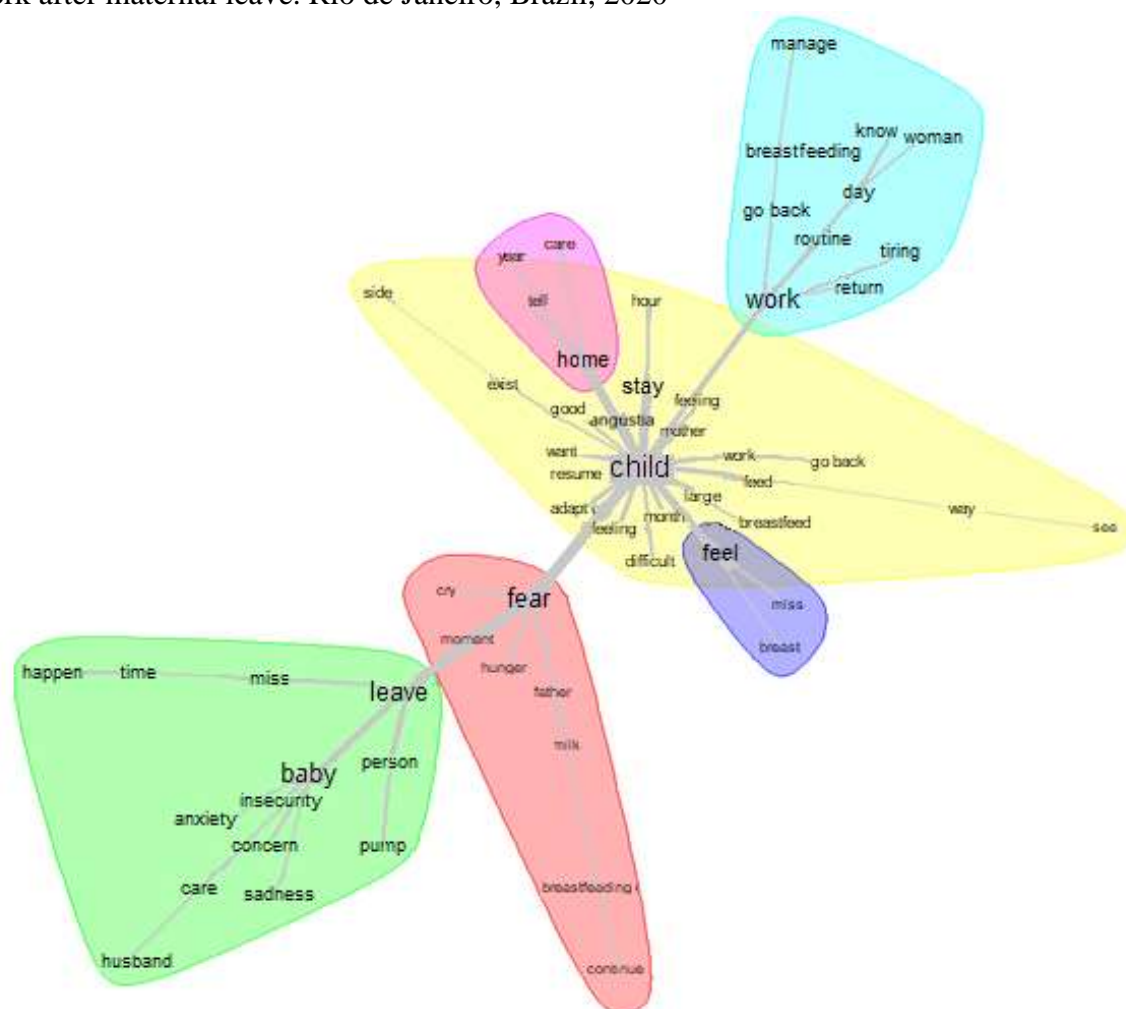
Nurses with more than one job	Job 1 N (%)	Job 2 N (%)
Type of institution where they worked		
Public	14 (93.3%)	13 (86.7%)
Private	01 (6.7%)	02 (13.3%)
Philanthropic	0 (0.0%)	0 (0.0%)
Time working in the institution (complete years)		
1 to 5	11 (73.3%)	12 (80.0%)
6 to 10	03 (20.0%)	03 (20.0%)
11 to 15	01 (6.7%)	0 (0.0%)
16 or more	0 (0.0%)	0 (0.0%)
Work shift (weekly hours)		
40 or 44 hours	05 (33.3%)	05 (33.3%)
30 hours	06 (40.0%)	06 (40.0%)
24 hours	04 (26.7%)	04 (26.7%)
Function		
Direct care nursing	13 (86.8%)	13 (86.8%)
Nursing coordination	02 (13.2%)	0 (0.0%)

Nursing teaching	0 (0.0%)	01 (6.6%)
Did not go back to the second job from the maternity leave	0 (0.0%)	01 (6.6%)
Total N of participants	15 (100.0%)	15 (100.0%)

Source: Database, 2020.

Regarding the responses of the participants, in data processing, the first text corpus included 42 responses, with 62 segments and 1,569 words, with 1,230 unique words and 339 that only appeared once (hapax). We used a similitude analysis (Figure 1), which shows the interconnection between the words in the thickness of the lines, which are stronger when the co-occurrence index of the words is greater, forming halos divided in different colors.

Figure 1 - Similitude analysis of the feelings of nurses who breastfeed when they go back to work after maternal leave. Rio de Janeiro, Brazil, 2020



Source: Research data, 2020.

The main halo shows a relationship between the words connected with the term "child" and include pink and purple halos, which indicate a close connection between the

words "home" and "care"; "tell" and "year"; and "feel", "lack", and "breast", respectively. Other branches emerge from the main halo, indicating words that frequently occur together with the term "child" in the main halo. These are: the red halo, with the term "fear"; and the blue halo, with the term "work". Another branch starts in the red halo, whose term with the greatest number of connections is "let", presented in the green halo.

In the yellow halo, the central one, the word "child" is the core, and the words in the periphery of the halo are strongly linked to it, such as stay, work, go back, adapt, anguish, hard, and others.

Considering the responses of the participants, it became clear that these terms refer to the fact they miss the presence of their children as they go back to work, and feel anguish due to the need to adapt to their routine after the end of their maternity leave:

Having to leave home and let them both there was, and still is, very difficult. (N06)

I miss him because I spend so many hours far, and I get sad because I'll won't be there for important parts of his development. I went to work crying many times. (N04)

It was definitely the worst day of my life. It's such an anguish not to know whether my child would eat and adapt to those foods. (N40)

The central core of the pink halo has the word "home", and shows that, although the work routine is tiring, going back to work can be tiring, since domestic chores tend to be very exhausting to women. This is associated with feelings of satisfaction, happiness, and pleasure. Thus, going back to work, despite the difficulties involved, is often considered to be positive, so women can rest from their house chores:

I think the work is being really good for me, I was much more tired at home than here, working. (N07)

I confess that going back to work was satisfactory, calm, pleasurable, and allowed me to escape the exhaustive domestic routine. I was happy to come back [...] staying and caring for the child is very tiring. (N04)

I can say that I loved going back to work and feeling a woman again, more than just a mother, because being a mother is very tiring. I really love being a mother, but [...] you only experience the child, your home, daily life chores, and we end up forgetting we're women too, nurses, wives, daughters. (N42)

The center core also has a second subdivision, in purple, related with the term "feel", which shows their concerns with whether their children will miss the mother's breast and experience early weaning, which is associated with the feeling of fear.

I fear my mother will stop breastfeeding. (N28)

As soon as I got back to work, I felt a lot of pain in my breasts, but my milk production dropped drastically not long after that. (N15)

I'm afraid my daughter will stop breastfeeding and I'm sorry I have to leave her there though she's so small. (N37)

The central word in the yellow halo, "child", showed a strong connection with the most relevant one in the blue halo, "work". This term, in turn, had a strong relationship with those in the periphery of the halo: go back, routine, tiring, and get back. It was clear that these words referred to the need of continuing to breastfeed after the maternity leave was over, since the work routine can be tiring after going back to work, and is related with feelings of guilt, powerlessness, and resilience.

I felt guilty I couldn't go ahead with breastfeeding. (N13)

I was afraid I could not continue and soon I left work to prioritize breastfeeding. (N33)

Going back is a moment where you must readapt your whole routine with the baby, and the family and the support network make a world of difference at that moment. (N34)

The red halo showed a strong connection between the word "fear", highlighted in the center, and its peripheral terms: moment, father, cry, and hunger. This allowed understanding that the main feeling was the fear associated with difficulties in continuing breastfeeding, being absent from care at home with the child, and directing it to others, usually the father, in addition to the fear the baby would cry and feel hungry.

I was really afraid she wouldn't accept the formula, I was afraid to get mastitis, I got an anxiety crisis when I had to leave such a small baby with so many restrictions with my husband alone, who had never had a child before. (N23)

Anguish, fear, apprehension, feelings of emptiness. It was the first time I had to leave my wife with my husband and my mother, she had never stayed alone with them before. (N16)

I was afraid my child would be hungry, cry without stop, without me, and I rethought if I should go back to work or not. (N39)

A last ramification of the red branch has the word "leave", standing out in the green halo. The words in the periphery which have a strong connection with this term are: to miss, person, and baby. The latter is also related with the words insecurity, care, concern, and sadness.

This ramification, related to fear, is associated with how hard it is for mothers to leave their child at home, since, in addition to missing them, they also need someone to provide the baby with the milk they pumped. Also, there were feelings of insecurity, anxiety, sadness, and concerns, which were experienced as they stopped being the main responsible for baby care at home and delegated feeding for their support network.

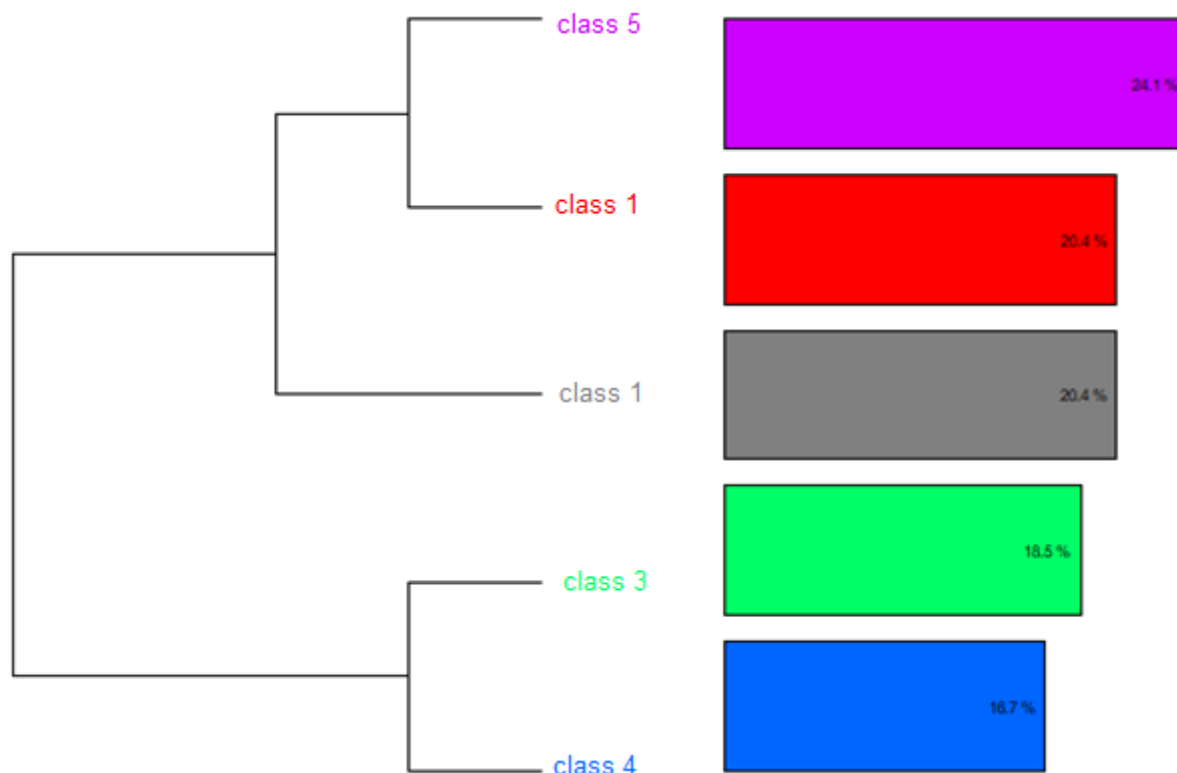
Insecurity, because I had to leave my baby under the care of someone else. Though I pumped the milk, babies don't accept the tips of the baby bottle, which reduced the amount of maternal milk they drank. (N19)

It was a really difficult struggle, but after some weeks she started drinking my milk in a little cup when I wasn't there, and with help from my parents and my partner we managed to exclusively breastfeed until the sixth month. (N25)

First, I was really concerned to let my baby (my first child) with someone else, to be fed my pumped milk via a little cup, because she was only four months old, and I wanted to exclusively breastfeed up to the sixth month. (N01)

The second text corpus included 42 texts, 62 text segments, with 1,775 words, 1,226 unique words, and 549 words that only appeared once (hapax). A hierarchical analysis found 62 text segments, 54 of which were classified. 87.10% were used. The DHC processing identified five classes, grouped in text segments with similar terms correlated among themselves, different from the other classes, and divided in two groups, the first of which was represented by class 2 and by a subdivision that originates classes 5 to 1. The second group is formed by classes 3 and 4 (Figure 2).

Figure 2 - Dendrogram of the descending hierarchical classification Rio de Janeiro, Brazil, 2020



Source: Research data, 2020.

The first group was the largest, with 64.9% of the text segments, while the second had 35.2%. Class 5 is the most representative in the corpus, including most text segments, 24.1%. Classes 1 and 2 included 20.4%, while class 3 included 18.5%, and class 4, 16.7%.

Class 1 presented the following words, with a significant association ($p < 0.0001$): store, adequate, and pump. The text segments with these terms were related with the absence of structures in the work environment that would allow pumping and storing breast milk, mentioned as one of the main challenges that difficult continued breastfeeding after the nurses go back to work.

The lack of time during work, the long work hours, the lack of an adequate place in the work environment, the absence of support from family, superiors, and colleagues, as well as being separated from the baby and the insecurity related with the introduction of the formula before going back to work are the main challenges indicated in class 1.

The lack of support, both in the family and at work, the lack of a physical structure to pump and store the milk. (N30)

The exhaustive workload, the physical structure that's inadequate to continue breastfeeding, the need for a support network to manage to provide milk while the

mother was absent, the idea of having an adequate place to pump and store mother milk. (N26)

In this class, the participants also mentioned the offering of courses for pregnant women that bring the topic into the work environment, in addition to support from the work team and the family, as strategies to continue breastfeeding.

Provide courses for pregnant women about breastfeeding, discussing the topic of going back to work. (N21)

More support from other team members. (N10)

Class 2, in turn, exposed the following terms as those which stood out ($p < 0.001$): child and home. The participants indicated how hard it was to stay away from home and their children as they went back to work. The mentioned, as their greatest challenges, the fear of transmitting some disease from the workplace to the baby, the trouble finding time to give attention to the child when they went back home, the overload of dealing with work, the child, and domestic chores, and the fact they had no one with whom the baby could stay as they went back to work.

Working in an unhealthy place makes you afraid of taking or transmitting some disease to the baby, regardless of how much you take care to avoid that. (N09)

At the same time, coming from work and working on house chores is a mental overload. In summation, the greatest challenge is the conflict work and home. (N26)

In addition, nurses indicated, as strategies to deal with these challenges, the existence of places where the workers can be listened to, where they can take their demands, having a guaranteed place and time to pump milk or the possibility of breastfeeding at home, in addition to the creating of nurseries in the workplace.

To provide a place for listening, so improvements are carried out considering the demands of the workers who are breastfeeding. (N26)

To adapt an environment that is adequate to shelter the child, so they can be breastfed. (N19)

Class 3 included the words "load", "shift", and "hours" as the main active forms ($p < 0.0001$) associated with challenges such as exhaustive and excessive work hours, unfavorable work shifts, lack of understanding from superiors, and physical and emotional exhaustion related with excess work.

Work shifts on duty, I think, are the hardest challenge, due to the exhausting work hours. (N20)

Reconciling the work hours and the physical and emotional exhaustion, which interfere in milk production. (N35)

In this class, we can see how strategies indicated by the participants to continue breastfeeding include adequate hour loads, no more than six hours a day; understanding from coordinators; and awareness of the team, so they can embrace the woman.

Increase the awareness of the team so they can embrace this woman, mother, professional, who is breastfeeding. (N18)

Lower workloads, understanding from the coordination. (N7)

Class 4 has the term "maternity leave" as the one which stood out ($p < 0.0001$). The greatest challenge associated was the short duration of maternity leave, which makes exclusive breastfeeding more difficult. In this regard, the strategy suggested by the participants is increasing maternity leave for six months, since this is the duration recommended by health authorities for exclusive breastfeeding.

Reducing workloads or increasing maternity leave to six months. (N19)

Increasing maternity leave in private institutions, since exclusive breastfeeding is recommended until six months. (N06)

The main words in class 5 were ($p < 0.0001$): store, stop, and routine. This class showed, as some of the main challenges faced by the participants, the difficulties in conciliating the nursing routine with breastfeeding, due to rare moments at work when they could stop to pump their milk, in addition to a busy routine, since these factors also interfere in milk production.

To conciliate the nursing routine with moments to pump milk for relief is difficult, since, at some points, my breasts leaked because I could not pump at the right time. (N11)

The uncertainty of guaranteeing food for the child. Also, the stress in the daily work of a chaotic routine reduces milk production. (N04)

Strategies pointed out by the participants to deal with these challenges included the possibility of increasing the time and number of breaks during the period of treatment, in addition to having an adequate place to pump and store milk.

Companies should have a breastfeeding corner, a calm place where the mother can collect and store the milk and, when possible, feed the baby. (N01)

To manage to breastfeed for up to 2 years while working, to be able to leave a bit earlier to breastfeed or to have an adequate place to breastfeed. (N07)

DISCUSSION

The feelings described by the participants of this study when confronted with the return to work were related to fear, missing the child, anguish, pleasure, concern, guilt, powerlessness, insecurity, and sadness. These feelings were also reported in other studies with working mothers, especially as they went back to work, since they would need to be absent for long periods of time, due to the long work hours. They also have to outsource the care for the baby, and need to conciliate their work routine with breastfeeding^(18,19).

It should be explicitly noted that these reports are worrisome. If there is no adequate strategy to deal with this issue nor encouragement from a support network, there must be supervision from specialized professionals that can help manage these feelings. Corroborating these findings, a study with working mothers in the state of Rio Grande do Sul, also in Brazil, showed that mental and physical tiredness, sleep deprivation, and excessive work demands can affect not only breast feeding, but also the mental health of these breastfeeding women⁽¹⁸⁾. The way in which these mothers are separated from their children as they go back to work can lead to early weaning, as milk production decreases due to the fact that mother child and child are separated for long periods, in addition to the impact of negative feelings, associated with the feeling of being unable to continue breastfeeding⁽²⁰⁾.

On the other hand of these negative feelings, some participants reported the pleasure of going back to work activities as it made them feel productive at work, and provided an escape from domestic and maternal chores, which are often exhausting. This can be understood considering the hours spent every week in domestic chores and in caring for people. Women spend, on average, twice as many hours than man in these activities, which can lead to pain, disease, and exhaustion^(21,22).

When the mother goes back to work, an active support network takes on an essential role, especially so they can provide pumped milk to the baby when the mother is not present. Although mothers highlighted feeling fear in this study, most of them received support from relatives in their decision to continue breastfeeding after maternity leave was over. This factor is seen as essential in literature for breastfeeding women to be successful in their attempts to breastfeed⁽²³⁾.

Among the challenges they face, short maternity leaves were mentioned by the participants, and these short periods are, indeed, against recommendations from the Ministry

of Health, which prescribes exclusive breastfeeding for up to six months⁽²⁾. The responses of the participants in this study corroborated the descriptions in literature, since paid work is one of the determining factors that lead to interruptions in exclusive breastfeeding before the child completes six months. To do so, a study from Pakistan, with nurse mothers who were breastfeeding when they returned to full-time work, discovered that encouragement to breastfeeding in the workplace, especially in hospitals, has a positive influence on the continuity of breastfeeding, after the end of the maternity leave⁽³⁾.

A study carried out in the state of Maranhão, Brazil, showed that breastfeeding mothers with work journeys of eight hours or more per day interrupted exclusive breastfeeding earlier more often than those who had no paid job⁽²⁴⁾. These findings are similar to our results if we consider that the breastfeeding mothers who participated in this study mentioned particularities of their workplace, which did not promote the continuity of breastfeeding, requiring long work journeys, double shifts, and an unhealthy environment. These challenges are not new for nurses, since this is a class that, historically, in Brazil, has dealt with low pay, which meant they had to search for more than one job and accept disagreeable work conditions, especially concerning job insecurity, instability, long work journey, and terrible work conditions^(25,26).

The lack of breaks for breastfeeding or even to pump mothers milk were mentioned by participants as another challenge in their return to work, corroborating studies according to which the hospital routine of nursing, which requires constant monitoring of patients, makes it impossible for nurses who are breastfeeding to be absent from their work environments^(25,26), which is a feature unique to the work context of these professionals. Thus, the feeling of powerlessness, mentioned above, is justified when these workers see themselves as unable to continue breastfeeding, which favors early weaning among women in this population.

In addition to these challenges, the reduced number of occasions in which they breastfeed leads to a reduction in the production of mother's milk and to the early introduction of formula when the woman goes back to work. This is made worse by the absence of a physical structure that enables pumping and storing mother's milk in the work environment⁽²⁷⁾, which was also mentioned by the participants of this research. It should be noted that, even when the structures are adequate to do so, institutional policies to promote, protect, and support the continuity of breastfeeding when the mother goes back to work are still necessary.

A study carried out in a hospital in the city of Porto Alegre, Brazil, showed that, although the hospital analyzed was part of the Child-Friendly Hospital initiative (*Hospital*

Amigo da Criança) and provided maternity leaves of six months, in addition to having a human milk bank, workers specialized in breastfeeding for consultations, and a nursery close to the workplace, the institution had no actions for women who were coming back to work. As a result, most participants did not know about these initiatives to promote breastfeeding in their workplace, and did not take advantage of them⁽⁴⁾. This reiterates the importance of specific and assertive measures that can attend to the actual needs of these women, considering the specificities of their work.

To overcome the challenges found when going back to work, the participants of this study mentioned some strategies, revealing that, above all, support and encouragement ensure a healthy workforce, and have a positive impact on the health of mother and child. It is worth highlighting that a place to receive the demands of breastfeeding nurses can favor the creation of bonds. The same is true for a support network in the workplace itself, especially to allow the necessary breaks^(18,28). A study from the north of Ethiopia with district managers and government institutions indicated that participants showed concern about the mothers who were breastfeeding, including concerns about the lack of physical structure and the resources of the government, which affected the level of support that could be offered⁽²⁸⁾. This is also a reality for the nurses in this study.

A research in South Africa with senior managers and employed mothers indicated that, for the work team to provide more support, the managers had to develop policies to promote breastfeeding among their workers as they returned to work. Other relevant aspects mentioned were the creation of adequate spaces to pump and store milk, training for supervisors, and work flexibility, in order to collaborate and encourage breastfeeding until the sixth month of life. Participants also highlighted the possibility of increasing the time of the maternity leave to six months⁽²⁹⁾, in accordance with the strategies mentioned by the nurses who participate in this research.

One of the strategies they mentioned was increasing the maternity leave for approximately 180 days. Similarly, another study mentions the extension of maternity leave to guarantee that exclusive breastfeeding will be continued up to the sixth month of age⁽³⁰⁾. Another strategy mentioned was the offer of courses for pregnant women about breastfeeding, bringing discussions on the topic to the workplace and, thus, detailing all rights that protect women and child. We know that information and orientation are essential to guarantee the practice of breastfeeding, especially after a return to work and, especially, to demystify the issue and break paradigms^(29,31).

As a result, we can infer that, when these mothers are the focus of a research, they are given the opportunity to make their demands more visible. Therefore, this topic should be widely discussed in literature, allowing scientific evidence to promote changes in practice through innovative strategies in institution infrastructure and work routine. In addition, this would push forward improvements in the work of nurses, favoring the continuity of breastfeeding.

Limitations to the development of this study are related to the fact that data collection was virtual, and carried out in a single geographic context. The way in which data collection took place, using an electronic form is a limitation that emerged from the pandemic that was taking place during the study. The forms may not have been enough to encourage more complete answers from participants and capture the emotions in their reports. The geographical limitation of the study, which only included Rio de Janeiro despite the virtual nature of the data collection, which would allow for an expansion into other geographical contexts, implies that it would be necessary to replicate this study in other settings and contexts in order to compare results. We also considered, as a limitation, the memory bias, since our inclusion criterion selected nurses whose children were 10 years old or younger, which may be a long time for them to recollect the situation they experienced.

CONCLUSION

Mothers in this study showed mixed feelings regarding the continuity of breastfeeding during their return to work. These included fear, missing the child, anguish, pleasure, concern, guilt, powerlessness, insecurity, and sadness.

Many of the challenges they faced are common to breastfeeding mothers in general, including the lack of a family support network, difficulties reconciling work-home-baby, the lack of a support network in work colleagues and superiors, and the short time of maternity leave. However, some of the challenges they faced were unique to the work of the nurse, such as few to no brakes to pump milk during duty; lack of infrastructure to breastfeed, pump, or store milk in the health services; excessive work load due to multiple jobs; unfavorable work shifts, such as night duties; and the fear of transmitting diseases to the child, due to the unsafe environment in which they work.

Strategies mentioned by the breastfeeding nurses to continue breastfeeding after going back to work included courses in the work environment, support from family and work team, the creation of a space to listen to the nurse, adequate time and place for pumping milk, the

possibility of going home to breastfeed, less than 6 work hours a day, and longer maternity leaves.

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