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Breastfeeding practices among women working in companies with breastfeeding support rooms: a cross-sectional study

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ABSTRACT

Introduction: The Breastfeeding Support Room is part of the Working Women's Breastfeeding Action and is an important strategy to increase breastfeeding rates. **Objective:** To identify the profile and breastfeeding practices of women employees who attended Breastfeeding Support Rooms. **Methods:** A cross-sectional research was conducted through convenience sampling of women working in companies with breastfeeding support rooms. A semi-structured questionnaire was applied through interviews and online self-completion. The association between the duration of breastfeeding and time of room use with socioeconomic variables and company characteristics was analyzed using Fisher's exact test. A significance level of 5% was considered. **Results:** 87% of the women breastfed exclusively for 6 months; 60.3% had an undergraduate or graduate degree; 66% breastfed throughout their child's second year of life; 41% used their company's Breastfeeding Support Room for 5 to 10 months and 100% of women had six months' maternity leave. Women who were married or in a civil union (96%) received the most support to continue breastfeeding after returning to work (p=0.03). **Conclusion:** This data can be used to propose improvements to this strategy or subsidize a large-scale expansion of Breastfeeding Support Rooms. It is imperative to reflect upon future actions so that these rooms reach a higher number of attendees.

Keywords: Program Evaluation; women working; breast feeding; Health Policy; Health Promotion; women's health.

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INTRODUCTION

The women's return to work after childbearing challenges the continuity of breastfeeding[1,2]. Breastfeeding has numerous benefits related to the physical and emotional well-being of women and children; this practice is associated with full cognitive development in infants and can contribute to environmental and economic factors[3-9], since breastfeeding is sustainable, does not harm the environment and can contribute to the reduction of waste generation and the greenhouse effect[10]

and that a 10% increase in exclusive breastfeeding for up to 6 months or continued breastfeeding for up to 1 years or 2 years (depending on country and disease) has the potential to reduce costs in treating childhood illnesses[6].

Barriers to continuing breastfeeding are observed at different levels. Some obstacles that limit breastfeeding support in the workplace are related to the labor market that poorly accommodates women's reproductive rights, not offering support for motherhood, and promoting gender inequalities[9]. Furthermore, the lack of written Policies that describe the role of each actor (managers and co-workers) in supporting breastfeeding in the workplace can also be detrimental[11].

Some advantages of promoting breastfeeding in companies are related to more equality in terms of child nutrition and employment options, guaranteeing the right of women to be able to reconcile motherhood with professional development, and the right of children to receive breast milk until their two years or more[12]. In addition, it is also observed that women who benefit from breastfeeding support in the workplace feel welcomed in their needs as a mother, women, and professionals[10].

Only 41% of all babies under 6 months are exclusively breastfed; 70% of one-year-old children and 45% of two-year-old children are subjected to extended breastfeeding[7]. In comparison, studies indicate some advances in breastfeeding rates in Brazil: 45.7% of babies under 6 months are exclusively breastfed, whereas 53.1% of one-year-old and 60.9% of two-year-old children are subjected to extended breastfeeding[12]. Despite the increase in breastfeeding rates, Brazil still falls short of the international targets established by the World Health Assembly for 2025, in which at least 50% of children should be exclusively breastfed for up to six months[5].

Interventions that promote breastfeeding in the workplace, such as Breastfeeding Support Rooms, breaks for expressing milk, organizational policies to promote, protect and support breastfeeding in the workplace are key strategies for increasing the duration of breastfeeding and preventing the early introduction of breastfeeding. breast milk substitutes[10,13].

To support breastfeeding and early childhood development, the Maternity Protection Convention of the International Labor Organization (ILO) defends the right to 14 weeks of paid maternity leave, along with breaks during work hours, and to adequate space for breastfeeding support after their return. The ILO also recommends that countries enact legislation that provides 18 weeks of 100% paid maternity leave, paid for by the government. Currently, out of all nations, only 11% meet this recommended standard[7,14].

In Brazil, actions to promote breastfeeding include strategies for primary health care up to hospital care and labor legislation that support breastfeeding and maternity, such as the right to paid maternity leave of 120 days for formal workers, breaks to breastfeed for 6 months, and the right to daycare. With the launch of the program Citizen Company (*Empresa Cidadã*) in 2008, the possibility of raising paid maternity leave to 180 days by granting a tax incentive was expanded, according to the will of the employer[15]. The Working Women who Breastfeed *Mulher Trabalhadora que Amamenta* (MTA) action was established in 2010 by the Ministry of Health to strengthen labor legislation to support maternity and breastfeeding at work and promote the installation of Breastfeeding Support Rooms (BSR)[16].

The MTA action is part of the National Policy for Comprehensive Child Health Care[16] and is a strategy that makes up the line of care for breastfeeding in Brazil. The rooms are low-cost facilities that can easily be set up by any public or private company. The Ministry of Health provides minimum guidelines for the installation of the rooms, which need to have a size of 1.5 m^2 per chair (waterproof and individualized); a water point and washbasin, for hand and breast hygiene during collection; a freezer or refrigerator with freezer and thermometer, for daily temperature monitoring and exclusively storing breast milk. In addition, it is recommended that the environment is welcoming, quiet, without external interference and gives the woman privacy[17]. It should be noted that a breastfeeding room for working women differs from a lactation room that is usually found in shopping malls and are intended for breastfeeding and changing the baby during outings with the family.

BSR contributes to the maintenance of breastfeeding[6]. With the possibility of breast milk extraction during the workday, women can maintain milk production, relieve discomfort, and safely store their milk for their child or donate it to a human milk bank[18]. In addition, it is known that BSR can contribute to the achievement of 8 of the 17 Sustainable Development Goals, in particular, the SDG related to gender equality and decent work[10]. The promotion of breastfeeding in companies provides more equality in terms of child nutrition and employment options, guaranteeing the right of women to be able to reconcile motherhood with professional development and the right of children to receive breast milk up to two years of age or more[12].

Although it is still a new project, with only 235 BSR certified by the Brazilian Ministry of Health by 2020, these rooms may have contributed to raising breastfeeding rates in the country, since, as evidenced by authors from different countries like Nardi et al.[18], Basrowi et al.[19], Kozhimannil et al.[20], Lee et al.[21], the BSR contribute to higher rates of exclusive breastfeeding and extended breastfeeding.

Since the launch of BSR in Brazil in 2010, few studies have addressed this subject. To the best of our knowledge, there are no studies on the BSR that were implemented, nor studies that define the profile of women who use BSR to better adapt the action to its audience. Thus, the objectives of this study were to identify the profile and breastfeeding practices of women who use BSR.

METHODS

Study and sample design

This is a cross-sectional, descriptive study. The development of the study took place between December 2019 and December 2020. However, the study was interrupted for 3 out of 12 months due to the COVID-19 pandemic.

We applied convenience sampling from a pool of 130 eligible women who were on maternity leave in the year before the start of the study and who are using or used BSR, formal workers from 8 companies in the state of Paraná that implemented BSR, and whose rooms were certified by the Brazilian Ministry of Health until December 2017. Thus, our sample consisted of 88.9% of companies with active and certified BSR in Paraná. The state of Paraná is located in the southern region of Brazil, one of the most developed in the country.

Participants

All 130 women employees who were on maternity leave in the year before the start of the study and who are using or used BSR in the last 6 months were eligible for inclusion. We excluded women from companies whose BSR went unused in the last 6 months before the start of the study.

The study was approved by the Ethics Committee of the Health Sciences Department, under Certificate of Presentation of Ethical Appreciation (CAAE) 65401917.5.3004.5225. The participants provided their free and informed consent to participate in this study.

Procedure

We designed a semi-structured questionnaire containing a total of 16 open and closed questions about the women's profile, their breastfeeding practices, and the support they received to continue breastfeeding. The questionnaire was previously tested and minor changes were requested from the ethics committee to better adapt the understanding of the questions by the participating women. The estimated average time taken to answer the questionnaire was 10-15 minutes. The information collected is included in Table 1.

Initially, the questionnaire was applied in an in-person interview conducted inside the BSR. However, due to the spread of COVID-19, we requested the Research Ethics Committee to allow us to continue collecting data through a self-administered online questionnaire (Google Forms) to ensure social distancing. The questionnaire included a Free and Informed Consent (IC) form. The study's co-participant company sent an invitation for employees to participate in the study, both for the interview and to fill out the online questionnaire, via corporate email. The women were informed of the date and time that the researcher (first author) would be at the company to conduct the in-person interview. Those who were asked to fill out the online questionnaire had up to 60 days to do so.

Statistical analysis

The collected variables were divided into information about the profile of the women who used the rooms and about the breastfeeding profile and perceptions about the use of the Breastfeeding Support Room by women. About the profile of the women users of the rooms, information was included, such as time working in the company, type of position held in the company, weekly working hours, work shift, age, education level, marital status, and whether they had maternity leave of 180 days. About the breastfeeding profile and perceptions about the use of SAA, information such as breastfeeding time, time intended to continue breastfeeding, time exclusively breastfed, time of use of the breastfeeding support room, and perception of whether the SAA contributed to extending or not your breastfeeding. The study variables are presented in table 1.

Table 1: Information collected from women who used Breastfeeding Support Rooms (n=53) Paraná, Brazil, 2019-2020.

Information collected	Questions
Profile of women who use BSR	• Which company do you work at? • How long have you worked for this company? • What position do you currently hold in the company? • How much time do you work per week? • When is your shift? (morning, afternoon, evening, or flexible) • How old are you? • What is your level of education? (primary – incomplete/complete; secondary – incomplete/complete; undergraduate – incomplete/complete; specialization – incomplete/complete; masters – incomplete/complete or doctorate – incomplete/complete) • What is your marital status? (married, civil union, single, divorced, or widowed) • Did you have 180 days of maternity leave? (Yes or No)
Breastfeeding profile and perception when using the Breastfeeding Support Room	• Are you currently breastfeeding? (Yes or No) • If you still breastfeed, how long do you intend to keep the practice? • How long did you breastfeed exclusively? • How long have you breastfed or breastfed in total? • How long (in days, weeks, or months) have you used or been using the Breastfeeding Support Room? • Did you receive other types of support to maintain breastfeeding after returning to work (in addition to the use of BSR)? • Do you consider that the Breastfeeding Support Room contributed to prolonging your breastfeeding?

The variables studied were expressed in absolute and relative frequencies. The association between the duration of breastfeeding and time of room use with socioeconomic variables and company characteristics was analyzed using Fisher's exact test. We set a significance level of 5% in the Statistic 10.0 program (StatsoftR) for all tests.

RESULTS

Sample characteristics

From a total of 130 women eligible for the study, 53 women participated, 8 (15%) through the semi-structured interview and 45 (85%) through the online questionnaire. The response percentage corresponded to 40.8%. The profile of women employees who used BSR is presented in Table 2.

We observed that the majority of women worked in public (62%, n=33) and large companies (79%, n=42), 78% (n=41) had worked for the company for between 1 and 10 years, 60.3% (n=32) had a high level of education and 96% (n=51) were married or lived in a stable union.

Breastfeeding profile

The breastfeeding profile of women who used BSR and data on the time using BSR is available in Table 2 and Table 3. Out of the women who participated, 100% took six-month maternity leave, 46 (87%) breastfed exclusively until the baby was six months and 35 (66%) continued breastfeeding during the second year of life of the baby.

The period of breastfeeding was related to the type of company in which the woman worked (public or private), women who worked in public companies breastfed for longer.

The level of education showed a significant association with breastfeeding at the time of the study. The highest percentage of women who were breastfeeding at the time the study took place had graduated from high school (83.3%), followed by university (80%).

Of the 30 (56.6%) women who were breastfeeding at the time of the survey, 13 (43%) intended to continue breastfeeding until or after their child turned 2, 5 (17%) claimed they would breastfeed until when they felt comfortable, 9 (30%) wished to follow natural weaning, up until the baby rejected breast milk, and 3 (10%) were not sure, since they were already in the process of weaning or already wanted to wean, but did not know how. Regarding the age of children of women who were breastfeeding at the time of the study, we gathered that 2 (7%) were between 8 and 11 months, 20 (67%) were between 12 and 24 months, and 8 (26%) were between 25 and 32 months.

Time use of Breastfeeding Support Rooms (BSR)

Regarding the time using the room, the women employees with the longest working time in the company were the ones who most used breastfeeding rooms. The median use of BSR corresponded to 150 days (1-630), approximately 5 months.

Support to keep breastfeeding after returning to work

On the support to keep breastfeeding after returning to work, 41 (77.35%) women said they had received support. We observed that women who were married or in a stable union make up the vast majority of this sample 51 (96%), as seen in Table 3.

Breastfeeding Support Room (BSR) contribute to prolonging breastfeeding

The majority of the women 51 (96%) considered that BSR helped to prolong breastfeeding, 1 (2%) of the women considered that it didn't because she lives close to her workplace and had flexible hours to breastfeed and 1 (2%) didn't answer this question.

DISCUSSION

This study identified the profile and breastfeeding practices of women who used BSR. Few studies address this issue, national or international. In Brazil, two published studies evaluated the perception of managers about BSR in the state of Santa Catarina. The first, Fernandes et al.[22], sought to understand from the point of view of managers the capabilities and difficulties for the implementation of Breastfeeding Support Rooms in public and private companies. In the second, Fernandes et al.[23] highlighted the behaviors of managers related to breastfeeding support in the workplace.

In our study, we investigated the profile and breastfeeding practices of women who used BSR, and since, to the best of our knowledge, there are no similar studies made in Brazil in the literature, this is a novel study.

The response rate, which was just over 40% of the population of women who used BSR in the state, was considered within the standard for research with online self-administered questionnaires, as observed in studies that used the same methodology[24,25].

Worldwide, more than 47% of women are in the labor market[11]. In Brazil, women are inserting themselves more and more within the formal labor market; 54.6% of women workers live with children under 3 years old[26] BSR is a fundamental strategy to support breastfeeding in the work environment, along with breastfeeding breaks, maternity leave, counseling, and lactation management during the transition back to work[1,27].

Most women have worked for more than 6 years in their companies, which may be related to the fact that more than half of them work for the public sector and, thus, have more work stability. We observed that most women worked full-time, yet about 21% of our sample had flexible working hours. All women returned to their professional activities after 180 days of maternity leave, exceeding the ILO recommendations of 14 weeks.

Table 2: Profile of women workers who used Breastfeeding Support Rooms (n=53) Paraná, Brazil, 2019-2020.

Variable	n (%)
Type of company	
Public	33 (62%)
Private	20 (38%)
Medium size	11 (21%)
Large	42 (79%)
Time employed by the company	
1-10 years	41 (78%)
11-20 years	12 (22%)
Working day in hours per week	
30-36h	10 (19%)
40-44h	43 (81%)
Shift	
Morning and afternoon	34 (64%)
Morning	4 (7.5%)
Afternoon	1 (2%)
Night	3 (5.5%)
Flexible shift	11 (21%)
Position	
Administrative (assistants, technicians, analysts, consultants, specialists)	24 (45.2%)
Management (managers and coordinators)	6 (11.3%)
Health-related (nurses, nutritionists, biologists)	5 (9.5%)
Public service (Phone operators)	8 (15%)
Research (Researcher)	1 (2%)
Operational (engineers, logistics planner, assembler, laboratory technician, technologist)	9 (17%)
Age	
28-30 years old	9 (17%)
31-40 years old	38 (72%)
≥ 41 years old	6 (11%)
Level of Education	
Complete high school or incomplete undergraduate education	6 (11.3%)
Complete undergraduate education or incomplete graduate education (specialization or master's)	15 (28.3%)
Complete graduate education (specialization, master's, or doctorate)	32 (60.3%)
Marital status	
Married or in a civil union	51 (96%)
Single or divorced	2 (4%)
Breastfeeding while the study took place	
No	23 (43%)
Yes	30 (57%)
Time exclusive breastfeeding	
3-5 months	4 (7.5%)
6 months	46 (87%)
> than 6 months	3 (5.5%)
Total time breastfeeding*	
8-11 months	7 (13%)
12-24 months	35 (66%)
25-32 months	11 (21%)
Time using Breastfeeding Support Rooms	
1 day to 4 months	25 (47.2%)
5 to 10 months	22 (41.5%)
11 to 21 months	6 (11.3%)

*Women who were still breastfeeding during the study were included and in this situation, the age of the child was considered.

For the most part, the women had a high level of education, having a specialization and a master's degree, followed by women with an undergraduate degree. In Brazil, there is an increase in the number of undergraduate and graduate women. According to the national census, in 2000, women accounted for 7% of graduate students, but in 2010 this percentage rose to 12.5%[24]. In 2015, 175,419 Brazilian women were enrolled in a graduate program or had a master's or doctoral degree[28].

The relationship between breastfeeding and level of education was investigated by different authors[29-31]. A systematic

Table 3: Breastfeeding profile of women who used Breastfeeding Support Rooms in the southern region of Brazil, 2019-2020

Total breastfeeding time (exclusive + extended)	8 to 11 months n (%)	12 to 32 months n (%)	p-value
Type of company			
Public	3 (9.1)	30 (90.9)	0.23
Private	4 (20)	16 (80)	
Time employed by the company			
1-10 years	5 (12.20)	36 (87.80)	0.50
11-20 years	2 (16.7)	10 (83.3)	
Marital status			
Married or in a civil union	7 (13.7)	44 (86.3)	0.75
Single or divorced	0 (0)	2 (100)	
Schooling			
Complete high school or incomplete undergraduate education	0 (0)	6 (100)	0.40
Complete undergraduate education	7 (14.9)	40 (85.1)	
Currently breastfeeding	**No n (%)**	**Yes n (%)**	**p-value**
Type of company			
Public	12 (36.4)	21 (63.6)	0.14
Private	11 (55)	9 (45)	
Time employed by the company			
1-10 years	19 (46.34)	22 (53.66)	0.32
11-20 years	4 (33.33)	8 (66.67)	
Marital status			
Married or in a civil union	23 (45.10)	28 (54.9)	0.31
Single or divorced	0 (0)	2 (100)	
Schooling			
Complete high school or incomplete undergraduate education	1 (16.7)	5 (83.3)	0.16
Complete undergraduate education	22 (46.81)	25 (53.19)	
Time using the room	**1 day to 10 months n (%)**	**11 to 21 months n (%)**	**p-value**
Type of company			
Public (Publico)	21 (63.64)	12 (36.36)	0.17
Private (privado)	16 (80)	4 (20)	
Time employed by the company			
1-10 years	29 (70.73)	12 (29.27)	0.52
11-20 years	8 (66.67)	4 (33.33)	
Marital status			
Married or in a civil union	36 (70.6)	15 (29.4)	0.51
Single or divorced	1 (50)	1 (50)	
Schooling			
Complete high school or incomplete undergraduate education	2 (33.33)	4 (66.67)	0.60
Complete undergraduate education	35 (74.47)	12 (25.53)	
Received other types of support to maintain breastfeeding after returning to work (in addition to the use of BSR)	**No n (%)**	**Yes n (%)**	**p-value**
Type of company			
Public	6 (18.2)	27 (81.8)	0.57
Private	4 (20)	16 (80)	
Time employed by the company			
1-10 years	9 (22)	32 (78)	0.27
11-20 years	1 (8.3)	11 (91.7)	
Marital status			
Married or in a civil union	8 (15.7)	43 (84.3)	0.03*
Single or divorced	2 (100)	0 (0)	
Schooling			
Complete high school or incomplete undergraduate education	0 (0)	6 (100)	0.26
Complete undergraduate education	10 (21.3)	37 (78.7)	

* p< 0.05 significant according to Fisher's exact test

review carried out by Santana et al.[29] pointed out that the maintenance of breastfeeding for 12 months or more is associated with multiple factors, mostly contextual and related to some sociodemographic characteristics of mothers, including schooling and maternal age, differing in effect and magnitude among the different populations studied.

Regarding the profile of breastfeeding and the use of BSR, our study pointed out that most of the women who were breastfeeding during the study had the lowest level of education in the sample. A study carried out by Neves et al.[32] analyzed the impact of maternal education on equity in breastfeeding, trends, and patterns in 81 low- and middle-income countries between 2000 and 2019. An increase in exclusive breastfeeding was observed in all education categories, but early initiation of breastfeeding was higher in women without formal education. Exclusive breastfeeding, on the other hand, was higher in women with higher education, as also pointed out by a Brazilian study[33]. A small decrease in the prevalence of continued breastfeeding was observed in babies aged 1 and 2 years, especially for women without formal education[32].

We observed that the majority of women who work in public companies breastfeed for longer, although this is not significant, it is important information, which leads us to conclude that work stability is an important factor in the maintenance of breastfeeding. We suppose that the lower stress related to performance at work or the lower competition in the labor market may be considered a protective factor in public companies. We were unable to identify, in the literature, studies comparing breastfeeding time between workers of public and private companies, and this data is therefore unprecedented. Complementary studies are necessary for the interpretation of these findings that shall, in time, help private corporations to improve actions that can stimulate and support breastfeeding, given the importance of this practice.

We found only one study conducted in Pakistan[34] that reported a significant difference between public and multinational companies in the quality of breastfeeding facilities. Public and multinational companies were slightly better than private and domestic ones in providing breastfeeding facilities. We emphasize, however, that in our study we did not observe differences related to the quality of BSR facilities between the types of participating companies; whether they were public, private, national, or multinational (data not included).

A systematic review carried out by Vilar-Compte et al.[12] pointed out that BSR can protect against the interruption of breastfeeding or the introduction of infant formulas and that the combination of BSR with flexible schedules for expressing breast milk or breastfeeding tends to be positively associated with duration of breastfeeding.

Women who are married have the most support to maintain breastfeeding after returning to work. It was observed that the partner was declared the main supporter among the women in this study. It is known that the partner has a strong influence on breastfeeding. Studies show that women whose partners support breastfeeding breastfeed for longer[6,35]. It is therefore important for partners to take part in educational activities on breastfeeding during pregnancy.

Different actions are taken to ensure breastfeeding among working women, such as postpartum support, maternity leave policies, telecommuting, flexible working hours, and access to space and time to express human milk through Breastfeeding Support Rooms[12,36]. A systematic review conducted by Nardi et al.[18] pointed out some positive and negative associations related to the practice of breastfeeding at work. Positive associations include late return or no return to work, part-time work, breastfeeding support room, availability of time to pump breast milk, consultation with nurses after returning to work, and participation in a breastfeeding support program. Full-time work showed a negative association with breastfeeding.

These findings corroborate some data found in this study, such as late return, the availability of use of breaks to pump milk, and the availability of BSR. We found no significant relationship between full-time work and breastfeeding. In our study, 21% of women had flexible working hours.

We observed that women who use BSR in the state of Paraná are married, have a high level of education, have had 6 months of maternity leave, and, for the most part, want to continue breastfeeding until their child is at least 2 years old. These data are important and represent advances in actions to promote breastfeeding and demonstrate the need to expand the right to pause for breastfeeding for longer than six months of the baby's life since women return to work after this period. There is a need for complementary studies to verify whether these characteristics can also be observed in other regions of the country.

Recent studies on breastfeeding indicators in Brazil show that one of the challenges of the southern region of the country is to raise breastfeeding rates to over one year[12], which could be achieved by extending breastfeeding breaks and implementing more BSR in the region since the south only has 8% of all BSR in Brazil[37].

However, more challenges remain; the BSR of Paraná is not reaching a large portion of the population of underprivileged working women who return to work after 120 days of maternity leave. This population needs additional support to maintain exclusive breastfeeding until the child is 6 months old since they must divide their attention between home, work, children, and breastfeeding.

We believe that to achieve a greater number of smaller companies that have not adopted the 180-day maternity leave, breastfeeding must be promoted on a state and municipal level. A viable strategy is to first map these companies in their territory, then partner with trade unions and labor associations to increase the awareness of businesses and employers about the importance of breastfeeding, for the physical, emotional, political, public, and environmental well-being of the community[6], and counsel companies on the possibility of implementing BSR with some investments[16]. Thus, women who return to work after 4 months

can continue exclusively breastfeeding until the baby is at least 6 months old, which could contribute to raising the rates of exclusive breastfeeding. Another challenge is expanding labor protection laws for breastfeeding women who are in the informal sector, autonomous, and/or unemployed[38]. In large sectors of informal workers, hundreds of millions of working women do not have or have inadequate maternity protection[6].

Therefore, to strengthen these actions at a national and international level, countries must establish their policies of promotion, protection, and breastfeeding support. The actions to promotion, protection, and support for breastfeeding in Brazil completed 40 years in 2022 and were officially inserted in axis two The National Policy of Integral Health Care For Children, established in Brazil in 2015[16]. However, since 2010, the proposal to implement a special inter-federative policy concerning the necessary advances in the promotion, protection, and support of breastfeeding sparked discussion at the federal level. Due to the complexity of the multiple determinants of breastfeeding, intersectoral actions are necessary. Despite recent advances in breastfeeding rates, the country still falls short of national and international recommendations. Thus, establishing a policy is necessary[28].

Our study had some limitations worth mentioning. First, we gathered the results from only one state in Brazil. The study took place in Paraná, in which 76.2% of the BSR in the southern region of the country are located, but corresponds to 8% of the total BSR certified in Brazil in 2017. Brazil is a large and diverse country when it comes to its regions. Thus, future studies must investigate the profile of the users as well as the profile of breastfeeding women in other parts of the country. Another limitation of the present study owes to the fact that all the female participants had been given maternity leave of 180 days. There should also be a focus on the breastfeeding profile of women who return to work after 120 days of maternity leave since longer leaves do not benefit all lactating women. Although the methodology found the literature describes a similar effect, the low rate of return of the questionnaire (40%) has an impact on a relatively small sample. Despite these limitations, this is the first study in Brazil to gather data on the women using BSR, their breastfeeding profile, and how long they have used BSR.

To conclude, our research identifies several novel aspects of 1) the profile of women who use BSR; 2) the breastfeeding profile of women workers, pointing out that most women exclusively breastfed until six months and continued breastfeeding until the baby turned two years old. Married women had the most support to continue breastfeeding after returning to work. BSR is a low-cost strategy that countries must invest in to promote breastfeeding in the workplace.

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REFERENCES

1. Dagher RK, McGovern PM, Schold JD, Randall XJ. Determinants of breastfeeding initiation and cessation among employed mothers: a prospective cohort study. BMC Pregnancy Childbirth. 2016;16(1):194. https://doi.org/10.1186/s12884-016-0965-1

2. Monteiro FR, Buccini GS, Venâncio SI, Costa THM. Influence of maternity leave on exclusive breastfeeding. J Pediatr (Rio J.). 2017;93(5):475-81. https://doi.org/10.1016/j.jped.2016.11.016

3. Krol KM, Grossmann T. Psychological effects of breastfeeding on children and mothers. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz. 2018;61(8):977-85. https://doi.org/ 10.1007/s00103-018-2769-0

4. Hansen K. Breastfeeding: a smart investment in people and in economies. Lancet. 2016;387(10017):416. https://doi.org/10.1016/S0140-6736(16)00012-X

5. Victora CG, Bahl R, Barros AJD, França GVA, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. Lancet. 2016;387(10017):745-90. https://doi.org/10.1016/S0140-6736(15)01024-7

6. Rollins NC, Lutter CK, Bhandari N, Hajeebhoy N, Horton S, Martines JC, et al. Why invest, and what it will take to improve breastfeeding practices? Lancet. 2016;387:491-504. https://doi.org/10.1016/S0140-6736(15)01044-2

7. World Health Organization & United Nations Children's Fund (UNICEF). Global breastfeeding scorecard, 2019: increasing commitment to breastfeeding through funding and improved policies and programs. Geneva: World Health Organization; 2019.

8. REA MF. Apoio à mulher trabalhadora que amamenta. In. Venancio SI, Toma TS. Promoção, proteção e apoio ao aleitamento materno: evidências científicas e experiências de implementação. São Paulo: Instituto de Saúde; 2019.

9. Pérez-Escamilla R, Tomori C, Hernández-Cordero S, Baker P, Barros AJD, Bégin F, et al. Breastfeeding: crucially important, but increasingly challenged in a market-driven world. Lancet. 2023;401(10375):472-85. https://doi.org/10.1016/S0140-6736(22)01932-8

10. Souza CB, Venancio SI, Silva RPGVC. Breastfeeding support rooms and their contribution to sustainable development goals: a qualitative study. Front Public Health. 2021;9:732061. https://doi.org/10.3389/fpubh.2021.732061

11. Souza CB, Venancio SI, Silva RPGVC. Breastfeeding support rooms, benefits and challenges for implantation: cross-sectional study. Res Soc Dev. 2022;11(17):e238111737973. https://doi.org/10.33448/rsd-v11i17.37973

12. Vilar-Compte M, Hernández-Cordero S, Ancira-Moreno M, Burrola-Méndez S, Ferre-Eguiluz I, Omaña I, et al. Breastfeeding at the workplace: a systematic review of interventions to improve workplace environments to facilitate breastfeeding among working women. Int J Equity Health. 2021;20(1):110. https://doi.org/10.1186/s12939-021-01432-3

13. Universidade Federal do Rio de Janeiro (UFRJ). Estudo Nacional de Alimentação e Nutrição Infantil ENANI-2019: resultados preliminares – Indicadores de aleitamento materno no Brasil. Rio de Janeiro: UFRJ; 2020.

14. Addati L, Cassirer N, Gilchrist K. Maternity and paternity at work: law and practice across the world. Geneva: International Labour Office. 2014.

15. Brasil. Presidência da República. Lei nº 11.770 de 9 de setembro de 2008. Cria o Programa Empresa Cidadã, destinado à prorrogação da licença-maternidade mediante concessão de incentivo fiscal. Available from: http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2008/lei/l11770.htm

16. Brasil. Ministério da Saúde. Portaria nº 1.130 de agosto de 2015. Institui a política nacional de atenção integral à saúde da criança (PNAISC) no âmbito do sistema único de saúde (SUS). Available from: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2015/prt1130_05_08_2015.html

17. Brasil. Ministério da Saúde. Guia para implantação de salas de apoio à amamentação para a mulher trabalhadora. Brasília: Ministério da Saúde, 2015.

18. Nardi AL, von Frankenberg AD, Franzosi OS, Espírito-Santo LC. Impacto dos aspectos institucionais no aleitamento materno em mulheres trabalhadoras: uma revisão sistemática. Cienc Saude Coletiva. 2020;25(4):1445-62. https://doi.org/10.1590/1413-81232020254.20382018

19. Basrowi R, Sastroasmoro S, Sulistomo AW, Bardosono S, Hendarto A, Soemarko DS, et al. Developing a workplace lactation promotion model in Indonesia using Delphi technique. Arch Public Health. 2018;76:70. https://doi.org/10.1186/s13690-018-0312-2

20. Kozhimannil KB, Jou J, Gjerdingen DK, McGovern PM. Access to Workplace Accommodations to Support Breastfeeding after Passage of the Affordable Care Act. Womens Health Issues. 2016;26(1):6-13. https://doi.org/10.1016/j.whi.2015.08.002

21. Lee CC, Chiou ST, Chen LC, Chien LY. Breastfeeding-friendly environmental factors and continuing breastfeeding until 6 months postpartum: 2008-2011 national surveys in Taiwan. Birth. 2015;42(3):242-8. https://doi.org/10.1111/birt.12170

22. Fernandes VMB, Santos EKA, Erdmann AL, Pires DEP, Zampieri MFM, Gregório VRP. Implantação de salas de apoio à amamentação em empresas públicas e privadas: potencialidades e dificuldades. Rev Gaucha Enferm. 2016;37(spe):e2016-0046. https://doi.org/10.1590/1983-1447.2016.esp.2016-0046

23. Fernandes VMB, Santos EKA, Zampieri MFM, Gregório VRP, Hernandes MJ, Ribeiro LC. Condutas de gestores relacionadas ao apoio ao aleitamento materno nos locais de trabalho. Texto Contexto Enferm. 2018; 27(3):e2560016. https://doi.org/10.1590/0104-070720180002560016

24. Silva CA, Trindade VC, Abel RC, Silva MO, Santos JF, Koch VH, et al. Pediatras após a residência médica: um questionário sobre dados e problemas pessoais/profissionais. Rev Paul Pediatr. 2021;39:e2019190. https://doi.org/10.1590/1984-0462/2021/39/2019190

25. Vale PRLF, Passos SSS, Carvalho EC, Carvalho RC, Carvalho ESS. Mães-crianças com síndrome congênita do zika: ritos quotidianos para prevenção da COVID-19. Rev Gaucha Enferm. 2021;42:e20200370. https://doi.org/10.1590/1983-1447.2021.20200370

26. Brasil Instituto Brasileiro de Geografia e Estatística (IBGE). Estatísticas de gênero. Available from: https://www.ibge.gov.br/apps/snig/v1/?loc=0&cat=2,-2,48,128,129&ind=4699292021

27. Garvin CC, Sriraman NK, Paulson A, Wallace E, Martin CE, Marshall L. The business case for breastfeeding: a successful regional implementation, evaluation, and follow-up. Breastfeed Med. 2013;8(4):413-17. https://doi.org/10.1089/bfm.2012.0104

28. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Bases para a discussão da Política Nacional de Promoção, Proteção e Apoio ao Aleitamento Materno. Brasília: Ministério da Saúde; 2017.

29. Santana GS, Giugliani ER, Vieira TO, Vieira GO. Factors associated with breastfeeding maintenance for 12 months or more: a systematic review. J Pediatr (Rio J.). 2018;9492):104-22. https://doi.org/10.1016/j.jped.2017.06.013

30. Vieira TO, Martins CC, Santana GS, Vieira GO, Silva LR. Intenção materna de amamentar: revisão sistemática. Cienc Saude Coletiva. 2016;21(12):3845-58. https://doi.org/10.1590/1413-812320152112.17962015

31. Tsai SY. Impact of a Breastfeeding-Friendly Workplace on an Employed Mother's Intention to Continue Breastfeeding After Returning to Work. Breastfeed Med. 2013;8(2):210-16. https://doi.org/10.1089/bfm.2012.0119

32. Neves PAR, Barros AJD, Gatica-Domínguez G, Vaz JS, Baker P, Lutter CK. Maternal education and equity in breastfeeding: trends and patterns in 81 low- and middle-income countries between 2000 and 2019. Int J Equity Health. 2021;20(1):20. https://doi.org/10.1186/s12939-020-01357-3

33. Damião JJ. Influência da escolaridade e do trabalho maternos no aleitamento materno exclusivo. Rev Bras Epidemiol. 2008;11(3):442-52. https://doi.org/10.1590/S1415-790X2008000300011

34. Soomro JA, Shaikh ZN, Bijarani AS, Saheer TB. Factors affecting breastfeeding practices among working women in Pakistan. East Mediterr Health J. 2017;22(11):810-16. https://doi.org/10.26719/2016.22.11.810

35. Abbass-Dick J, Dennis CL. Maternal and paternal experiences and satisfaction with a co-parenting breastfeeding support intervention in Canada. Midwifery. 2018;56:135-41. https://doi.org/10.1016/j.midw.2017.10.005

36. Castetbon K, Boudet-Berquier J, Salanave B. Combining breastfeeding and work: findings from the Epifane population-based birth cohort. BMC Pregnancy Childbirth. 2020;20(1):110. https://doi.org/10.1186/s12884-020-2801-x

37. Souza CB. Salas de apoio à amamentação: estratégia mulher trabalhadora que amamenta do Ministério da Saúde [Dissertation]. [Curitiba]: Universidade Federal do Paraná; 2022.

38. Souza CB, Melo DS, Relvas GRB, Venancio SI, Silva RPGVC. Promoção, proteção e apoio à amamentação no trabalho e o alcance do desenvolvimento sustentável: uma revisão de escopo. Cienc Saude Coletiva. 2023;28(4):105972. https://doi.org/10.1590/1413-81232023284.14242022