







**KNOWLEDGE, PRACTICES, AND CONSTRAINTS AMONG BREASTFEEDING EMPLOYEES TOWARDS IMPLEMENTATION OF LACTATION AREA**

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**Abstract**

Breastfeeding empowers women and children and working mothers who revolutionize the workplace globally, specifically in carrying mutual roles as employees delivering quality service to humanity and mothers nurturing their children. This study explored the knowledge, practices, and constraints among breastfeeding working mothers in Region III, Philippines, towards implementing lactation areas. A mixed-methods approach combined a quantitative survey with a qualitative semi-structured interview component. Findings showed a high prevalence of breastfeeding among working mothers, coupled with a good level of knowledge about breastfeeding practices. However, constraints such as lack of lactation areas in offices, heavy workload, and limited support were revealed, thus foregrounding the need for institutionalized policies and guidelines to establish lactation areas in offices, promote breastfeeding, and support working mothers and their welfare, anchored on sustainable development goals (SDGs). By addressing these issues, workplaces position a more conducive environment for breastfeeding mothers, contributing to improved maternal and infant health outcomes. Further, this research provides valuable insights for policymakers, employers, and healthcare providers in initiating more effective strategies to support breastfeeding working women. Through the documented findings and by providing concrete recommendations for policy and infrastructure, this research advances the shaping of a more breastfeeding-friendly environment, promotion of maternal and infant health, supporting SDG 3-good health and well-being, and enhancement of workplace productivity towards achieving SDG 8-decent work and economic growth and SDG 5-gender equality.

**Keywords:** Breastfeeding, Gender Study, Lactation Areas, Lactating Employees, Workplace Inclusivity



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## INTRODUCTION

Breastfeeding or “*pagpapasuso*” as it is commonly known among Filipinos, is an undeniable gift to both mother and child. Recognized by the World Health Organization (WHO) as the optimal source of infant nourishment, breastfeeding offers a multitude of health benefits that extend far beyond infancy (Gartley et al., 2024). Leading organizations like the United Nations International Children’s Emergency Fund (UNICEF), advocate for exclusive breastfeeding for the first six months, followed by continued breastfeeding with complementary foods until at least two years of age (Vassilopoulou et al., 2021). However, a concerning trend emerges when looking beyond the advantages: employed mothers are more likely to breastfeed less frequently and for shorter durations compared to their non-working counterparts (Tadesse et al., 2019; Kusuma, 2020; Suwarni, 2021). This gap is often attributed to work-related challenges that clash with successful breastfeeding practices (Castetbon et al., 2020). Breastfeeding plays a crucial role in nourishing babies by supplying vital nutrients, antibodies, and immune factors that contribute to their overall well-being. It serves as a comprehensive source of essential elements, fostering optimal physical and cognitive development. Breastfeeding lowers healthcare expenditures by preventing chronic childhood and maternal sickness, promoting healthy brain development, and shielding newborns from fatal illnesses (Vassilopoulou et al., 2021). Recognizing the importance of breastfeeding, Executive Order 51, also known as the Milk Code, encourages mothers to prioritize breastfeeding. Despite the recognized benefits of breastfeeding, many working mothers encounter problems that hinder their ability to continue this practice while at work.

One of the major problems is the lack of private, clean, and comfortable spaces for lactation. Without dedicated lactation rooms, mothers find it challenging to extract milk in a hygienic and stress-free environment. When colleagues and supervisors have negative views about breastfeeding, it creates a difficult work environment (Dhore-Patil et al., 2023). Such perceptions lead to discomfort and shame for breastfeeding mothers, further deterring them from milk extraction at work. It is crucial to address these societal biases, adhering to sustainable development goals (SDG) 10–reduced inequalities; thus, creating a workplace culture that embraces the needs of breastfeeding women (Dykes et al., 2023). To address these challenges, it is important to implement changes both at the organizational and interpersonal levels. Creating an environment that supports lactating women is an important role that employers and institutions play. They must provide supportive policies and accommodations for lactating women in the workplace. Implementing lactation rooms, establishing flexible work schedules, and promoting a breastfeeding-friendly culture are some of the strategies that have been suggested (Vilar-Compte et al., 2021; Indaryani et al., 2024). Such initiatives not only support the physical aspect of breastfeeding but also foster work inclusivity. In fact, the provision of lactation space and breastfeeding breaks for working mothers are supported by Republic Act 10028, also known as the expanded breastfeeding promotion act of 2009. Section 11 of the law explicitly mandates that all health and non-health facilities, establishments, or institutions establish lactation stations; hence, significantly contributing to the holistic well-being of employees.

While the Philippines made significant strides in early and exclusive breastfeeding, there is still room for improvement. Current statistics reveal impressive numbers (74%) of infants initiated within the first hour and 57.9% exclusively breastfed under six months (Goyena et al., 2023). These figures surpass the global average, showcasing the country’s efforts in promoting breast milk’s importance for infant health. However, achieving the ambitious 2030 global breastfeeding collective targets requires further action. The Philippines falls short of these goals, with exclusive breastfeeding, continued breastfeeding at one year, and continued breastfeeding at two years standing at 57.9%, 54.1%, and 34.2%, respectively (Vassilopoulou et al., 2021; Goyena et al., 2023; Gartley et al., 2024). One major barrier is the lack of adequate support for working mothers (Castetbon et al., 2020). This challenge is amplified by the rising number of women in the workforce, with nearly half (47.1%) actively employed globally (Azam et al., 2024).

In examining gender theories, studies, and workplace practices, with a special emphasis on supporting lactating employees, the United Nations Development Programme’s (UNDP) gender equality strategy 2022-2025 emerges as a critical framework. It underscores gender equality as a fundamental human right and the basis for long-term development, reaffirming the commitment to incorporate gender perspectives, particularly workplace regulations and practices to address issues that lactating employees face. The strategy, which is based on the goal of promoting gender equality, addresses the coronavirus disease 2019 (COVID-19) influence on gender disparities as well as the need

to confront systematic gender inequalities in all life sectors, including the workplace (Flor et al., 2022; Fabros et al., 2023; Putra et al., 2023). The UNDP's approach, which advocates for gender-responsive policies and accountability systems, is consistent with the necessity for workplaces to cultivate practices that support lactating employees, offering adequate maternity leave, providing lactation facilities, and cultivating a culture that values and supports women's breastfeeding preferences. Further, the strategy's emphasis on using innovation and technology to improve gender equality creates opportunities for new workplace support techniques for lactating employees, such as flexible working arrangements or virtual support networks (Villarama et al., 2023).

A qualitative study by Maramag et al., (2023) critically assesses the Philippines' maternity protection policies, such as the 105-day expanded maternity leave law and the expanded breastfeeding promotion act of 2009, revealing significant disparities between the policies' intentions and their actual implementation, including variations in maternity leave durations and a general lack of support for breastfeeding in the workplace, which indicates an urgent need for greater policy communication and monitoring. Meanwhile, Ickes et al., (2019) provides valuable comparative insights from Kenya, emphasizing the importance of workplace adaptations such as flexible work schedules and designated lactation areas to promote breastfeeding among working mothers. Similarly, Stearns and Spisak (2020) describes best practices for lactation assistance in healthcare settings, offering significant perspectives for broader workplace contexts like policy formulation, training for employees, and the establishment of breastfeeding-supportive environments. While Jahanbin et al., (2019) investigate how gender theories influence workplace inclusion, looking at the impact of gender norms and biases on organizational policies and arguing for inclusive and equitable working environments that satisfy the requirements of different employees. Malapati et al., (2022) highlights the health benefits of breastfeeding and underscores the necessity for workplace adaptations to support the health needs of female employees.

Implementing supportive public policies that empower working mothers to make informed choices about breastfeeding becomes crucial. Strategies like early postpartum support, extended maternity leave, flexible work arrangements, and increased dedicated spaces for pumping hold significant promise (Pounds et al., 2017; Yohanie et al., 2023; Fitriana & Waswa, 2024; Zakiyah, Boonma, & Collado, 2024). Addressing these challenges through targeted interventions bridge the gap and ensure that all mothers, regardless of employment status, can provide their infants with the optimal nourishment of breast milk. Encouraging and endorsing breastfeeding offers unique advantages that extend to both the child and the mother, contributing to positive outcomes on a broader societal scale. The practice of breastfeeding not only fosters the health and well-being of the child but also provides significant benefits to the mother. Emphasizing and promoting this nurturing approach can contribute to overall positive outcomes for the entire country, as it supports the well-rounded health of the population and establishes a foundation for long-term well-being.

Therefore, this study explores the breastfeeding practices and experiences of lactating employees in Region III, Philippines, emphasizing the critical role of implementing gender-sensitive workplace policies and practices to support lactating employees, further advocating for gender equality and inclusivity. By uncovering the prevalence, knowledge gaps, and existing constraints, it informs targeted interventions and the development of a supportive workplace environment, which in turn guide policymakers, employers, and healthcare professionals to design and implement effective lactation areas in offices, ultimately realizing the significance of breastfeeding and contributing to improved public health outcomes for mothers and babies.

## RESEARCH METHOD

The succeeding sub-headings explain the design, target/subject, procedures, instrument, and analysis of this research. This study implements a mixed method design, a blend of quantitative and qualitative research design, specifically the descriptive-survey design, utilizing a 4-point Likert scale researcher-made questionnaire that is content-validated and reviewed for internal consistency, to obtain information from the breastfeeding working mothers from Region III-Central Luzon, Philippines. Qualitative and quantitative designs add different perspectives on the research topic. Combining them, provide a more complete picture of the research. Qualitative design helps explain quantitative findings and offers a deeper understanding and context of the research findings. Further, qualitative design using a series of semi-structured interviews from March to May 2024 was utilized to further investigate, assess, and validate deeply if the responses yielded parallels with the quantitative data.

The research participants cover the breastfeeding working mothers from Region III-Central Luzon, Philippines. A 4-point Likert scale, researcher-made survey questionnaire was administered to 55 breastfeeding working mothers through a multi-sampling technique, and they are mainly from different State Universities and Colleges (SUCs) or offices from Region III, Philippines. Through data arrangement, cleansing, and organization, from 130 samples, they were narrowed to 55 qualified participants who met the research qualifications, which covered female employees who are lactating or used to breastfeed from 2020 to 2024, from different State Universities and Colleges (SUCs) or offices from Region III, Philippines as the research location where the researchers are employees from the SUCs. Further, through random inspection and ocular visit to offices, and initial conversations with lactating mothers, many of them encountered challenges, including the absence of lactation areas/facilities in their offices, as well as the lack of support from administrators and colleagues. Likewise, through literature and study search, there were limited references on this endeavor. In this regard, the first sampling method was cluster sampling that divided the population into groups, referred to as clusters, which were the SUCs/offices. The clusters were used to obtain information from different SUCs/offices in Region III. Cluster sampling is best used to inquire about a massive and dispersed population permitting the generation of a cluster of smaller representations of population being studied, with similar attributes (Gao et al., 2023). After creating a cluster of samples, purposive sampling was used to specifically and purposefully select breastfeeding working mothers. All participants in the study were sought with ethical-informed consent approved by the Central Luzon State University (CLSU) Ethics Research Committee (ERC), with protocol approval code CLSU-ERC 2024-134, on February 19, 2024.

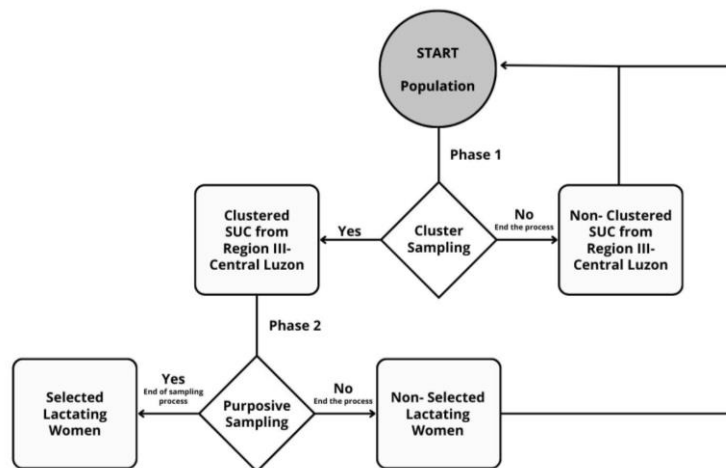


Figure 1. Flow chart of the sampling process of the study

A 4-point Likert scale researcher-made validated survey questionnaire was used in this research. The survey was given once cleared of internal validity and reliability issues, the researchers also ensured that only those breastfeeding working mothers in Region III-Central Luzon, Philippines completed the questionnaire. After the quantitative collection of data, the researchers gathered the verbal narrative response data through a series of scheduled semi-structured interviews, which was done through a face-to-face and/or video teleconferencing. Face-to-face semi-structured interviews were planned for the breastfeeding working mothers residing around the vicinity, and video conferencing interviews were set depending on their willingness to participate. The latter was included for practical and convenience of both researchers and breastfeeding working mothers whenever there were answers that needed to be verified and confirmed further.

This research utilized a 4-point Likert scale (4–Strongly Agree; 3–Agree; 2–Disagree; 1–Strongly Disagree) 20-item researcher-made and validated survey questionnaire with alpha coefficient 0.92 indicating excellent internal consistency. The research instrument covered (a) letter of information to breastfeeding working mothers with data privacy clause and consent, (b) information consent adapted from the California State University San Marcos, (c) breastfeeding working mothers’ profile, (d) 5-item part on level of knowledge, (e) 5-item part on practices, (f) 5-item part on constraints experienced by breastfeeding working mothers, and (g) five semi-structured questions as interview guide. Creating a

reliable and valid research instrument is crucial for collecting accurate data. Research objectives are the foundations and the initial steps of developing an instrument, followed by literature review to identify gaps, and the best practices of existing instruments grounded on conceptual/theoretical framework. Further, instrument items were developed and secured to be clear and concise, relevant, and neutral in nature or free from any biases. Experts in the field were consulted for face and content validity, clarity, relevance, and comprehensiveness of the instrument. Furthermore, the instrument was pilot tested and administered to a small sample to assess reliability and validity. The researchers analyzed the data to eliminate all issues and areas for improvement towards the refinement and finalization of the instrument.

To determine and assess the level of knowledge, practices, and constraints experienced by breastfeeding working mothers in Region III, Philippines as bases for policy implementation and designing of lactation areas, an amalgamation of descriptive statistics such as means, standard deviations, and percentages were performed. Alongside quantitative analysis, qualitative thematic-narrative analysis was applied to delve into the narratives and themes emerging from the experiences and insights shared by breastfeeding working mothers. The participants' responses to the interview were transcribed, highlighting their significant statements, which were coded, grouped, and arranged according to themes. Data triangulation was observed through verification from respondents and external examiners. By capturing these narratives, policymakers gain a deeper understanding of the challenges and needs faced by breastfeeding working mothers. Conclusively, the combined quantitative and qualitative analyses served as the foundation for crafting policy guidelines supporting breastfeeding working mothers and their children; hence, addressing the gaps while leveraging existing strengths to create a more supportive environment.

### RESULTS AND DISCUSSION

This section presents and discusses the results of this study, which explored the knowledge, practices, and constraints as experienced by breastfeeding working mothers.

Table 1. Profile of breastfeeding working mothers

	Frequency	Percentage
Age		
26-30 years old	9	16.36
31-35 years old	13	23.64
36-40 years old	11	20.00
41 years old and above	22	40.00
Highest Academic/ Professional Attainment		
Elementary-High School/Secondary	1	1.82
Bachelor's	11	20.00
Master's/Units Earned	26	47.27
Doctorate/Units Earned/Postdoctoral	17	30.91
Type of Office		
Public	45	81.82
Private	10	18.18
Type of Employment		
Job Order/Contractual/Part-time	13	23.64
Full-time/Permanent	42	76.36
Number of Years in Service		
0-5 years	17	30.91
6-10 years	8	14.55
11-15 years	9	16.36
16-20 years	9	16.36
21 years above	12	18.18
Number of Child/Children		

1-3 child/children	51	92.73
4-5 children	4	7.27

Table 1 presents the profile of breastfeeding working mothers in this study, with the majority (83.64%) belonging to the bracket of millennials, generation X, and boomers II (31-66 years old), which shows a significant group of female employees who maximize the potential of breastfeeding for their babies. The data turn out to account for empowered breastfeeding women who front the line in taking their respective roles in the workplace while ensuring the welfare of their children; thus, eradicating ageism and promoting inclusive functions regardless of age, gender, marital status, among others. In parallel, Ahmad et al. (2022) found that the majority of breastfeeding mothers aging from 30 to 50 are working despite the challenges they face due to breastfeeding.

In terms of highest academic and professional attainment, the majority (78.18%) finished with their advanced academic programs (Master’s and Doctorate). The findings vitalize how academically and professionally empowered and equipped breastfeeding mothers are in the workplace, which urge the drive for administrators and policy-makers to institutionalize the establishment of more comfortable and safer lactation areas in all offices for lactating mothers so they can further heighten their service to their institutions while nourishing their babies; thus, realizing the true essence of support given to breastfeeding mothers. Comparably, equality in the workplace tantamounts to recognizing and addressing the needs of all employees (breastfeeding or not) regardless of academic and professional status, age, and gender (Fabros & Ibañez, 2023; McDonald et al., 2024; Mo et al., 2024).

This study was scoped region-wide based on the type of office and employment where the majority of the breastfeeding mothers serve in public state-run institutions (81.82%) occupying full time-permanent (76.36%) workplace positions. The data signal that working mothers continuously breastfeed their babies despite the interference brought by carrying out their professional responsibilities, which exhibits high-level of professionalism among breastfeeding employees. With the impregnable dedication of lactating women in the society in general and at the workplace in particular, administrators, policy-makers, and the government as a whole must consider the significant role played by breastfeeding working mothers. In similar results, it was found that accessible lactation areas in all offices increased the workplace productivity of breastfeeding mothers as their worries about the breastfeeding time for their babies were significantly lessened (Ashby et al., 2024; Islam et al., 2024; Li et al., 2024).

With regard to the number of years at the workplace, the majority of the breastfeeding mothers have at least worked for a decade or two (50.90%) with one to three children (92.73%), which indicates their productive and fulfilling lives as breastfeeding mothers and employees looking after their children as they also nurture their careers. In spite of myriad challenges faced by lactating employees, they remained steadfast throughout their professional career lives, which displays their perseverance to provide for their babies and families. Corollary with the heroism and sacrifice of breastfeeding working mothers, it is fair among institutions to institutionalize policy-guidelines that benefit lactating employees and their babies, to encourage others, especially the young employees to reach such longevity in the years served at the workplace. Correspondingly, when lactating employees feel they are appreciated and valued, heedless of the struggles at both personal and professional lives, they persist and carry on (Rouse et al., 2021; Liao et al., 2023; Modjadji et al., 2023).

Table 2. Level of knowledge, practices, and constraints experienced by breastfeeding working mothers

Statements	Mean	Standard Deviation	Description
Level of knowledge of breastfeeding working mothers	3.67	.255	Strongly Agree
Practices of offices of breastfeeding working mothers	2.81	.350	Agree
Constraints experienced by breastfeeding working mothers	2.65	.445	Agree

Note: 1.00-1.75 (Strongly Disagree); 1.76-2.50 (Disagree); 2.51-3.25 (Agree); 3.26-4.00 (Strongly Agree)

Table 2 shows the workplace practices of breastfeeding working mothers (mean=2.81; SD=0.350) and the constraints they experienced (mean=2.65; SD=0.445) both described as “Agree”, which reveals that there is a general acknowledgement of the practices and constraints faced by

breastfeeding working mothers in their respective institutions. The results indicate that while there are some supportive measures in place, significant improvements remain essentially needed to fully support breastfeeding mothers. This is consistent with previous studies highlighting the challenges working mothers face in maintaining breastfeeding practices due to inadequate workplace support (Castetbon et al., 2020; Dhore-Patil et al., 2023).

Interestingly, an impressive pool result of “Strongly Agree” for the level of knowledge of breastfeeding working mothers (mean=3.67; SD=0.255) suggests that female employees are extremely well-informed about lactation, indicating a positive readiness to breastfeed if given an appropriate support realized through lactation areas in all offices. This high level of knowledge among lactating employees aligns with the findings from studies emphasizing the health benefits of breastfeeding and the need for workplace adaptations to support these practices (Vassilopoulou et al., 2021; Gartley et al., 2024).

The responses gathered from the breastfeeding working mothers in Region III, Philippines, indicate that while maternity leave is deemed sufficient, there are significant gaps in workplace infrastructure and culture that support breastfeeding. The lack of accessible designated breastfeeding areas in offices and the discomfort associated with breastfeeding in public or the office environment highlight some areas where improvements are significantly needed. Kozhimannil et al. (2016) found that women stopped breastfeeding after returning to work and lack of workplace breastfeeding resources increased their struggles to attend to their job responsibilities and their children.

The constraints experienced by breastfeeding working mothers are significant, which signifies the absence of comfortable lactation areas in offices. This aligns with the research that emphasized the need for private, clean, and comfortable spaces for breast milk extraction (Hawkins et al., 2015). The demanding work schedules as experienced by breastfeeding working mothers also reflects the urgent need for institutions to arrange more flexible work settings to support breastfeeding mothers and their children without jeopardizing both their workplace roles and mothers’ duties. In the same way, studies have found that working women who breastfed less than four months after returning to work reported not having flexible time or a private space to express breast milk (Lauer et al., 2019; Vilar-Compte et al., 2021).

These findings highlight the critical need for workplace policies and practices that support the general welfare of breastfeeding mothers and their children. Although there is a high knowledge among breastfeeding working mothers about the benefits of breastfeeding, the practical application of this knowledge was hindered by workplace constraints. Creating a breastfeeding-friendly environment involves more than just providing limited maternity leave for women; it requires dedicated lactation space in every office, flexible work schedules for breastfeeding mothers, and a supportive workplace culture (Kim et al., 2019).

The implementation of supportive public policies, such as Republic Act No. 10028 also known as the expanded breastfeeding promotion act of 2009 is essential in mandating the establishment of lactation stations in health and non-health facilities all over the country, which significantly contribute to the holistic well-being of all employees by supporting both their professional and personal roles, thereby bolsters the attainment of SDG-3 (good health and well-being) and SDG-10 (reduced inequalities). Likewise, the UNDP gender equality strategy 2022-2025 emphasizes the importance of gender-responsive policies that cater to the needs of breastfeeding mothers and their children, promoting a more inclusive, decent, and equitable workplace (Flor et al., 2022); hence, substantiates the promotion of SDG-5 (gender equality), SDG-8 (decent work and economic growth), and SDG-16 (peace, justice and strong institutions).

Encouraging and endorsing breastfeeding offers unique advantages that extend both the children and the mothers, contributing to positive outcomes on a broader societal scale. The practice of breastfeeding not only fosters the health and well-being of the children but also provides significant benefits to all mothers, such as the reduction of the risk of breast and ovarian malignancies and aiding postpartum weight loss (Obeagu & Obeagu, 2024).

Furthermore, the qualitative thematic-narrative analysis was applied in this study, which delved into the experiences and insights shared by breastfeeding working mothers, to gain a deeper understanding of their challenges and needs. Table 3 shows five (5) major themes with 10 key terms in total, and core statements from the breastfeeding working mothers, as the qualitative summary of the research exploration on the knowledge, practices, and constraints among breastfeeding working mothers towards implementation of lactation area.

Table 3. Breastfeeding working mothers' lactating experiences and insights

Major Themes	Key Terms	Core Statements
Breastfeeding mothers in the workplace	Challenging	<i>“With the need to nurse babies, I believe working mothers who are breastfeeding face significant challenges, since breastfeeding alone requires a lot of effort, time, and love for their babies, particularly in balancing work responsibilities, attending to various schedules, collecting milk several times a day, which hampers the delivery of their assigned tasks because it is very difficult to work when you are a breastfeeding mother so the support to maintain breastfeeding while working is needed.”</i>
	Beneficial	<i>“The most essential contribution of breastfeeding aside from strengthening a child’s immune system is the bond that it creates between the child and the mother that’s why I consider working mothers who are breastfeeding as heroes for their babies because they are providing gold liquid for their babies that no other formula milk can give; so breastfeeding is really incredibly beneficial for moms since, in addition to financial savings, it allows mothers to provide their children with adequate nutrients.”</i>
Practices of breastfeeding mothers	Breastmilk Collection	<i>“At home, I typically breastfeed my baby directly while before going to the office, I collect and store milk, so at the office even without lactation space, I use a breast pump to collect milk during breaks because I continue to provide breast milk as much as possible; however, at some point, after my maternity leave, I resorted to using a combination of breastfeeding and formula milk.”</i>
	Forced Stoppage	<i>“Work and family can be difficult to balance at the best of times, especially for breastfeeding mothers, returning to work after giving birth can easily feel overwhelming, so I stopped breastfeeding after my maternity leave as soon as I returned to work. If I had a chance, I would collect my milk in our office if there’s accessible lactation space even if it’s just a small and clean private area.”</i>



Major Themes	Key Terms	Core Statements
Awareness on breastfeeding mothers	Self-apprehension	<i>“It serves as a great accomplishment to me as a working mom because I have to balance professional responsibilities and breastfeeding, which requires effective time management and a supportive work environment to ensure that I can continue to provide the best nutrition for my child while fulfilling my job duties since the best part of pursuing breastfeeding despite some challenges in pumping milk is seeing my child getting proper nourishment for breastfeeding is a selfless act of a mother while it can be demanding, but the benefits for my child’s health and our bonding make it a rewarding experience.”</i>
	Workplace Observation	<i>“Breastfeeding is very important not only for the health of a child but also of the mother and it is difficult to maintain breastfeeding while working since there’s no institutional or school policy to support lactating employees, that’s why there’s no designated breastfeeding area or milk collection space in every office; thus, I don’t know of any lactating area in a department or in a college within the university, so, therefore, support is not that strong and evident.”</i>
Promotion and support on breastfeeding mothers	Lactation Area	<i>“The institutions/organizations need to include in their specific policy guidelines the support for lactating employees through providing a clean, comfortable, safe, and well-equipped lactating space in every department/college/office not just in selected areas in the big university that would force breastfeeding mothers to go out of their work stations just to locate a lactating room.”</i>
	Work Arrangement	<i>“To strengthen the promotion and importance of breastfeeding, as well as support for lactating employees and childcare, the community, society, offices, and institutions can take several initiatives, which include implementing lactation policies supporting breastfeeding mothers with flexible work arrangements/flexi-time, launching awareness campaigns, and installing all facilities with clean breastfeeding rooms.”</i>

Major Themes	Key Terms	Core Statements
Design implementation of lactation area for breastfeeding mothers	and Budget Allocation	<i>“In some schools, they have faculty lounge where they can relax, nap, or collect breast milk with ease and so to realize the significance of breastfeeding, gender equality, and support to all lactating mothers and their children, enough budget should be allocated for construction of lactating room in all offices, for the maintenance of lactation rooms, and for their repair/improvement as well.”</i>
	Safety and Ventilation	<i>“Lactating area should be comfortable both for mother and child and so provide a lactation area with complete equipment/appliance, for examples, comfortable bed/chair, clean/hygienic and well-ventilated/ air conditioned lactating room, and with a refrigerator/freezer (for collected milks) and lavatory, which has access to clean water.”</i>

Breastfeeding remains to be a top priority of mothers as it provides nutrients and strengthens the immune system of their babies while giving them opportunity to nurture their bond and to save up since formula milk is expensive (Mulyani & Nurlinawati, 2020; Marshall et al., 2022). However, with the demands posted at work, employees in general are confronted to deliver excellent service for their clientele; more so, among breastfeeding mothers who are challenged to take care of and nourish their babies while extending a mile for their workplace. Results revealed as experienced by breastfeeding working mothers that they were challenged balancing attention and time at work and for their babies, especially when they needed to collect milk multiple times a day when they had to render eight (8) working hours. Similarly, Abekah-Nkrumah et al. (2020), found that several lactating women were stressed at work because of the absence of support for them. While breastfeeding requires effort from mothers, they were challenged to maintain breastfeeding their babies because they easily got tired of tons of work (Agampodi et al., 2021; Liao et al., 2023). In the Philippines, female employees are granted 105 days or three and a half months of maternity leave so they can rest and attend to their babies (Gribble et al., 2023). Findings showed as shared by breastfeeding mothers that at home they practiced breastfeeding their babies directly; however, after their maternity leave, they experienced interrupted breastfeeding and combined with formula milk, since they needed to report back to office where they collected and stored milk in the absence of lactation space, which some of them were forced to stop breastfeeding their babies. While there are institutions that promote the sustainable development goals (SDGs) such as good health and well-being (SDG 3), gender equality (SDG 5), among others, the breastfeeding experiences of mothers in different institutions reflected the little support they receive and realize as lactating working mothers, which challenges the continuous efforts towards reduction of inequalities (SDG 10) in workplaces and communities towards a more sustainable and decent work (SDG 8) for all.

As the results revealed, most breastfeeding mothers admitted that the absence of institutionalized policy-guidelines for breastfeeding mothers encompassed the deficiency of accessible and available lactation areas in every office. As part of looking at the general welfare of employees, institutions should not falter to prioritize the needs of breastfeeding mothers and their babies through establishing a lactation area in offices and not just in selected areas especially for big universities (Nommsen-Rivers et al., 2023; Ryan et al., 2023; Jama et al., 2020). Regardless of the poignant experiences of breastfeeding mothers, they managed to see the situations with silver lining; hence, they thrived being aware of the health benefits of breastfeeding for them and their babies, and considered it as their great accomplishment. To champion both excellence at work and health of babies and breastfeeding mothers who are working eight (8) hours a day from Monday to Friday, the findings

showed as reflected on the shared experiences and insights of breastfeeding mothers that the possible contrivance of flexible work time arrangement reinforces several institutional initiatives such as seminars and trainings that capitalize the importance of breastfeeding; however, promotion of breastfeeding practices remains at the shallow level of support for breastfeeding mothers without concrete realization of clean, comfortable, safe, and well-equipped lactation area for them and their babies. Brugaillères et al., (2024) highlighted that flexible work arrangements for lactating mothers promotes gender equality and inclusivity. With different work trends that institutions can consider, breastfeeding mothers have the options to work in Hyflex environment as provided (Villarama et al., 2023) or to maximize different online platforms like Google Classroom, Microsoft Teams, Padlet, among others (Mulyani & Subandi, 2020; Suhardi et al., 2023; Villarama et al., 2024) to fulfill their workplace responsibilities while caring for their families. Such flexible arrangements can also be extended to teacher-employees, enabling them to explore innovative teaching methods (Fabros & Ibañez, 2023). As accentuated in the findings, providing a supportive environment for breastfeeding mothers and their babies is equally important as putting forward quality service to humanity. Figure 2 illustrates a five-point suggested flow to engender designing and implementation of lactation areas.

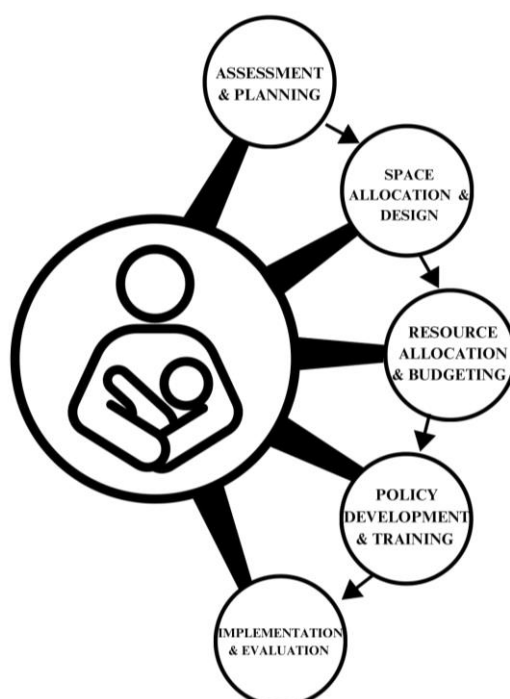


Figure 2. Five-point suggested flow to engender designing and implementation of lactation areas

First, assessment and planning capitalizes that creating and executing a lactation room requires an understanding of the needs of breastfeeding mothers. Conducting a survey among lactating mothers provides insights into their requirements, challenges, and preferences for nursing and milk expression at work. Second, space allocation and design identify and designate appropriate lactation areas within the workplace that are peaceful, private, safe, well-ventilated, and easily accessible for them. Ensure these lactation areas in offices are equipped with essential amenities such as a sink for handwashing and cleaning breast pumps, a source of clean water, electrical outlets, refrigerators for milk storage, and comfortable chairs. Third, resource allocation and budgeting take on proper estimation of the budget necessary for setting up the lactation areas, considering the cost of equipment, furnishings, and any required repair. It is crucial to ensure that all equipment adheres to health and safety standards. Fourth, policy development and training for all employees necessitate a comprehensive lactation policy and guidelines that outline the scheduling and hygienic measures for breastfeeding employees. Ensure the policy is easily accessible and understandable by all employees. Conduct educational sessions to highlight the importance of lactation areas, the necessity of the policy, and the benefits of supporting breastfeeding mothers. Provide training to ensure all employees are aware of and comply with the policy. Lastly, implementation and conduct of regular evaluation to maximize the sustainability of lactation areas. Officially launch the lactation area and notify all employees of its availability. Regularly

maintain the cleanliness and condition of the lactation areas and monitor the usage and effectiveness through feedback from lactating employees. Make necessary adjustments or improvements to enhance the area and address issues. Periodically review the lactation policy to ensure its relevance and sustainability. Through proper adherence, institutions can establish lactation areas in offices that genuinely support the breastfeeding journey of lactating employees, fostering a workplace culture that promotes breastfeeding support along with good health and well-being, inclusivity, gender equality, and decent work.

## CONCLUSION

The study explored the knowledge, practices, and challenges faced by breastfeeding working mothers in Region III-Central Luzon, Philippines. Results revealed that while these employees possessed substantial knowledge about breastfeeding, they encountered considerable difficulties due to insufficient workplace support. Major issues included the lack of a dedicated lactation area in offices and rigorous work schedules. Despite these challenges, many breastfeeding working mothers persist in breastfeeding, demonstrating their commitment and resilience. The study emphasized the urgent need for workplace policies and practices that facilitate breastfeeding, such as designated lactation spaces and flexible work arrangements. To address these challenges, employers should focus on providing clean, comfortable, and well-equipped lactation areas with amenities like comfortable seating, refrigeration for milk storage, and access to clean water. It is essential to develop and implement comprehensive lactation policies that clearly define the rights and support available for breastfeeding employees, ensuring these policies are readily accessible and communicated to all staff members. Introducing flexible working schedules, such as telecommuting, flexible hours, and hybrid work environments significantly alleviate the stress and logistical difficulties that breastfeeding working mothers face. Additionally, implementing educational sessions and training programs to increase awareness about the importance of supporting breastfeeding in the workplace is crucial. These programs should target both employees and management to cultivate a supportive work culture. Establishing regular assessment and feedback mechanisms from breastfeeding working mothers, utilizing surveys and focus groups, can yield valuable insights into the effectiveness of current policies and identify areas for further improvement. By adopting these recommendations, workplaces can create a more accommodating environment for breastfeeding working mothers, enhancing their well-being and productivity while ensuring the health and development of their children.

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## AUTHOR CONTRIBUTIONS

All authors contribute equally to the conception and design of the study, and all other parts: Conceptualization, JAVillarama and BGFabros; Methodology, BGFabros and JAVillarama; Instrument, JAVillarama and BGFabros; Validation, JAVillarama, BGFabros, and CIAngeles; Formal Analysis, BGFabros, JAVillarama, and LMMVDelaCruz; Investigation, CIAngeles, LMMVDelaCruz, AVDelaFuente, EAConcepcion, JAARAntalan, and KJCBarcelita; Data Curation, JAVillarama and BGFabros; Writing–Original Draft Preparation, JAVillarama, BGFabros, AVDelaFuente, CIAngeles, LMMVDelaCruz, and KJCBarcelita; Writing–Review & Editing, JAVillarama, BGFabros, CIAngeles, LMMVDelaCruz, and KJCBarcelita; Visualization, BGFabros and CIAngeles; Supervision, JAVillarama.

## CONFLICTS OF INTEREST

The author(s) declare no conflict of interest.

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