

Level of Knowledge of Staff Nurses on Breastfeeding Practices: A Descriptive Correlational Study

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Abstract

Background: Breastfeeding is recognized as the optimal approach to provide essential nutrients and promote the health of infants. **Aim:** This study aims to assess the nurses' knowledge in the obstetric unit regarding breastfeeding practices in KFGH. **Methods:** A descriptive research approach, utilizing a questionnaire to evaluate nurses' knowledge of breastfeeding best practices was used in this study among nurses who are working at KFGH. **Results:** Of the total 64 nurses, and majority (39.5%) of them are aged from 26 to 30 years. Most of them (98.4%) were female and 45.3% worked in the Obstetrics and Gynecology department, also, the majority (73.4%) held a Bachelor of Nursing degree. The results showed the attitude among nurses toward the breastfeeding management level was moderate with a mean score of 1.72 while the practice among nurses toward the breastfeeding management level was high with a mean score of 2.66, also, the knowledge among nurses toward the breastfeeding management level was high with mean score 2.36. The results showed there was a significant difference in the attitude level according to nationality ($P\text{-value} = 0.007$), but there was no significant difference according to the other demographic characteristics (age, marital status, department, education, experience, position, Course in obstetrics and Gynecology, and self-experience about breastfeeding). **Conclusion:** This study's findings gave insights into the current knowledge level of nurses in the obstetric unit regarding breastfeeding practices in KFGH and may contribute to the development of targeted interventions and educational programs to improve breastfeeding support and promotion in the hospital setting.

Keywords: Nurses – Breastfeeding – Knowledge – Practice -Saudi Arabia – KFGH.

1. Introduction

Breastfeeding is the best approach to ensure a baby receives enough nutrients and stays healthy. Exclusive breastfeeding during the first six months of life is recommended by the World Health

Organization (WHO), followed by sustained nursing with suitable supplemental meals up to two years of age or beyond. Breastfeeding has several health advantages, yet many countries, including Saudi Arabia, still have low rates of exclusive breastfeeding (WHO, 2021).

When it comes to encouraging and bolstering breastfeeding, obstetric units play a vital role. As the main carers in obstetric wards, nurses play a vital role in promoting breastfeeding. Nursing staff in obstetric units need to have their breastfeeding knowledge and skills evaluated so that they may better encourage and support breastfeeding for their patients. Healthcare practitioners in rural Saudi Arabia, as reported by Aljuaid, Binns, Giglia, and Almujaan (2018), shared common breastfeeding myths, including the idea that nursing should take place at set times rather than whenever the baby needs it. The authors also discovered that nurses' perspectives on breastfeeding were affected by their age, parity, and degree of education (Aljuaid et al., 2018).

King Faisal Hospital (KFGH) is a leading hospital in Saudi Arabia that provides obstetric care to a large population. Assessing the knowledge and practices of nurses regarding breastfeeding practices in KFGH can provide valuable insights into the current state of breastfeeding practices in the hospital and help inform strategies to promote and support breastfeeding among nurses in the region. In this context, this study aims to assess the knowledge and practices of nurses in the obstetric unit of KFGH regarding breastfeeding practices, to identify areas for improvement and to develop targeted interventions to promote and support breastfeeding among nurses in KFGH. According to Abdelglil and Ibrahim (2016), there is a need to assess nurse's knowledge and attitude regarding the WHO's ten steps to successful breastfeeding in maternity settings. The authors found that the overall knowledge of the nurses regarding the ten steps was satisfactory, but there were some gaps in their knowledge and attitude towards breastfeeding (Abdelglil & Ibrahim, 2016).

Breast milk is considered the best food for a newborn since it is excellent for both mom and baby. It aids in the baby's physical growth and development, as well as the mother and baby's emotional bonding and the baby's immune system. As the primary carers for their patients, staff nurses are in an ideal position to promote and facilitate breastfeeding. They are in a unique position to guide and inspire nursing mothers due to their education and expertise in the profession (Ibrahim (2016), Knowledge gained by staff nurses on breastfeeding practices has a substantial effect on the quality of care provided to nursing mothers. If nurses are going to properly counsel mothers and help them overcome barriers that may prevent them from breastfeeding, they need access to accurate and up-to-date information. It is important to evaluate the breastfeeding knowledge, abilities, and confidence of staff nurses to identify problem areas and implement effective treatments to improve these factors. The study's goal is to identify potential associations between nursing staff members' breastfeeding expertise and demographic variables. By surveying their nursing staff, healthcare practitioners may understand where their team succeeds and where they fall short in assisting breastfeeding mothers. This information may be used to inform the development of targeted educational courses and training initiatives aimed at raising the bar of nurses' support for breastfeeding mothers. The findings of this study might contribute to the growing body of knowledge among healthcare professionals on effective breastfeeding practices. Examining the possible correlations between knowledge levels and demographic variables like age, gender, years of experience, educational qualifications, and

additional training related to breastfeeding can shed light on the factors that may influence staff nurses' knowledge levels in this area. Using this data, policymakers and nurse educators may develop more efficient initiatives to improve nurses' knowledge of breastfeeding and disseminate evidence-based practices. Nursing mothers may benefit much from checking the nurses' breastfeeding knowledge. Researchers will test participants' familiarity with the material and investigate if there are any correlations with their demographics. The findings will contribute to the existing body of knowledge and point the way for future efforts by healthcare professionals to better accommodate breastfeeding moms. In the end, providing staff nurses with comprehensive and accurate information to promote and support optimal breastfeeding practices may improve health outcomes for mothers and their children. According to (Abdulrahman, 2019) Assessing nurses' breastfeeding expertise and its effect on the quality of care offered to nursing moms is emphasised by Abdulrahman (2019). The author argues that healthcare professionals might benefit from better accommodating nursing moms if they tested nurses on their understanding of breastfeeding practices. The study's overarching goal is to determine whether there is a correlation between nurses' breastfeeding expertise and other demographic variables. Healthcare professionals may better educate nurses on breastfeeding best practices by evaluating their current level of knowledge.

This study's significance lies in its potential to contribute to the development of effective interventions to promote and support breastfeeding practices in obstetric units, particularly in KFGH. The findings of this study can help inform policies and programs aimed at improving breastfeeding rates in Saudi Arabia and contribute to the overall health and well-being of the country. Therefore, this study aims to assess the nurses' knowledge in the obstetric unit regarding breastfeeding practices in KFGH.

2. Methodology Research design

This research utilized a descriptive correlational approach.

Setting

The current study was conducted in the obstetric unit regarding breastfeeding practices in KFGH.

Sample

Using the G power sample size calculator after calculating the population size of nurses in the Kingdom which equals 14322 nurses, the sample size obtained was 64 nurses.

Inclusion criteria

All nurses who are working in the obstetric unit in KFGH.

Exclusion criteria

- Nurses who were not willing to participate in this study.
- Participants who are not nurse educators.

Data collection procedures

After evaluating the relevant literature, the researcher developed a structured questionnaire sheet in English and Arabic. There are two sections:

Part I socio-demographic data

Part 2 Knowledge about Breastfeeding assessment items.

Validity and reliability

The pilot study included 10% of the overall sample size, to affirm the study's validity was done.

Statistical design

Using SPSS to analyze the data extracted from the questionnaire, using descriptive tests for measuring means and standard deviations in addition to using ANVA to assess the knowledge and practices for breastfeeding among nurses and their relationship to demographic data.

Ethical and Administrative Consideration

Ethical approval by obtaining Institutional Research Board (IRB) with number..... Also, Administrative approval was obtained from the hospital mentioned above. Informed consent was obtained from all the nurses who will participate in this study before filling up the questionnaire. The study was anonymous, an explanation for the research process will be provided for the participants, there will be no risk from participation in this study, and participants have the right to withdraw at any stage of the research.

3. Results

The findings of the current study were presented in four main sections:

Section one: description of demographic characteristics.

Section two: Nurse's knowledge regarding breast feeding management. Section three: Nurse's attitude regarding breast feeding management. Section four: Nurse's practices regarding breast feeding management.

Section five: correlation between knowledge ,attitude ,and Nurse's practices regarding breast feeding management.

Section one: description of demographic characteristics.

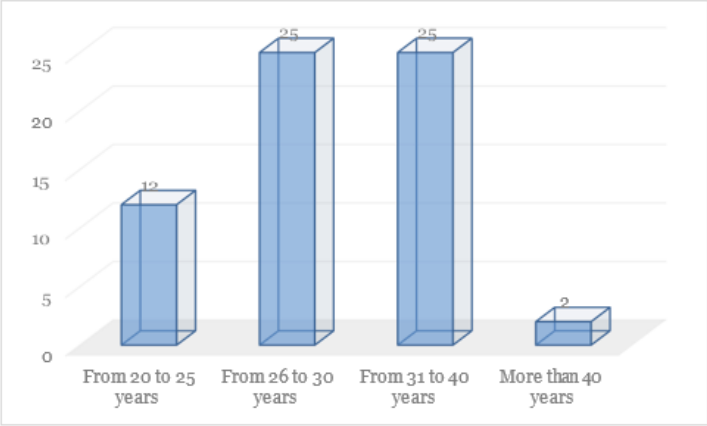


Figure 1 The age range distribution among the study nurses (n=64)

Figure 1 shows the age range distribution among the study nurses (n=64).

It was found that there were 64 nurses, 39.1% aged from 31 to 40 years, 39.5% aged from 26 to 30 years, 18.8% aged from 20 to 25 years, and 3.1% aged over 40 years.

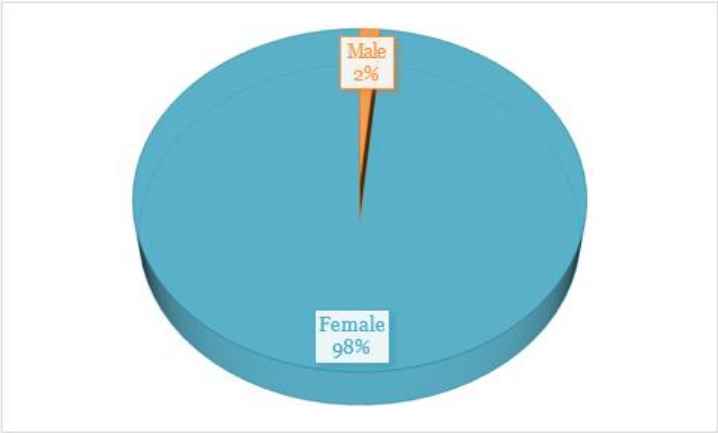


Figure 2 The gender distribution among the study nurses (n=64)

Figure 2 shows the gender distribution among the study nurses. Most of them (98.4%) were female, while 1.6% were male.

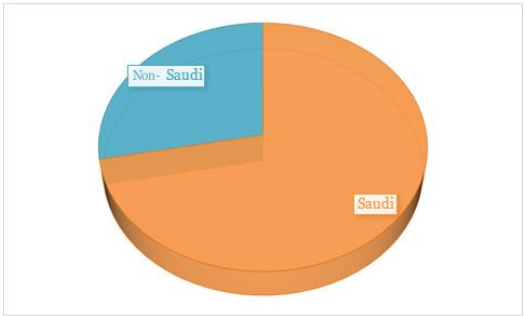


Figure 3 The nationality distribution among the study nurses (n=64)

Figure 3 shows 71.9% were Saudi, and 28.1% were non-Saudi.

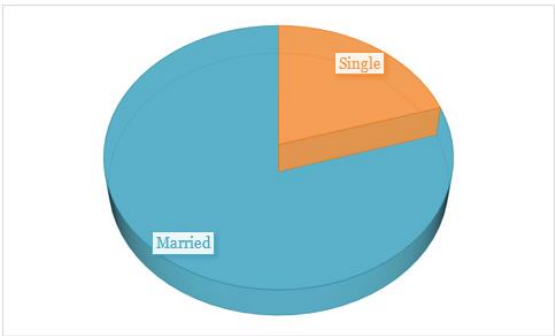


Figure 4 Marital status among the study nurses (n=64)

Figure 4 shows The majority (79.7%) were married, and 20.3% were single.

Table 1: other demographic characteristics

Variables	Categories	N	%
Department	Obstetrics and Gynecology	29	45.3
	Pediatrics and Neonates	26	40.6
	PICU	9	14.1
Education	Specialist diploma of nursing	7	10.9
	Technical institute	8	12.5
	Bachelor of Nursing	47	73.4
	Postgraduate studies	2	3.1
Experience	From 1 to 3 years	33	51.6
	From 4 to 6 years	11	17.2
	More than 6 years	20	31.3
Position	Staff Nurse	52	81.3
	Head Nurse	2	3.1
	Head Nurse Assistant	1	1.6

Table 1 shows other demographic characteristics. It found among the nurses, 45.3% worked in the Obstetrics and Gynecology department, 40.6% in Pediatrics and Neonates, and 14.1% in the PICU.

Regarding education, the majority (73.4%) held a Bachelor of Nursing degree, 12.5% graduated from a Technical Institute, 10.9% held a Specialist Diploma in Nursing, and 3.1% had completed Postgraduate studies.

In terms of experience, approximately half of them (51.6%) had between 1 to 3 years of experience, 31.3% had more than 6 years, and 17.2% had between 4 to 6 years of experience. Regarding their positions, the majority (81.3%) were staff nurses, 3.1% were head nurses, 1.6% were head Nurse Assistants, and 14.1% held other positions.

Furthermore, 47.7% of the nurses had attended courses in Obstetrics and Gynecology, and 69.2% had self-experience in breastfeeding.

Section two: Nurse's knowledge regarding breast feeding management.

Table 2: The knowledge among nurses toward breastfeeding management

No	Items	Mean	SD	Level
1	Have a written breastfeeding policy	1.98	0.79	High
2	Train all healthcare staff on breastfeeding management	2.17	0.83	Moderate
3	Inform all pregnant women about the benefits and management of breastfeeding	2.62	0.63	Moderate
4	Help mother to initiate breastfeeding within a half-hour of birth (skin-to-skin contact)	2.50	0.71	High
5	Show mother how to breastfeed and how to maintain lactation	2.64	0.55	High
6	Give newborn infants no food or drink other than breastmilk	2.64	0.60	High
7	No artificial teats or pacifiers to breastfeed baby	2.06	0.81	High
8	Establishment of breastfeeding-support groups	2.23	0.85	High
	Total	2.36	0.51	High

Table 2: The knowledge among nurses toward breastfeeding management.

The results showed the knowledge among nurses toward breastfeeding management level was high with a mean score of 2.36. Regarding the items, the highest practice items were (Show mother how to breastfeed and how to maintain lactation), and (Give newborn infants no food or drink other than breastmilk) with mean score 2.64, followed by (Inform all pregnant women about the benefits and management of breastfeeding) with mean score 2.62, followed by (Help mother to initiate breastfeeding within a half-hour of birth (skin to skin contact)) with mean score 2.50, followed by (Establishment of breastfeeding-support groups) with mean score 2.23, followed by (Train all health-care staff on breastfeeding management) with mean score 2.17, followed by (No artificial teats or pacifiers to breastfed baby) with mean score 2.06, followed by (Have a written breastfeeding policy) with means core 1.98.

Section three: Nurse's attitude regarding breast feeding management.

Table 3: The attitude among nurses toward breastfeeding management

No	Items	Mean	SD	Level
1	Babies should be fed only breastmilk in the first 6 months of life	1.73	0.91	Moderate
2	Formula milk is superior to breast milk	1.14	0.39	Low
3	Formula milk is equivalent to breast milk marketing	1.13	0.33	Low
4	Bottle feeding at birth can cause the baby to refuse breastfeeding	2.50	0.71	High
5	Formula milk can be added to breast milk to promote growth of the baby	1.95	0.83	Moderate
6	Mothers with HBV can't breastfeed	1.78	0.88	Moderate
7	Practice rooming-in is the main place for breastfeeding only	1.97	0.87	Moderate
8	Breastfeeding on demand only not with regular time intervals	1.53	0.80	Moderate
	Total	1.72	0.36	Moderate

Table 3 presents The attitude among nurses toward breastfeeding management.

It was noticed that the attitude among nurses toward the breastfeeding management level was moderate with a mean score of 1.72, Regarding the items, the highest attitude item was (Bottle feeding at birth can cause the baby to refuse breastfeeding) with a mean score of 2.50, followed by (Practice rooming-in is the main place for breastfeeding only) with mean score 1.97, followed by (Formula milk can be added with breast milk to promote the growth of baby) with mean score 1.95, followed by (Mother with HBV can't breastfeed) with mean score 1.78, followed by (Babies should be fed only breastmilk in the first 6 months of life) with mean score 1.73, followed by (Breastfeeding on-demand only not with regular time intervals) with mean score 1.53, followed by (Formula milk is superior to breast milk) with means core 1.14, followed by (Formula milk is equivalent to breast milk marketing) with mean score 1.13.

Section four: Nurse's practices regarding breast feeding management.

Table 4: The practice among nurses toward breastfeeding management

No	Items	Mean	SD	Level
1	Do you show the mother how to express milk if the baby is separated from her	2.61	0.75	High
2	Do you show m5 how to feed to the cue	2.62	0.75	High
3	Do you show the mother how to increase her milk supply if her milk is less?	2.75	0.59	High
	Total	2.66	0.53	High

Table 4 presents The practice among nurses toward breastfeeding management. The results found the practice among nurses toward the breastfeeding management level was high with a mean score of 2.66, about the items, the highest practice item was (Do you show mother how to increase milk supply if her milk is less) with a mean score 2.75, followed by (Do you show m5 how to feed to the cue) with mean score 2.62, followed by (Do you show mother how to express milk if baby is separated from her) with mean score 2.61

Section five: correlation between knowledge ,attude ,and Nurse's practices regarding breast feeding management.

Table 5: difference in the knowledge, practice, and attitude toward breastfeeding management

Variables	Categories	Attitude	Practice	Knowledge
Age	From 20 to 25 years	1.54	2.47	2.22
	From 26 to 30 years	1.76	2.64	2.37
	From 31 to 40 years	1.81	2.76	2.4
	More than 40 years	1.31	3	2.75
	F	2.692	1.074	0.752
	P-value	0.054	0.367	0.526
Nationality	Saudi	1.64	2.65	2.34
	Non- Saudi	1.92	2.69	2.41
	T	-2.801	-0.173	-0.413
	P-value	0.007*	0.863	0.681
Marital	Single	1.86	2.56	2.41
	Married	1.68	2.69	2.34
	T	1.481	-0.777	0.363
	P-value	0.144	0.459	0.713
Department	Obstetrics and Gynecology	1.72	2.74	2.44
	Pediatrics and Neonates	1.67	2.62	2.25
	PICU	1.83	2.56	2.38
	F	0.693	0.634	1.164
	P-value	0.504	0.534	0.319
Education	Specialist diploma of nursing	1.73	2.71	2.64
	Technical institute	1.88	2.83	2.47
	Bachelor of Nursing	1.68	2.64	2.28
	Postgraduate studies	1.94	2.33	2.75
	F	0.844	0.558	1.529
	P-value	0.475	0.644	0.216
Experience	From 1 to 3 years	1.66	2.6	2.21
	From 4 to 6 years	1.77	2.7	2.6
	More than 6 years	1.78	2.75	2.47
	F	1.021	0.643	3.715
	P-value	0.366	0.529	0.030*
Position	Staff Nurse	1.71	2.62	2.37
	Head Nurse	1.5	3	2.44
	Head Nurse Assistant	1.5	3	1.5
	Other	1.83	2.78	2.38
	F	1.063	0.571	1.128
	P-value	0.383	0.685	0.352
Course in Obstetrics and Gynecology	Yes	1.75	2.69	2.61
	No	1.69	2.64	2.14
	T	0.793	0.465	4.331
	P-value	0.431	0.643	< 0.001*
self-experience about breastfeeding	Yes	1.67	2.73	2.37
	No	1.82	2.5	2.33

T	-1.414	1.568	0.378
P-value	0.162	0.127	0.690

Table 5 present the difference in the knowledge, practice, and attitude toward breastfeeding management. The results showed there was a significant difference in the attitude level according to nationality ($t = -2.801$, $P\text{-value} = 0.007$), but there was no significant difference according to the other demographic characteristics (age, marital status, department, education, experience, position, Course in obstetrics and Gynecology, and self-experience about breastfeeding)

There was no significant difference in the practice level according to demographic characteristics (age, nationality, marital status, department, education, experience, position, Course in obstetrics and Gynecology, and self-experience about breastfeeding) there was a significant difference in the knowledge level according to experience ($F = 3.715$, $P\text{-value} = 0.030$), and Course in obstetrics and Gynecology ($F = 4.331$, $P\text{-value} < 0.001$), but there was no significant difference according to the other demographic characteristics (age, nationality, marital status, department, education, position, and self-experience about breastfeeding)

4. Discussion

This study aims to assess the nurse’s knowledge about breastfeeding practices in obstetric units, in this study, a total of 64 nurses with a majority being Saudi Arabian and females, The results showed the attitude among nurses toward breastfeeding management level was moderate, agreement with Alakaam et al. (2018) study, who found that nurses demonstrated a commendable level of awareness and adherence to breastfeeding procedures. Merely 4% achieved a flawless score. The majority (77%) stated that they were successful in addressing the requirements of new mothers. Strong positive correlations were observed between knowledge and efficacy, as well as other characteristics. While it is far from Oluwatosin (2007) study, which utilized a sample size of 100 nurses who were selected from the pool of registered nurses employed in the obstetrics and gynecology departments. The findings indicated a high degree of knowledge regarding exclusive breastfeeding among nurses.

Most nurses saw that Bottle feeding at birth can cause the baby to refuse breastfeeding and Babies should be fed only breastmilk in the first 6 months of life, which agrees with Shaw and Devgan (2018). study, who reported that every single nurse unanimously concurred that breastfeeding should commence within one hour of birth.

Additionally, all nurses (100%) agreed that exclusive nursing is adequate for a newborn during the initial 2-3 days of life. Nevertheless, a significant majority of doctors (58.8%) and a substantial proportion of nurses (25.7%) held the belief that infants should be given cow’s milk or formula for optimal growth after reaching the age of 6 months. Also, the results showed the practice among nurses toward breastfeeding management level was high, which is in agreement with Ampofo et al. (2020) study, which revealed that a significant majority of the respondents engaged in exclusive breastfeeding.

Management of breastfeeding to mothers by nurses with various practices such as showing mothers how to breastfeed and how to maintain lactation and Giving newborn infants no food or

drink other than breastmilk was relatively high, is consistent with Azevedo et al. (2015) study, who found that nurses' understanding of the clinical management of breastfeeding is moderately high and has an outcome of their skill in providing assistance that encompasses attitudes aimed at supporting lactation for women who are nursing mothers, as well as the newborn and their family.

Giving the relationship between some of the nurses' demographic data and their knowledge and management criteria of breast feeding showed that there was a significant difference in the attitude level according to nationality (P -value = 0.007), but there was no significant difference according to the other demographic characteristics (age, marital status, department, education, experience, position, Course in obstetrics and Gynecology, and self-experience about breastfeeding), it agrees with Dachew and Bifftu (2014) study, who reported that older women (95% CI 2.16, 3.24), living in rural areas (CI 2.65, 3.84), being a midwife (95% CI 1.83, 2.56), women who gave birth through vaginal delivery (95% CI 1.68, 2.87), multiparous women (95% CI 1.74, 2.67), and resuming work after 3 months (95% CI 1.24, 2.35) were found to be independently associated with exclusive breastfeeding.

Regarding practices level, there was no significant difference ($P > 0.05$) between all demographic characteristics except experience (P -value = 0.030), and Course in obstetrics and Gynecology (P -value < 0.001), it is consistent with Jefferson and Bibb (2019) study, who found that Nurses want a concise reference manual for the application of evidence-based tactics to enhance breastfeeding among all mothers specifically for nurses who attended courses of breastfeeding enhancement practices, it is also agreed with Youssef (2023) study, who found that the mean difference exhibited an average increment of 1.4 by the conclusion. Overall, there was a statistically significant rise in results on the knowledge test. An analysis was conducted on the rates of exclusive breastfeeding three months before and three months after the educational intervention. The results showed a 5% overall increase, although this increase did not reach statistical significance.

5. Conclusion

The findings indicated that nurses' attitudes towards the level of breastfeeding management were moderate. There was a notable disparity in the level of attitude based on nationality. The level of practice among nurses in managing breastfeeding was found to be high, and there were no notable variations in practice level based on demographic variables. and the degree of expertise among nurses on breastfeeding management was high, also, there was a notable disparity in the knowledge level based on the level of experience and the completion of obstetrics and gynecology courses.

6. Recommendations

- Facilitating the adoption of ideal breastfeeding techniques and raising awareness among nurses and healthcare workers on the World Health Organization's breastfeeding standards.

- Additional investigations are required to develop an instructional program for nurses regarding the breastfeeding standards established by the World Health Organization.
- Additional research with a greater number of participants is necessary to acquire more pertinent data and dependable outcomes.

Limitations

The small sample size is the most crucial limitation of this study, in addition to performing this study on a restricted hospital and only limited regions of research, besides, the short term of study conducting.

Implications for practical

To promote breastfeeding, it is advised that nurses, midwives, and other employed women adopt an ideal sitting position, consume a nutritious diet to increase milk production and save breast milk for feeding their newborns while at work.

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