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Knowledge of the Baby-Friendly Hospital Initiative among Staff Nurses: A Descriptive Study in Lucknow

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Abstract

BACKGROUND*: Hospitals adhering to BFHI standards consistently report improved breastfeeding initiation rates, higher exclusive breastfeeding prevalence, and longer breastfeeding duration [15].Despite its proven effectiveness, global implementation of BFHI has been uneven. Several evaluations have highlighted challenges related to inadequate workforce training, insufficient institutional commitment, high staff turnover, and lack of ongoing monitoring mechanisms [15,16]. Nurse's knowledge and competence are critical determinants of successful BFHI implementation and maternal confidence in breastfeeding. The present study was therefore conducted to assess the level of knowledge regarding BFHI among staff nurses working in selected hospitals of Lucknow, Uttar Pradesh, and to examine its association with selected demographic and professional variables.* ***MATERIALS & METHODS:*** *Descriptive research approach was adapted for this study. The study was conducted in selected hospital of Lucknow. The 60 staff nurses who were working in maternity, obstetric or neonatal care units with at least 6 months of experience in selected hospital and who are willing to participate in the study were selected as samples for this study. A non-probability purposive sampling technique will be used to select 60 staff nurses from the chosen hospitals.* ***RESULTS:*** *The majority of staff nurses, 50%, scored between 9 and 17, indicating moderate knowledge.33.3% of nurses showed adequate knowledge, with their scores falling between 18 and 35, suggesting a higher level of understanding. Another 20% of staff nurses had scored below 8, reflecting poor or inadequate knowledge. The mean knowledge score was 16.7% with a standard deviation of 7.86, indicating a moderate level of overall knowledge with clear differences among participants. The results revealed that a demographic variable such as age, Gender and Previous Training Related to BFHI shows significant association with their knowledge level. Other variables such as Highest Level of Nursing Education of the staff nurses, Years of Experience and Work Experience in maternal and neonatal care hospital show no significant association with their knowledge level.* ***CONCLUSION:*** *The study showed that nurses in the selected hospitals of Lucknow had a moderate level of knowledge about the Baby-Friendly Hospital Initiative (BFHI). Knowledge levels were not affected by education level in nursing, years of experience, or previous work in maternal and neonatal care. However, younger age, gender, and especially attending BFHI-specific training were linked to higher knowledge. This highlights that structured training programs play a key role in improving nurses' understanding of BFHI and should be emphasized to ensure better implementation in hospitals.*

Keywords: *Baby-Friendly Hospital Initiative (BFHI), Breastfeeding Practices, Staff Nurses, Knowledge Assessment, BFHI Training, Maternal and Neonatal Care*

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INTRODUCTION

Breastfeeding has been recognized as the most important intervention for supporting healthy child growth and development and lowering newborn mortality. The World Health Organization (WHO) recognizes breastfeeding as the optimal nourishment for infants and recommends that children commence breastfeeding within the first hour of birth and be exclusively breastfed for the initial 6 months of life [1]. "Breast feeding not only provides nutritional benefits but also confers psychological and emotional advantages to both the newborn (NB) and the mother" [2,3,4,5,6]. Additionally, it contributes to the economic and social well-being of families by promoting better infant health outcomes [7,8].

Although breastfeeding is widespread globally, exclusive breastfeeding (EBF) and suitable weaning practices are far from optimal. "Despite the known health and economic benefits of breastfeeding, global breastfeeding prevalence remains an underachieved target, where less than 40% of infants are globally breastfed according to the WHO's recommendations" [9]. nearly 1 million deaths of children under the age of 5 worldwide could be averted through breastfeeding alone, if families adhered to the World Health Organization's breastfeeding recommendation" [9, 10].

"Improving maternal compliance to optimal breastfeeding recommendations can also reduce a mother's risk of ovarian cancer, heart disease, and diabetes and prevent approximately 20,000 maternal deaths from breast cancer alone". "Breastfeeding also delays the return of the menstrual cycle which can help with birth spacing. Global adherence to optimal breastfeeding practices can lead to an array of health benefits coupled with economic benefits contributing to a worldwide economic savings of 300 billion U.S. dollars" [9,10]. "According to the World Health Organization, only 23 countries have achieved at least 60% of infants less than 6 months being exclusively breastfed and nearly 40% of countries have breastfeeding initiation rates above 80%" [11].

Multiple barriers including socio-cultural beliefs, health system constraints, and inadequate professional support continue to compromise optimal breastfeeding practices, especially during the immediate postnatal period when institutional care exerts a strong influence on maternal decision-making [12]. To address health system-related barriers "UNICEF and WHO launched the Baby-Friendly Hospital Initiative to encourage health facilities worldwide to better support breastfeeding". "The initiative developed the following Ten Steps to Successful Breastfeeding to promote optimal clinical care for new mothers and their infants. The initiative aims to give every baby the best start in life by creating a health care environment that supports breastfeeding as the norm. It therefore provides a framework that enables mothers to acquire the skills they need to breastfeed exclusively for the first six months (180 completed days), followed by complementary foods and continued breastfeeding for 2 years and beyond. A baby-friendly facility also assists mothers who are not breastfeeding to make informed decisions and care for their babies in the best possible way"[13]. Studies suggest that "mothers delivering in BFHI-accredited maternity units had higher exclusive breastfeeding rates and lower mixed breastfeeding rates than those delivering in non-accredited maternity units" [14].

Hospitals adhering to BFHI standards consistently report improved breastfeeding initiation rates, higher exclusive breastfeeding prevalence, and longer breastfeeding duration [15].Despite its proven effectiveness, global implementation of BFHI has been uneven. Several evaluations have highlighted challenges related to inadequate workforce training, insufficient institutional commitment, high staff turnover, and lack of ongoing monitoring mechanisms [15,16]. As a result, many facilities struggle to sustain BFHI practices beyond the initial accreditation phase, limiting the long-term impact of the initiative [17].

Nurses play a major role in promoting the baby-friendly hospital initiative (BFHI). They hold a crucial responsibility in promoting and assisting breastfeeding, given their frequent interactions with mothers during prenatal and postnatal visits, where they can educate and advocate for breastfeeding [18]. As such, they have a unique opportunity to educate and support women in their breastfeeding journey. Nurses can provide evidence- based information on the benefits of breastfeeding, including its role in promoting infant health and bonding, as well as its long-term benefits for both mother and child [19]. Nurses knowledge and competence are critical determinants of successful BFHI implementation and maternal confidence in breastfeeding.

Existing study findings reveal considerable differences in knowledge among staff nurses regarding the baby friendly hospital initiative principles and management. This is either due to insufficient manpower, excessive tasks and more workload performed by nurses, lack of continuity in the teamwork, out-of-context guidelines, less commitment with proposal, lack of continuing nursing education program, for the staffs regarding this policy [20]. The present study was therefore conducted to assess the level of knowledge regarding BFHI among staff nurses working in selected hospitals of Lucknow, Uttar Pradesh, and to examine its association with selected demographic and professional variables.

METHODOLOGY

Descriptive research approach was adapted for this study. The study was conducted in selected hospital of Lucknow. The target population for this study includes staff nurses working in the maternity and neonatal care units of St. Mary's Polyclinic Lucknow, Uttar Pradesh. 60 staff nurses who were working in maternity, obstetric or neonatal care units with at least 6 months of experience in selected hospital and who are willing to participate in the study were selected as samples for this study. Nurses who are not involved in maternal and neonatal care were excluded from the study. A non-probability purposive sampling technique will be used to select 60 staff nurses from the chosen hospitals. This technique ensures that participants are selected based on specific inclusion criteria relevant to the study objectives. The research tool was developed after an extensive review of literature, consultation with subject experts, and based on existing standardized tools assessing knowledge and practice of BFHI.

The data collection tool for this study consists of two sections. Section A focuses on demographic data and includes 6 questions related to the participants' 1. Age 2. Gender 3. Highest level of nursing education 4. Years of experience as a staff nurse 5. Work experience in a hospital Maternal or neonatal care hospitals, and 6. Attendance in any training related to BFHI. Section B comprises 35 multiple-choice questions designed to assess the knowledge of staff nurses regarding the BFHI. The questions cover various aspects, including the principles and objectives of BFHI, the ten steps to successful breastfeeding, the role of healthcare providers in BFHI implementation, hospital policies and guidelines, breastfeeding support and counseling

techniques, and the practical application of BFHI guidelines in clinical settings. The responses will be scored to evaluate the level of knowledge and adherence to BFHI-related practices among staff nurses. Each item consist 4 options with one correct one. The total score obtained by each respondent was summed and the level of knowledge was classified as 1. Good (Score-28-35) 2. Average (Score 19-27) 3. Poor (Score 0-9).

Ethical approval for this study was obtained from the institutional ethical committee before data collection. Informed consent was taken from all participants after explaining the purpose and objectives of the study. Participants were assured of confidentiality, anonymity, and voluntary participation, with the right to withdraw from the study at any time without any consequences. Descriptive and inferential statistics to assess the knowledge of staff nurses regarding the Baby Friendly Hospital Initiative (BFHI).

RESULTS

Findings on Demographic Variables:

Among participants 40% of nurses were in the age group of 20 to 30 years. 26.7% of the participants were between 31 and 40 years. 16.7% of nurses fall under the age group of 41–50. The remaining 16.7% of nurse's ages were above 50 years.

In regard to gender distribution, majority of the participants, 66.6% were female, and male participants accounted for 33.4% of the population. Results on the highest level of nursing education show that 50% of the participants have completed a diploma in nursing. 33.3% of nurses have completed undergraduate studies in nursing. The remaining 16.7% percentage of nurses' highest level of nursing education is Master degree in nursing.

The majority of the respondents, 33% reported their work experience was between 1 and 5 years. 26.7% of nurses' work experience is between 6 and 10 years. A significant proportion of the nurses 23.3 %, have been working for more than 10 years. 16.7% of nurses reported that their work experience is less than 1 year.

50% of the respondents have previous experience in maternal/ neonatal care hospitals. Another 50% of the respondents do not have previous experience in maternal/ neonatal wards. 50% of the respondents reported they had attended training or continuing education classes regarding Baby Friendly Hospital Initiative and the other 50% of nurses have not attended any training regarding BFHI.

(n=60)

Demographic Variable	Response Category	Frequency	Percentage
Age Group	20-30 years	22	40%
	31-40 years	16	26.7%
	41-50 years	11	16.7%
	Above 50 years	11	16.7%
Gender	Male	20	33.4%
	Female	40	66.6%
Highest Level of Nursing Education	Diploma in Nursing	30	50%
	Bachelor's Degree in Nursing & PBBSC	20	33.3%
	Masters Degree in Nursing	10	16.66%
Years of Experience as a Staff Nurse	Less than 1 year	10	16.7%
	1-5 years	20	33.3%
	6-10 years	16	26.7%
	More than 10 years	14	23.3%
Work Experience in MCH Hospitals	Yes	30	50%
	No	30	50%
Attended Training related to Baby Friendly Hospital Initiative	Yes	30	50%
	No	30	50%

Table: 1 Frequency and percentage distribution of staff nurses:

Findings on knowledge level of staff nurses regarding BFHI program

(n=60)

Knowledge Level	Frequency (N)	Percentage (%)	Mean	Standard Deviation
Inadequate Knowledge (0–8)	10	16.7%	15.83	7.86
Moderate Knowledge (9–17)	30	50%		
Adequate Knowledge (18-35)	20	33.3%		

Table-2 Knowledge level of staff nurses regarding BFHI program

The majority of staff nurses, 50%, scored between 9 and 17, indicating moderate knowledge.33.3% of nurses showed adequate knowledge, with their scores falling between 18 and 35, suggesting a higher level of understanding. Another 20% of staff nurses had scored below 8, reflecting poor or inadequate knowledge. The mean knowledge score was 16.7% with a standard deviation of 7.86, indicating a moderate level of overall knowledge with clear differences among participants.

Association between staff nurses knowledge regarding BFHI with selected demographic variables.

Table 3 indicates the association between staff nurses knowledge regarding BFHI with selected demographic variables. The results revealed that a demographic variable such as age, Gender and Previous Training Related to BFHI shows significant association with their knowledge level. Other variables such as Highest Level of Nursing Education of the staff nurses, Years of Experience and Work Experience in maternal and neonatal care hospital show no significant association with their knowledge level.

S.No	Demographic Variables		Level of Knowledge			Chi-Square Value	P-value ($p < 0.05$)	Significance
			Inadequate	Moderate	Adequate			
1	Age Group	20-30 years	1	5	18	16.78	12.59	Significant
		31-40 years	2	8	6			
		41-50 years	4	4	2			
		Above 50 years	4	2	4			
2	Gender	Male	2	6	12	6.22	5.99	Significant
		Female	14	14	12			
3	Highest Level of Nursing Education	Diploma in Nursing	4	5	6	2.55	9.49	Not Significant
		Bachelor's Degree (PBSc)	3	4	3			
		Master's Degree	1	1	3			
4	Years of Experience as a Staff Nurse	Less than 1 year	4	4	2	8.41	12.59	Not Significant
		1-5 years	4	10	6			
		6-10 years	2	6	8			
		More than 10 years	6	2	6			
5	Work Experience in Hospital Accredited with BFHI	Yes	4	12	14	5.466	5.99	Not Significant
		No	12	8	10			
6	Attended Training Related to BFHI	Yes	2	6	22	28.66	5.99	Significant
		No	14	14	2			

Table-3 Association between staff nurses knowledge regarding BFHI with selected demographic variables.

DISCUSSION

Level of BFHI Knowledge

The majority of individuals showed moderate or insufficient understanding of BFHI, whereas only one-third showed adequate knowledge. The observed mean knowledge score indicates a poor understanding of the structured requirements of BFHI implementation but a partial familiarity with breastfeeding ideas. These results show that although there may be a general understanding of the advantages of breastfeeding, there is still a lack of thorough operational knowledge on the Ten Steps.

Similar results were found in earlier research from comparable healthcare settings, where nursing staff showed inconsistent familiarity with institutional breastfeeding policies and fragmented knowledge of BFHI guidelines [21,22]. Research shows that healthcare professionals frequently rely on antiquated or informal methods in the absence of systematic training, which reduces the efficacy of breastfeeding support services [23].

Clinical Significance of Knowledge Deficits

In order to guarantee early breastfeeding initiation, avoid needless supplementation, facilitate rooming-in, and handle lactation difficulties, nurses are essential. Breastfeeding outcomes may be compromised by inadequate BFHI knowledge, which can result in delayed initiation, improper feeding guidance, and inconsistent coaching [24].

Even when breastfeeding-friendly policies are explicitly enacted, prior assessments have demonstrated that health facilities with inadequately trained staff exhibit reduced adherence to BFHI protocols [25]. These results reveal that staff nurse competency is very crucial for the effective implementation of BFHI.

Association between Age and Knowledge

According to the study, BFHI knowledge was correlated with age, with younger nurses scoring better. This could be as a result of younger nurses' more recent training, which covered modern maternity and child health procedures. However, if it is not updated over time, the information acquired during first training may deteriorate. In order to guarantee that nurses of all ages retain high-quality knowledge and abilities, it is crucial that they get frequent training [26, 27].

Gender Differences in Knowledge

Findings of this revealed that, a strong link was found between gender and BFHI knowledge. Although most nurses are women, work culture such as work roles, level of involvement, and access to training may influence knowledge more than gender itself. Available studies suggest that, gender alone does not reliably show how much healthcare professionals know about breastfeeding [28]. Further studies are needed to better understand how different situations affect professional development and access to training.

Educational Qualification and Knowledge

Results of study have demonstrated no significant association of education qualification with nurses' knowledge of BFHI. This result highlights the fact that, having a higher level of qualification alone does not guarantee that nurses are well prepared to support breastfeeding. Other studies also recognized that there are gaps in education in breastfeeding at both diploma and degree levels [29,30]. It indicates the need to ensure that BFHI guidelines are incorporated and have stronger, more focused breastfeeding content in nursing-specific courses.

Professional Experience and Knowledge

Years of professional experience showed no statistically significant differences with BFHI knowledge levels. This helps explain why nurses often continue to use familiar practices, even when they do not fully follow the latest BFHI guidelines Research has indicated that if there is no systematic refresher training, experienced nurses may use an obsolete practice [11]. Continuous learning is thus a requirement to maintaining evidence-based practice.

Previous Experiences in Maternal and Neonatal Health Care Settings

Having prior experience in maternal and child health settings or working in BFHI-accredited hospitals did not noticeably improve nurses' knowledge. Research shows that even if nurses are trained or experienced, their use of BFHI standards can decrease over time if there is no ongoing supervision, guidance, or monitoring. This means that regular support and follow-up are important to keep knowledge and skills up to date. [31]

Role of BFHI Training

Attendance at BFHI-specific training emerged as the strongest predictor of knowledge in the present study. Nurses who received structured training demonstrated significantly higher knowledge levels, reinforcing the effectiveness of formal education interventions [28–30]. Training programs incorporating interactive methods, clinical demonstrations, and periodic reinforcement have been shown to improve both provider competence and breastfeeding outcomes [32].

CONCLUSION

The study showed that nurses in the selected hospitals of Lucknow had a moderate level of knowledge about the Baby-Friendly Hospital Initiative (BFHI). While half of the nurses

had average knowledge and one-third had good knowledge, about 16.7% had poor knowledge, showing that some nurses still need more support and learning in this area. Knowledge levels were not affected by education level, years of experience, or previous work in maternal and neonatal care. However, younger age, gender, and especially attending BFHI-specific training were linked to higher knowledge. This highlights that structured training programs play a key role in improving nurses' understanding of BFHI and should be emphasized to ensure better implementation in hospitals.

LIMITATIONS

The study was done only in selected hospitals in Lucknow with 60 nurses, so the results may not represent all nurses in the region. Participants were chosen purposively, which could introduce some bias. The study looked only at knowledge and did not assess how BFHI practices were applied in real work. Also, because it was a cross-sectional study, it cannot prove that training directly caused better knowledge.

IMPLICATIONS

The study highlights the need for structured BFHI training for nurses to improve their knowledge and practice of baby-friendly care. Hospitals should ensure all nurses, regardless of education or experience, receive training and regular updates through continuing education. Incorporating in-depth BFHI topics or modules into nursing curricula and organizing workshops or refresher courses can strengthen skills and support better maternal and neonatal health outcomes. Administrators should implement policies to monitor BFHI compliance, while future research with larger samples can examine the impact of training on practice, patient outcomes, and barriers to guideline implementation.

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