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Awareness, knowledge, and perception of the baby-friendly hospital initiative among final-year midwifery students at a University in Ghana: a short communication

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Abstract

The Baby-Friendly Hospital Initiative (BFHI), a global program launched by the World Health Organization (WHO) and UNICEF, is crucial to improving breastfeeding outcomes. This short communication assesses the awareness, knowledge, and perceptions of BFHI among 75 final-year midwifery students at the University of Health and Allied Sciences (UHAS), Ghana. Using a structured questionnaire and statistical analysis with Statistical Package for Social Sciences (SPSS)-version 22, at a 5% significance level. The study found 100% awareness, 70.7% good knowledge, and 76.0% positive perception. Strong correlations were observed between knowledge and perception, with significant associations noted for age and religion. The findings underscore the need for targeted educational interventions to improve BFHI training and implementation in clinical settings.

Introduction

The Baby-Friendly Hospital Initiative (BFHI), launched by the World Health Organization (WHO) and UNICEF in 1991 [1-3], aims to promote breastfeeding and improve maternal-child health outcomes globally [1-6]. Despite its benefits, exclusive breastfeeding rates remain suboptimal, including in Ghana [1-10]. Healthcare providers, particularly midwives, are essential to BFHI implementation. However, limited evidence exists regarding midwifery students´ understanding of BFHI in Ghana [2,5]. This study aims to assess the awareness, knowledge, and perception of BFHI among final-year midwifery students at UHAS.

Methods

This descriptive cross-sectional study was conducted in July 2023 at the University of Health and Allied Sciences (UHAS) in Ho, Ghana. The study targeted all final-year midwifery students enrolled in the institution´s School of Nursing and Midwifery. The entire population of 75 eligible students was considered for participation using a total enumeration strategy to avoid bias. Inclusion criteria comprised students who had reached final-year status in the midwifery program and voluntarily consented to participate.

A structured, pre-tested, self-administered questionnaire was employed for data collection. The questionnaire was adapted from validated BFHI assessment tools and modified for contextual relevance. It consisted of four sections: (A) socio-demographics, (B) awareness, (C) knowledge, and (D) perception. The tool was pre-tested among final-year students in a similar program at a neighboring institution to ensure clarity and reliability.

Data were collected in a controlled classroom environment with adequate time provided for completion. Responses were anonymized to preserve participant confidentiality. Ethical approval was obtained from the UHAS Research Ethics Committee (UHAS-REC A.10(92)23-34), and informed consent was secured from all participants prior to data collection.

Data were entered and cleaned in Microsoft Excel and exported to SPSS version 22 for analysis. Descriptive statistics such as frequencies, percentages, means, and standard deviations were calculated. Knowledge and perception scores were derived using 5-point Likert scale items. For knowledge, scores ranged from 7 to 35 and were categorized as poor, moderate, or good. Perception was assessed on a 3-item Likert scale with total scores ranging from 3 to 15. Correlations between knowledge and perception were analyzed using Spearman's rho, while

associations with demographic factors were tested using Chi-square statistics. Significance was set at $p<0.05$.

Results

A total of 75 final-year midwifery students participated in the study, representing a 100% response rate. All participants were female. The mean age was 24.12 years (SD ±2.9), with 68% (n=51) aged ≤25 years and 32% (n=24) aged 26-30 years. The majority were single (88%, n=66), and most identified as Christian (76%, n=57), followed by Muslim (20%, n=15), and traditional religious affiliations (4%, n=3).

All students (100%) reported awareness of the Baby-Friendly Hospital Initiative (BFHI), with lectures identified as the primary source (54.7%), followed by personal reading (28%) and online resources (17.3%) [10].

Regarding knowledge of BFHI, 70.7% (n=53) demonstrated good knowledge, while 29.3% (n=22) were classified as having poor knowledge. The most commonly recognized items were the benefits of breastfeeding (identified correctly by 80% of students) and the need for early initiation within one hour (recognized by 88%). However, gaps were observed regarding the International Code of Marketing of Breast Milk Substitutes, with only 45% correctly responding (Table 1).

For perception, 76% (n=57) of students exhibited a positive outlook towards BFHI, agreeing that adherence to BFHI improves breastfeeding outcomes. A small proportion (24%) expressed neutral views, and no respondents held negative perceptions (Table 1). The mean perception score was 13.4 (SD ±2.1).

A strong positive correlation was observed between knowledge and perception scores ($\rho=0.872$, $p<0.001$), indicating that students with higher knowledge scores were more likely to report positive perceptions. Age and religion showed statistically significant associations with both knowledge and perception levels ($p<0.001$ for both). Older students and those identifying as Christians demonstrated higher knowledge and more positive attitudes. No significant associations were found for marital status ($p=0.167$) (Table 2).

Discussion

This study provides critical insight into the readiness of final-year midwifery students to implement the principles of the Baby-Friendly Hospital Initiative (BFHI) in clinical practice. Universal awareness of BFHI among students is encouraging, particularly in light of global calls to prioritize breastfeeding support in maternity settings [4]. Our findings align with prior research in Nigeria and Uganda, which revealed moderate to high levels of awareness among nursing and midwifery trainees [7,9].

The observed good knowledge in 70.7% of participants is a promising indication of curriculum effectiveness. The strong performance on items related to breastfeeding benefits and early initiation mirrors previous reports from South Africa and Ghana [5,8]. However, significant knowledge deficits were noted regarding the International Code of Marketing of Breast Milk Substitutes, an area often neglected in training programs despite WHO's emphasis on its role in protecting breastfeeding [6]. Targeted educational content addressing these gaps should be integrated into midwifery curricula.

Positive perception (76%) suggests that students are not only informed about BFHI but are likely to promote it in their professional roles. This is essential as positive provider attitudes influence patient education, policy adherence, and breastfeeding uptake in health facilities [6,8]. Interestingly, no negative perception was recorded, though 24% held neutral views. These may stem from insufficient clinical exposure or a lack of reinforcement during internships. Addressing this through structured clinical

rotations and mentoring could enhance both confidence and advocacy for BFHI.

The strong positive correlation between knowledge and perception (ρ=0.872, p<0.001) underscores the link between cognitive understanding and attitudinal disposition. Similar patterns were documented by Pérez-Escamilla *et al.*in their global review on BFHI effectiveness [6]. When trainees comprehend the rationale and benefits of BFHI, they are more likely to support its implementation. This supports the WHO´s call for continuous professional development as a vehicle for sustaining health worker motivation [4].

Sociodemographic differences were evident, with older students and Christians scoring higher in both knowledge and perception. Age likely reflects maturity and cumulative exposure, while religious alignment may influence breastfeeding beliefs, as noted in faith-based communities [5,7]. These findings offer valuable cues for curriculum designers and program implementers. Marital status showed no statistical impact, which may be attributed to participants´ youth and limited parenting experience.

Overall, this study supports the inclusion of structured BFHI training in all midwifery programs. The high awareness and knowledge levels reported here set a good foundation, but knowledge gaps and neutral attitudes highlight areas for intervention. Tailoring educational interventions to address weaker domains and sociodemographic variation can enhance the preparedness of midwives to lead in promoting optimal infant feeding practices. Future studies could assess how this knowledge and attitude scores translate into actual clinical behaviors or compare pre- and post-intervention cohorts to evaluate curriculum impact [8-10].

Conclusion

Awareness of BFHI is high among final-year midwifery students at UHAS. However, knowledge and perception levels vary, highlighting the need for targeted education. Age and religious background significantly influence understanding. Curriculum strengthening is recommended to ensure future midwives are well-prepared to promote BFHI.

What is known about this topic

- *The Baby-Friendly Hospital Initiative (BFHI) is a global effort by WHO and UNICEF to promote breastfeeding through healthcare worker engagement;*
- *Midwives are critical frontline providers in maternal and newborn care, influencing breastfeeding practices;*
- *Awareness and proper understanding of BFHI principles among healthcare trainees contribute to better maternal-child health outcomes.*

What this study adds

- *Among final-year midwifery students at UHAS, awareness of BFHI is universal, but only 70.7% show good knowledge and 76.0% a positive perception;*
- *There is a strong positive correlation between knowledge and perception of BFHI among trainees;*
- *Sociodemographic factors such as age and religion significantly influence BFHI-related knowledge and perception, highlighting key targets for educational.*

Competing interests

The authors declare no competing interests.

Authors' contributions

Kumbuno Desmond: study design, methodology, data collection, visualization, and editing; Frank Obeng: conceptualization, study design, supervision, data curation, visualization, first draft outline, and critical revision of the manuscript. All

the authors read and approved the final version of this manuscript.

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Tables

Table 1: knowledge of the Baby-Friendly Hospital Initiatives among final-year midwifery students: a summary of knowledge, perception, and associated demographic factors among final-year midwifery students

Table 2: summary of correlation and association tests

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Table 1: knowledge of the Baby-Friendly Hospital Initiatives among final-year midwifery students: a summary of knowledge, perception, and associated demographic factors among final-year midwifery students					
Measure	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**
Rooming in should be practiced 24 hours	40	27	6	0	2
Breastfeeding is initiated within 1 hour	31	35	0	6	3
All pregnant women should be educated	45	29	0	0	1
Skin-to-skin contact recommended	53	29	0	0	1
Breastfeeding support groups are helpful	42	30	0	2	1
Breastfeeding benefits both	47	24	3	0	1
Pacifiers not encouraged	45	18	3	3	6
All steps in BFHI are helpful	51	20	1	2	1
Adherence improves quality	48	23	1	0	3
BF hospitals support mothers	40	29	4	1	1
BF: Baby-Friendly; BFHI: Baby-Friendly Hospital Initiative					

Table 2: summary of correlation and association tests				
Test	**Variables compared**	**Statistic**	**P-value**	**Significance**
Spearman correlation	Knowledge score vs perception score	P = 0.872	<0.001	Significant
Chi-square test	Age vs knowledge level	X^2 = 61.81	<0.001	Significant
Chi-square test	Age vs perception level	X^2 = 46.30	<0.001	Significant
Chi-square test	Marital status vs knowledge level	X^2 = 2.79	0.095	Not significant
Chi-square test	Marital status vs perception level	X^2 = 1.91	0.167	Not significant
Chi-square test	Religion vs knowledge level	X^2 = 57.06	<0.001	Significant
Chi-square test	Religion vs perception level	X^2 = 75.00	<0.001	Significant