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Effect of Breastfeeding Training Program on Nurses' and Midwaves' Competency in Akre District

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Abstract

Background: Breastfeeding is directly feeding an infant and young baby via lactation. It's the usual way of providing infants with the nutrient they need for healthy growth and development. This study aims to improve nurses' and midwives' competency in instructing mothers to breastfeed their babies through the application of a breastfeeding training program. Methods: A Quasi-Experimental study was done to examine the effect of the breastfeeding training program on the competency of 30 non-probability convenient nurses and midwives about instructing mothers to breastfeed their babies in the delivery, post-delivery, and post-Cesarian Section rooms of the governmental hospital in the Akri district from March 2022 through October 2022. The data were gathered using the checklist format, which was created by the authors according to the aim of the study, and this checklist was filled through direct observation of the nurses and midwives before and after giving them the training session to find out the effect of the breastfeeding training program on their competency in instructing mothers on breastfeeding their babies. The nurses' competency is calculated by applying the cutoff for the checklist items' mean score to three levels; poor competency (1-1.66), fair competency (1.67-2.33), and well competency (2.34-3). The SPSS version 23 IBM was used for analyzing the data Frequency, Percentages, Mean, Standard Deviation, and Confidence Interval. Conclusion: The competency of nurses and midwives who worked in the governmental maternity hospital of Akri district is improved after engaging them in a breastfeeding training program established in the present study related to instructing mothers in breastfeeding their newborns.

Keywords
Breastfeeding, training program, Nurses and Midwives

Breastfeeding has gained much attention in the medical field over the last two decades, with increased research investigating its numerous health benefits, including pediatric cognitive and immunological development. Likewise, studies have found that breastfed babies are less prone to infections, diarrhea, obesity, and cardiovascular diseases later in life (1). Breastfeeding is globally recommended as the best source of nutrition and hydration for babies. Breastfeeding plays a prominent role to protects babies against certain infections and other conditions in early childhood. Babies who are breastfed for at least six months are less likely to develop several health problems, for example, gastrointestinal problems

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(diarrhea and vomiting), ear infections and respiratory infections, Inflammatory bowel diseases, Sudden infant death syndrome (SIDS), asthma and respiratory wheezing, and Leukemia. (2)(3). Likewise, not being breastfed is associated with an increased incidence of infectious morbidity and elevated risks of childhood obesity, type 1 and type 2 diabetes, leukaemia, and sudden infant death syndrome. For mothers, failure to breastfeed is associated with an increased incidence of premenopausal breast cancer, ovarian cancer, retained gestational weight gain, type 2 diabetes, myocardial infarction, and metabolic syndrome, the protective health benefits to mothers are also manifold, including decreased risk in chronic conditions such as diabetes, hypertension, osteoporosis, and ovarian and breast cancer (1). The knowledge and attitudes of healthcare staff can also positively or negatively influence a mother's decision to initiate and/or continue breastfeeding, which is why successful breastfeeding is impacted by the support from physicians and nursing staff (4). Healthcare staff knowledgeable about breastfeeding and having positive attitudes about this method of infant feeding may be more likely to encourage mothers desiring to breastfeed since midwives and nurses are key health providers who care for women and children before and during pregnancy and birth. They may work in various settings throughout early childhood, including communities, healthcare centers, and hospitals. Thus, all midwives and nurses can endorse the importance of breastfeeding, provide support and protect mothers from practices that can be a barrier to breastfeeding. That could reflect an essential competency of midwives and nurses as an integral part of respectful quality care (5). Breastfeeding encourages a special and emotional bond between mother and baby in addition to its nutritional advantages. The healthiest start for a newborn may be achieved through breastfeeding, which is an effective and natural source of nutrition (6). Unfortunately, Breastfeeding problems are frequently caused by mothers' misinformation and inexperience, especially during breastfeeding for the first time. For the mothers, it could be the most frustrating experience (7). Furthermore, poor breastfeeding support, a lack of breastfeeding awareness, poor self-efficacy, latching difficulties, and the thought that they produce insufficient milk are the primary causes of mothers ceasing to breastfeed their babies (8). The findings of a study conducted by Ranch et al. (2019) underlined how critical it is for pediatric nurses to maintain current knowledge of breastfeeding in order to provide mothers with expert breastfeeding assistance (9). Additionally, paying attention to mothers' desires for nursing and providing them with specialized assistance is critical. Any worker entrusted with supporting breastfeeding, particularly neonatal care nurses and midwives working in maternity wards, could benefit from having access to such information. Evidence reveals that women require efficient breastfeeding assistance, yet many healthcare professionals lack the requisite expertise, attitudes, and capacities. Therefore, there is a need for healthcare workers to get breastfeeding training and education (10).

Aim: To enhance the nurses' and midwives' competency in instructing mothers to breastfeed their babies by applying for the breastfeeding training program and measuring its effect on nurses' and midwives' competency.

Subject and Methods

An interventional study design (Quasi-experimental) was applied from March 2022 through October 2022 to find out the effect of the breastfeeding training program on the Nurses' and Midwives' knowledge and competency in instructing mothers to breastfeed their babies in delivery rooms, post-delivery, and post-CS rooms in governmental hospitals of the Akri district in Duhok province in the Kurdistan region of Iraq. Therefore, a non-probability convenient sample was adopted to select 30 Nurses and Midwives who worked in the delivery room, post-delivery room, and post-Cesarean Section CS room of the governmental hospital in the Akri district who agreed to participate were included, otherwise were excluded from the present study. These data were collected by direct interviews with the nurses and midwives and using a checklist created from a thorough review of related kinds of literature and considering the study's objectives, which consisted of two parts;

The first included questions regarding personal information such as age, education level, and residential area. The second comprised 11 checklist items concerning applying the procedures of breastfeeding practice with three choices for describing such practice (Done, Partially done, and not done). These choices were rated as 3 to 1, respectively. Validity is done by asking five related experts who help in the building of the study training program and questionnaire through their scientific comments, while test-retest reliability is performed on ten nurses and midwives to determine the clarity and consistency of the questionnaire, through which Cronbach's alpha = 0.813 was determined. The nurses' competency related to the instruction of mothers to breastfeed their babies is calculated by applying the cutoff for the checklist items' mean score to three levels poor competency (1-1.66), fair competency (1.67-2.33), and well competency (2.34-3). Additionally, the Frequency, Percentages, Mean, Standard Deviation, and Confidence Interval were analyzed using SPSS IBM, version 23.

Ethical considerations

Before initiation, the research approvals were taken from the scientific committee in the Nursing Department and the scientific committee in the technical institute of Akre. After that, approvals were obtained from the Health sector of the Akre district and the maternity hospital. Also, the researchers obtained oral informed consent from the participants to participate in this study.

Results

Analyzing the present study data shows that the predominant percentage of Nurses and Midwives aged less than 35 years (66.7%), had a diploma degree of education (15%), were married (73.3%), and their workplace in delivery and post-cesarian section rooms (43.3%) and (40%) respectively (Table 1). At the same time, the nurses and midwives who participated in the current study showed poor competency in all items related to instructing the mothers on how to breastfeed their babies immediately after birth (Table 2). Moreover, the Nurses' and Midwives' competency is enhanced through the significant rising in their instruction items towards breastfeeding as presented with their pre and post-training program's means and confidence interval (Table 3).

Table 1: Distribution of Nurses' demographic variables

Demographic Variables		Freq. (%)
Age	< 35 years	20 (66.7)
	≥ 35 years	10 (33.3)
Education	Midwife	9 (30)
	Diploma	15 (50)
	Bacheller	6 (20)
Marital status	Single	8 (26.7)
	Married	22 (73.3)
Place of work	Delivery room	13 (43.3)
	Post delivery room	5 (16.7)
	Post CS room	12 (40)

Table 2: Nurses' and midwives' competency in the training of mothers toward breastfeeding their newborn baby.

	Items	Done F(%)	Partially done F(%)	Not done F(%)	Mean of Score	Nurses Competency
1.	Motivate the mother before and after birth to breastfeed.	6 (20)	7 (23.3)	17 (56.7)	1.63	P.C
2.	Enhance breastfeeding after delivery for at least 2 hours.	4 (13.3)	6 (20)	20 (66.7)	1.47	P.C
3.	Instruct the mother not to wash the nipple before and after lactation.	4 (13.3)	5 (16.7)	21 (70)	1.43	P.C
4.	Hold the baby in the correct position during breastfeeding.	3 (10)	8 (26.7)	19 (63.3)	1.47	P.C
5.	The baby's body is well supported during breastfeeding.	4 (13.3)	5 (16.7)	21 (70)	1.43	P.C
6.	Put the pillow under the baby during lactation.	4 (13.3)	5 (16.7)	21 (70)	1.43	P.C
7.	Put the nipple and part of the areola in the mouth of the baby.	6 (20)	4 (13.3)	20 (66.7)	1.53	P.C
8.	Put the mother s fingers below the breast and support the breast during breastfeeding.	6 (20)	5 (16.7)	19 (63.3)	1.57	P.C
9.	Burping the baby after feeding for 15-20 min in various positions.	5 (16.7)	6 (20)	19 (63.3)	1.53	P.C
10.	Teach the mother about the first 3-4 days after delivery for colostrum.	4 (13.3)	7 (23.3)	19 (63.3)	1.50	P.C
11.	Teach the signs of enough breastfeeding (signs of satiety).	5 (16.7)	6 (20)	19 (63.3)	1.53	P.C
F: Frequency, %: percentage, P.C: Poor Competency.						

Table 3: Nurses and Midwives mean, standard division, and confidence interval of pre and post-training program.

	Items	Pre-test		Post-test	
		Mean (SD)	95% CI	Mean (SD)	95% CI
1.	Motivate the mother before and after birth to breastfeeding.	1.63 (0.809)	1.33-1.94	2.80 (0.407)	2.65-2.95
2.	Enhance breastfeeding after delivery for at least 2 hours.	1.47 (0.730)	1.19-1.74	2.73 (0.521)	2.54-2.93
3.	Instruct the mother not to wash the nipple before and after lactation.	1.43 (0.728)	1.16-1.71	2.70 (0.535)	2.50-2.90
4.	Hold the baby in the correct position during breastfeeding.	1.47 (0.681)	1.21-1.72	2.70 (0.535)	2.50-2.90
5.	The baby's body is well supported during breastfeeding.	1.43 (0.728)	1.16-1.71	2.57 (0.568)	2.35-2.78
6.	Put the pillow under the baby during lactation.	1.43 (0.728)	1.16-1.71	2.57 (0.626)	2.33-2.80
7.	Put the nipple and part of the areola in the mouth of the baby.	1.53 (0.819)	1.23-1.84	2.53 (0.629)	2.30-2.77
8.	Put the mother s fingers below the breast and support the breast during breastfeeding.	1.57 (0.817)	1.26-1.87	2.60 (0.621)	2.37-2.83
9.	Burping the baby after feeding for 15-20 min in various positions.	1.53 (0.776)	1.24-1.82	2.57 (0.679)	2.31-2.82
10.	Teach the mother about the first 3-4 days after delivery for colostrum.	1.50 (0.731)	1.23-1.77	2.70 (0.596)	2.48-2.92
11.	Teach the signs of enough breastfeeding (signs of satiety).	1.53 (0.776)	1.24-1.82	2.60 (0.621)	2.37-2.83
SD: Standard Deviation, CI: Confidence Interval.					

Discussion

The current work indicated that the predominant percentage of Nurses and Midwives aged less than 35 years, had a diploma degree of education, were married, and worked in delivery and post-cesarian section rooms. The study by Dubik et al. (2021) evaluates the nurses' and midwives' competencies in breastfeeding educational experiences; the findings show that the nurses' and midwives' mean (SD) age was 30.3 (7.3), the majority of them (39.4%) were providing care in Community-based Health Planning Services (CHPS), and a small proportion(22.1%) were giving care in hospitals (11). Furthermore, according to an analysis of the socio-demographic data of the study sample, collected by Hussein and Abbas (2021) in delivery rooms at maternity hospitals in Baghdad City, shows (22.5 %) of the study sample within the age groups (36 - 40) years, (85%) of them was a graduate of a midwifery secondary school, and (47.5 %) of the nurses-midwives were married (12).

Further results of the present study reveal that the nurses and midwives who participated in the current study showed poor competency in all items related to instructing the mothers on how to breastfeed their babies immediately after birth and before applying for the training program. Most of the nurses and midwives who participated in the present study had no bachelor's degrees in nursing and midwifery that could be competent in teaching and counseling, and instructing mothers about breastfeeding their babies after giving birth immediately. World Health Organization (2016) stated that advised Midwives and nurses health providers who care for women and children before and during pregnancy and birth could endorse the importance of breastfeeding, provide support and help mothers with practices that can be a barrier to breastfeeding. Providing breastfeeding support is an essential competency for midwives and nurses as an integral part of respectful quality care. Similarly, researchers presented in their study's results that the nurses and midwives show confidence in counseling mothers on how to breastfeed their newborns and babies (11).

Additionally, this study provokes that the competency of Nurses and Midwives was enhanced after the application of the breastfeeding training program in the instruction of mothers to breastfeed their babies. In fact, Personal competency and skills could be modified and promoted by engaging them in training courses. Likewise, research demonstrates compatibility since after taking the course, health providers' breastfeeding knowledge and self-efficacy were significantly increased, and they also managed breastfeeding issues more effectively. All staff members assisting women with breastfeeding have gained more confidence, increased consistency in their advice, and increased motivation (13). As mentioned by another study for midwives and child health nurses, a methodical approach as process-oriented training enhanced their attitudes about breastfeeding and parental assistance. The intervention group mothers' experience with professional and social support and their interaction with and emotional reactions to the infant and nursing strengthened due to these enhanced attitudes.

These findings highlight the role that health providers' attitudes have in the standard of care provided to women throughout childbearing, as well as suggesting that process-oriented training may help to change professionals' attitudes (14). Additionally, a study done in a Tertiary Hospital in Singapore by Fok et al. (2022) declared that the 20-hour Baby-Friendly Hospital Initiative training program had a significant impact on nurses' breastfeeding knowledge and confidence in breastfeeding support practices (15).

Limitations of the study

1. Sometimes, the time was not suitable to meet with the Nurse and Midwives; thus, the authors needed to wait for them until they finished their work.
2. Language differences among nurses and midwives; therefore, the researchers tried translating and explaining each point.

Conclusion and Recommendation

The study concluded that nurses and midwives who worked in the governmental maternity hospital of Akri district were in early adulthood of age, had a diploma degree of education, and showed poor competency in instructing the mothers to breastfeed their babies first. In contrast, such competency improved after engaging them in a breastfeeding training program established in the present study on how to assist mothers in breastfeeding their newborns. So using this program on a broad range could benefit the nurses' and midwives' performance in supporting mothers on how to breastfeed their babies.

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Conflict of interest

The authors state that there are no conflicts of interest with each other.

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