

## **NURSES' KNOWLEDGE OF AND ATTITUDE TO EXCLUSIVE BREASTFEEDING IN SOUTHWEST NIGERIA**

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### **ABSTRACT**

**Background:** The nurse, by virtue of her role as patient/client educator, can greatly influence a mother's decision on exclusive breastfeeding by teaching the mother about breastfeeding during the antenatal period, immediate after delivery, and during the postnatal period.

**Method:** A descriptive comparative study was carried out at the Obafemi Awolowo University Teaching Hospital (OAUTH) at Ile-Ife in Osun State, which is a certified baby-friendly hospital, and the Adeoyo State Hospital at Ibadan in Oyo State, which was not a certified baby-friendly hospital at the time of the study. A convenience sampling method was used and the study population of 100 nurses was drawn from registered nurses working in the obstetrics and gynaecology departments of the two hospitals.

**Results:** The results showed that the level of knowledge on exclusive breastfeeding among nurses is high. A comparison of the knowledge among nurses in the two hospitals showed that the mean scores were significantly different, however.

**Recommendations:** The need to encourage continuing education in nursing cannot be over-emphasised. Nurses need to realise the importance of acquiring knowledge as a tool for better practice.

**Keywords:** attitude, breastfeeding, knowledge.

### **INTRODUCTION**

"Breast is best" is a common phrase that summarises general opinions about breast milk in comparison to any other form of feed available for infants.. Owoaje, Oyemade and Kolude (2002) reported as follows: "Epidemiological research has established that

exclusive breastfeeding is the optimal way to feed an infant both in the developed and developing nations in the first 4-6months of life.” Bademosi (1996) asserted that breastfeeding was the traditional African feeding practice and that the influences of various forms of civilization have impacted negatively on this practice. She further affirmed that research has disproved the general belief that breast-milk substitutes are as good as breast milk. In discussing the need for mothers to return to breastfeeding, modification of health care practices was identified as the key factor. This brought about the training of health workers through the Baby Friendly Hospital Initiative (BFHI) (Owoaje *et al*:2002).

The baby-friendly hospital concept is a strategy for the protection and promotion of breastfeeding. It requires an institution to adopt and apply the principles outlined in the ten steps for successful breastfeeding designed by the World Health Organisation (WHO) and the United Nations Children’s Fund (UNICEF) (Bademosi 1996, Martens 2000). A critical look at the ten steps, especially steps four, five and six, shows that nurses have very important roles to play in order to sustain the hospital policy of supporting, promoting and protecting breastfeeding. This is by virtue of the nature of their work, their constant presence and their vital role as coordinators, collaborators of care, and as patients’ advocates.

## **PURPOSE OF THE STUDY**

The purpose of this study was to determine the level of knowledge of and attitude towards exclusive breastfeeding among nurses.

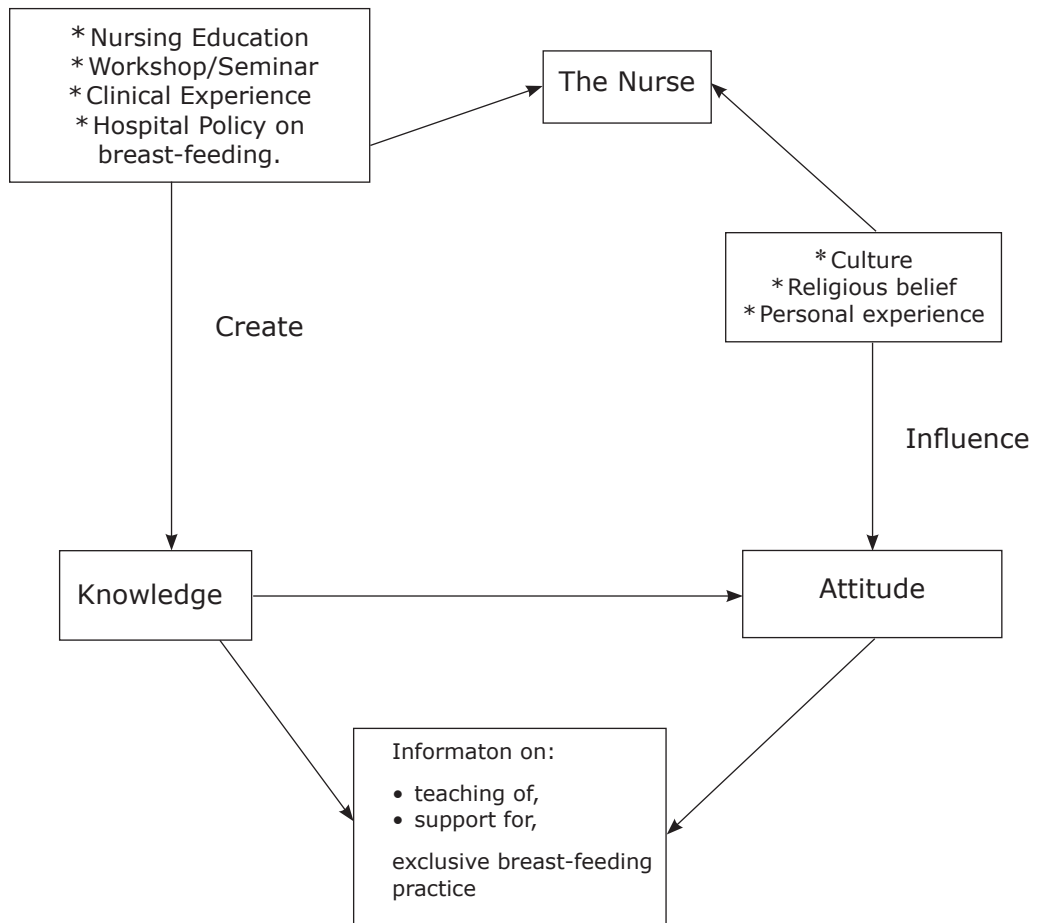
## **RATIONALE FOR THE STUDY**

Nurses, by virtue of their role as patient/client educator, can greatly influence a mother’s decision on exclusive breastfeeding by informing, teaching, encouraging and supporting the mother during the antenatal period, immediately after birth and during the postnatal period. Therefore, it is important to study nurses’ knowledge of and attitude towards exclusive breastfeeding so that knowledge gaps can be attended to and they will be able to perform this function adequately.

## **CONCEPTUAL FRAMEWORK**

According to the conceptual framework (figure 1) opportunities to attend workshop and seminars on exclusive breastfeeding, clinical experience and hospital policy on breastfeeding will contribute to the nurse’s knowledge of exclusive breastfeeding, while the cultural background of the nurse and her personal experience with breastfeeding will influence her attitude to exclusive breastfeeding. It is also expected that knowledge will influence attitudes, and that the knowledge and attitude of the nurse will influence

the type of information and support given to mothers at the initiation of and during the breastfeeding process.



**Figure 1: Conceptual framework for the study: Nurses' knowledge of and attitude to exclusive breastfeeding**

### ASSUMPTION

It is the assumption of the research that:

- nurses' knowledge of exclusive breastfeeding would be high
- nurses' attitudes to exclusive breastfeeding would be positive

- there would be no direct relationship between knowledge and attitude of nurses to exclusive breastfeeding.

## **LITERATURE REVIEW**

Significant advances in the understanding of health outcomes associated with breastfeeding have been observed since 1985. There is also evidence that epidemiological studies support the association between breastfeeding and reduced infant morbidity and mortality in both developing and industrialised nations. It has been noted that breastfeeding confers the greatest protection against infection when it is exclusive and continuous for at least four to six months. This, in addition to other evidence, resulted in many health organisation, including the WHO and the American Academy of Paediatrics concluding that breastfeeding should continue for the first six months of life, where necessary exclusively (Wambach, Campbell, Gill, Dodgson, Abiona, Heinig 2005).

The incidence and success of breastfeeding have been attributed to several factors, including the provision of accurate information and continuous support to the breastfeeding mother (Bernaix, 2000). Previous research acknowledged nurses as breastfeeding authorities, even though their knowledge and ability to support and encourage mothers varied, with some showing a significant knowledge deficit in this regard (Bernaix 2000). According to Register, Eren, Lowdermilk, Hammond and Tully (2000) several studies have shown that maternity nurses usually have less positive beliefs and lower knowledge scores than other medical professionals such as nutritionists and physicians. In their study among paediatric office nurses their findings showed that 88 percent of the participants acknowledged that breastfeeding increases immune functioning but only 59 percent acknowledged that breastfeeding would reduce the incidence of gastroenteritis and otitis media. Fifty-eight percent agreed that exclusive breastfeeding is a beneficial form of nutrition. The mean knowledge score of the participants was high and their attitude toward breastfeeding, positive.

## **METHOD**

A quantitative descriptive study was carried out at the Obafemi Awolowo University Teaching Hospital in Ile-Ife, which is a certified baby-friendly hospital, and the Adeoyo State Hospital in Ibadan, which was not a certified baby-friendly hospital at the time of the study. A convenience sampling method was used to draw the study population of 100 nurses from registered nurses working in the obstetrics and gynaecology departments of the two hospitals. The instrument was a questionnaire containing questions on the demography of the respondents and some questions designed to determine the level of knowledge and attitude of the respondents. The questionnaire was structured as follows:

- Section I dealt with the demographic data of respondents (eight questions).

- Section II consisted of 11 items that were designed to determine the level of knowledge of exclusive breastfeeding among the respondents.
- Section III consisted of 19 items that measured attitude. Thirteen utilised the five-point Likert scale options, that is, strongly agree, agree, no opinion, disagree, strongly disagree. Five utilised the multiple-choice option and one required a yes/no response.

Data was analysed using EPISTAT, a statistical computer program. Student's *t*-test was utilised and the level of significance was taken to be  $P < 0.05$ .

## RESULT

Out of 100 questionnaires distributed, 85 were returned. Only 70 had been completed satisfactorily enough for analysis. Of these, 47 (67.1 percent) were from Adeoyo State Hospital, and 23 (32.9 percent) were from OAUTH. All 70 respondents were female. Twenty-two (31.4 percent) did not register their age, while 13 (18.6 percent) were above 40 years of age. Only four (5.7 percent) were between 35 and 40 years. The majority, namely 17 (24.3 percent) were between 30 and 35 years. Six (8.6 percent) were between 20 and 25 years and only eight (11.4 percent) were between 25 and 30 years.

Twenty-two (31.4 percent) of the respondents worked in antenatal clinics, 12 (17.1 percent) in postnatal clinics, 22 (31.4 percent) in labour wards and the remaining 14 (20 percent) in lying-in wards. Twenty-three (32.9 percent) were staff nurses, eight (11.4 percent) were staff nurse/midwives, 14 (20 percent) were nursing sisters, 10 (14.3 percent) were senior nursing sisters and 15 (21.4 percent), matrons.

**Table 1: Mean and standard deviation of knowledge and attitudinal score**

	ADEOYO n = 47	OAUTH n = 23	COMBINED n=70
Knowledge	Maximum score = 11		
Mean	8.5	9.7	8.9
SD	1.7	1.1	1.6
Attitude	Maximum score = 65		
Mean	48.4	49.2	48.7
SD	6.2	5.3	5.9

**Table 1** shows that the mean score (standard deviation) of knowledge of respondents at Adeoyo State Hospital was 8.5 (1.7) while that of the respondents at OAUTH was 9.7 (1.1). A comparison of these mean scores revealed that they were significantly different (Table 2). However, it is pertinent to note that 47 respondents (67.14 percent) knew that

exclusive breastfeeding refers to giving breast milk every time the baby demands to be fed, while six (8.6 percent) thought it was still exclusive breastfeeding when the only extra feed given is water. Eleven respondents (15.7 percent) stated that a baby that is not given water with breast milk would be thirsty and irritable.

**Table 2: Student's *t*-test, comparing the mean attitude scores and mean knowledge scores of nurses in Adeoyo State Hospital and OAUTHC, Ile-Ife**

Attitude	Adeoyo		OAUTH	
	Adeoyo	OAUTH	Adeoyo	OAUTH
Mean	48.4	49.2	8.5	9.7
Variance	38.2	28.0	2.8	1.2
t value	54.54 *		3.24 **	
df	68		68	
p value	0.6		0.001	

The means of the knowledge scores of Adeoyo and OAUTH are significantly different.

The majority of the respondents, namely 65 (93 percent) agreed that breast milk is enough to supply all the nutrients and fluid a baby needs in the first four to six months of life. Sixty respondents (87.7 percent) knew that the first few hours of birth are crucial to establishing exclusive breastfeeding. Sixty-three (90 percent) knew that the rooming-in concept is supportive of exclusive breastfeeding. Forty-five (64.2 percent) knew that exclusive breastfeeding delays the return of ovulation after delivery and 50 percent were positive that a malnourished mother could still breastfeed exclusively while working on her nutritional state. Only 19.1 percent of the respondents from Adeoyo State Hospital had had the opportunity of attending a workshop or seminar on exclusive breastfeeding while 73.9 percent of the respondents from OAUTH, Ile-Ife had attended a workshop or seminar on exclusive breastfeeding.

In terms of participants' personal experience with childbirth, data showed that 25 respondents (35.7 percent) had one to two children, 19 (27.1 percent), three to four, and eight (11.4 percent) had more than four children. Eighteen (25.7 percent) did not have any children, but one of them was pregnant. All 70 (100 percent) would breastfeed all their children. However, only two (2.9 percent) were prepared to breastfeed a baby for more than two years. Eleven (15.7 percent) would breastfeed for one to two years. The majority, namely 41 (58.6 percent), would breastfeed for nine months to one year. Thirteen respondents (18.6 percent) were prepared to breastfeed for six to nine months, and three (4.3 percent) would breastfeed for less than six months.

Twenty-three respondents (32.85 percent) would both breastfeed and give water at the same time. The same proportion was prepared to breastfeed exclusively for at least three

to four months, and only 10 (14.3 percent) would breastfeed exclusively for up to six months. Thirteen (18.6 percent) would breastfeed most times but would give formula in the night. Only one respondent (1.4 percent) preferred formula feed most times. Three respondents (4.3 percent) would wait until 24 weeks before introducing formula to their babies. Nine (12.9 percent) would introduce formula between four and six weeks, 27 (38.6 percent) between four and fifteen weeks, 13 (18.6 percent), between the second and fourth week and six (8.6 percent) in the first week. Twelve respondents (17.1 percent) did not respond to this question.

When the attitudinal score was regressed on the knowledge scores there was a significant relationship (see table 3). In other words, knowledge could be used to predict attitude, using the linear regression equation. However, when the mean scores of attitude were compared, the difference was not significant, though the mean score of OAUTH was slightly higher.

**Table 3: Linear regression of attitude of nurses on knowledge**

ALL RESPONDENTS	
Regression equation:	$y = 36.87 + 1.32x$
Significance of slope:	$t = 3.21 \quad df = 68 \quad p = 0.002$
Confidence limit:	$1.33 + t (68) \times 0.41$

**p is the degree of dependence and interdependence between x and y.**

**The independent variable (knowledge) is x.**

**The dependent variable (attitude) is y.**

**The slope of the line is significantly different from 0, that is, attitude can be predicted by knowledge and vice visa.**

## DISCUSSION

The study was designed to investigate nurses' level of knowledge of and attitude to exclusive breastfeeding. The fact that all the respondents were female and mostly married was of benefit to the study. Similarly, since over 60 percent were qualified as midwives and most were experienced in the practice of obstetrics, there was a wider base for knowledge. The first assumption of the study was that there is a high level of knowledge on exclusive breastfeeding among nurses. The result showed that the level of knowledge of exclusive breastfeeding among nurses was indeed high. This finding contrasts with the reports of previous research given by Bernaix (2000) and Register *et al* (2000) that maternity nurses usually have less positive beliefs and lower knowledge scores than other medical professionals such as nutritionists and physicians.

It is important to note, however, that the knowledge scores among nurses at OAUTH, Ile-Ife, are relatively higher. In comparing the mean knowledge scores it was noted that the difference between the mean values is significant. The result further showed that 73.9 percent of nurses from OAUTH, Ile-Ife have attended workshops or seminars on exclusive breastfeeding, while only 23.7 percent of their counterparts in Adeoyo State Hospital had the opportunity of attending such a workshop or seminar. It could be presumed, therefore, that the attendance of workshops or seminars helped to increase the knowledge of the nurses at OAUTH, Ile-Ife. In addition, OAUTH, Ile-Ife is a baby-friendly hospital, which probably explains why nurses from these hospital have more opportunities to attend workshops and seminars, since funds were more likely to be available to finance baby-friendly initiatives.

These results are in agreement with the writer's conceptual framework that hospital policy on breastfeeding, as well as attendance of workshops and seminars, will create knowledge. They are also supported by Martens' (2000) findings, which showed a 23 percent increase in exclusive breastfeeding rates after breastfeeding education was provided in the experimental hospital.

The second assumption stated that nurses' attitudes to exclusive breastfeeding would be positive. This was proven to be the case. The fact that 92.9 percent of the nurses affirmed that their culture supports the concept of exclusive breastfeeding would also explain their positive attitude towards it. This is also in line with the writer's conceptual framework, which suggests that culture is one of the factors that helps to form attitudes.

Up to 15.7 percent of the nurses believed that a baby that is not given water with breast milk will be thirsty and irritable and 8.6 percent thought that if the only extra feed given with breast milk is water, the feeding should still be considered as exclusive breastfeeding. This finding is of great importance. A previous study by Register *et al* (2000) had also demonstrated that only 35 percent of their participants acknowledged that supplementing breastfeeding with formula feed during the first two weeks of life could result in breastfeeding failure.

The findings of this study also indicated that a high percentage (92.9 percent) of nurses agreed that nurses are in the best position to encourage and support exclusive breastfeeding and 88.6 percent agreed that the success of initiating and establishing exclusive breastfeeding as a feeding practice depends primarily on the nurses. A study among Jordanian women reported that the community and health care workers encouraged breastfeeding (Khassawneh, Khader, Amarin, & Alkafajei, 2006).



## IMPLICATIONS FOR NURSING

This study showed that nurses' level of knowledge about exclusive breastfeeding is high, and that the group that scored higher was the group that had attended workshops and seminars on exclusive breastfeeding. The need to encourage continuing education in nursing cannot be overemphasised. Nurses need to realise the importance of acquiring knowledge as a tool for better practice. It is also important that the attention of nurse educators and those involved in curriculum planning, both for the formal schools as well as continuing education programmes, be drawn to this finding.

The findings also showed that nurses' perception of their role in establishing exclusive breastfeeding as a feeding practice is positive. Though this is encouraging, a lot depends on what nurse administrators make of this positive attribute. For where there is no encouragement, morale becomes low. This can lead to low self-esteem, which often results in poor performance. We have seen that nurses are capable of fulfilling their role in the establishment of exclusive breastfeeding as a feeding practice. This study also confirms that the baby-friendly hospital policy is a useful device for enabling health care professionals to create awareness of the concept of exclusive breastfeeding.

## RECOMMENDATION

It is recommended that the study be replicated using the same set of variables on a larger sample, with a more heterogeneous cultural background.

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