

Knowledge, Attitude and Intending Practice on Breastfeeding Among Clinical Medical Students in Bingham University Teaching Hospital, Jos

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Abstract: Background: Breastfeeding is a basic human activity, vital to infant and maternal health. A good breastfeeding advice from health professionals can influence a mother's decision to initiate and maintain breastfeeding positively. This study is aimed at assessing clinical medical students' knowledge, attitudes and intending practice towards breastfeeding. Method: Consecutive sampling method was used. Results: Knowledge on the definition of the term EBF was correct in 120 (69.4%) of the students, 47 (27.2%) of them got it wrong while 6 (3.45) did not know the definition of EBF. The early advantages of EBF was known by over 70% of the students and the contraindications to BF was gotten by over 60% of the students. The students' knowledge about some false notion on not giving EBM to sick babies, cause of nipple crack and inadequacy of BF for twin deliveries were good with over 70% of them knowing the right thing concerning these. The attitude of the students towards BF was very good with over 80% of them having good attitude towards BF, however 16 (9.3%) will not BF for two years because they believe that it will make their breast to sag, while 23 (13.3) did not know if that is true and 62 (77.5%) disagree with the statement. The intending practice of BF was generally good among the students with over 90% agreeing to do initiate BF within 6 hours of delivery and practicing EBF for 6 months. The intending practice of BF was generally good among the students with over 90% agreeing to initiate BF within 6 hours of delivery and practicing EBF for 6 months. The major factors influencing decisions for EBF includes WHO recommendations 108 (48.6%) out of 222 multiple responses, closely followed by mothers who are still in school for further studies 59 (26.6%). Family advice was the least factor with only 2 (0.9%). The major factors influencing decisions for termination of breastfeeding includes WHO recommendations 75 (35.0%) out of 222 multiple responses, closely followed by mothers who are still in school for further studies 44 (20.6%). Family advice was the least factor with only 4 (1.9%). Conclusion. The knowledge, attitude and intending practice on BF by the students were good, but more needs to be done in the area of knowledge because they are the future doctors who will play an important role in educating the society on breastfeeding.

Keywords: Knowledge, Attitude, Medical, Breastfeeding, Students, Jos

1. Introduction

Breastfeeding is a basic human activity, vital to infant and maternal health and of immense economic value to households and societies [1]. The WHO recommends that for the first six months of life, infants should be exclusively breastfed to achieve optimal growth, development, and

health. Thereafter, infants should receive nutritionally adequate and safe complementary foods, while continuing to breastfeed for up to two years or more [2]. Breastfeeding remains the simplest, healthiest and least expensive feeding method that fulfills the infants' needs [3]. Exclusive breastfeeding (EBF) is defined as "an infant's consumption of human milk with no supplementation of any type (no

water, no juice, no nonhuman milk, and no foods) except for vitamins, minerals, and medications until six months” [4].

It has been estimated that exclusive breastfeeding (EBF) reduces infant mortality rates by up to 13% in low-income countries [5]. Studies indicate that breastfed infants have fewer ear and respiratory tract infections, diarrheal illnesses, and atopic skin disorders [6-7]. Studies have also shown that the duration of breastfeeding was inversely associated with the risk of overweight. Children who had never been breastfed were 4.5% obese as compared with 2.8% in breastfed children [8].

The probability of death due to diarrhea and other infections is higher in infants who are either partially breastfed or not breastfed at all [4]. During the first two months of life, infants who are not breastfed are nearly six times more likely to die from infectious diseases than infants who are breastfed; between 2 and 3 months, non-breastfed infants are 4 times more likely to die compared to breastfed infants [4, 9].

The benefits of breast-feeding, to both mother and baby, have long been recognized [5-7, 10]. Despite strong evidences in support of EBF for the first six months of life, its prevalence has remained low worldwide [11-16]. In Nigeria, study done by Onche et al in Sokoto State, which is in Northern part of the country showed only 54 (31%) of the mothers had adequate knowledge of exclusive breastfeeding with 94 (53%) of them initiating breastfeeding immediately after birth. Only 55 (31%) of the mothers practiced exclusive breastfeeding [17]. In the Western part of Nigeria, Dada et al [18] reported the initiation of BF within 1 hour of delivery to be 17% and Ogunlesi et al in Ileisha [19] reported a prevalence of 37.4%. In Edo State, Nigeria, Salami et al reported that only 20% did exclusively for 6 months [20]. The difference in the knowledge score between these studies could be because they were conducted in different parts of the country, some in urban cities while somewhere in rural areas. The instruments and the questionnaires administered were also different.

There has not been much progress in the rate of EBF in Nigeria. The recent National Nutritional Health Survey done in 2018 documented a National prevalence of only 27%. The National prevalence of initiation of BF in 1st hour of life was 19% [21]. The results of EBF rate from other West African countries has also not been encouraging: Chad- 0.1%, Burkina Faso- 50%, Cameroon- 28%, Ghana- 52%, and Senegal- 33% [22].

An important factor known to influence a mother's knowledge, attitude and practice of BF is the educational, counselling, teaching, emotional support and encouragement that mothers get from health care personnel's [23]. A Cochrane Review by Mcfadden reported that breastfeeding support from health professionals can be effective in extending the duration of breastfeeding [24]. It is therefore important, that health care personnel's acquire knowledge about breastfeeding during their period of study [25]. However, health professionals, do not always receive adequate breastfeeding education during their foundational

education programme to effectively help mothers. Studies done on the knowledge, attitude and practice of medical and nursing students from different parts of the world showed that a lot more need to be done in educating and building the capacity of health professionals [26-30]. The knowledge of the students was mostly average and they were low for those in preclinical school. However, all the studies showed an improvement in the knowledge of the students after an educational intervention to build capacity of the students were done. Studies done by Szucs et al and Utooba et al also identified gaps in the knowledge of practicing health care providers [31-32].

There has been a lack of fulfilling the WHO ten steps initiative for proper breastfeeding among female health care workers in tertiary care hospitals [33-34]. In Nigeria, studies have shown that there is poor knowledge among healthcare workers about Baby friendly Hospital Initiative awareness, that was programed that to help mothers' practice exclusive breastfeeding [35-37]. Though we expect health care professionals including doctors, nurses and various other health workers to be well informed regarding breastfeeding issues, studies have shown that it is not completely true. Assessing the knowledge of health professionals regarding breastfeeding have shown that there are some that are still unaware about benefits of breast feeding. Therefore, we need to adopt more organized measures to promote breast feeding.

Studies have shown that multiple factors like knowledge, attitude, beliefs, socio-cultural and physiological factors influence breastfeeding decision and practices [38-41]. A good predictor of the actual duration of breastfeeding is womens' pre-birth breastfeeding intention [42-44].

Breastfeeding is the greatest and best form of feeding for newborns; it is an important and cost-effective method of feeding for the healthy growth and development of infants and young children. Medical personnel have an essential role in promoting breast feeding as the ideal method of infant feeding and are effective in modifying maternal behavior positively towards breastfeeding. Medical students are also expected to have basic knowledge about breast feeding practices so that they can guide the community to promote breast feeding.

This study was designed to determine the knowledge, attitude and intention of Bingham University clinical and nursing students, Jos on Breastfeeding.

2. Methods and Materials

The study was a cross-sectional descriptive study. A self-designed semi-structured questionnaire was administered to the students who fulfilled the criteria and consented to the study. The sampling method was consecutive sampling of all the students until sample size was obtained. The proposal for the study was approved by the Ethical Committee of the Teaching Hospital. A total of 173 questionnaires were administered. The data was entered into SPSS statistical package version 20 and analyzed. Frequency tables and charts were drawn to show the awareness, knowledge, and

perception of the students.

3. Results

The Knowledge on the definition of the term EBF was correct in 120 (69.4%) of the students, 47 (27.4%) of them got it wrong while 6 (3.45) did not know the definition of EBF.

Table 1. What is the definition of the term EBF?

Definition of EBF	Correct (%)	Wrong (%)	I don't know (%)
Yes	120 (69.4)	47 (27.2)	6 (3.4)
No	53 (31.6)	126 (72.8)	167 (96.6)
Total	173 (100.0)	173 (100.0)	173 (100.0)

EBF (exclusive breast feeding)

The knowledge on frequency of BF and the contents of breast milk was good with the least being 62%, however the knowledge on whether fore milk is richer than hind milk was poor with only 82 (47.4%) getting the correct answer. The early advantages of EBF was known by over 70% of the students and the contraindications to BF was gotten by over 60% of the students. The students' knowledge about some false notion on not giving EBM to sick babies, cause of nipple crack and inadequacy of BF for twin deliveries were good with over 70% of them knowing the right answers. The level of knowledge on the hormones responsible for BM production was poor with only 63 (36.4%) getting the right answer and 97 (56.1%) failing it while 13 (7.5%) don't know (DK).

Table 2. Knowledge about Breastfeeding.

Knowledge about Breastfeeding	Correct (%)	Wrong (%)	DK (%)
Frequency of BF should be 10-12x a day	108 (62.4)	40 (23.1)	25 (14.5)
Colostrum contains > Ab & calories than mature milk	142 (82.1)	12 (6.9)	19 (11.0)
About 88% of BM contains water	123 (71.1)	14 (8.1)	36 (20.8)
Foremilk is richer than hindmilk	82 (47.4)	52 (32.1)	39 (22.5)
Early initiation of EBF, prevents PPH	133 (76.9)	12 (6.9)	28 (16.2)
EBF cannot help in child spacing	129 (74.6)	31 (17.9)	13 (7.5)
EBF can be done by a mother with TB	109 (63.0)	36 (20.8)	28 (16.2)
EBF cannot be done by a mother with HIV	125 (72.3)	39 (22.5)	9 (5.2)
EBM should be given to a sick baby who cannot suckle	143 (82.7)	16 (9.3)	14 (8.0)
A major cause of nipple crack is poor attachment	125 (72.3)	25 (14.5)	23 (13.2)
A mother with twins cannot feed them with only BM	132 (76.3)	26 (15.0)	15 (8.7)
Prolactin & Oestrogen are the hormones responsible for BM production	63 (36.4)	97 (56.1)	13 (7.5)
Mood swing can affect BM production	143 (82.7)	11 (6.4)	19 (10.9)
BF can prevent obesity later in life	84 (48.6)	24 (13.9)	65 (37.6)

DK (don't know), BM (breast milk), PPH (post-partum haemorrhage)

The attitude of the students towards BF was very good with over 80% of them having good attitude towards BF, however 16 (9.3%) will not BF for two years because they believe that it will make their breast to sag, while 23 (13.3%) did not know if that is true and 62 (77.5%) disagree with the statement.

Table 3. Attitude towards Breastfeeding.

Attitudes	Agree (%)	Disagree (%)	DK (%)
I will do/allow EBF for my baby	163 (94.2)	4 (2.3)	6 (3.5)
I will breastfeed/allow breast feeding on demand	154 (89.0)	16 (9.3)	3 (1.7)
I will not breastfeed/allow my wife to breastfeed in public	15 (8.7)	132 (76.3)	26 (15.0)
I believe in abrupt weaning	4 (2.3)	158 (91.3)	11 (6.4)
EBF is outdated and old fashioned	1 (0.6)	168 (97.1)	4 (2.3)
I will introduce complementary feeds earlier than 6 months	8 (4.8)	153 (88.4)	12 (6.9)
I won't BF for 2 years because it can make breast to sag	16 (9.3)	134 (37.5)	23 (13.3)
I will combine FM with BM for my baby in the 1 st 6 months	12 (6.9)	150 (86.7)	11 (6.4)

The intending practice of BF was generally good among the students with over 90% agreeing to do initiate BF within 6 hours of delivery and practicing EBF for 6 months.

Table 4. Distribution of students based on intending practice of breastfeeding.

Intending practice	Freq. (173)	(%)
Initiation of breastfeeding after birth		
0-6 hours	169	97.7
7-12 hours	4	2.3
13-18 hours	0	0
19-24 hours	0	0

Intending practice	Freq. (173)	(%)
Type of pre-lacteal feeds I will give		
Water	30	17.3
Glucose water	27	15.6
Holy water	1	0.58
Nothing	115	66.5
I will practice/advice EBF after birth		
Yes	167	96.5
No	6	3.5
I will give only breast milk without water for a period of		
3 Months	9	5.2
4 months	5	2.9
5 months	2	1.2
6 months	157	90.8
I will practice/advice the giving of EBM at work		
Yes	129	74.4
No	21	12.1
I don't know	23	13.3
I will stop BF/advice my wife to stop between 12-18 months		
Yes	72	41.6
No	62	35.8
I don't know	39	22.5
I will terminate breastfeeding at		
6 months	18	10.4
12 months	37	21.4
18 months	116	67.1
24 months	2	1.2

The major factors influencing decisions for EBF includes WHO recommendations 108 (48.6%) out of 222 multiple responses, closely followed by mothers who are still in school for further studies 59(26.6%). Family advice was the least factor with only 2 (0.9%)

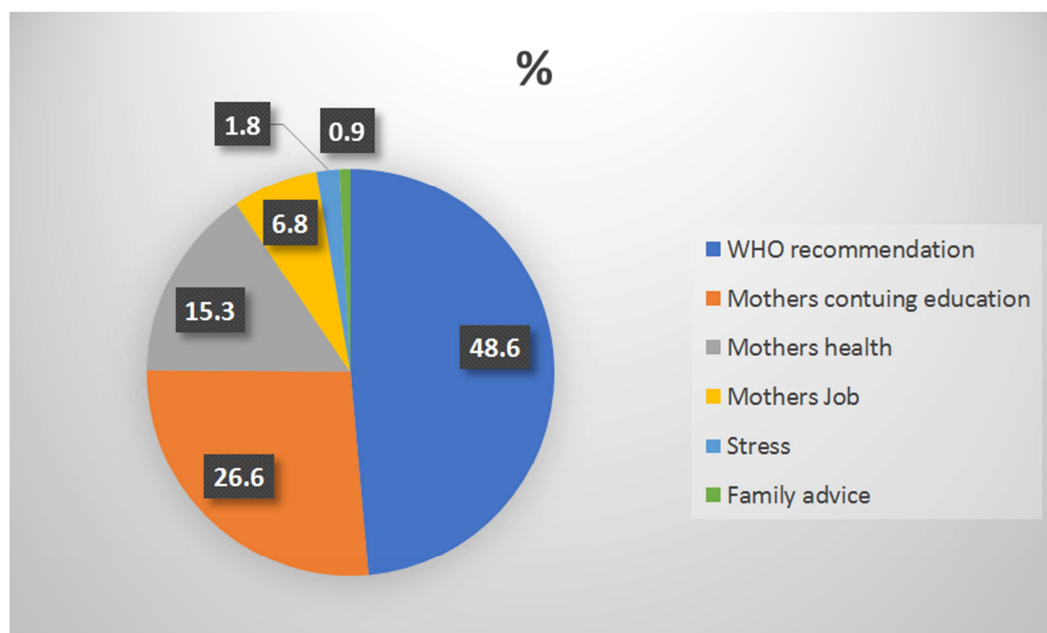


Figure 1. Factors influencing EBF.

The major factors influencing decisions for termination of breastfeeding includes WHO recommendations 75 (35.0%) out of 222 multiple responses, closely followed by mothers who are still in school for further studies 44(20.6%). Family advice was the least factor with only 4 (1.9%)

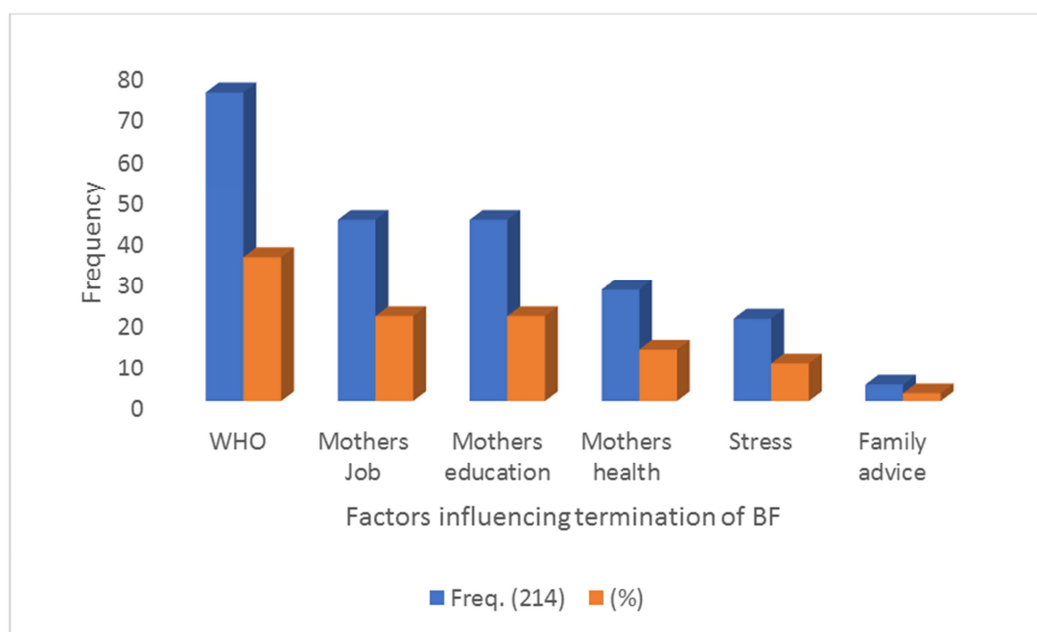


Figure 2. Factors influencing when to terminate breastfeeding decisions.

4. Discussion

The knowledge about the definition of EBM was fair with about 69% getting the correct answer. This is lower than expected because as clinical medical students, almost all the students are expected to know the definition of exclusive breastfeeding. However, the reason for the result could be because the curriculum of the 400L medical students did not include Paediatrics, where they are taught on breastfeeding. The result is comparable to what was obtained by studies done by Anjun et al [26], where 42% of the clinical medical students said EBF is for 4-6 months. The result is lower than that of Vidya et al [27], where the correct response for the definition of EBF was 84%. The difference could be because of the medical students are from different levels, schools and countries. Another plausible explanation is because the instruments used to access and analyze the information are different. The knowledge of the frequency of breast feeding was fair with 62% getting the correct answer. This is comparable to the 75% that Anjun et al [26], obtained for similar question.

The general knowledge on the advantages of EBF and the contraindication to BF was above average, this is comparable to what Anjun et al [26], Amalina et al [45], and Vidya et al [27] got in their studies concerning knowledge on the advantages and the contraindication to breastfeeding. This is in contrast to what Devi et al [46] obtained in India, with only 22% of the medical students having knowledge above average, 54% scoring below average and 23% getting average. The difference in the results obtained with this study could be because of the scoring system used. The story is not too different for other affiliated health students [28]. This is also comparable to what seen in practicing health practitioners by Hillenbrand et al [47] where they found that

the average knowledge of breastfeeding by the Paediatric and Medicine resident physicians was 69%. Other studies on health care providers knowledge on breastfeeding by Utooba et al [32] and Szucs et al [31] also showed a gap in the knowledge on health care providers on breastfeeding.

The students' knowledge was poor in the aspects of knowing if fore milk is richer than hind milk, the hormones responsible for milk production and if breastfeeding can prevent obesity in the baby later in life. A plausible explanation for the poor result obtained could be because the lectures for the physiology of breastmilk production was given when they were in pre-clinicals.

The attitude of the students towards breastfeeding was good. This could be because they are medical students and would have been taught about the benefits of breastfeeding. The studies that were interventional, all showed an improvement in the knowledge and attitude of the students towards breastfeeding after educational sessions with videos, power points, lectures and counselling on breastfeeding. Wada et al [28] in their study also showed that the negative attitudes of the nursing students towards breastfeeding was because of lack of knowledge.

The intending practice of breastfeeding from the students was above average, although about 33% will give some form of pre-lacteal feeds to their babies. This could be explained by the fact that they already have a good attitude towards breastfeeding, therefore, their practice is expected to be good. The major factors influencing decisions for EBF includes WHO recommendations, closely followed by mothers who are still in school for further studies. Family advice was the least factor. This could be because they are medical students and they know about the WHO recommendation concerning breastfeeding. The result obtained in this study is in contrast to what Ogunba et al [48] obtained in her study where Job and health status are the major factors influencing breastfeeding decision.

5. Conclusion

The general knowledge of the students concerning breastfeeding was above average, but it could be better because they are expected to know much more about breastfeeding than other health affiliated students. Their attitude and intending practice on BF were good. However, there is still room for improvement as few of them still intent to give pre-lacteal feeds. There are some gaps in their knowledge, attitude and intending practice of breastfeeding. Medical students being future doctors have a major role to play in helping mothers have adequate knowledge and positive attitude towards breastfeeding, therefore there is the need for the medical curriculum to lay emphasis regarding breastfeeding and include breastfeeding topics across levels of medical student.

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