

A REVIEW OF THE ROLE OF HEALTH CARE WORKERS IN PROMOTING AWARENESS AND ACCEPTANCE OF EXCLUSIVE BREASTFEEDING AMONG MOTHERS

ABSTRACT

Exclusive breastfeeding (EBF) has been found to be the best means of ensuring the health, growth and development of infants. However, for certain reasons, some mothers do not practice it. The responsibility of passing on information on the relevance of this practice mostly lies in the hands of the healthcare workers. Nevertheless, a critical appraisal of related studies has shown that some health workers have little or no knowledge of the advantages of the EBF as such themselves also do not practice it. This review article aims at presents the roles of health care workers in fostering the knowledge and practice of exclusive breastfeeding among women by participating in regular relevant trainings, educating and encouraging the husbands and wives to practice EBF as well as follow-up of mothers during post-natal care to ensure the practice is continued. The article highlighted the need for health care workers to actively participate in improving the practice of exclusive breastfeeding by gaining the needed knowledge and ensuring they pass same to the mothers.

Keywords: Health workers, exclusive breastfeeding, mothers, infants

1.0 INTRODUCTION

In order for normal and development of an infant to occur, a health nutrition is needed as it is the basis for a health living [1]. Little or no breastfeeding of newborns has accounted for 1.4 million deaths and 44 million disabilities amount children [2]. Adequate nutrition for children in their early age is needed if newborns will attain optimum growth, development and health [3]. Breastfeeding has been found to be beneficial to both the child and mother and breast milk seen as the best food for newborns [4]. Asides health, breastfeeding also provides social and economic benefits to the health care system, employer and family.

The United Nations Children, Educational Funds (UNICEF) and the World Health Organization (WHO) has recommended exclusive breastfeeding of newborns for at the least 6 months after birth and continue till 2 years or more [5]. regardless of the benefits of breastfeeding, most studies have focused on the confusion arising from either choosing to breastfeed as it prevents against several infectious diseases or the seemingly inadequate breast milk supply believed not to meet the need of the newborn for micronutrients and energy when the child is above four months [6].

Infant breastfeeding has been a public health means of reducing infant mortality and morbidity [7]. In Nigeria, according to the 2018 Nigeria Demographic Health Survey (NDHS), 29% of women practice exclusive breastfeeding for infants less than 6 months; most of them however practice it for an average of about 3 months (NDHS, 2018). This rate is the highest between 2008 and 2018 as it was 17% in 2013 and 13% in 2008 [8,9].

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TABLE 1: NUTRITIONAL COMPOSITION OF BREAST MILK IN COMPARISON WITH OTHER MILKS [10]

Nutrients	Human colostrum	Mature human milk	Cow's milk	Standard formula
Carbohydrate (gm/dl)	5.7	7.1	4.7	7.0-8.5
Protein (gm/dl)	2.9	1.06	3.1	1.5-2.2
Whey:casein	80:20	0	18:82	60:40
Fat (gm/dl)	2.95	4.54	3.8	3.5-4.5
Sodium (g/l)	0.50	0.17	0.77	0.25
Potassium (g/l)	0.74	0.51	1.43	0.08
Chloride (g/l)	0.59	0.37	108	0.057
Calcium (g/l)	0.48	0.34	1.37	46-73
Phosphorus (g/l)	0.16	0.14	0.91	32-56
Magnesium (g/l)	0.04	0.03	0.13	5.6
Copper (mg/l)	1.34	0.51	0.10	0.40
Zinc (mg/l)	5.59	1.18	3.90	5.0
Iodine (mg/l)	0	0.06	0.08	0.01
Iron (mg/l)	1.0	0.50	0.45	0.15
Vitamin A (mg/l)	1.61	0.61	0.27	1.5
Kcal/100ml	67	67	67	67
Vitamin D (IU)	0	4-100	5-40	41-50
Tocophenol (mg/l)	14.8	2.4	0.6	8 liu
Thiamine (mg/l)	0.02	0.14	0.43	0.47
Riboflavin (mg/l)	0.30	0.37	1.56	1.0
Vitamine B6 (mg/l)	0.0	0.18	0.51	0.5
Nicotinic acid (mg/l)	0.75	1.83	0.74	6.7
Vitamin B12 (mg/l)	0.06	0.34	2.48	2.0
Pantothenic acid (mg/l)	1.83	2.46	3.4	3.0
Folic acid (mg/l)	5.0	14.0	90.0	10-13
Vitamin C (µg/l)	72	52	11	6.7
Osmolarity	290-300	0	0	300-380

2.0 DEFINITIONS OF EXCLUSIVE BREASTFEEDING

Exclusive breastfeeding (EBF) has been defined as a practice whereby the newborns consume just breast milk and not giving the child water, other liquids, tea, herbal preparations or food within the first six months of life; medicines, mineral supplements or vitamins can however be given to the child [11].

Breastfeeding is strategy for providing the needed food for the healthy growth and development of newborns; it is also an important part of the reproductive process with implications for the mother's health [12]. The WHO and UNICEF defines it as the practice in which an infant receives only breast milk from the mother or expressed breast milk or a wet nurse [10].

3.0 BENEFITS OF EXCLUSIVE BREASTFEEDING

Breastfeeding an infant exclusively for the first 6 months of life provides benefits for both the mother and child and these include the following:

1. Reduced risk of gastrointestinal infection, otitis media, pneumonia and urinary tract infection in the infant.
2. Its helps the mother return to her previous weight before she became pregnant very rapidly and have a lowered risk of developing Type 2 diabetes.
3. Breastfeeding enhances bonding between mother and baby which is achieved through the release of oxytocin that stimulates uterine contractions and milk ejection and enhance maternal behaviour and bonding between mother and child [13].
4. Bernier *et al.*, posed that there is little but significant decreased risk among women who breastfed their children compared to those who did not [14].
5. Breastfeeding and Post-partum Haemorrhage: Several researches have reported that oxytocin level is increased by breastfeeding which causes expulsion of the placenta thus helping the uterine return to its previous size before pregnancy by stimulating contractions. Lactational amenorrhea leads to reduced menstrual flow after delivery.
6. Insulin and Breastfeeding needs in diabetic mothers: According to a study, breastfeeding mothers suffering from type I diabetes need little dose of insulin when compared with non-breastfeeding mothers [10].

7. Breastfeeding and ovarian cancer: Studies have shown that mothers who breastfed their newborns for 18 months or more had a reduced risk of suffering from epithelial ovarian cancer.
8. Breastfeeding and endometrial cancer: Recent reports shows that there is a linear inverse association between breastfeeding and the risk of endometrial cancer. That is, the longer the duration of lactation, the smaller is the risk for the mother to develop endometrial cancer.
9. Breastfeeding and osteoporosis: The La Leche League International has posed that breastfeeding helps prevent osteoporosis and hip fracture in later years of a woman's life.
10. Breastfeeding and birth spacing: Breastfeeding promotes child spacing since it is linked with reduced fertility.
11. Sudden Infant Death Syndrome (SIDS): This a major cause of infant death among newborns (1 to 12 months) in the United States. Studies have shown that breastfed infants are less likely to encounter SIDS compared with breastfed babies.

4.0 DISADVANTAGES OF BREASTFEEDING

Despite its health benefits, breastfeeding has been reported to have some disadvantages [15]. One of such disadvantage is the fact that breast milk can be a source of HIV transmission except antiretroviral drugs are taken by the mother [10]. In preventing mother to child transmission (PMTCT) of HIV in tropical Africa, adopting exclusive breastfeeding is an issue [16]. This is because breastfeeding is part of the cultures and traditions across Africa and it will require extra effort for nursing mothers (mainly those in the rural areas) to refuse to breastfeed their babies, especially when there are persons around to ensure compliance. Also, the increased poverty in parts of Africa make it almost impossible for most women to afford artificial feed for their newborns [17].

To this end, health care staff at all levels (male and female) need to be educated. Studies have shown that medical and paramedical personnel who are not properly trained to counsel mothers on the practice of breastfeeding, cause negative impact due to knowledge gaps. The reported decline in breastfeeding prevalence reported by some studies after ruling out HIV, could be as a result of this knowledge gap [15].

5.0 FACTORS INFLUENCING THE PRACTICE OF EXCLUSIVE BREASTFEEDING

Reports have shown that most mothers find it difficult to meet personal goals and stick to recommendations for exclusive breastfeeding despite increased rate of initiation [18]. Some major factors affecting the practice of exclusive breastfeeding include:

- i. Breast problems or trauma such as sore nipples;
- ii. Mother's perceptions of producing inadequate milk;
- iii. Societal barriers such as employment, length of maternity leave ;
- iv. Inadequate knowledge of breastfeeding knowledge;
- v. Lack of familial and societal support;
- vi. Lack of guidance and encouragement from health care professionals and
- vii. Advertisement of infant formulas which encourages mothers to opt for the use of pacifiers and bottle feeding [10].

Several infant formulas are available in the market which are designed to meet the nutritional needs of infants with a variety of dietary needs [19]. However, there are certain setbacks linked with infant formulas such as that the nutritional content either is less or higher than the infant's needs [10]. A major issue also associated with bottle feeding is the high risk of exposing the child to pathogenic microorganisms as a result of unhygienic practices while handling and preparing the infant formula [20].

Conversely, in the event of the breast milk or infant formula not satisfying the baby's nutritional and energy needs, solid foods should be introduced; this is referred to as complementary feeding. According to the WHO, the right age for introduction of solid food is 6 months as the gastrointestinal tract, renal system and neurophysiological status of the infant will be mature by then. However there are concerns about the timing of complementary feeding as evidence demonstrates that delayed introduction of complementary foods may have negative consequences [10].

Furthermore, mothers adopt child-led/natural, mother-led, gradual, partial or abrupt methods of weaning. During weaning most mothers experience infant issues such as colic, refusal-to-eat and vomiting among others. These issues affect the feeding pattern of the baby directly or indirectly.

6.0 ROLE OF HEALTH ORGANIZATIONS IN PROMOTING BREASTFEEDING PRACTICES

A paper reported that the current recommendations of WHO and UNICEF on breastfeeding include initiation of breastfeeding within the first hour after the birth, exclusive breastfeeding for the first six months and continued breastfeeding for two years or more and proper introduction of solid foods starting in the sixth month which are nutritionally safe and adequate [21]. The United Nations Children's Fund (UNICEF) included breastfeeding as one of the child survival strategies during the WHO/UNICEF policy makers' meeting on Breastfeeding in the 1990s tagged "A Global Initiative", held in Italy from 30th July to 1st August, 1990. The Innocenti declaration was then produced and adopted, which called on nations and international organisations to draw up action strategies for the promotion, protection and support of breastfeeding [22].

7.0 HEALTH WORKERS AND EXCLUSIVE BREASTFEEDING

Healthcare workers (HCWs) have a great influence on infant feeding practices because the importance of healthy nutrition to the normal growth and development of children is well known to them [23]. It is expected that they impart their knowledge of the advantages of breastfeeding to the baby, the mother and society, to their patients. To this end, female healthcare workers especially, are at the helm of the campaign and support for breastfeeding.

A recent study showed that only 8% of female HCWs breastfeed at least one child for up to 2 years with only 1% doing so for all their children. Their main reason is often that the babies stopped on their own (32.6%) and that the mothers were expecting another baby (30.4%). Other reasons were that the baby was too old to suckle after 1 year (8.7%) and 10.9% were ashamed of breastfeeding for 2 years. These reasons reflect these mothers' knowledge of breastfeeding practices and show that many may still be ignorant of correct practices and the benefits of breastfeeding. The question is, if HCWs cannot proudly breastfeed their babies, who then will support and promote the WHO guidelines of continuing breastfeeding until the baby is 2 years? [24]. One major factor for the promotion of EBF is thus the role played by healthcare workers.

8.0 KNOWLEDGE AND PRACTICE OF EXCLUSIVE BREASTFEEDING AMONG HEALTH WORKERS

In a study on infant feeding practices among nursing personnel in Australia, returning to work was one of the main reasons women stopped breastfeeding, with 60% of women intending to breastfeed when they returned to work, but only 40 percent did so [25]. A study on knowledge of breast feeding practice among female medical doctors in Nigeria showed that all respondents knew that babies should be exclusively breastfed for the first six months of life but only 60% knew that breastfeeding should continue until two years. The practice of EBF among them was 11.1%. Before their babies were six months old, about 75% of respondents had resumed work whilst over 50% had started taking calls. Most could not breastfeed during working or call hours [26]. Work schedule was rearranged to allow breast feeding in only 27.3% of respondents. Evaluating the experience of this group of women is important, as health care personnel have an important role to play in promoting breast feeding among mothers; they also ought to have time for such practice on their children.

In a similar study on resident doctors, twenty-nine (61.7%) of the resident doctors practised EBF. Of the 18 (38.2%) that did not practice EBF, various reasons were stated that served as barriers. The highest number of 11(61.1%) was due to resumption of work; 22.2% was due to inadequate lactation and resumption of work; 5.6% attributed their lack of practice of EBF to early resumption of work and other family demands; fear of contamination of milk was expressed, especially due to non-availability of steady supply of electricity [22].

In another study carried out in Ikom, South-South Nigeria, only 36.1% of health workers knew that breastfeeding should be continued up to 24 months and beyond. Only 6 (16.7%) health workers recognized EBF as an appropriate practice in preventing diarrhoeal disease. Surprisingly, one health worker believed breastfeeding was a cause of diarrhoea. This is a critical finding given that this false belief could subsequently lead to misinformation of breastfeeding mothers. Also, 75.1% failed to identify more than three advantages of breastfeeding [27]. Similar knowledge gap has been identified by Sadoh *et al.* in their study of medical women's breastfeeding practices, where it was shown that as many as 15.7% of respondents felt other drinks

and or food should be introduced before the age of six months [1]. Also as many as 40% did not know that breastfeeding should be carried out for 24 months or beyond.

Similarly, findings from a study by Ikobah *et al.* showed the overall knowledge of health workers on breastfeeding practices to be 85.1% \pm 9.0 which was below the cut-off of 90.0% for satisfactory knowledge [28]. Satisfactory knowledge of breastfeeding practices was observed in 27.1% of the respondents. However, their knowledge was below average regarding the effect of breastfeeding on the achievement of pre-pregnancy weight, protection against osteoporosis and colostrum for protection of babies from jaundice. In a survey conducted in Tanzania, 97% of health workers stated a lack of knowledge of the benefits of exclusive breastfeeding as one of the main reasons for the low breastfeeding rate [29].

According to Article 3 of Convention No. 183, by the International Labour Office on workers' rights and gender equality, the breastfeeding worker is to be provided with the right to one or more daily breaks or a daily reduction of hours of work to breastfeed her child. She should have the right to interrupt her work for this purpose, and such interruptions or reductions in daily hours of work should be counted as working time and remunerated accordingly [30]. The female medical personnel should not to be denied these needs which they themselves by virtue of their profession advocate for in their patients. They should serve as good examples to other professional mothers if significant success is to be recorded in optimal child growth and development.

9.0 ROLE OF HEALTH WORKERS IN PROMOTING EXCLUSIVE BREASTFEEDING

Clinicians and health workers may have an influential role in breastfeeding initiation and continuation [31]. Professionals could sometimes have a negative influence when they provide women with confusing breastfeeding information and recommendations [32]. Post natal support from experts have been found to increase breastfeeding duration [33]. Kronborg *et al.* reported that home visits in the first 5 weeks following birth may increase the duration of exclusive breastfeeding by mothers [34]. This comment was made after observing a significant increase in the duration of breastfeeding with an intervention which focused on assisting women to overcome

obstacle(s) to breastfeeding. Ahmed identified support for mothers immediately after delivery as a way of overcoming breastfeeding problems and enhancing confidence [35].

Okolo and Ogbonna working in Keffi, Nigeria reported that there was poor awareness of health workers in promoting and sustaining breastfeeding [36]. The knowledge and attitudes of medical and paramedical personnel working in urban and rural health centres can thus greatly affect breastfeeding practice [1]. Non-supportive attitudes of health workers have been reported, where nurses were shown not to be flexible and provide little breastfeeding assistance while working with mothers and their infants [37].

Breastfeeding mothers have voiced complaints of not being adequately informed by nurses about the superiority of breast milk and the advantages of breastfeeding to the health of both mother and child. One mother stated “they just asked if I wanted to bottle or breastfeed and did not tell me about the benefits of breastfeeding” [38]. If the knowledge that breast milk contains water is passed on to nursing mothers by the health workers, the danger of diarrhoea from contaminated water given to breastfeeding newborns would be averted [39].

Health workers at the secondary level of care are closer to most of the populace and are also highly rated by people within their communities. Enhancing their knowledge and skills in counselling breastfeeding mothers at the grass roots will impart positively on Nigerians’ future public health [27]. Health workers play a major role in supporting the initiating and establishing of effective breastfeeding of neonates by their mothers. They are in a strategic position and have the responsibility to educate and counsel mothers and the general public concerning proper initiation and adherence to recommended infant feeding practices [33]. They are expected to have at least sufficient knowledge of various aspects of breastfeeding, including its benefits, proper techniques, existing myths and practical aspects of managing potential challenges. Lack of support by health workers towards positive breastfeeding practices has been reported in the past [40].

Health workers are an important source of support for breastfeeding mothers and their knowledge can influence a mothers' decisions to initiate and continue breastfeeding.

However, the paucity of knowledge on breastfeeding practices among health workers in some rural areas raises concerns about the quality of health talks and counselling offered to pregnant women, mothers and other caregivers of young infants in health facilities. Knowledge of health workers on the benefits of breastfeeding to babies, their mothers, colostrum, effective breastfeeding, timing, and duration of exclusive breastfeeding and complementary feeding are important. Improved healthcare practices is thus a promising means of reinforcing the prevalence and duration of breastfeeding [40].

Receiving antenatal care from knowledgeable healthcare workers has been associated with the practice of EBF as mothers attending antenatal services are being exposed to information about exclusive breastfeeding. Thus, promotion of women's education, husbands' engagement, encouraging antenatal care and exclusive breastfeeding counselling during antenatal care have been recommended to improve EBF practice [41].

10.0 RECOMMENDATIONS

In order to improve the practice of exclusive breastfeeding especially in rural areas, the following recommendations were made:

1. Relevant authorities such the Primary Health Care Development Board (PHCDB) should strengthen the existing Primary Health Care (PHC) facilities through capacity building for healthcare personnel, establishment of more facilities where necessary and subsidizing products and services. Such facilities should be sited as close to the communities as possible with their active participation in the planning, implementation and monitoring.
2. Also, exclusive breastfeeding should be incorporated in a comprehensive health education and promotion strategy in order to bridge the knowledge gap of most of the rural women.
3. To ensure that health facilities provide quality affordable services, Integrated Supportive Supervision and On the Job Capacity Building (ISS/OJCB) should be implemented especially in the rural suburbs in monitoring all health facilities.

This will further serve as a steady reminder of best work practices to the health workers and improve their overall skill in the management of patients [42].

Healthcare providers should make the mothers the focus of their care by creating a supportive environment that enables women to feel at home enough to ask questions regarding their health without fear or shame. Workers should equip themselves with the necessary training to better understand the dynamics of cultural and religious influences on health-seeking behaviour and be able to overcome those barriers.

11.0 CONCLUSION

Exclusive breastfeeding has been identified as one of the major child survival strategies. The suggested motivators that may encourage EBF practices by the participants such as training and retraining of health workers in health facilities and practice of EBF by the health workers themselves, should be encouraged. Also the health care workers need to encourage women attending antenatal care to practice EBF. After delivery, follow-up of the mothers should be done within the first few months as a means of encouraging them to continue the practice.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

The authors admit that there are no competing interests.

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