

## Original Research Article

# Effect of peer counselling on exclusive breastfeeding among mothers attending child welfare clinic in two selected general hospitals in Lagos state, Nigeria

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## ABSTRACT

**Background:** Inadequate nutrition and poor feeding practices of newborn and infants has turn out to be a major public health concern that has negatively affected the lives of many children and as led to the cause of various forms of deficiencies, also the leading cause of death of most children between 1-5 years of age. This study determined the effect of peer counselling on exclusive breastfeeding among mothers attending child welfare clinic in two selected general hospitals in Lagos State, Nigeria.

**Methods:** This study adopted a two group pre-test post-test quasi experimental design. Total enumeration was used to select one hundred and seventy-four (174) participants that participated in the study. Data was collected using a self-developed questionnaire while four research questions were tested using descriptive statistics.

**Results:** Findings indicated that the pre-intervention knowledge mean score of participants on the knowledge of exclusive breastfeeding in the control group was 15.43±4.98 (48.2%) and 14.69±5.16 (45.9%) in the experimental group with a mean difference of 0.74. The post-intervention knowledge mean score of participants on the exclusive breastfeeding in the control group was 15.58±4.83 (48.7%) and 28.97±8.31 (90.5%) in the experimental group with a mean difference of 13.39.

**Conclusions:** The present study demonstrated a significant improvement in the exclusive breastfeeding rate among mothers due to peer counselling exposure, and the interventions have been effective in increasing knowledge and practice of breastfeeding among mothers. It was recommended that knowledge of peer counselling will influence knowledge, practice and behaviours on exclusive breastfeeding rate among mothers.

**Keywords:** Child welfare clinic, Exclusive breastfeeding, Knowledge, Mothers, Peer counseling

## INTRODUCTION

Infancy is a significant time of human life when it comes to growth and development. Nutrition therefore is a very vital thing in human life most especially when it comes to infants. Breast milk is the greatest form of nutrition given to infants mainly during the first few months of life.<sup>1</sup> Breastfeeding is well-known to have an exclusive genetic and poignant influence on the wellbeing of both the

mother along with the child.<sup>2</sup> Breast milk contains an exceedingly high amount of quality substances which is high in carbohydrates and can be easily absorbed by the body; it also aids nutritional balance, digestion and healthy growth.<sup>3</sup> In fact, no substance could replace breast milk.

Breast milk is known to contain 400 beneficial materials which include white blood cells and antibiotics which

cannot be produced artificially in laboratory. These substances protect infants against infection thereby reducing mortality rate that could be due to some of these infections like diarrhea, intestinal bleeding, abdominal colic, asthma, acute respiratory infections, atopic diseases, jaundice, diabetes, and obesity.<sup>4</sup>

According to the American academy of paediatrics, the breast milk is also very good source of nutrients for both premature and sick babies with infrequent exceptions. It is most unlikely to cause allergic reactions; it is cheap as well as always available, it is also vital to note that it is much loved by babies. The antibodies in breast milk usually help to fight infections. Proper nutrition is important for children during their early stage of life to guarantee uninterrupted growth, and all-round development.<sup>5</sup> Aside that breastfeeding is beneficial to both mother and child; it also has economic and social benefits to the family, the healthcare system and to the society at large. Progress in breastfeeding rates are vital to the realization of the uncompleted plan of Millennium Development Goal 4 and necessitate imperative action.<sup>6</sup> The Comprehensive Implementation Plan for Maternal, Infant and Young Child nutrition intends to augment the rate of exclusive breastfeeding in the first 6 months of life as of the present 40% to no less than 50% by the year 2025.<sup>7</sup>

Exclusive breastfeeding is the same as exclusive ingestion of breast milk by a child from the mother or else a wet nurse or expressed milk with adding up of no extra fluid or food with the omission of drops of syrups containing vitamins, minerals supplements, or medication and nothing in addition for the first six months of life.<sup>8</sup>

Exclusive breastfeeding has been recognized as an especially important Public Health instrument for the prevention of diseases along with death amongst children. It is the greatest type of preventive medicine given to us by nature.<sup>9</sup>

A group survey taken in the rural area of Ghana estimated that 22% of death in babies possibly will be avoided if newborns be breastfed within the earliest hour of birth.<sup>10</sup> Not practicing exclusive breastfeeding for the first 6months particularly leads to over 1million death and about 10% of diseases in children less than 5years in developing countries.<sup>11</sup> Even though governments and non-NGOs are sensitizing the people about advantages of exclusive breastfeeding, the practice is still very low compared to the worldwide accepted standard particularly in under developed and emerging countries.<sup>12</sup>

In Accordance to WHO's report barely 39% of all newborns less than 6months in emerging countries were breastfed wholly for the initial six months of life, 6% are in no way breastfed; 86% and 68% of newborns and children sustained breastfeeding at 6-11 months and 12-23 months, correspondingly.<sup>13</sup>

The Federal Ministry of Health in Nigeria, in one of her papers confirms that Nigeria has one of the smallest rates of exclusive breastfeeding in the whole of the African continent.<sup>14</sup> A very current analysis shows that children that enjoys exclusive breastfeeding for the initial six months of life is irregular, starting with 17% in 2003 to 13.1% in 2008 and went back to 17% in 2013, however the percentage of children not exclusively breastfed but enjoyed supplementary foods or nutrients increased even as the fraction of children below six months who were given complementary foods augmented from 18% to 35% in 2008 and reduced to 23% in 2013.<sup>15</sup>

Peer counselling is a measure employed to support one another, sharing experiences through this method can however be positive or negative. It has been adapted carefully to convene the needs and orientation of women by their diverse ethnic minority groups taking cognizance of their religious and cultural beliefs as regards breastfeeding. Peer supporters as they are fondly called are not trained for this task but rather are qualified by virtue of common experiences shared by them.<sup>16</sup>

Peer counselling is aimed at supporting and encouraging pregnant women and breastfeeding mothers. Peer mothers counsel and help women who have doubts or reservations about exclusive breastfeeding and help them out in avoiding and managing problems associated with breastfeeding. Experiences have shown that women social networks are extremely distinguished in forming decision making amongst women and therefore can either be barriers or stimulants in supporting exclusive breastfeeding. It is a program providing one-on-one peer support; eases access to breastfeeding tutoring and support during the prenatal or postpartum period.<sup>16</sup>

### **Research questions**

To achieve the earlier set objectives of the study, the following questions were raised:

1. What is the pre intervention knowledge mean score of participants on the exclusive breastfeeding in the control and experimental group?
2. What is the pre intervention practice mean score of participants on the exclusive breastfeeding in the control and experimental group?
3. What is the post intervention knowledge mean score of participants who received peer counselling on exclusive breastfeeding and those who did not?
4. What is the post intervention practice mean score of participants who received peer counselling on exclusive breastfeeding and those who did not?

### **METHODS**

The study utilized two-group quasi experimental design to assess the effect of peer counselling on exclusive breastfeeding among mothers attending child welfare clinic in two selected general hospitals in Lagos state.

The population of the study consisted of mothers attending child welfare clinic in the two selected general hospitals in Lagos State. Self-developed questionnaire was used to assess the knowledge and practice on the exclusive breastfeeding. Test paper on knowledge of mothers on exclusive breastfeeding consists of 32 questions in all. The maximum score for correct responses for knowledge of mothers on exclusive breastfeeding is 32.

**Sampling size and sampling technique**

Total enumeration was adopted for the study. The sample size consisted of all the women that attended the infant welfare clinic in the two selected hospitals. The women both in the experimental and control group were divided into small group clusters and participants were picked randomly from each cluster. Therefore, cluster random sampling technique was used to select the participants for the study, giving everyone an equal opportunity to be part of the study. The data collection was done for a period of

3 weeks and in three phases: pre-intervention phase, intervention phase, and evaluation phase. The obtained data were analyzed using the statistical package for social sciences (SPSS), version 23.

**RESULTS**

Pre-intervention knowledge mean score of participants on the knowledge of exclusive breastfeeding in the control and experimental group is shown in (Table 1). Thirty-nine (48.2%) participants in the control group had below average score, 27 (33.3%) and 15 (18.5%) had knowledge mean scores at average and above average respectively on the knowledge of exclusive breastfeeding. In the experimental group, 51 (54.8%) had below average score on knowledge, 23 (24.7%) were average while 19 (20.5%) had above average score. The pre-intervention knowledge mean score of participants on the knowledge of exclusive breastfeeding in the control group was 15.43±4.98 (48.2%) and 14.69±5.16 (45.9%) in the experimental group with a mean difference of 0.74.

**Table 1: Pre-intervention knowledge mean score of participants on the knowledge of exclusive breastfeeding in the control and experimental group.**

Knowledge of exclusive breastfeeding	Category of scores	Control		Experimental	
		F	%	F	%
<b>Below average</b>	1-11	39	48.2	51	54.8
<b>Average</b>	12-22	27	33.3	23	24.7
<b>Above average</b>	23-32	15	18.5	19	20.5
<b>Total</b>		81	100	93	100
<b>Mean (%)</b>		15.43 (48.2)		14.69 (45.9)	
<b>Standard deviation</b>		4.98		5.16	
<b>Mean difference</b>		0.74			
<b>Maximum score</b>		27.0		30.0	
<b>Minimum score</b>		10.0		10.0	

**Table 2: Pre-intervention practice mean score of participants on exclusive breastfeeding in the control and experimental group.**

Practice of exclusive breastfeeding	Category of scores	Control		Experimental	
		F	%	F	%
<b>Below average</b>	1-3	48	59.3	53	57.0
<b>Average</b>	4-6	26	32.1	30	32.2
<b>Above average</b>	7-9	7	8.6	10	10.8
<b>Total</b>		81	100.0	93	100.0
<b>Mean (%)</b>		2.93 (32.6)		2.89 (32.1)	
<b>Standard deviation</b>		0.87		0.93	
<b>Mean difference</b>		0.04			
<b>Maximum score</b>		9.0		7.0	
<b>Minimum score</b>		2.0		2.0	

Pre-intervention practices mean score of participants on the exclusive breastfeeding in the control and experimental group is shown in (Table 2). Forty-eight

(59.3%) participants in the control group had below average score, 26 (32.1%) and 7 (8.6%) had practice mean scores at average and above average respectively

on the exclusive breastfeeding. In the experimental group, 53 (57%) had below average score on practice, 22 (27.9%) were average while 8 (10.1%) had above average score. The pre-intervention practice mean score of participants on the management of selected childhood conditions in the control group was  $2.93 \pm 0.87$  (32.6%) and  $2.89 \pm 0.93$  (32.1%) in the experimental group with a mean difference of 0.04.

Post-intervention knowledge mean score of participants on the exclusive breastfeeding in the control and experimental group is shown in (Table 3). Thirty-six (44.4%) participants in the control group had below average score, 29 (35.8%) and 16 (19.8%) had knowledge mean scores at average and above average respectively on the exclusive breastfeeding. In the experimental group, 26 (28%) had average score on knowledge and 67 (72.0%) had above average score. The

post-intervention knowledge mean score of participants on the exclusive breastfeeding in the control group was  $15.58 \pm 4.83$  (48.7%) and  $28.97 \pm 8.31$  (90.5%) in the experimental group with a mean difference of 13.39.

Post-intervention practice mean score of participants on the exclusive breastfeeding in the control and experimental group is shown in (Table 4). Forty-five (55.6%) participants in the control group had below average score, 27 (33.3%) and 9 (11.1%) had skill mean scores at average and above average respectively on the exclusive breastfeeding. In the experimental group, 10 (10.7%) had average score on practice, 18 (19.4%) were average and 65 (68.9%) had above average score respectively. The post-intervention practice mean score of participants on the exclusive breastfeeding in the control group was  $2.97 \pm 0.88$  (33%) and  $7.55 \pm 1.09$  (83.9%) in the experimental group with a mean difference of 4.58.

**Table 3: Post-intervention knowledge mean score of participants on exclusive breastfeeding in the control and experimental group.**

Knowledge of exclusive breastfeeding	Category of scores	Control		Experimental	
		F	%	F	%
<b>Below average</b>	1-11	36	44.4	-	-
<b>Average</b>	12-22	29	35.8	26	28.0
<b>Above average</b>	23-33	16	19.8	67	72.0
<b>Total</b>		81	100.0	93	100.0
<b>Mean (%)</b>		15.58 (48.7)		28.97 (90.5)	
<b>Standard deviation</b>		4.83		8.31	
<b>Mean difference</b>		13.39			
<b>Maximum score</b>		27.0		32.0	
<b>Minimum score</b>		10.0		19.0	

**Table 4: Post-intervention practice mean score of participants on the exclusive breastfeeding in the control and experimental group.**

Practice of exclusive breastfeeding	Category of scores	Control		Experimental	
		F	%	F	%
<b>Below average</b>	1-3	45	55.6	10	10.7
<b>Average</b>	4-6	27	33.3	18	19.4
<b>Above average</b>	7-9	9	11.1	65	68.9
<b>Total</b>		81	100.0	93	100.0
<b>Mean (%)</b>		2.97 (33.0)		7.55 (83.9)	
<b>Standard deviation</b>		0.88		1.09	
<b>Mean difference</b>		4.58			
<b>Maximum score</b>		9.0		9.0	
<b>Minimum score</b>		2.0		3.0	

**DISCUSSION**

The outcome of this study on below average knowledge observed in the control and experimental groups may be as a result of mothers' intention to exclusively breastfeed

or not, which is equally related to their attitudes to breastfeeding in totality. A woman's intentions and attitudes regarding breastfeeding are predictors of infant feeding behaviours and continued breastfeeding.<sup>17</sup> Moreover, one of the factors that influence a woman's

decision to breastfeed is her knowledge and attitudes toward breastfeeding.<sup>18</sup> A similar observation was also noted in Kware town of Sokoto State of Nigeria where only 31% of the mothers had adequate knowledge of exclusive breastfeeding.<sup>19</sup> Another related study in a similar socio-cultural background also revealed that only 31% of the mothers had adequate knowledge regarding EBF.<sup>20</sup>

The low practice of EBF could be due to lack of time to breastfeed the babies, or the social acceptance and recognition's given to breast baby feeds or the inadequate knowledge on EBF. Despite the widespread campaigns about exclusive breastfeeding, its practice is still low.<sup>21</sup> Results from this study recorded 55.8% practice of exclusive breastfeeding till the sixth month, this is quite low compared to the 92.4% rate of awareness in exclusive breastfeeding. Similarly, a study by Dun-Dery and Laar showed that 91 % of participants knew about exclusive breastfeeding, but 10.3 % of them fed their child with only breast milk till the sixth month.<sup>22</sup> Contrary to this study was high EBF noted in some other part of Nigeria where the practice of EBF rate was 75.6% among nursing mothers.<sup>23</sup> It was asserted that the high prevalence of EBF in the study was because the mothers were mostly workers and took their children with them when they were working, and this makes easier the fostering of EBF practice among mothers.

The study results showed that immediate peer intervention on others is incredibly significant in maintaining exclusive breastfeeding. The positive response of the participants at post knowledge intervention cannot be overlooked. Adequate knowledge on latch is one of the most important ingredients in the breastfeeding relationship. This result is corroborated with the report of Folami, Ademuyiwa and Olowe that found out that inadequate parental education will increase breastfeeding-related problems.<sup>24</sup>

The improvement in the practice mean score of participants on the exclusive breastfeeding in the experimental group (from below average to above average) did not happen by chance but due to peer counselling (education) being exposed to. The findings of Ho and McGrath support the findings of this study.<sup>17</sup> In their study of effectiveness of a breastfeeding intervention on knowledge and attitudes among high school students in Taiwan, they reported that participants in the experimental group had significantly greater breastfeeding knowledge immediately after the intervention and at 1-month post-intervention. Also, compared with the control group, the experimental group had significantly greater positive breastfeeding attitudes after the intervention period, and the effect lasted at least 1 month. The implication of this is that knowledge can inform ones' attitude not just to breastfeeding but to practice exclusive breastfeeding.

## CONCLUSION

The conducted study showed that most mothers at the pre-intervention stage have inadequate knowledge of EBF and fall short of implementing EBF practice in large numbers. However, implementing health education programs of peer counselling on knowledge and practice of exclusive breastfeeding has a positive impact on promoting EBF knowledge and practice. Therefore, the present study demonstrated a significant improvement in the exclusive breastfeeding rate among mothers due to peer counselling exposure; the interventions have been effective in increasing knowledge and practice of breastfeeding among mothers.

## Recommendations

Based on the findings of this study, EBF can be promoted through peer counselling to improve mothers' knowledge and survival. It is recommended that, the low levels of knowledge about breastfeeding reflect a failure in communication strategies. The contribution of health-care services and health professionals to information, awareness, and support for women before pregnancy, in the period of pregnancy and after delivery could help to improve knowledge and opinions in the domain of the infant and child feeding. The implementation of community based and early educational strategies could also support actions in health care services. Attention in health planning should be given to EBF promotion; health care providers and decision makers should be comprehensively addressed issues to improve EBF practices in the community. Improving access to information on recommended infant feeding during routine maternal and child health services and strengthening the nutrition counselling during antenatal and postnatal sessions.

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## REFERENCES

1. Ghanbarnejad A, Abedini S, Taqipour L. Exclusive breastfeeding and its related factors among infants in Bandar Abbas city, Iran. *J Babol Univer Med Sci.* 2014;16(1):85-91.
2. Olang B, Heidarzadeh A, Strandvik B, Yngve A. Reasons given by mothers for discontinuing breastfeeding in Iran. *Inte Breastfeed J.* 2012;7(1):1-7.
3. Hockenberry, Marilyn, WilsonAD. *Wong's Nursing Care of Infants and Children.* Edinburgh: Elsevier. 2014.
4. Heydarpour S, Golboni F, Heydarpour F, Timareh M. Factors associated with exclusive breastfeeding in Kermanshah in 2007. *Behbood J.* 2011;15(3):227-30.

5. World Health Organization. Infant and young child feeding. France: WHO Press; 2009.
6. United Nations. The Millennium Development Goals Report. New York: United Nations; 2014.
7. WHO. World Health Assembly Resolutions on Global Nutrition targets by 2025. Geneva: WHO Press; 2012.
8. WHO; UNICEF. Innocenti Declaration on Infant and Young Child Feeding. Italy: International Journal of Breastfeeding; 2005.
9. WHO. Indicators for Assessing Infant and Young Child Feeding Practices. USA: WHO Press; 2008.
10. Edmond KM, Zandoh C, Quigley MA, Amenga-Etego S, Owusu-Agyei S, Kirkwood BR. Delayed breastfeeding initiation increases risk of neonatal mortality. *Pediatrics.* 2006;117(3):e380-6.
11. Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, De Onis M, et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *The Lancet.* 2013;382(9890):427-51.
12. Adeyinka T, Ajibola F, Oyesoji A. A hospital-based assessment of breast-feeding behaviour and practices among nursing mothers in Nigeria and Ghana. *Pak J Nutrit.* 2008;7(1):165-71.
13. WHO. Indicators for assessing infant and young child feeding practices part 3: country profiles. WHO Press; 2010.
14. FMOH. Saving Newborn Lives in Nigeria: Newborn and Child Health Strategy, Save the children. Abuja: Jhpiego; 2011.
15. Alade O, Titiloye MA, Oshiname FO, Arulogun OS. Exclusive breastfeeding and related antecedent factors among lactating mothers in a rural community in Southwest Nigeria. *Int J Nurs Midwifery.* 2013;5(7):132-8.
16. CDC. The CDC Guide to Breastfeeding Intervention. Atlanta: RDC; 2015.
17. Ho YJ, McGrath JM. Effectiveness of a breastfeeding intervention on knowledge and attitudes among high school students in Taiwan. *J Obstet Gynecol Neonat Nurs.* 2016;45(1):71-7.
18. Ho YJ, Yu CC. Attitudes of High School and Vocational School Students towards Breastfeeding in Taiwan. *J Perinat Educat.* 2014;23(2):89-95.
19. Mogre V, Dery M, Gaa PK. Knowledge, attitudes, and determinants of exclusive breastfeeding practice among Ghanaian rural lactating mothers. *Int Breastfeeding J.* 2016;11(1):10-7.
20. Leshi O, Samuel FO, Ajakaye MO. Breastfeeding knowledge, attitude and intention among female young adults in Ibadan, Nigeria. *Open J Nursing.* 2016;6(1):11-23.
21. Zhang K, Tang L, Wang H, Qiu LQ, Binns CW, Lee AH. Why do mothers of young infants choose to formula feed in China? Perceptions of mothers and hospital staff. *Int J Environment Res Public Health.* 2015;12(5):4520-32.
22. Dun-Dery EJ, Laar AK. Exclusive breastfeeding among city-dwelling professional working mothers in Ghana. *Int Breastfeeding J.* 2016;11(1):23.
23. Oche MO, Umar AS, Ahmed H. Knowledge and practice of exclusive breastfeeding in Kware, Nigeria. *African Health Sci.* 2011;11(3):518.
24. Folami F, Ademuyiwa Y, Olowe A. The effectiveness of nursing intervention on breastfeeding-related problems among nursing mothers in selected primary health clinics in Lagos, Nigeria. *ARC J Public Health Community Med.* 2018;3(4):22-9.

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