

## Assessment of the use of SMS in Promoting Breastfeeding among Female Undergraduates of Obafemi Awolowo University, Ile-Ife, Osun State

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### Abstract

An infant is food secured when breastfed exclusively for the first six months of life. However, the prevalence of exclusive breastfeeding (EBF) remain low in Nigeria. The study assessed the use of Short Message Service (SMS) in increasing knowledge about breastfeeding among female undergraduate students. Respondents were selected through multistage sampling technique. Three out of four female hostels were randomly selected from which one respondent was selected from each of the 40 rooms in a particular hostel. A total of 120 consented respondents were selected for the study. Structured questionnaire was used to collect baseline on personal characteristics and breastfeeding knowledge using a three point Likert scale. Respondents received one message daily for 32days and endline data were collected after two months. Respondents were in 200 levels (22.5%), 300 (26.7%) and 400 (32.5%). Majority (98.3%) were willing to breastfeed, would initiate breastfeeding on the day of birth (79.2%), while 61.7% will terminating breastfeeding between 13-18month. Information about breastfeeding were from media (24.2%), family (17.5%), and hospital (20%). Only 23.3% had no information about breastfeeding. Mean breastfeeding knowledge improved from  $37.65 \pm 3.5$  to  $43.14 \pm 1.2$ , knowledge on infant feeding practice ( $21.72 \pm 2.3$  to  $25.31 \pm 1.1$ ) and the knowledge about benefits of breastfeeding ( $19.18 \pm 2.1$  to  $25.42 \pm 1.0$ ). T-test analysis revealed significant difference between knowledge at pre and post intervention ( $T = 146.95$   $p < 0.000$ ). The study concluded that knowledge on breastfeeding improved with the receipt of SMS. It is recommended that SMS could be employed as a method of intervention in improving the knowledge on breastfeeding practices.

**Keywords:** Short Message Service (SMS), breastfeeding, intervention, undergraduate, hostels.

### INTRODUCTION

Food security framework includes food utilization and efficiency that will be critical for the world's future capacity to feed infants and young children optimally and breastfeeding women are recognised as the food producers of infant food that is readily available and ultimately affordable for utilization with no charge for the infant ensuring food security for the infant wellbeing (Salmon, 2015). The International Telecommunication Union (ITU) estimated at 5.9 billion the number of mobile subscribers in 2011, with global penetration estimated at 87% of which 79% in the developing world (ITU, 2011). With

the continuous growth of mobile network coverage and unprecedented penetration of mobile devices in the developing world, several health initiatives are being implemented in developing countries.

Breastfeeding is recognised as the optimal method of feeding of Infants' with health gains made by reducing infectious diseases in infancy; and chronic diseases, including obesity in childhood, adolescence and adulthood. Despite this, exclusivity and duration in developed countries remains resistant to improvement (Danielle *et al.* 2014). If every child was breastfed within an hour of birth, given only breast milk for

their first six months of life, and continued breastfeeding up to age of two years, about 800000 child lives would be saved every year. Globally, less than 40% of infants under six months of age are exclusively breastfed. Adequate breastfeeding counselling and support are essential for mothers and families to initiate and maintain optimal breastfeeding practices (WHO, 2018). The level of use of modern age mother of mobile phone devices to support medical and public health practice and research (mHealth) is gaining increased attention as it provides opportunities to rapidly connect people, therefore reducing delay across the chain of health decisions, and positively affecting the lives of millions of underserved population (Akter and Ray, 2010).

According to Robinson-Bassey *et al.*, 2016, limited knowledge of breastfeeding has a great effect on female preparedness toward breastfeeding and breastfeeding skills. They further state that adequate information can help to reduce the negative effects of poor education on breastfeeding. A review of telephone interventions indicated that proactive telephone support in the early postnatal period could potentially impact on breastfeeding duration and exclusivity (Dennis and Kingston, 2008). Other research has concluded that there is encouraging evidence that the use of digital technologies, primarily web-based interventions, will improve breastfeeding behaviours (Pate, 2009; Ahmed and Ouzzani, 2012). There has been a significant penetration of mobile phone technologies worldwide with access to mobile networks now estimated to be available to 96% of the world's population (ICT, 2013). This makes mobile phones attractive modes of delivery for health interventions.

Nigeria Demographic and Health Survey (NDHS) 2018 results show that only 19% infants were breastfed within one hour of birth and 78% of infants were breastfed within one day of birth. Results for key IYCF breastfeeding practices among children under age 2 who are living with their mothers were as follows. 28% of children under age 6 months are exclusively breastfed, while 84% continue breastfeeding at age 1 and 24% continue to breastfeed until age 2 (NPC/ICF, 2019).

Decisions on infant feeding are complex. The majority of women know that breastfeeding is the best option for their infants (Brodribb *et al.*, 2007). However, in order to continue breastfeeding women need to manage a range of physical and psychological factors that will impact on breastfeeding duration (Thulier and Mercer, 2009). In addition to non-modifiable factors (age, education and income of mother), there are a range of sociocultural, environmental and personal determinants that influence breastfeeding duration and exclusivity; including breastfeeding intention, self-efficacy and social support (Meedya *et al.*, 2010; Brand *et al.*, 2011). Self-efficacy or the confidence to perform a particular task to achieve a desired outcome is known to be a strong predictor of breastfeeding duration (Baghurst *et al.*, 2007). The study assessed the use of Short Message Service (SMS) in increasing knowledge about breastfeeding among undergraduate female students of the Obafemi Awolowo University.

## METHODOLOGY

A multistage sampling technique was used to select respondents. 75% of the female hostels, which is three (3) out of the four (4) female hostels, were selected using a simple random sampling method (Moremi hall, Alumni hall, Akintola hall and

Mozambique hall) and 40 rooms from each of these hostel were selected by balloting. Simple random sampling through balloting was also used to select one (1) respondent from each room of four (4) students per room in Moremi and Akintola Hostel, while one (1) respondent each from Mozambique hall of eight (8) students per room for equal representation of rooms in the hostels. One hundred and twenty (120) consented female undergraduate students from these halls of residence were recruited for the study. Structured questionnaire was used to get information on socio-demographic characteristics and knowledge about breastfeeding. Knowledge was assessed with a 3-point Likert scale and scored as agree to correct answers have a score of 1. Any statement with I don't know or disagree have a score of 0 for incorrect answers. T-test was used to determine the difference in knowledge before and after the intervention. Data collected was analysed using the IBM statistical Product and Service Solution (SPSS) version 22.0. Descriptive analysis of mean, standard deviation, frequency distribution were used.

## RESULTS AND DISCUSSION

### Socioeconomic characteristics of respondent

Table 1 shows that majority (70.8%) of the respondents were between the ages of 20-25 with a mean of  $21.4 \pm 2.4$ , and 99.2% were single. This correlates with the study of Ogunba & Agwo, (2014) with majority of the student between the ages of 20-25 years and single (Omage & Omuemu, (2019). A total of 60% are Science students, Medical students (31.7%), while 32.5% and 26.7% were Part three and four students of the University respectively.

### Information about breastfeeding

Results on Table 2 revealed that majority (76.7%) of the respondents claimed to have

information on exclusive breastfeeding and these were through media (24.2%), hospital (20%), and family members (17.5%). Most of the respondents were willing to breastfeeding, but up to around 13-18 months (44.2%), while 30.8% will not go beyond 6months. The reason for durations were benefit for growth of infants (34.2%), source of nutrient (18.3%), and fostering of bond between mother and child (16.7%). More than half (63.3%) intend to introduce complementary food at 4-6months, Transfer of knowledge from one generation to another is a tradition and norm in most region of the world (Sharif *et al.*, 2016). Breastfeeding knowledge is one that ought to be transfer from mothers to their daughters, to prepare them for motherhood at a later year (Cidro *et al.*, 2015). During this study, majority of the female undergraduate has information on breastfeeding with less than one-fifth of them getting the information and knowledge from the family. Most of them were willing to breastfeed, and this is similar to the study by Padmanabhan *et al.*, 2016; while a quarter intend to terminate breastfeeding at the recommended period by World Health Organisation (WHO, 2009).

### Knowledge about breastmilk

Knowledge about breastfeeding improved significantly after intervention among respondents compared to the baseline (Table 3). Knowledge about breastmilk increased by more than 10% for all knowledge statement, while those that increased more than 30% were milk production as affected by sleep, breastfeeding should continue for 2yrs, colostrum production in the first 3 days, stress hampering let down, nutrients in breastmilk and colostrum. Respondent with the initial knowledge on breastfeeding continuing to two (2) years and that lack of

sleep is rough on milk production were few. However, half of the respondent agrees that stress can hamper let down reflex and a little above half agreed that colostrum are produced within 3 days of life and is rich in nutrient such as Vitamin A, protein, lipids, and potassium. After the intervention, over three quarter of the respondent had an increased knowledge, which reflected in their responses (Eidelman & Schanler, 2012, WHO, 2003, Gupta, Arora, and Bhatt, 2013, Legesse *et al.*, 2015).

### **Knowledge on infant feeding practices**

The knowledge on infant feeding practices as highlighted in Table 4, reveals an increased knowledge in clutch style of breastfeed hold which is better for women who had Caesarean Section and large or flat nipple (43.4%). Knowledge on the avoidance of bottle-feeding to prevent nipple confusion increases from 48.3% to 83.3%, agreeing babies cannot digest formula as easy as breast milk from 59.2%-85% and disagreeing that foods, water or any other liquid should be given before six months increases from 57.5% to 84.2%. In this study, knowledge on clutch hold which is for mothers that undergo caesarean section and those with large and flat nipples (US Department of Health and Human Services, 2011) as well as the recycling of position when lying down to feed an infant (WHO, 2009), improved greatly. Increased knowledge was observed in the avoidance of bottle feeding to prevent nipple confusion (Australian Breastfeeding Association, 2011, US Department of Health and Human Services, 2011, Dy Recidoro, 2010), Formula fed babies liable to infections in life and herbal concoction been a source of contamination (Rao *et al.*, 2011, Khanal *et al.*, 2014, Onyemelukwe *et al.*, 2019).

### **Knowledge about benefits of breastfeeding**

Increase of 50.9% were observed in the knowledge that lactation reduces mothers' chance of having cancer, less probability of sudden death on breastfed children (33.3%), uterus return to normal quickly in breastfeeding mothers (39.1%) and breastfeeding women having lower risk of rheumatoid (48.3%). The intervention had better enhance the knowledge of the respondent towards the benefit of breastfeeding to the health of the mothers. These upgrade of knowledge were; breastfeeding lowers or prevent the occurrence of disease and never responsible for weight gain in breastfeeding mothers. The findings from this study revealed that the intervention had a positive impact on the initial knowledge respondent had. There were significant differences in knowledge about breastmilk before and after intervention, likewise in knowledge on infant feeding practices and benefit of breastfeeding. This improved knowledge in all respondent will enhance their intending breastfeeding practices and it could have a ripple effect, if respondent tell other females what has been learnt during the intervention (Radcliffe & Payne, 2011).

### **Level of knowledge at pre and post intervention of respondents**

The level of knowledge between the pre and post intervention is as shown in figure 1. The knowledge results shows the mean score of knowledge about breastmilk improving from  $8.90 \pm 3.07$  to  $13.24 \pm 1.11$ . Knowledge on infant breastfeeding practices ( $4.67 \pm 1.97$  to  $7.46 \pm 0.96$ ) and knowledge about benefit of breastfeeding ( $4.56 \pm 1.9$  to  $7.55 \pm 0.85$ ).

### **Difference between pre and post knowledge of respondents**

T-test analysis of the difference between the pre and post knowledge of respondents shows that, there is a significant difference ( $t=20.3$ ,  $p < 0.000$ ) in the overall score, breastmilk ( $17.6$ ,  $p < 0.000$ ), Infant Feeding Practices ( $t=14.6$ ,  $p < 0.000$ ) and benefits ( $t=16.6$ ,  $p < 0.000$ ). This denote that the respondents knowledge were improved compared to the initial breastfeeding knowledge they had before the intervention as shown in table 7.

### CONCLUSION AND RECOMMENDATION

The study reveals that breastfeeding knowledge can be improved through short message service (SMS), which is a good means of instilling positive attitude and practices towards breastfeeding. These would help mother-to-be to contribute to increase in prevalence of breastfeeding rate, early initiation and possibly the recommended duration by World Health Organization, thereby improving the health status of children and equally the mothers. It is recommended that more breastfeeding and childcare intervention studies among mothers-to-be be conducted. This will give young female adults or mothers-to-be the privilege of knowing, improving and identifying breastfeeding benefits to both themselves and ultimately their would-be children

### REFERENCES

- Ahmed, A. H., & Ouzzani, M. (2012). Interactive web-based breastfeeding monitoring: feasibility, usability, and acceptability. *Journal of Human Lactation*, 28(4), 468-475.
- Akter, S., & Ray, P. (2010). Health-an ultimate platform to serve the unserved. *Yearbook of medical informatics*, 19(01), 94-100.
- Australian Breastfeeding Association. (2011). Breast refusal. Retrieved 28 January 2020.
- Baghurst, P., Pincombe, J., Peat, B., Henderson, A., Reddin, E., & Antoniou, G. (2007). Breast feeding self-efficacy and other determinants of the duration of breastfeeding in a cohort of first-time mothers in Adelaide, Australia. *Midwifery*, 23(4), 382-391.
- Brand, E., Kothari, C., & Stark, M. A. (2011). Factors related to breastfeeding discontinuation between hospital discharge and 2 weeks postpartum. *The Journal of Perinatal Education*, 20(1), 36-44.
- Brodribb, W., Fallon, A. B., Hegney, D., & O'Brien, M. (2007). Identifying predictors of the reasons women give for choosing to breastfeed. *Journal of Human lactation*, 23(4), 338-344.
- Cidro, J., Zahayko, L., Lawrence, H. P., Folster, S., McGregor, M., & McKay, K. (2015). Breast feeding practices as cultural interventions for early childhood caries in Cree communities. *BMC oral health*, 15(1), 49.
- Collins, C. T., Gillis, J., McPhee, A. J., Sukanuma, H., & Makrides, M. (2016). Avoidance of bottles during the establishment of breastfeeds in preterm infants. *Cochrane database of systematic reviews*, (10). Accessed 28 January 2020
- Dennis, C. L., & Kingston, D. (2008). A systematic review of telephone support for women during pregnancy and the early postpartum period. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 37(3), 301-314.

- Eidelman, A. I., & Schanler, R. J. (2012). Breastfeeding and the use of human milk. *Pediatrics*.
- Gallegos, D., Russell-Bennett, R., Previte, J., & Parkinson, J. (2014). Can a text message a week improve breastfeeding? *BMC pregnancy and childbirth*, *14*(1), 374.
- Joshi, S. K., Barakoti, B., & Lamsal, S. (2012). Colostrum feeding: knowledge, attitude and practice in pregnant women in a teaching hospital in Nepal.
- Khanal, V., Lee, A. H., da Cruz, J. L. N. B., & Karkee, R. (2014). Prelacteal feeding of newborns in postconflict Timor-Leste. *Journal of pediatric gastroenterology and nutrition*, *59*(2), 162-166.
- Legesse, M., Demena, M., Mesfin, F., & Haile, D. (2015). Factors associated with colostrum avoidance among mothers of children aged less than 24 months in Raya Kobo district, North-eastern Ethiopia: community-based cross-sectional study. *Journal of tropical pediatrics*, *61*(5), 357-363.
- Meedyia, S., Fahy, K., & Kable, A. (2010). Factors that positively influence breastfeeding duration to 6 months: a literature review. *Women and birth*, *23*(4), 135-145.
- National Population Commission. Nigeria] and ICF (2019) Nigeria Demographic and Health Survey 2018. *Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF*.
- Ogunba, B. O., & Agwo, E. O. (2014). Knowledge, Attitude and intending practice of female undergraduates about breastfeeding. *African Journal of Food, Agriculture, Nutrition and Development*, *14*(4), 9039-9054.
- Omage, K., & Omuemu, V. O. (2019). Factors associated with the dietary habits and nutritional status of undergraduate students in a private university in Southern Nigeria. *Nigerian Journal of Experimental and Clinical Biosciences*, *7*(1), 7.
- Onyemelukwe Ngozi, F., Chijioke Olive, U., & Dozie-Nwakile Ogechuckwu, O. S. J. (2019). Microbiological, Parasitological and Lead Contamination of Herbal Medicines Consumed In Enugu, Nigeria.
- Padmanabhan, R., Thulasingham, M., & Chinnakalai, P. (2016). Female college students' knowledge, attitude and future intention towards breastfeeding: implications for advocacy. *Journal of clinical and diagnostic research: JCDR*, *10*(11), LC11.
- Pate, B. (2009). A systematic review of the effectiveness of breastfeeding intervention delivery methods. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *38*(6), 642-653.
- Radcliffe, B., & Payne, J. (2011). Hearts and minds project: A breastfeeding curriculum intervention to improve the education outcomes for nutrition and dietetics graduates. *Nutrition & dietetics*, *68*(3), 201-207.
- Rao, S., Swathi, P. M., Unnikrishnan, B., & Hegde, A. (2011). Study of complementary feeding practices among mothers of children aged six months to two years-A study from coastal south India. *The Australasian medical journal*, *4*(5), 252.
- Robinson-Bassey, G. C., Frank Maureen, D., & Iwu Rosemond, C. (2016). Factors influencing breastfeeding preparedness among primigravidae attending antenatal clinic, at university of Port Harcourt teaching

- hospital, Rivers state, Nigeria. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 5(4), 1072.
- Salmon, L. (2015). Food security for infants and young children: an opportunity for breastfeeding policy?. *International breastfeeding journal*, 10(1), 7.
- Sanou, B. (2013). The world in 2013: ICT facts and figures. *International Telecommunications Union*. Accessed October 26, 2019
- Sharif, M. S. M., Zahari, M. S. M., Nor, N. M., & Muhammad, R. (2016). The importance of knowledge transmission and its relation towards the malay traditional food practice continuity. *Procedia-Social and Behavioral Sciences*, 222, 567-577.
- Thulier, D., & Mercer, J. (2009). Variables associated with breastfeeding duration. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 38(3), 259-268.
- US Department of Health and Human Services. (2011). Your guide to Breastfeeding. *Recuperado de https://uhs.berkeley.edu/sites/default/files/wellness-womenshealth\_breastfeedingguide\_0.pdf*.
- WHO. (2009). Infant and young child feeding: Model chapter for textbooks for medical students and allied health professionals. Geneva, World-Health.
- World Health Organization. (2003). *Global strategy for infant and young child feeding*. World Health Organization.
- World Health Organization. (2009). Baby-friendly hospital initiative: revised, updated and expanded for integrated care.
- World Health Organization. (2018). *Guideline: counselling of women to improve breastfeeding practices*. World Health Organization.

**Table 1: Socio-economic characteristics of respondents**

Variable	Frequency (120)	Percentage (%)
<b>Age (years)</b>		
< 20	24	20.0
20 – 25	85	70.8
> 25	11	9.2
<b>Mean 21.4 ± 2.4</b>		
<b>Marital status</b>		
Single	119	99.2
Married	1	0.8
<b>Course of study</b>		
Social sciences	10	8.3
Sciences	72	60.0
Medical	38	31.7
<b>Current level</b>		
1	10	8.3
2	27	22.5
3	32	26.7

4	39	32.5
5	12	10.0

**Table 2: Respondent's information about intending breastfeeding practice**

<b>Intending breastfeeding practice</b>	<b>Frequency (120)</b>	<b>Percentage (%)</b>
<b>Informed about exclusive breastfeeding</b>		
Yes	92	76.7
No	28	23.3
<b>Source of information</b>		
None	28	23.3
Media	29	24.2
Hospital	24	20.0
Family	21	17.5
Internet	18	15.0
<b>Willing to breastfeed</b>		
Yes	118	98.3
No	2	1.7
<b>Expected breastfeeding duration (months)</b>		
1-6	37	30.8
7-12	11	9.2
13-18	53	44.2
19-24	19	15.8
<b>Reason for expected breastfeeding duration</b>		
Functioning of the brain	20	16.7
Benefit growth of infant	41	34.2
Bond between mother and child	20	16.7
For survival	17	14.2
Source of nutrient	22	18.3
<b>Expected breastfeeding termination (months)</b>		
1-6	3	2.5
7-12	12	10.0
13-18	74	61.7
19-24	31	25.8
<b>Introduction of complementary feeding (months)</b>		
>1	7	5.8
1 - 3	18	15.0
4 - 6	76	63.3
7 - 9	9	7.5
10 – 12	10	8.3

**Table 3: Respondent's knowledge about breastmilk**

<b>Knowledge statements</b>	<b>Pre -intervention</b>			<b>Post-intervention</b>			<b>T</b>	<b>p</b>
	<b>Agree (%)</b>	<b>I don't know (%)</b>	<b>Disagree (%)</b>	<b>Agree (%)</b>	<b>I don't know (%)</b>	<b>Disagree (%)</b>		

Breastfeeding initiation	79.2	17.5	3.3	98.3	1.7	0.0	4.01	0.000*
Breastfeeding should not continue for 2yrs	52.5	16.7	30.8	0.0	23.4	76.6	1.76	1.080
Breast milk is easier to digest	90.8	9.2	0.0	100	0.0	0.0	3.46	0.000*
Bonding between mother and child	77.5	19.2	3.3	97.5	2.5	0.0	3.87	0.000*
Immediate skin to skin doesn't reduce crying	10.8	28.3	60.8	0.0	14.2	85.8	0.89	0.370
Early skin to skin stimulates breastfeeding behaviour	73.3	19.2	7.5	95.0	5.0	0.0	3.10	0.000*
Lack of Sleep is rough on milk production	35.8	59.2	5.0	88.3	11.7	0.0	11.24	0.000*
Stress can hamper your let down reflex	50.8	46.7	2.5	88.3	11.7	0.0	7.88	0.000*
Alcohol drinking might not lower milk production	3.3	46.7	40.0	1.7	25.0	73.3	6.96	0.000*
Breastmilk contains vitamin, mineral, protein and fat	51.7	46.7	1.7	90.8	7.5	1.7	8.19	0.000*
Breast milk is not made from nutrient in mother's blood stream	15.0	64.2	20.8	1.7	21.7	76.7	11.73	0.000*
Breast milk has balance of fat, water and protein for growth	77.5	20.0	2.5	89.2	10.8	0.0	2.96	0.004*
Colostrum are produced within the first 3 days of life	64.2	33.3	2.5	90.8	6.7	2.5	5.20	0.000*
Colostrum protect new born from disease	74.2	25.0	0.8	90.8	8.3	0.8	3.72	0.000*
Colostrum is rich in vitamin A, protein, lipids and potassium	62.5	33.3	4.2	91.7	8.3	0.0	6.96	0.000*

\* Significant at 0.05

**Table 4: Respondent's knowledge on infant feeding practices**

Knowledge statements on infant feeding practices	Pre -intervention			Post-intervention			t	p
	Agree (%)	I don't know (%)	Disagree (%)	Agree (%)	I don't know (%)	Disagree (%)		
Baby's mouth should cover the areola	81.7	17.5	0.8	95.0	5.0	0.0	3.28	0.001*
Clutch hold for women who had Caesarean Section and large or flat nipples	33.3	64.2	2.5	76.7	21.7	1.7	7.81	0.000*
Recycling position not best	20.0	72.5	7.5	1.7	28.3	70.0	13.85	0.000*

when lying down									
Avoid bottle feeding to prevent nipple confusion	48.3	35.8	15.8	83.3	16.7	0.0	7.47	0.000*	
Babies cant digest formula as easy as breast milk	59.2	32.5	8.3	85.0	11.7	3.3	4.62	0.000*	
Formula fed babies are not liable to infections in life	14.2	40.0	45.8	0.8	15.0	84.2	7.48	0.000*	
Herbs could be a source of contamination	57.5	34.2	8.3	85.8	11.7	2.5	5.31	0.000*	
Breast milk contains enough water for the baby	77.5	18.3	4.2	80.8	16.7	2.5	0.77	0.441	
Foods, water or any other liquid should be given before six months	22.5	20.0	57.5	1.7	14.2	84.2	6.43	0.000*	

\* Significant at 0.05

**Table 5: Frequency distribution of respondent's knowledge about benefits of breastfeeding**

Knowledge statements	Pre -intervention			Post-intervention			t	p
	Agree (%)	I don't know (%)	Disagree (%)	Agree (%)	I don't know (%)	Disagree (%)		
Breastfeeding weakens the immune system	11.7	75.8	82.5	0.0	10.8	89.2	0.45	0.653
Breastfed babies resist disease and infection	92.5	4.2	3.3	97.5	2.5	0.0	2.27	0.025
Less probability of sudden death on breastfed children	50.0	43.3	6.7	83.3	15.8	0.8	7.17	0.000*
Breastfeeding increases mother's weight	37.5	40.8	21.7	0.8	31.7	67.5	14.33	0.000*
Lactation reduces mothers' chance of having cancer	35.8	61.7	2.5	86.7	12.5	0.8	9.92	0.000*
Uterus return to normal quickly in breastfeeding mothers	44.2	54.2	1.7	83.3	16.7	0.0	8.29	0.000*
Breastfeeding women have lower risk of rheumatoid	34.2	59.2	6.7	82.5	11.7	2.5	7.02	0.000*
Lactation is associated with lower risk of coronary heart disease	29.2	68.3	2.5	84.2	13.3	2.5	9.32	0.000*

\* Significant at 0.05

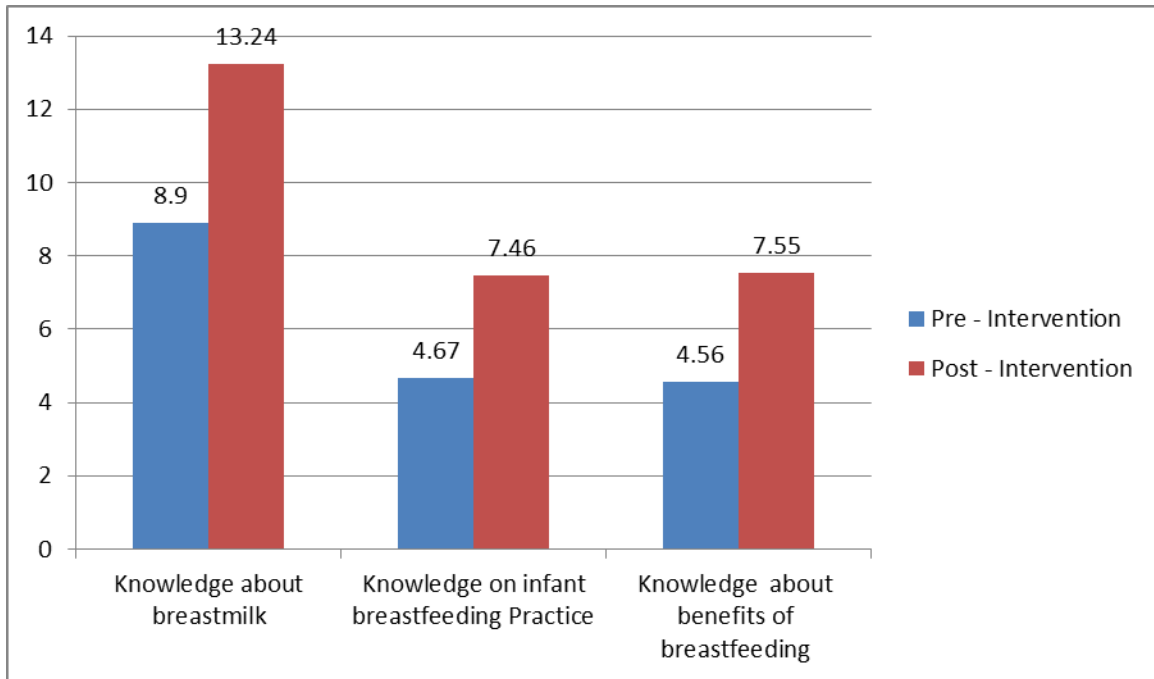


Figure 1: Respondent's level of knowledge on breastfeeding

**Table 7: Respondents T-test showing the difference between pre and post breastfeeding knowledge.**

Variable	T value	Sig. value	Decision
Total Knowledge score	20.3	0.000	S
Breastmilk	17.6	0.000	S
Infant Feeding Practice	14.6	0.000	S
Benefits	16.6	0.000	S

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If No, specify the irrelevant figures. ....
16. Are the titles of tables and figures appropriate? Yes ( X ) No ( )  
If No, suggest changes on manuscript(s) .....
17. Other comments. ...**Itemize specific objectives of the study. And let this guide your results presentation, conclusion and recommendation ...**

18. Overall assessment: .....**Good MS** .....

I recommend that the manuscript should be (tick only one)

- Accepted for publication in its present form ( )
- Accepted for publication after minor revision ( X )
- Reconsidered for publication after major revision ( )
- Rejected ( )

19. Suitability: (tick only one)

- Journal ( X )
- Proceedings ( )