

Factors Associated with Nurses' Breastfeeding Practices at Kenyatta National Hospital, Kenya

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Received: April 05, 2020; Published: April 30, 2020

Abstract

Breastfeeding is the single most effective intervention for preventing child illnesses and deaths. Breast milk contains all the nutrients, energy and water for the first six months of life. All children below six months, unless under unavoidable circumstances should be on exclusive breastfeeding. This means that the baby receives only breast milk with no additional solids or liquids, not even water. The study's broad objective was to determine factors associated with nurses' breastfeeding practices in Kenyatta National Hospital, Kenya. The study participants identified through simple random sampling method were female nurses with children aged 6 - 24 months (n = 348) who were interviewed using self-administered questionnaires; KII and FGD were also used to collect qualitative data. The study concluded that despite nurses being knowledgeable and promoters of good breastfeeding practices, only 21.3% had done EBF, majority of the respondents were married, 78.9% (n = 235) of them Christians and the mean age was 33.4. Age and work schedules had a significant association with breastfeeding practices ($p < 0.05$) while extended family support had a strong positive correlation with breastfeeding practices; all variable investigated on knowledge, attitude and cultural factors had insignificant association and no correlation with breastfeeding practices. This study recommends that the nurses be given a 6 months maternity leave to enable them achieve EBF as recommended by the WHO and UNICEF.

Keywords: Nurses' Breastfeeding Practices; Kenyatta National Hospital; Kenya

Introduction

Breast milk is the safest and most common natural food for an infant. According to the recommendations by the WHO and UNICEF breastfeeding practices, initiation of breastfeeding should be done within the first hour after the birth, continuing for the first six months; and continued breastfeeding for two years or more, together with safe, nutritionally adequate, age appropriate, responsive complementary feeding starting in the sixth month [1].

Findings of KDHS, 2009 [2] revealed that only 32% lactating mothers in Kenya are practicing good breastfeeding (EBF) by six months while 68% practice supplementary feeding during the first six months; the EBF uptake becomes much worse when accompanied with hard working conditions like those in hospitals. Due to the nature of their work schedules that is unpredictable and inconsistent, the breastfeeding nurses in KNH compared to other breastfeeding mothers are more likely to have variations on their breastfeeding practices especially in the first six months of a child's life because of the interference with the feeding patterns of the baby.

This, according to Lancet (2008) denies infants exclusive breastfeeding hence not to have at least six times greater chance of survival in the early months as the exclusively breastfed children. An exclusively breastfed child is 14 times less likely to die in the first six months than a non-breastfed child and breastfeeding drastically reduces deaths from acute respiratory infection and diarrhoea, two major causes of child mortality. The potential impact of optimal breastfeeding practices is especially important in developing country situations with a high burden of disease and low access to clean water and sanitation, [1].

Most of the studies on breastfeeding practices have concentrated on unemployed mothers and not looking at breastfeeding practices among lactating working mothers like nurses. This study therefore focuses on assessing the breastfeeding practices of the nurses in KNH, the expected results from this study aim to address the work environment at KNH and make it lactation friendly for the nurses.

Research Methods

Study design and method

This was a cross-sectional study that used both quantitative and qualitative methods.

Study area

The study was conducted in KNH, Nairobi, Kenya. KNH is the Kenya National referral hospital and also the largest referral hospital in East Africa hence it has a national outlook.

Study population and unit of analysis

The study population were women of reproductive age at KNH. The unit of analysis were nurses with children aged 6 - 24 months.

Inclusion criteria

Female nurses with children aged 6 - 24 months who had breastfed before or were breastfeeding at that time and were employees of KNH.

Exclusion criteria

Female nurses with children aged 6 - 24 months who had breastfed before and were employees of KNH but were on leave, off duty or have declined to participate.

Sample size determination

This study adopted Fisher, *et al.* (2007) formula for determination of sample size which is recommended for social science research

$$n = \frac{Z^2pq}{d^2}$$

n = Desired sample size.

z = Standard deviation of required confident level given as 1.96.

p = Proportion of the target population.

The p was the Kenya EBF rate which is 32% according to KDHS 2008-09.

The calculation was as follow:

p = 32% which equals 0.32.

q = 1-p that is (1 - 0.32) = 0.68.

d = maximum tolerance error which is 95% with an error of 5% which equals to 0.05.

$$n = \frac{(1.96)^2 \times 0.32 \times 0.68}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.32 \times 0.68}{0.0025}$$

$$n = \frac{0.8359}{0.0025}$$

$$n = 334.36$$

$$n = 334$$

This was adjusted by 10% to take care of errors therefore:

$$n = 334 + 33.4 = 367.4$$

The sample size for the study was therefore 367.

Sampling frame

A sample frame was made from a list of all the nurses who had gone on maternity leave in the past one and a half years at the time the study began from the human resource department of KNH. Information about their deployment areas was sought from the deputy director nursing services in KNH then a random list all the study subjects was made irrespective of their work areas.

Sampling method/technique

The study used Simple Random Sampling (SRS) technique. The sample frame was used to form a table of random numbers.

Ethical considerations

The research approval was given by to GLUK and KNH/UoN ERC.

Results

Description of the study population

A total of 348 respondents participated in this study. Majority of the respondents fell between age group 30 - 34 majority were married and most respondents were para twos.

Demographic factors

Demographic variables	X ²	df	P value	Pearson correlation
Age	16.575	4	0.002	0.049
Marital status	3.004	4	0.557	0.005
Parity	5.203	3	0.157	-0.30

Table 1: Summary of association between demographic factors with B/F practices.

From table 1, age and marital status had a positive correlation with breastfeeding practices, ($p = 0.002$ $r = 0.049$, $p = 0.557$ $r = 0.005$) respectively while parity had a negative correlation with breastfeeding practices, ($p = 0.157$, $r = -0.30$). Apart from age ($p < 0.05$) which had a significant statistical association the other demographic variables (marital status and parity) were insignificant ($p > 0.05$).

Workplace factors

Summary of the association between work schedules with B/F practices

Work schedules that were assigned to the respondents had a significant association with breastfeeding practices ($p < 0.05$, $r = -0.103$).

Social factors

Social factors variables	X ²	Df	P value	Pearson correlation
Immediate family (support)	0.134	1	0.714	0.020
Extended family (support)	3.068	1	0.80	0.94
Belonging to social group	2.252	1	0.133	-0.080
Social group (support)	1.892	2	0.388	-0.040
Religion	0.019	1	0.891	-0.007
Religion (support)	1.600	1	0.206	-0.068

Table 2: Summary of the association between social factors with B/F practices.

From table 2, immediate family support and extended family support had a positive correlation with breastfeeding practices ($r = 0.020$, $r = 0.94$). Belonging to social group, social group support, religion and religion support had no correlation with the feeding practices ($r = -0.080$, $r = -0.040$, $r = -0.040$ $r = -0.007$ $r = -0.068$). All the above social variables had insignificant association with breastfeeding practices ($p > 0.05$).

Knowledge

Knowledge variables	X ²	Df	P value	Pearson correlation
Time of initiation	8.390	4	0.078	-0.115
Time of introduction of other feeds	1.878	2	0.391	0.032
Breastfeeding techniques	0.185	1	0.667	-0.023

Table 3: Summary of the association between knowledge with B/F practices.

From table 3, time of introduction of other feeds had a positive correlation with breastfeeding practices ($r = 0.032$) while time of initiation and breastfeeding techniques had no correlation with breastfeeding practices ($r = -0.115$, $r = -0.023$) respectively. All the knowledge variables had insignificant association with breastfeeding practices ($p > 0.05$).

Attitude

Attitude variables: statements	X ²	Df	P value	Correlation
'It is shameful to bring my baby to work to continue breastfeeding'	1.484	3	0.686	-0.028
'I'd feel ashamed expressing breast milk at work'	3.032	3	0.387	0.020
'I'd feel uneasy storing expressed breast milk in a fridge at work'	4.955	3	0.175	0.001

Table 4: Summary of the association between attitude with breastfeeding practices.

From table 4, feeling ashamed expressing breast milk at work and uneasy storing expressed breast milk in a fridge at work had a positive correlation with breastfeeding practices ($r = 0.020$, $r = 0.001$). Feeling ashamed to bring the baby to work to continue breastfeeding had no correlation with breastfeeding practices ($r = -0.028$). All the variables on attitude had an insignificant association with breastfeeding practices ($p > 0.05$).

Cultural factors

Summary of the association between cultural factors with Breastfeeding practices

colostrum not food for the baby, infant doesn't get enough from breast milk and breast milk is of low quality as a diet had insignificant ($p > 0.05$) but positive correlation with breastfeeding practices ($r = 0.028$, $r = 0.051$, $r = 0.024$). Tribe of the respondent, guidance on breastfeeding by tribe, colostrum dirty and harmful, colostrum infectious and can cause yellow eyes, colostrum contains waste from the mothers' body, colostrum contains infected pus, colostrum being dirty and unclean, expressed breast milk is bad and should not be given to infant, breast milk worsens jaundice had insignificant and negative correlation with breastfeeding practice ($p > 0.05$).

Discussions

This study found that age had a positive correlation with breastfeeding practices ($p = 0.002$, $r = 0.049$) which concurs with Jessica., *et al.* [3] where children born to mothers 20 years of age or younger were approximately one-half as likely to have been exclusively breastfed, compared with children born to mothers 30 years of age or older. In contrast, Jerzy [4] found that age was not significant ($p = 0.230$).

This Study found work that schedules were assigned to the respondents had a significant association with breastfeeding practices ($p < 0.05$) which concurs with Yi-Chum., *et al.* [5] found that lack of work shift and inflexible schedule were all associated with the discouragement breastfeeding initiation and continuation. In contrast, Amin., *et al.* [6] found that lack of flexible time to express breast milk was associated with breastfeeding discontinuation among lactating working mothers.

This study found that immediate family support and extended family support had a positive correlation with breastfeeding practices ($r = 0.020$, $r = 0.94$) which concurs with Ojo and Opeyemi [7] which found that a number of the participants in FGD agreed that pressure from some grandmothers on their daughter-in-laws could encourage a discontinuation of EBF. In contrast, Hope., *et al.* [8] found that although mother in-laws had suggested that they should give water to her infant, they decided to follow her doctor's advice to EBF instead.

This study also found that time of introduction of other feeds had a positive correlation with breastfeeding practices ($r = 0.032$) which contradicts Oche., *et al.* [9] who found that 60% of the mothers were aware of EBF but only 30% of them had adequate knowledge of on the duration of exclusivity.

This study found that feeling ashamed expressing breast milk at work and uneasy storing expressed breast milk in a fridge at work had a positive correlation with breastfeeding practices, ($r = 0.020$, $r = 0.001$) which agrees with Janet., *et al.* [10] who found that specific attitudes were more associated with mixed/formula feeding, including finding breastfeeding embarrassing and difficult in public.

This study found colostrum not food for the baby, infant doesn't get enough from breast milk and breast milk is of low quality as a diet had a positive correlation with breastfeeding practices ($r = 0.028$, $r = 0.051$, $r = 0.024$) which contrasts Jerzy [4] who found that all mothers admitted starting supplementary food for their babies at three to four months of age to help the child to grow well.

Conclusion

The study concluded that despite nurses being knowledgeable and promoters of good breastfeeding practices, only 21.3% had done EBF, age and work schedules had a significant association with breastfeeding practices ($p < 0.05$) while extended family support had a strong positive correlation with breastfeeding practices; all variable investigated on knowledge, attitude and cultural factors had insignificant association and no correlation with breastfeeding practices.

Recommendation

This study recommends that the nurses be given a 6 months maternity leave to enable them achieve EBF as recommended by the WHO and UNICEF.

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Volume 15 Issue 5 May 2020

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