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DETERMINANTS OF EXCLUSIVE BREASTFEEDING PRACTICES AMONG MOTHERS OF INFANTS ATTENDING UASIN GISHU COUNTY HOSPITAL, KENYA

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DETERMINANTS OF EXCLUSIVE BREASTFEEDING PRACTICES AMONG MOTHERS OF INFANTS ATTENDING UASIN GISHU COUNTY HOSPITAL, KENYA

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ABSTRACT

Background: Exclusive breastfeeding (ebf) for six months is a key child survival intervention that prevents 13% of all under-five deaths annually. Ebf protects infants against infections such as respiratory infections, diarrhea and reduces the risk of the mother developing obesity, breast and ovarian cancer among others. Despite various efforts to promote ebf, the rate in Kenya is still low.

Objective: The main objective of this study was to determine the socioeconomic factors affecting exclusive breastfeeding among mothers of infants aged between 7-12 months attending Uasin Gishu County Hospital in Kenya.

Methods: Descriptive cross-sectional study design was used since potential related factors was measured at a specific point in time for a defined population.

Results: Majority of participants (57%) were aged 26 – 35 years followed by 16 – 25 years at 35% and above 35 years at 8.1%. More than half of the mothers had attended college (54.9%) followed by secondary (37.5%) and primary (7.6%). There was a fair distribution in terms of occupation where a number of them indicated that they are businesswomen (43%) followed by housewife (34.1%), office work (20.3%) and farming (11.5%). Almost half of the households indicated that they had an average monthly income of above Ksh. 10,000 (49%) followed by an income between Ksh. 5,001 – Ksh. 10,000 (34.6%).

Conclusion: Age of mother and that of the index child, academic qualification of the mother, the occupation of the mother and the average monthly household income had significant effect on ebf.

INTRODUCTION

Breastfeeding contains a lot of health benefits for both the mother and infant. Breast milk contains all the nutrients needed by infant in the first six months of life. Breastfeeding protects against diarrhea and common childhood illnesses like pneumonia and may also have longer-term health benefits for the mother and child, such as reducing the risk of overweight and obesity in childhood and adolescence (1). Though studies showed that EBF has a potential to reduce under five mortality by 11.6%, the prevalence of EBF is still relatively low globally, as in sub Saharan Africa with a magnitude of 35% and 22–33%, respectively (2). Proper infant and young child feeding is a vital pillar for optimal child growth and development and breastfeeding is considered one of the best sources of optimal nutrition for an infant (3).

World Health Organization recommends exclusive breastfeeding for the first six months of an infant's life, with continued breastfeeding up to two years or beyond alongside appropriate complementary feeding practices (4). Globally, breastfeeding rates have been on upward trend, with a lot of countries experiencing notable increases in the last ten years, only about 40% of children less than six months old in the third world countries such as Kenya are exclusively breastfed and just 60% of 20-23 months old benefit from the practice of continued breastfeeding(5).

WHO estimates that increasing breastfeeding to near-universal levels could save more than 800 000 lives every year, the majority being children under 6 months. In addition, nearly half of all diarrheal diseases and one-third of all respiratory infections in children in low- and middle-income countries

could be prevented with increased rates of breastfeeding (6).

Exclusive breastfeeding saves not only lives worldwide but it is also one of the most cost-effective investments a country can make. The benefits of breastfeeding is greater much and it touches everyone, prevention of childhood illnesses, increasing IQ, reducing mothers' risk of developing breast cancer and lowering healthcare costs for families and societies just to mention but a few are among the benefits of exclusive breastfeeding(5).

Although in many circumstances, the responsibility of breastfeeding is put solely on the shoulders of mothers only and without considering the immense social, political and environmental barriers to breastfeeding that exist in nearly every country in the world. No mother should breastfeed alone, support for breastfeeding is a collective responsibility (7). Mothers who breastfeed not only need time but also space and resources to support their decision. This includes access to skilled lactation counselling, support from families and communities, and policies such as paid maternity leave and nursing breaks.

The Global Breastfeeding Collective envisions is a world where all mothers have the financial, emotional, and public support they need to breastfeed. We work to rally political, social and financial support from governments and other stake holders. Breastfeeding and sustainable development go hand in hand and neither either works alone. By increasing breastfeeding, we can save 820,000 lives annually, improve the health and well-being of women and children, and build a healthier, more prosperous future (8). These actions will help achieve the central goals of the 2030 Sustainable Development Agenda 3, 2. Stakeholders to increase

breastfeeding worldwide, benefitting mothers, children, and society (8).

Mothers' milk is easier to digest than is formula, which often causes increased diarrhea, malnutrition, and dehydration. Human milk contains critical antibodies, so babies are equipped to fight off infection and disease, resulting in decreased healthcare expenditures, and days missed from work and school. Direct breast milk feeding is always sterile. Breastfed children have decreased risk of ear infections, stomach viruses, diarrhea, respiratory infections, atopic dermatitis, asthma, obesity, type 1 and type 2 diabetes and other childhood diseases are brought by mixed feeding on the babies' diet especially before their 6th month of anniversary (8).

MATERIALS AND METHODS

Study Design

The study was conducted in Uasin Gishu County Hospital, in Uasin Gishu County, Kenya. Mothers who attended the Health Centres were the target population and was the representative of the larger population as the selected mothers has varied socio-economic, cultural, demographic and personal backgrounds.

Study site

The study was conducted in Uasin Gishu County Hospital (UGDH). Uasin Gishu County Hospital (UGDH) is located along the Nairobi – Kampala highway and serves approximately 300 patients a day in Uasin Gishu County, Kenya. Mothers who attended the Health Centre's were the target population and were the representative of the larger population as the selected mothers has varied socio-economic, cultural, demographic and personal backgrounds.

Data Collection

Data collection was done following the art of interviewing the mothers and was done on 6th to 17th of May 2019 and the desired clinical examinations and the questions designed interviewer was issued to determine the protocol of referral. The desired clinical examination was often randomly checked back in interviewing the mothers for quality control. Before data collection mothers are assured that refusal to participate would in no way affect the welfare of the services of the infants. Interviews was done before receiving services since in majority long queue and waiting time usually present in the infant welfare clinics.

The questionnaire and the structured, face - to - face interview schedule was done by the researcher where the researcher-administers. Personal interviews was done using interview guide on participants who could not read. Mothers were asked to state how much they knew about EBF. Establishing true facts about breastfeeding was used to rate maternal knowledge on breastfeeding. Post-natal mothers were asked to respond to true facts of testing knowledge by asking them various parts of the questionnaires which include part E of the questionnaire as strongly agree, agree or disagree.

Data Analysis

The survey data was statistically analyzed using the Statistical Package for Social Sciences (SPSS). Chi-square was also used to perform to compare the effects of different factors on exclusive breastfeeding practice. Since the study was about a relationship (dependency between exclusive breastfeeding practice and other factors) chi-square statistic (χ^2) was used to establish whether relationships existed among the variables. Statistical significance was assumed for $P \leq 0.05$. Basic descriptive analysis was done using frequency distributions. Sorting, categorizing

and conceptualizing qualitative data was done in a systematic way to show the patterns of exclusive breastfeeding. Measures of central tendency were also used to give expected summary statistics of variables studied. Descriptive statistics was also used to describe a distribution of scores. Findings were presented by use of frequency distribution tables, charts and graphs.

Software package was also used for the analysis of Quantitative data. First the raw measurement data (weight and height) was entered into the computer. Second, the Programme was combined the raw data on the variables (age, sex, length, weight) to compute nutritional status indices, that is, weight for age (underweight), an overall indicator of a population's nutritional status, height for age (stunting) measure of linear growth and weight for height (wasting) an indicator of current nutritional status.

Ethical consideration

This proposal was subjected to University of Kabianga Institutional Ethical Review Committee (IERC) for approval before roll out is done and obtained approval number IERC AN 0009. All study participants signed an informed consent before participating in this study. Permission to conduct the study was sought from Uasin Gishu Referral Hospital

authorities. Privacy and confidentiality was strictly maintained. Anonymity was kept as individual identities were hidden. Names of participants were not used on data collection tool or any other place. Data was kept in locked cabinets.

RESULTS

Socio-economic and demographic characteristics of the mothers

Out of the 384 mothers with infants between 7 – 12 months were selected for the study. Majority of them were aged 26 – 35 years which compromised 57% of the total sample size followed by 16 – 25 years at approximately 35% and above 35 years at 8.1% as shown in Table 1 below. More than half of the mothers had attended college (54.9%) followed by secondary (37.5%) and primary (7.6%). There was a fair distribution in terms of occupation where a number of them indicated that they are businesswomen (43%) followed by housewife (34.1%), office work (20.3%) and farming (11.5%). Almost half of the households indicated that they had an average monthly income of above Ksh. 10,000 (49%) followed by an income between Ksh. 5,001 – Ksh. 10,000 (34.6%).

Table 1
Socio-economic and demographic characteristics

Characteristics	Frequency	Percent (%)
Age of mother		
16 – 25 years	134	34.9
26 – 35 years	219	57.0
>35 years	31	8.1
Academic qualification of mother		
Primary	29	7.6
Secondary	144	37.5
College	211	54.9
Occupation of mother		
Office work	60	20.3
Business	158	43.0
Farming	35	11.5
Housewife	131	34.1
Monthly household income		
<Ksh. 2000	9	2.3
Ksh. 2001 – 5000	54	14.1
Ksh. 5001 – 10000	133	34.6
>Ksh.10000	188	49.0

Characteristics of the study infants

Data on infants was obtained from their mothers and a review of the child's health card. More than half (51.6%) of the infants were girls while (48.4%) were boys. Close to half of the infants were first borns (49.5%)

followed by second borns (34.1%). A number of the infants were aged 9 – 10 months (44.3%) followed by those aged 11– 12 months (41.7%) and 7 – 8 months (14.1%) as shown in Table 2 below.

Table 2
Characteristics of the study infants

Characteristics	Frequency	Percent (%)
Sex		
Male	186	48.4
Female	198	51.6
Order of birth		
First born	190	49.5
Second born	131	34.1
Third born	50	13.0
Fourth born and above	13	3.4
Age of child		
7 – 8 months	54	14.1
9 – 10 months	170	44.3
11 – 12 months	160	41.7

Prevalence of exclusive breastfeeding

The study findings depicted that overall, more than half of the mothers (66.7%) were not exclusively breastfeeding their infants at the time of the study. Analysis of

breastfeeding by age group however showed a decrease in exclusive breastfeeding rates. It was highest (77.8%) for infants aged between 7 – 8 months and lowest (23.75%) for those aged 11 – 12 months (Figure 1 below).

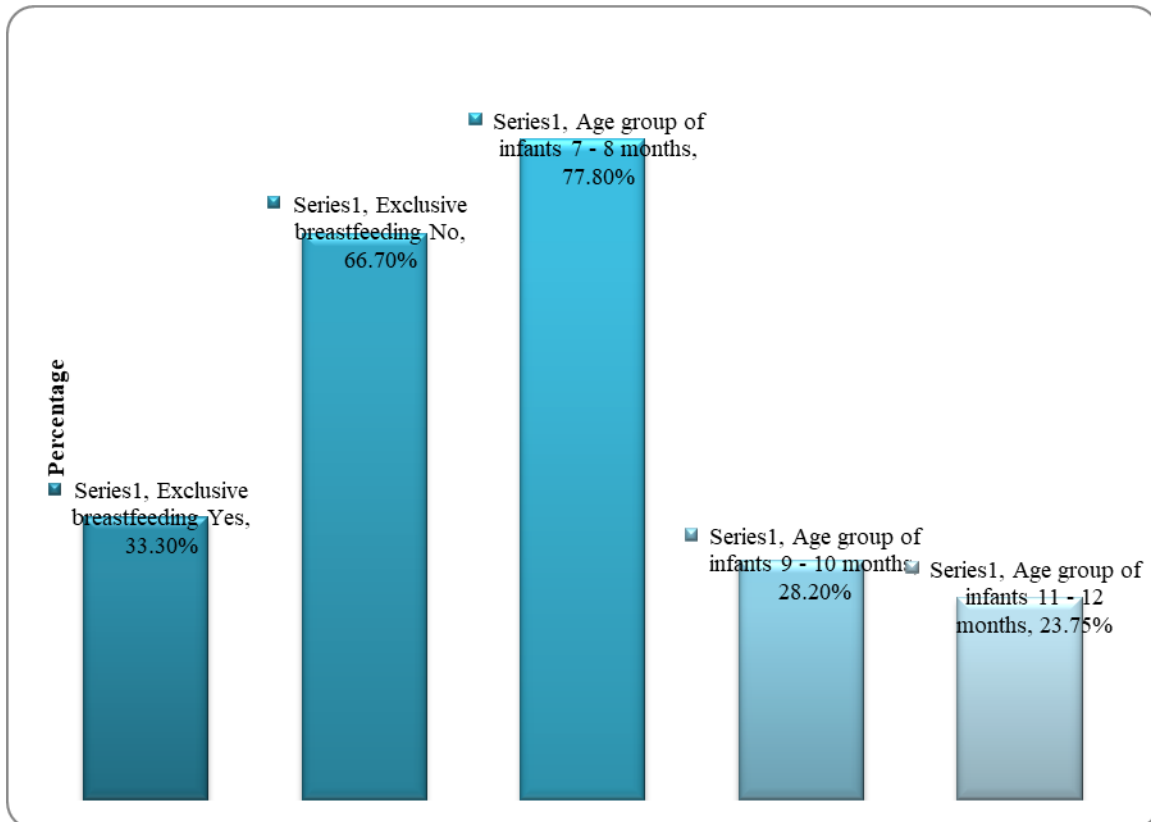


Figure 1: Prevalence rate of exclusive breastfeeding and on distribution of infants

Prelacteal feeds

Early initiation of breastfeeding protects the newborn from pre-lacteal feeding practices which deprive the infant of the important immune-protective properties of colostrum. Prelacteal feeds interfere with the establishment of breastfeeding and increase

the risk of infection. The study findings showed that majority of the mothers (90.9%) had not given prelacteal feeds. Out of those who were given prelacteal foods, almost half (42.8%) were given plain water, glucose water (34.3%), formula milk (14.3%) and cow's milk (8.6%) as shown in figure 2 below.

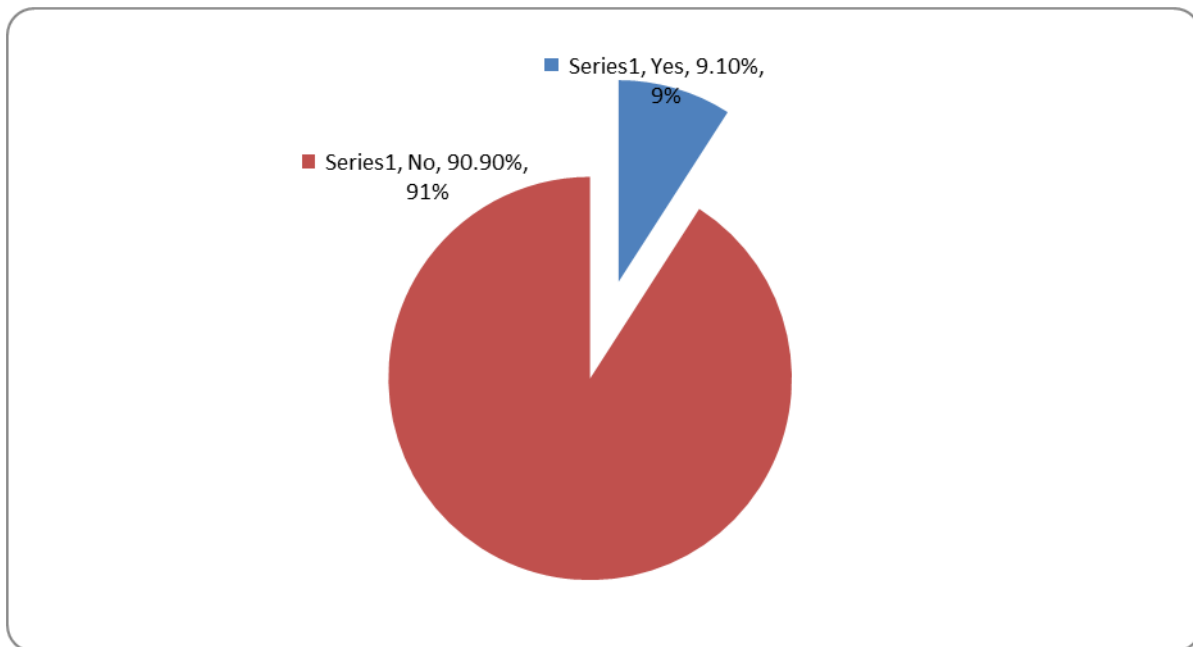


Figure 2: Infant feeding

Table 3
Infant feeding

Food/liquid consumed	Frequency	Percent (%)
Formula milk	5	14.3
Cow's milk	3	8.6
Glucose water	12	34.3
Plain water	15	42.8

Social cultural factors

More than half of the respondents believed that the baby needs more than breast milk (55.7%) followed by the notion that they do not have enough breast milk (21.6%), some felt that breastfeeding was inconvenient (9.1%), others indicated that it is embarrassing to breastfeed in public (8.9%) and a few cited that breastfeeding was an outdated practice (4.7%) as shown in Table 5 below.

Social support factors

The study findings showed that there was a fair distribution of the social support the respondents received. The support received from health workers during antenatal clinics and postnatal clinics took the lead with a total of (41.9%). Others mentioned were husband (31%) followed by society (16.9%) as shown in Tables 4 and 5 below.

Table 4
Social support factors

Support	Frequency	Percentage
Husband	119	31.0
Family, relatives and friends	39	10.2
Health education during ANC	113	29.4
Health education during PNC	48	12.5
Society	65	16.9
Total	384	100.0

Table 5
Socio-cultural factors

Factors	Frequency	Percentage
I do not have enough milk	83	21.6
The baby needs more than breast milk	214	55.7
It's embarrassing to breastfeed in public	34	8.9
Breastfeeding is inconvenient to me	35	9.1
Breastfeeding is an outdated practice	18	4.7
Total	384	100.0

DISCUSSION

Demographic characteristics of participants showed that majority of them were aged 26 – 35 years which comprised 57% of the total sample size followed by 16 – 25 years at approximately 35% and above 35 years at 8.1%. More than half of the mothers had attended college (54.9%) followed by secondary (37.5%) and primary (7.6%). A similar study found that the mean (SD) age of participant mothers was 27.18 (3.77) years (range: 19 to 42) while for education levels showed majority of mothers (86.1%) had studied up to equivalent of form two. Very few (2.6%) mothers had multifetal pregnancy (9).

Socioeconomically, there was a fair distribution in terms of occupation where a number of them indicated that they are self-employed (43%) followed by housewife (34.1%), formal employment (20.3%) and farming (11.5%). Half of the households

indicated that they had an average monthly income of above Ksh. 10,000 (49%) followed by an income between Ksh. 5,001 – Ksh.10,000 (34.6%) and the rest below Ksh 5000. This is contrasting to a study that found that mothers with lower incomes tend to breastfeed more than those with higher incomes maybe due to lack of alternatives or inability to afford formula milk (10).

Then study findings depicted that overall, more than half of the mothers (66.7%) were not exclusively breastfeeding their infants at the time of the study. Analysis of breastfeeding by age group however showed a decrease in exclusive breastfeeding rates. It was highest (77.8%) for infants aged between 7 – 8 months and lowest (23.75%) for those aged 11 – 12.

More than half of the respondents believed that the baby needs more than breast milk (55.7%) followed by the notion that they do not have enough breast milk (21.6%), some felt that breastfeeding was inconvenient

(9.1%), others indicated that it is embarrassing to breastfeed in public (8.9%) and a few cited that breastfeeding was an outdated practice (4.7%).

This study found out that overall, more than half of the mothers (66.7%) were not exclusively breastfeeding their infants at the time of the study. Analysis of breastfeeding by age group however showed a decrease in exclusive breastfeeding rates. It was highest (77.8%) for infants aged between 7 – 8 months and lowest (23.75%) for those aged 11 – 12 month.

In contrast, World Bank and WHO estimates of collection of development indicators Exclusive breastfeeding (% of children under 6 months) in Kenya was reported at 61.4 % in 2014, according to the, compiled from officially recognized sources. (11).

More than half of the respondents believed that the baby needs more than breast milk (55.7%) followed by the notion that they do not have enough breast milk (21.6%), some felt that breastfeeding was inconvenient (9.1%), others indicated that it is embarrassing to breastfeed in public (8.9%) and a few cited that breastfeeding was an outdated practice (4.7%). The study findings also found that there was a fair distribution of the social support the respondents received. The support received from health workers during antenatal clinics and postnatal clinics took the lead with a total of (41.9%). Others mentioned were husband (31%) followed by society (16.9%).

This reflects a similar study that found that mothers who clarified their doubts and discussed their problems with health professionals and/or breastfeeding support networks were more likely to breastfeed for a longer duration compared to those who did not ($p=0.005$). Same study also found that mothers who sought support in breastfeeding

are more likely to breastfeed for more than 6 months ($p<0.0005$) (12).

CONCLUSION

The association between exclusive breastfeeding and, socio-economic and demographic factors was determined using a chi-square test at 5% significance level. Factors assessed included the age of mother and that of the index child, academic qualification of the mother, the occupation of the mother and the average monthly household income. .

Maternal understanding of EBF and its recommended period among mothers attending Uasin Gishu county hospital was low in that the study findings depicted that overall, more than half of the mothers (66.7%) were not exclusively breastfeeding their infants at the time of the study. Analysis of breastfeeding by age group however showed a decrease in exclusive breastfeeding rates. It was highest (77.8%) for infants aged between 7 – 8 months and lowest (23.75%) for those aged 11 – 12 months. This is an indicator that WHO recommendation on EBF up to 6 months is not being practiced. Determinants of EBF up to 6 months could be attributed to lack of adequate knowledge on EBF.

The study findings depicted that overall, more than half of the mothers (66.7%) were not exclusively breastfeeding their infants at the time of the study. Analysis of breastfeeding by age group however showed a decrease in exclusive breastfeeding rates. It was highest (77.8%) for infants aged between 7 – 8 months and lowest (23.75%) for those aged 11 – 12 months.

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RECOMMENDATIONS

Research beyond this descriptive study (qualitative research) is needed; for instance, a research on the adequacy of breast milk in meeting the nutritional needs of infants to 6 months. A similar study may be done in a different geographical and cultural setting incorporating factors like religion and race that were not captured in this research.

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