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BREASTFEEDING PRACTICES AND ASSOCIATED FACTORS AMONG MOTHERS WITH NEW-BORN BABIES ATTENDING KENYATTA NATIONAL HOSPITAL

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BREASTFEEDING PRACTICES AND ASSOCIATED FACTORS AMONG MOTHERS WITH NEW-BORN BABIES ATTENDING KENYATTA NATIONAL HOSPITAL

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ABSTRACT

Objective: To establish breastfeeding practices among mothers with new-born babies attending Kenyatta National Hospital

Design: The study adopted a mixed methods cross sectional design using qualitative and quantitative methods

Setting: Kenyatta National Hospital

Subjects: Mothers with new-born babies attending postnatal clinic and pediatric unit at Kenyatta National Hospital

Main outcome measures: Demographic characteristics and breastfeeding practices

Results: Slightly above half 51.5% (n=103) of the respondents had good breastfeeding practise while 48.5% (n=97) had poor breastfeeding practices. Age (OR=2.8, 95% CI 1.3 – 5.4, p=0.008), level of education (OR=2.4, 95% CI 1.6 – 4.1, p=0.011) and antenatal care initiation (OR=3.4, 95% CI 2.3 – 5.9, p=0.011) were significant.

Conclusion: Although breastfeeding initiation was poor, majority of the women breastfed on demand and had good body positioning and emotional bonding during breastfeeding. Health education given to mothers in antenatal care should therefore emphasise that mothers initiate breastfeeding immediately after birth.

INTRODUCTION

Breastfeeding confers numerous health and developmental advantages for infants. Breastfeeding is undoubtedly a simple, healthy and extremely cost-effective feeding method that fulfils all the nutritional needs of an infant¹. Timely initiation of breastfeeding has proven to be beneficial to the baby, mother and the entire family. Baby friendly initiative standards demand early and mandatory initiation of breastfeeding where no contraindication exists². However, poor breastfeeding practices are widespread all over the world and especially in sub-Saharan Africa. Investigations in areas where resources are scarce reveals that current practices are way below the recommended ENBC practices. Consequently, the same regions account for more than half of neonatal deaths that occur globally³.

Optimal Breastfeeding is essential for child growth and development especially in new-borns. Breastfeeding remains the primary source of nutrition for new-born⁴. The WHO posits that infants ought to be exclusively breastfeed in the first six months of life⁵. Exclusive breast-feeding has several benefits to the new-borns including protection against infections, sensory development and cognitive development⁴. Also, early initiation of breastfeeding ensures the baby receives colostrum. Colostrum contains high levels of antibodies essential in providing the new-born with immunity. Effective breastfeeding entails; early initiation, correct attachment, acceptable frequency, exclusive breastfeeding for six months⁶.

Early initiation of breastfeeding (EIBF) has significant health benefits, but the practice in many parts of the world is far beyond the optimal. The WHO recommends initiation of breastfeeding immediately after birth or within one hour⁵. However, available literature shows that a significant number of mothers delay initiation of breastfeeding. According to Colombara et al shows

initiation of breastfeeding within the first hour of life in the Mesoamerica population ranged from 89.8% in Panama and 65.6% in El Salvador^{14,5}. An analysis of literature by Alzaheb in the Middle Eastern region puts the rates of initiation of breastfeeding within the first hour of life at 11.4% in a province of Saudi Arabia and 63.8% in Iran⁷. All the studies reviewed show a low prevalence of early initiation 34.3% in the Middle East. An Indian study by Mise et al found that a majority of mothers 61.6% failed to initiate breastfeeding within 1 hour after delivery¹. In Kenya, a study shows that a significant number of mothers 21% fail to initiate breastfeeding within the first hour life⁶. Delayed initiation of breastfeeding is associated with increased neonatal morbidity and mortality¹.

In a study conducted in Kenya by Madeghe et al found that a significant number of women reported opting for mixed feeding because their children were not getting satisfied with the breast milk alone⁸. Others described that they were not having sufficient amounts of milk due to lack. Also, a few mothers claimed that they had to give their children water due digestive complications. Despite sensitization of mothers on the importance of essential new-born care, common infections such as diarrhoea, sepsis and pneumonia of neonates persist at Kenyatta National Hospital which is an indication that new-born care practices are not observed as recommended. Most of the neonatal infections and infection-related deaths could be avoided by complying with breastfeeding recommendations. This study therefore sought to establish breastfeeding practices among mothers with new-born babies attending Kenyatta National Hospital.

MATERIALS AND METHODS

The study was carried out in Kenyatta National Hospital. Kenyatta National Hospital (KNH) was established in 1901 and

has become the largest hospital in Kenya and East Africa. The study adopted a mixed methods cross sectional design using qualitative and quantitative methods. The researcher collected, analysed and interpreted quantitative and qualitative data in a single study to investigate new-born care practices. The study population comprised of mothers with new-born babies attending the postnatal clinic and paediatrics unit at Kenyatta National Hospital. The specific target population was breastfeeding mothers attending the postnatal clinic and paediatric emergency unit. The average monthly attendance in both units was about 400 mothers. The paediatric emergency unit attend to an average of 70 clients in a week, that is, an average of 280 clients a month. The postnatal clinic is scheduled once a week and sees an average of 30 clients every week, that is, about 120 clients in a month. Slovin's Formula was used determine the sample size⁹.

$$n = N / (1 + N e^2)$$

Where:

n= sample size,

N= population,

e =margin of error.

Therefore, in a population of 400 mothers attending the post-natal clinic and paediatric emergency unit, the study used a sample of 200 mothers as shown in the formula below
 $n=400/(1+400*0.05*0.05)=200$

The study therefore used a sample of 200 mothers attending the Post-Natal Clinic and Paediatrics Emergency Unit in Kenyatta National Hospital. Systematic random sampling was used to select eligible subjects. The sampling method is selected to ensure a randomly spread representative sample of the population. The study intended to collect data over 1 month collecting 200 questionnaires from the mothers in the postnatal clinic and the paediatric emergency unit who meet the inclusion criteria. The researcher selected the starting point randomly in the clinic register and then

selected every nth member in the register. Therefore, every 2nd mother was selected for the study. If a mother did not consent, the next mother was approached.

The study used primary data through questionnaires, focus group discussion and observation. Data was collected using a semi-structured interviewer-administered questionnaire. The questionnaire was validated by a pre-test study at the postnatal clinic at Mbagathi. To test the reliability of the instruments the researcher conducted a pre-test. The pre-test was conducted at Mbagathi hospital since it is close to the area of study and the target population is likely to have similar characteristics with the target population. A Cronbach's alpha of 0.8 and above was taken as acceptable reliability, in this study, a Cronbach's alpha coefficient of 0.83 was registered. A focused group discussion guide was used to capture additional qualitative data. Each focused group included 10 mothers. The mothers were mixed in terms of age and parity to ensure that the group was representative. The researcher gathered more data on breastfeeding practices through observation to supplement the responses from the questionnaire. The focused group discussion guide was used to direct the conversation. Audio recording was done and the data transcribed. Major themes were identified and discussed together with other findings to give more insights on new-born care practices.

The study was conducted at the post-natal clinic and paediatric emergency unit as patients wait in line. Data collection was conducted in each clinic day for the post natal clinic and every day and paediatric emergency unit during the study period until the sample target for the unit was achieved. The researcher also made observation notes from mothers admitted in the paediatric unit. The researcher spent a day in the unit and made observations on essential new-born care practices by the mothers. The elements

to be observed were outlined in the observation guide. To prevent researcher bias, trained research assistants also spent a day each in the unit and make observation notes for comparison. The following ethical principles were upheld in the study; approval, voluntary participation, informed consent, anonymity and confidentiality.

For quality assurance, collected data was sorted, coded and entered into a computer using SPSS. Data entry was supervised and audit of data entry was conducted to ensure that there were no mistakes. Univariate data analysis for the four study variables was conducted using descriptive statistics comprising frequencies and percentages. Analysis was conducted with the help of SPSS version 23. Findings were presented using tables and figures. Chi-square was used to establish associations. The qualitative data was transcribed to identify major themes. The themes formed the basis of comparison and analysis along with the

descriptive statistics obtained from the quantitative data.

RESULTS

A total of 200 respondents participated in the study.

Socio-Demographic Characteristics of Respondents: Results in Table 1 show that 44.5% n=89 of the respondents were aged between 18 and 25 years while 35.5% n=71 were aged between 26 and 33 years. Majority 73.5% n=147 were married. The results show that half 50% n=100 of the respondents had secondary education as their highest level of education while 28% n=56 had acquired college education. On occupation, 36% n=72 were unemployed while 33.5% n=67 were self-employed. Among those who were married, slightly less than half 43.5%, n=50 of their spouses were self-employed while 32% n=33 were had a salaried job.

Table 1
Socio-Demographic Characteristics of Respondents

| Demographic Characteristic | Category | Frequency | Percent |
|----------------------------|---------------|-----------|---------|
| Age (years) | 18-25 | 89 | 44.5 |
| | 26-33 | 71 | 35.5 |
| | 34-41 | 36 | 18 |
| | 42-49 | 4 | 2 |
| Marital Status | Single | 53 | 26.5 |
| | Married | 147 | 73.5 |
| Level of education | None | 2 | 1 |
| | Primary | 36 | 18 |
| | Secondary | 100 | 50 |
| | College | 56 | 28 |
| | University | 6 | 3 |
| Occupation | Unemployed | 72 | 36 |
| | Casual | 13 | 6.5 |
| | Self-employed | 67 | 33.5 |
| | Salaried job | 30 | 15 |
| | Student | 18 | 9 |
| Spousal Occupation | Unemployed | 8 | 6.1 |
| | Casual | 14 | 15.0 |
| | Self-employed | 50 | 43.5 |
| | Salaried job | 33 | 32.0 |
| | Student | 5 | 3.4 |

Maternal Health Seeking Behaviour: Results in Table 2 show that the vast majority 98.5% n=197 delivered in a hospital. Majority 61.5% n=123 of the respondents delivered through caesarean method. Slightly less than half 43.5% n=87 made more than 4 visits to the

antenatal clinic while 23.5% made 4 visits and 20.5% n=41 made 3 ANC visits. Slightly above half 55.5% n=111 begun attending the antenatal clinic in their second trimester (4-6 months) while 36.5% n=73 initiated ANC in their first trimester (1-3 months).

Table 2
Maternal Health Seeking Behaviour

| Behaviour | Response | Frequency | Percent |
|-------------------|-----------------|-----------|---------|
| Place of delivery | Hospital | 197 | 98.5 |
| | Home | 3 | 1.5 |
| Mode of delivery | Normal | 73 | 36.5 |
| | Assisted | 4 | 2 |
| | Caesarean | 123 | 61.5 |
| ANC attendance | 1 | 9 | 4.5 |
| | 2 | 12 | 6.0 |
| | 3 | 41 | 20.5 |
| | 4 | 47 | 23.5 |
| | More than 4 | 87 | 43.5 |
| | Cannot remember | 4 | 2.0 |
| ANC initiation | 1-3 | 73 | 36.5 |
| | 4-6 | 111 | 55.5 |
| | 7-9 | 16 | 8.0 |

Breastfeeding Practices: Results show that 31.5% n=63 initiated breast-feeding between 1 and 3 hours after birth while 30.5% n=61 initiated breast-feeding over 3 hours after birth. Majority 86.5% n=173 breastfed on-

demand. The vast majority 92.5% n=185 did not discard the colostrum. Majority 68.5% n=137 breastfed while lying. Majority 68% n=136 indicated that they had received training on breastfeeding (Table 3).

Table 3
Breastfeeding Practices

| Practice | Response | Frequency | Percent |
|--------------------------|--------------------|-----------|---------|
| Breastfeeding initiation | Immediately | 26 | 13.0 |
| | Within an hour | 50 | 25.0 |
| | 1-3 hours | 63 | 31.5 |
| | Over 3 hours | 61 | 30.5 |
| Breastfeeding frequency | On-demand | 173 | 86.5 |
| | Thrice | 7 | 3.5 |
| | Four or more times | 20 | 10 |
| Discarded colostrum | Yes | 15 | 7.5 |
| | No | 185 | 92.5 |
| Breastfeeding position | Sitting | 63 | 31.5 |
| | Lying | 137 | 68.5 |
| Breastfeeding Training | Yes | 136 | 68.0 |
| | No | 64 | 32.0 |

Respondents in the study were also observed breastfeeding using an observation checklist. Table 4 presents a summary result from analysis of data collected in the observation checklist. Slightly more than half 56.5%, n=113 scored highly on body positioning.

Slightly above half 58.5% n=117 also scored highly on emotional bonding. However, 51% n=102, 56.5% n=113 and 61.5% n=123 scored low on the responses, anatomy and time spent suckling domains.

Table 4
Breastfeeding Observation Results

| Domain | Good | | Poor | |
|---------------------|------|------|------|------|
| | n | % | n | % |
| Body Position | 113 | 56.5 | 87 | 43.5 |
| Responses | 98 | 49 | 102 | 51 |
| Emotional Bonding | 117 | 58.5 | 83 | 41.5 |
| Anatomy | 87 | 43.5 | 113 | 56.5 |
| Suckling | 96 | 48 | 104 | 52 |
| Time spent suckling | 77 | 38.5 | 123 | 61.5 |

In the focus group discussion, participants were asked to indicate some of the ways they provided care for new-borns in regard to breastfeeding. Participants indicated that they breastfed on demand and that they would breast for at least 6 months. Some of the responses are captured below

"I breastfeed the baby whenever I can" Fgd3

"I breastfeed the baby to put her to sleep" Fgd7

"I will breastfeed the baby for at least 6 months"

Fgd1

Participants were also asked to indicate some of the factors that affect their breastfeeding practices. Participants indicated that they lacked time to breastfeed while others indicated that they had inadequate breastmilk.

"I have to go to work which is far from my home"

Fgd7

"Sometimes the baby cries a lot and does not want breastmilk" Fgd4

"The baby doesn't get satisfied by breastmilk alone" Fgd5

The participants were also asked if they had any beliefs about breastfeeding to which all indicated no.

The researcher analysed the questionnaire and observation results to come up with an overall breastfeeding practices assessment. Respondents who scored highly in 3 or more of the 5 breastfeeding practices in Table 4 and those who scored highly in 4 or more of the 6 breastfeeding practices in Table 4 were categorised as having good breastfeeding practices. Results in Figure 1 showed that slightly above half 51.5% n=103 of the respondents had good breastfeeding practices while 48.5% n=97 had poor breastfeeding practices.

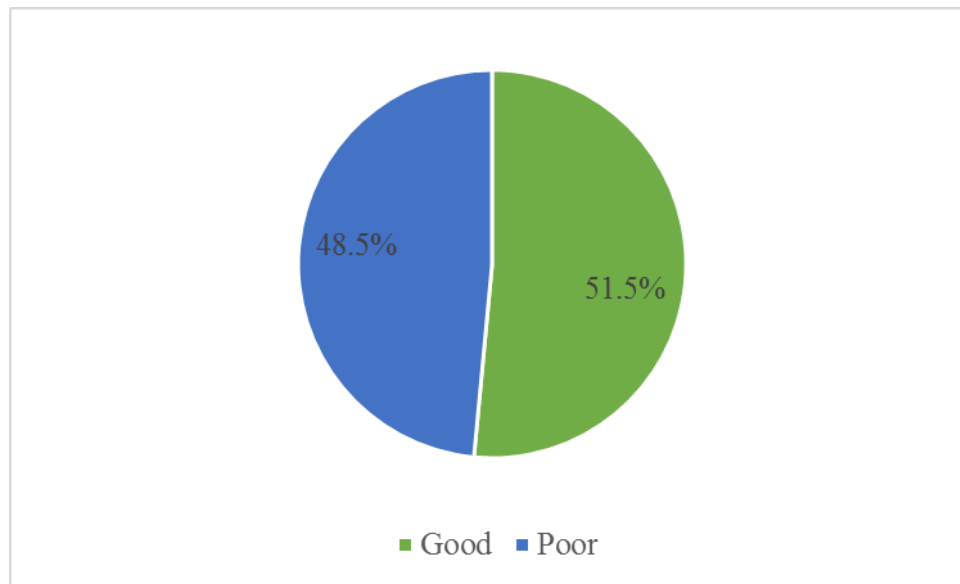


Figure 1 Summary of Breastfeeding Practices

Factors Associated with Breastfeeding Practices: Results in Table 5 shows that age OR=2.8, 95% CI 1.3 – 5.4, $p=0.008$, level of education OR=2.4, 95% CI 1.6 – 4.1, $p=0.011$ and antenatal care initiation OR=3.4, 95% CI 2.3 – 5.9, $p=0.011$ were significant. According to the results, young mothers (<30 years) were 2.7 times more likely to have good

breastfeeding practices. Mothers who had post-secondary education were 2.4 times likely to have good breastfeeding practices. In addition, mothers who initiated their antenatal care clinic in the first trimester were 3.4 times more likely to have good breastfeeding practices

Table 5

Factors Associated With Breastfeeding Practices

| | Chi-square (χ^2) | Degrees of freedom (df) | Significance (p) | Odds Ratio (OR) |
|----------------------------|-------------------------|-------------------------|------------------|-----------------|
| Age | 7.081 | 1 | 0.008*** | 2.792 |
| Level of education | 6.472 | 1 | 0.011*** | 2.411 |
| Religion | 6.498 | 4 | 0.195 | 0.103 |
| Employment status | 2.072 | 2 | 0.358 | 0.811 |
| Spouses' employment status | 1.732 | 3 | 0.630 | 0.404 |
| ANC initiation | 16.147 | 5 | 0.006*** | 3.403 |
| ANC visits | 0.109 | 1 | 0.742 | 0.660 |

*** Significant at 95% CI

DISCUSSION

The study found that slightly above half 51.5% $n=103$ of the respondents had good breastfeeding practice while 48.5% $n=97$ had poor breastfeeding practices. Majority of respondents scored well on body positioning and emotional bonding. However, many

respondents scored poorly on the responses, anatomy and time spent suckling domains. Majority of respondents intended to breastfeed for 6 months. Majority indicated that they lacked time to breastfeed, and they had inadequate breastmilk. Age, level of education and antenatal care initiation were significant. This was in line with Al-Mutairi

et al most common reason for participants discontinuation of breastfeeding was breast milk insufficiency¹⁰. These findings are however in disagreement with findings of KDHS (2014) and Talbert et al which showed very poor levels of breastfeeding¹¹. It is contrary to Altamimi et al who revealed that although women initiate early breastfeeding, majority cease exclusive breastfeeding prior to the child attaining 6 months¹². The finding is also not in line with Vinay et al participants had a laxity in timely initiation of breastfeeding, mixed feeding early in life and early cessation of breastfeeding¹³.

CONCLUSION

Health education given to mothers in antenatal care should therefore emphasise that mothers initiate breastfeeding immediately after birth. In addition, mothers should be trained on best practices of expressing milk and how to store it so that the baby is fed even when mothers are at work.

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