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The Factors Influencing Breastfeeding Practice among Rural Nursing Mothers at the Gatanga Sub-County of Murang'a County

Gathangu Sabina Wanjiku

Trainee Health Promotion, Kenya

John Kariri Mukui

Ph.D. Scholar and Lecturer, Kenya Medical Training College, Kenya

Joash Auka

Ph.D. Scholar, and Lecturer, Kenya Medical Training College / JKUAT, Kenya

Kiplangat Korir

Lecturer, Kenya Medical Training College (KMTC), Kenya

Abstract:

Background: Many scholars have advocated for exclusive breastfeeding for infants below six months of age. In Kenya, most rural based mothers normally wean or introduce their babies to supplemental feeds before attainment of six months of age. Therefore, there is need to understand the factors influencing breastfeeding practices during infancy and early childhood in a rural setup like the Gatanga sub-county of Kenya.

Objectives: This study aimed at identifying the factors influencing breastfeeding during infancy and early childhood in a rural setup; determine the types of foods used for supplementary feeding and identification of methods.

Methods: This descriptive mixed methods questionnaire based cross-sectional survey in Gatanga sub-county of Murang'a County involved purposefully selected 176 mothers of children below 5 years of age from among nursing mothers in the four villages.

Results: The majority (40.3%) of the respondents were aged between 25-34 years of age followed by 38.6% of the respondents that were aged between 15-24 years. A good number (80.7%) of breastfeeding mothers in the region have gone through formal education with just an alarming (19.3%) having not had gone through any formal education. Forty eight percent (48.9%) of the breast-feeding mothers were unemployed. Nearly all nursing mothers (97%) received information on breastfeeding and its benefits while only 3% (5) revealed having not had any information concerning infant feeding. In addition, 87.5% (n=8) of the mothers with formal employments pointed out that their work place environment did not provided facilities such as workplace nursery. Exclusive breastfeeding was noted among 41.9% (n=43) of the mothers who had children of 0-6 months of age. While 30.2% of the mothers supplement breast milk with other types of milk, especially cow milk, about 11.6% indicated to supplement breast milk with other liquid foods such as glucose solution, sugar solution or fruit juice be it fresh or commercial. Maternal and contextual factors influence breastfeeding practice as well as the age of the baby.

Conclusion: Breastfeeding practice among the nursing mothers in Gatanga sub-county is good however, it falls far below the recommended the World Health Organization's recommendations.

Keywords: Breastfeeding among rural women, Exclusive breastfeeding practice

1. Introduction

Despite the World Health organization's recommendations for exclusive breastfeeding of infants for the first six months of life, many women do not practice exclusive breastfeeding or do not continue breastfeeding for the recommended duration. Supplementation or exclusive formula feeding and the introduction of solid foods before six months of age are two practices that go against the WHO recommendation. Numerous studies throughout the world have investigated breastfeeding practices, and the factors affecting initiation and duration of breastfeeding. The identification of factors that influence breastfeeding initiation, duration and the introduction of solid foods is important for developing strategies to increase breastfeeding rates and to ensure that as many infants as possible benefit from the WHO recommendation.

Breastfeeding initiation and duration rates vary from country to country, and in many cases they fall short of strategic goals (Australian Institute of Family Studies, 2012; Hall Moran & Dykes, 2009; Hamlyn, Brooker, Oleinikova, & Wands, 2002; Li, Darling, Maurice, Barker, & Grummer-Strawn, 2005).

Exclusive breastfeeding during the initial months of life and continued breastfeeding through to at least the first two years of life is associated with substantial reduction in the burden of infections (Fisk et al., 2010; Arifeen et al., 2001; Brown et al., 1989). In addition, breastfeeding in the first six months of life is not only protective against childhood diarrhea and acute respiratory infections but it also boosts response to vaccination (UNICEF, 2006). Breastfeeding induces uterine contractions that reduce the mother's risk of postpartum hemorrhage, it also reduces the risk of breast and ovarian cancer, and it is a natural barrier to conception in the first six months post delivery (Leon-Cava et al., 2002). In many Sub-Saharan Africa societies, exclusive breastfeeding is considered by far the best feeding option for women of unknown HIV status and for most HIV positive mothers, although it is challenged by low acceptability and feasibility (Cames et al., 2009).

The rates of breastfeeding have improved over the recent past, with the global rate at 37% (UNICEF, 2009 and UNICEF, 2011). South Asia, East Asia, Pacific and South Africa are regions with the highest levels of exclusive breastfeeding at 44%, 43%, and 39% respectively (UNICEF, 2009 and UNICEF, 2011). There has been a major increase in rates of breastfeeding in 19 African countries including Rwanda (88%), Tanzania (41%) and Malawi (57%) among others (UNICEF 2009 and UNICEF, 2011).

The government of Kenya initiated a comprehensive infant and young children breast-feeding (IYCF) Programme in the year 2007, and this coupled with Partner Stakeholders efforts contributed to rise in exclusive breastfeeding rates from 13% in 2003 to 32% in 2010 of children below 6 months (KNBS and ICF Macro, 2010). A number of researchers have identified socio-demographic, biomedical, and psychosocial factors associated with infant feeding decision (Dennis, 200; Scott & Binns, 1999). In many quantitative studies, the decision to breastfeed is largely a matter of individual choice, and the intention to breastfeed a key predictor of breastfeeding initiation and duration (Ahluwalia, Morrow & Hsia, 2005; Blyth et al., 2004). A range of maternal and child health attributes such as marital status, economic status and child age also influence the practice of exclusive breastfeeding (Alemayebu, Haider, and Habte, 2009). To make better feeding choices, mothers need specific, culturally appropriate information that responds to their constraints and concerns (LINKAGES, 2004).

The Kenyan national Nutritional Action Plan (2012-2017) promotes breastfeeding through improving the nutritional status of women of reproductive age (15-49) and improving of the nutritional status of children under 5 years of age.

1.1. Problem Statement

Many mothers are unable to practice breastfeeding as advocated (Dhandapany et al., 2008) and there is limited scientific data on reasons why breastfeeding is sub-optimal. Despite the increase in breastfeeding rates and particularly exclusive breastfeeding rate from 13% in 2003 to 32% in 2010 in Kenya (KNBS and ICF Macro, 2010), breastfeeding is still not common in the country. While there is a large body of published material on the factors affecting breastfeeding, there is need to understand the factors that affect the advocacy for breastfeeding and determine the types of food used for supplementary feeding of breastfeeding infants.

1.2. Objectives of the Study

To determine factors influence breastfeeding practice among mothers in Gatanga location.

1.3. Specific Objectives

Determine the socio-demographic factors of the breastfeeding mothers in Gatanga.
Find out the key influencers of breastfeeding practices in the Gatanga sub-county.
Establish sources of information on breastfeeding among nursing mothers in Gatanga sub-county
Establish the impact of breastfeeding information on infant feeding practices.

1.4. Study Hypotheses

Maternal characteristics and contextual factors have no significant associations with the practice of breastfeeding of infants and young children below 5 years in Gatanga location.

Infant characteristics such as age and sex have no significant association with the practice of breastfeeding during infancy and early childhood in Gatanga location.

1.5. Conceptual Framework for the Study

This study adopted a conceptual framework by Ochola (2008) on factors influencing breastfeeding practices. According to the framework, breastfeeding is a complex process governed by psychological and physiological factors that in turn condition a wide spectrum of environmental, socio-economic and cultural factors (Obermeyer and Castle, 1997). These factors affect breastfeeding practices in different ways and to varying degrees depending on culture (Aidam et al., 2005).

For purposes of this research, the framework guided in investigating the maternal demographic characteristic, knowledge on breastfeeding, socioeconomic factors and contextual factors such as breastfeeding support, breastfeeding counseling and sources of information and attitudes and beliefs about breastfeeding practices.

2. Research Methodology

- **Setting:** The study was conducted in Gatanga location Gatanga Sub-County in Murang'a County. The study took place in four villages; Kahurura, Ngungugu, Turuga and Mbaki-ini.

- Methods: This descriptive mixed methods questionnaire based cross-sectional survey in Gatanga sub-county of Murang'a County involved purposefully selected 176 mothers of children below 5 years of age from among nursing mothers in the four villages.
- Ethical considerations: The National Council for Science and Technology through the Director Kenya Medical Training College gave authority to undertake the study, and the researchers sought permission from the county health director and the sub county administrator. The participants signed informed consent after assurance of their right to privacy and confidentiality plus explanation that the study was purely for academic purposes.

3. Results and Discussion

3.1. Demographic Characteristics of the Respondents

3.1.1. Age of Respondents

Three quarters of the respondents, (78.6%) were aged between 15-34 years, of which 40.3% were between 25-34 years of age.

Age Range in Years	Number (N)	Percentage (%)
15-24	68	38.6
25-34	71	40.3
35-44	31	17.6
Others (above 44 or below 15)	6	3.4
Total	176	100

Table 1: age of respondents

3.1.2. Marital Status of the Respondents

Data collected on marital status of breastfeeding respondents revealed that 68.8% of the respondents were married and living with their husbands.

	Number (N)	%
Married	121	68.8
Single – Never married	42	23.9
Separated	9	5.1
Widowed	3	1.7
Divorced	1	0.5
Total	176	100

Table 2: Marital status of mothers

3.1.3. Level of Education

This revealed that a good number (80.7%) of breastfeeding mothers in the region have gone through formal education with just an alarming (19.3%) having not had gone through any formal education.

	N	%
Not educated at all	34	19.3
Adult Education	2	1.1
Primary Education	62	35.2
O-level	50	28.4
College/campus	28	16
Total	176	100

Table 3: respondent's level of education

3.1.4. Occupation

Forty eight percent (48.9%) of the breast-feeding mothers were unemployed.

	N	%
Formal employment	8	4.5
Informal employment	54	30.7
Self-employed	28	15.9
Unemployed	86	48.9
Total	176	100

Table 4: Occupation status of mothers

3.2. Issues Related to Breastfeeding

3.2.1. Age of the Babies

Data obtained indicated that 27.35% of the breastfeeding children were aged between 19-24 months, 24.4% were between 0-6 months, 22.1% were between 12-18 months, 12.5% were between 7-11 months old while those above 24 months constituted 13.6% of the children.

Age (months)	No. of responses Nu	(%)
0-6	43	24.4
7-11	22	12.5
12-18	39	22.1
19-24	48	27.3
25-59	24	13.6
Total	176	100

Table 5: age of the breastfeeding babies in months

3.3. Knowledge on Breastfeeding

i. Breastfeeding services

The majority of mothers representing 64.2% of the total indicated that they got access to breastfeeding services and that the services were fairly easy, 34 (19.3%) revealing that it was easy for them to access the services while 16 (9.1%) revealed that it was difficult to find breastfeeding services with 13 (7.4%) in Gatanga sub-county.

ii. Information on breastfeeding and its sources

Data obtained revealed that almost all of the mothers (97%) received information on breastfeeding and its benefits while only 3% (5) revealed having not had any information concerning infant feeding.

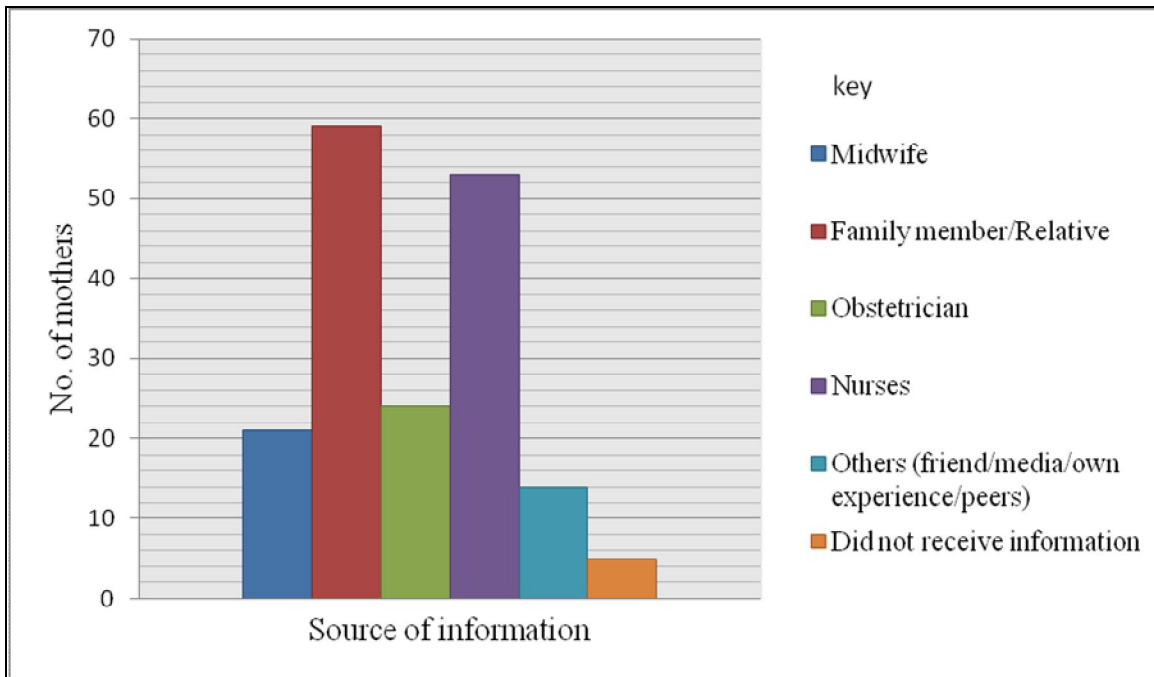


Figure 1: Sources of information on infant feeding

3.4. Mother's Perception on Public Breastfeeding

Most mothers (93%) had at some point breastfed their infants in a public place. However, they cited various challenges when asked to explain their experiences.

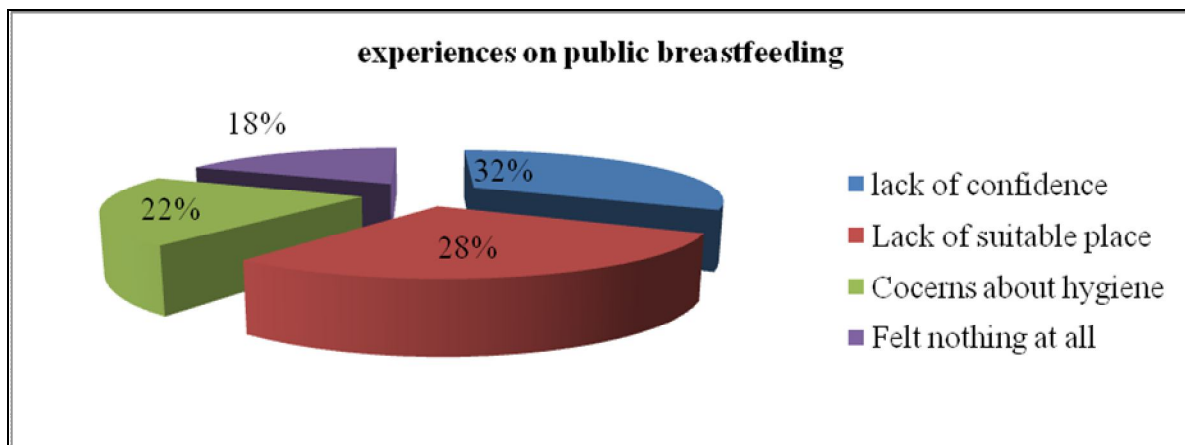


Figure 2: mother's experiences on public breastfeeding

3.5. Workplace Environment

Data obtained indicated that all the mothers with formal employment got a maternity leave. However, the maternity leaves provided were less than 4 months. In addition, 87.5% (n=8) of the mothers with formal employments pointed out that their work place environment did not provide facilities such as workplace nursery that enables them to breastfeed. This resulted in them (mothers) leaving their children under other caregivers such as day care service providers, grandparents, partner or even relatives. This implied that the workplace environment has a lot of influence on breastfeeding.

3.6. Infant Feeding

3.6.1. Exclusive Breastfeeding

Data obtained on exclusive breastfeeding indicated that a good number (half) of mothers do not know the period within which infants are required to be exclusively breastfed. Of the total 176 women who completed the questionnaire tool of the survey, 41.7% (n=73) responded by giving 24, 12 or 3 months as the age within which the infant is supposed to be exclusively breastfed. 49.3% (n=87) were able to get it right by indicating six months as the period to exclusively breastfeed the infants while 9% had no idea at all. Exclusive breastfeeding was noted among 41.9% (n=43) of the mothers who had children of 0-6 months of age. While 30.2% of the mothers supplement breast milk with other types of milk especially cow milk while 16.3% revealed to be supplementing breast milk with either cow milk or porridge and 11.6% indicated to supplement breast milk with other liquid foods such as glucose solution, sugar solution or juice.

Reasons	N=25	%
Baby getting hungry often	5	20
Mother not producing enough milk	7	28
To sooth breast pain	4	16
Advice from friends/relatives	5	20
Others (e.g. Work/advice from health practitioners)	4	16
Total	25	100

Table 6: Reasons for not practicing exclusive breastfeeding
No. of respondents 25

3.6.2. Supplementary Feeding

Content analysis of the data obtained from the open questions as indicated in Figure 3 below revealed that mothers used various types of food for complimentary feeding.

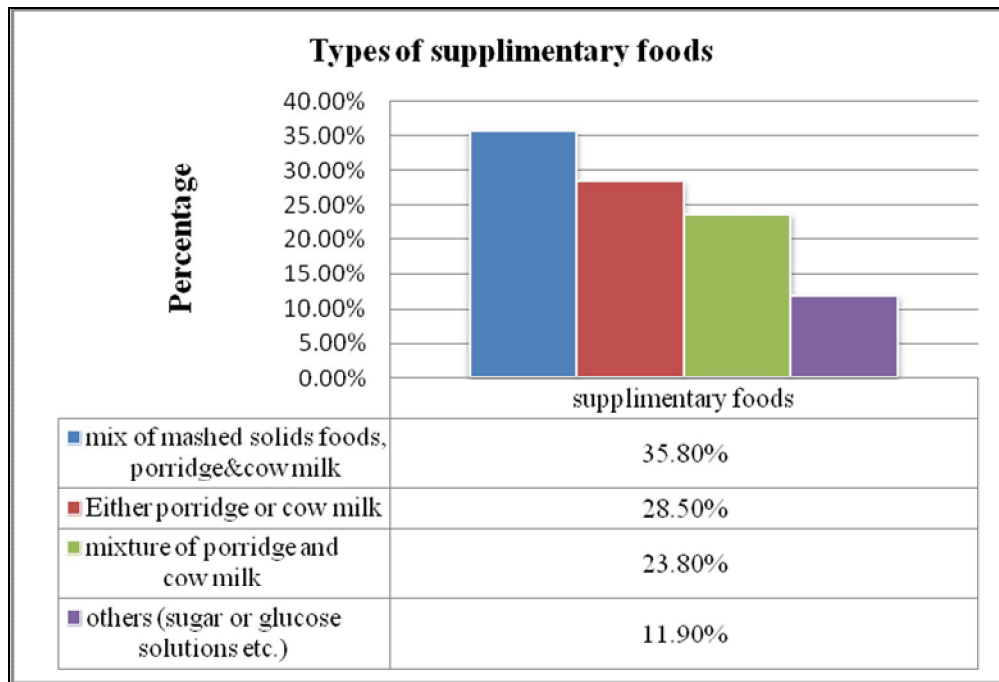


Figure 3: Foods used to compliment breastfeeding

• Hypothesis 1 Testing: Maternal factors

R software (Chi square analysis method) was used to carry out regression analysis to test the null hypotheses of the study as shown below.

H0: Maternal characteristics and contextual factors do not impact on breastfeeding

H1: Maternal characteristics and contextual factors impact on breastfeeding

Test Criteria: If X-square (table) < X-square (calculated), then reject H0 at alpha=0.05%

	Age	M.S.	Education	Occupation
[1]	68	121	34	8
[2]	71	42	2	54
[3]	31	9	62	82
[4]	6	3	50	86
[5]	0	1	28	0

Table 7

X-square= Chi square test (data)

Pearson's Chi-squared test

Data: maternal characteristics

X-squared value= 437.868, df = 12, p-value < 2.2e-16

Table value=21.026 >

• Hypothesis 2: Age of the Baby

H0: Age of the baby does not affect breastfeeding

H1: Age of the baby does affect breastfeeding

Test Criteria:

If x-square (table) < x-square (calculated), then reject H0 at alpha=0.05%

Age of the Baby (Months)	Baby Breastfeeding	Baby not Breastfeeding	Baby Exclusively Breastfed
0-6	25	0	18
7-11	12	9	01
12-18	29	10	0
19-24	26	22	0
25-59	6	18	0

Table 8

>Chi square test (data)

Pearson's Chi-squared test

Data: (age of the baby)

X-squared value= 87.7724, df = 8, p-value = 1.316e-15

Table value=15.507

Based on the above regression analysis, the maternal characteristics and contextual factors and age of the baby do affect breastfeeding in the area of study and thus the study's the null hypotheses were rejected.

4. Conclusion

The overall rate of breastfeeding in Gatanga sub-county is generally good, but remains low in comparison with WHO recommendations. The low rate of exclusive breastfeeding at six months indicates that very few women and infants in Kenya are receiving the benefits of breastfeeding for the duration recommended by the World Health Organization (2001).

The nursing mothers of lower socioeconomic groups demonstrated that partial breastfeeding.

5. Recommendations

There is need for additional research to investigate the effectiveness of breastfeeding promotion at the health facility level while identifying constraints and challenges to the activity, if any, and how they can be overcome. Research is also needed to identify the most feasible and cost-effective community-based approaches in promoting breastfeeding in different contexts. Equally important is the need for research to identify the breastfeeding messages having the greatest impact in influencing mothers to practice exclusive breastfeeding.

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