Assessment of Exclusive Breastfeeding Practice and Associated Factors Among Lactating Mothers In Waberi Location, Garissa County

Adan Mohamud[1*], Dominic Mogere[1], Kennedy Muna[2]

1. School of Public Health, Mount Kenya University, P.O. Box 342-01000, Thika, Kenya
2. Department of Health Sciences, Murang'a University of Technology, P.O. Box 75-10100, Murang'a, Kenya

Abstract

Background: The importance of breastfeeding and infant nutrition has been acknowledged by the Kenyan government during the last ten years. Breastfeeding is acknowledged as the most natural way to nourish a baby. It's critical for moms to comprehend the variables influencing exclusive breastfeeding in order to be able to breastfeed for the full six months as advised. The main of the study was to assess exclusive breastfeeding practice and associated factors among lactating mothers in the Waberi location, Garissa County.

Material and Methods: This study used an analytical cross-sectional approach. The Fischer exact formula was utilized to generate 124 study respondents for this study. Multistage sampling was employed in this study to recruit study respondents. The chi-square test was used for bivariate analysis, and binary logistic regression was used for multivariate analysis. The cutoff for statistical significance was $p \leq 0.05$.

Results: More than a quarter(43.5%) of the study respondents reported practicing exclusive breastfeeding. From this study. being employed(OR=5.6,95%CI=0.07-0.41), the presence of social support(OR=2.8,95%CI=0.17-0.77), having a smaller family size(OR=2.5,95%CI=0.11-1.41), lactating mothers who sought ANC attendance(OR=2.3,95%CI=0.18-1.05), and having a secondary level of education(OR=3.5,95%CI=0.72-8.33) increased the odds of practicing exclusive breastfeeding while the presence of harmful cultural practices(OR=3.2,95%CI=1.46-6.86) reduced the odds of practicing exclusive breastfeeding.

Conclusion: From this study, poor exclusive breastfeeding practices was noted. In addition, being employed, the presence of social support, having a smaller family size, lactating mothers who sought ANC attendance, and having a secondary level of education increased the odds of practicing exclusive breastfeeding while the presence of harmful cultural practices reduced the odds of practicing exclusive breastfeeding.

Key words: Ante-natal Care, Exclusive Breastfeeding, Lactating women, Maternal Knowledge

* Corresponding author: adeshyare01@gmail.com

Introduction

Over fifty percent of infants around the world start breastfeeding within the initial hour of confinement. In nations that are emerging, only 41% and 39% of infants younger than 6 months are wholly breastfed, falling considerably short of the worldwide mark of 70% set for 2030(1). By the age of twelve months, rates of breastfeeding fall to 45%, even though more than 2/3rd of mothers keep breastfeeding their kids for at least a single year(1). Only 37% of infants worldwide and 39% of those in the least developed nations receive breastfeeding exclusively for a minimum of six months (2).

According to (3), only 37% of African infants under the age of six months received breast milk in 2017. Following estimates, if all newborns were breastfed for the first two years of life, it would prevent the deaths of over 820,000 kids under the age of five each year. The future wellness of a child depends on breastfeeding, which also lowers costs for hospitals, families, and authorities(2). According to (4), the WHO set global targets of at least 50% exclusive breastfeeding in the first six-month period by 2025 and at most 70% by 2030.

In sub-Saharan Africa, 35% of infants below six months were wholly breastfed in 2017(5). Only 39% of infants under the age of six months of age in countries that are emerging, such as Africa, are exclusively breastfed, and only 58% of 20- to 23-month-olds gain from the ongoing breastfeeding practice, as reported by(6). In SSA and South Asia, over ten million kids under the age of five pass away every year due to poor breastfeeding practices, according to(7). Poor breastfeeding practices are to blame for the majority of these fatalities, which occur (41%) in Sub-Saharan Africa and (34%) in South Asia(8). Insufficient breastfeeding techniques in combination with a high prevalence of disease are an important cause of death in infants as well as young kids(9).

According to the Kenya Demographic Health Survey, only 32% of infants under the age of six months of age are exclusively breastfed, indicating that most mothers do not exclusively breastfeed their infants(10).According to a study done in the Makueni District's Kathonzweni Division, 50.6% of infants were receiving additional nutrition at the age of three months, indicating poor exclusively breastfed performance(11). The promotion of exclusive breastfeeding has been incorporated into the Kenya National Nutrition Action Plan 2012-2017 as one of the nation's top nutrition interventions(12). Infant and Young Child Feeding (IYCF) counseling is currently provided to mothers and/or caregivers of children who are already at risk of malnutrition during growth monitoring and promotion of children less than 5 years of age at government health facilities. The "Community Health Strategy" has expanded the duties of Community Health Volunteers (CHVs) to include counseling on IYCF.

The Baby Friendly Community Initiative and Mother-to-Mother Support Groups are two additional community-based initiatives(12).

Only 38% of infants are breastfed exclusively worldwide(13). The EBF rates in East Africa are quite impressive, with more than 50% of infants between the ages of 0 and 5 months being exclusively breastfed in Rwanda (84.9%), Burundi (69.3%), Uganda (63.2%), Kenya (61.4%), and Tanzania (50%)(13). Kenya has the second-lowest rate among the East African nations, despite the recent rise in EBF to 61.4% from 32%(14). The study site for this study was Garissa County, Kenya which has exclusive breastfeeding rates of 30%, which is significantly lower than the national average and the WHO target of 90%(15). Insufficient amounts of exclusive breastfeeding practices are a factor in the considerable infant fatality and morbidity rates in the Waberi area. This study sought to address the low proportion of lactating mothers in the Waberi area of Garissa County who exclusively breastfeed and the associated factors influencing exclusive breastfeeding practices.

Material and Methods

Study design

This study used an analytical cross-sectional approach to identify the variables affecting nursing mothers' use exclusively for breastfeeding in the Waberi location, Garissa County. The study design was appropriate as enabled the research to quantify the relationship between the independent and the dependent variable.

Study area

The Waberi location in Garissa County in the North Eastern province was the site of the study. According to projections from the 2019 census, the overall population of Garissa County, which spans a sizable geographic area, is projected to be 480,146(KNBS, 2019). Garissa County lies on the following Latitude of 0.4528 and longitude of 39.6460. The main economic activity in Garissa County is herding. According to UNICEF more than 18% of the total population of children under five years in the county are acutely malnourished. Also, exclusive breastfeeding is not highly practiced in the community. This area was considered because of its high prevalence of malnutrition especially in young children.

Study population

The study population of this study were lactating mothers with infants aged six months below and who were residents of the Waberi location, Garrisa County.

Sample size determination

Fischer's exact formula was employed to determine the exact number of study partakers that were included in this study. The Fischer exact formula was utilized to generate 124 study respondents for this study.

Sampling technique

Garissa County was purposively selected as the study area due to its highly poor exclusive breastfeeding practices. A purposive sampling technique was employed to select the Garissa township constituency since no study or records of a study aiming to assess exclusive breastfeeding and its associated factors. A two-stage cluster sampling method was used to select research respondents. First, Garissa County has four Locations (Waberi, Galbet, Iftin, and Township Location) which were used as clusters in this study. Simple random sampling was used to select the Waberi ward. In the Second stage, households with lactating mothers were identified and a simple random sampling method was used to select eligible study respondents.

Data collection tools and procedures

The study used both semi-structured questionnaires and key informant guides to obtain data and information from the study respondents. Section A captured data on exclusive breastfeeding practices, Section B on maternal factors, and Section C on social-cultural factors while Section D captured on Socioeconomic factors. Key informant interview guides were used to capture qualitative data.

Statistical analysis

After data collection, the researcher performed data cleaning and coding. The SPSS version 26.0 software was used for purposes of quantitative data analysis. Content analysis aided in qualitative data analysis. Frequencies and percentages were employed in descriptive statistics. A chi-square test for independence was carried out to define the degree of relationship between the independent and dependent factors. Statistical significance was set at $p \leq 0.05$. variables that had a significant association in the bivariate analysis were modeled into a binary logistic regression, which aided in the elimination of the confounding effect.

Ethical consideration

An introduction letter from Mount Kenya University was used by the researcher. The National Commission for Science, Technology, and Innovation (NACOSTI) was contacted for approval before data collection could begin. Additionally, consent from all pertinent county offices was requested to conduct the study in Garissa County. Permission letters to collect data from the respondents were sought from the area chief. Informed consent was also obtained from the respondents either by filling out the informed consent forms after the objectives and methodologies were read to them. The individual participants were assured that every part of the information was kept confidential. Participants were not addressed by name and questionnaires were kept under lock and key when not in use. Research findings were disseminated to the concerned parties. Furthermore, besides ensuring that citations are duly referenced, plagiarism levels were managed below 15 percent.

Results

Prevalence of Exclusive Breastfeeding Practices

As indicated in Figure one below, more than a quarter(43.5%) of the study respondents reported practicing exclusive breastfeeding since birth while more than half(56.5%) of the study respondents reported not practicing exclusive breastfeeding since birth.

Figure 1: Prevalence of Exclusive Breastfeeding Practices

Time Taken to Initiate Exclusive Breastfeeding

As indicated in Figure 2, Concerning the time taken to initiate exclusive breastfeeding, more than half(61.3%) of the study respondents reported initiating breastfeeding immediately after birth, while only a few(23.4%) of the study respondents reported initiating breastfeeding within an hour while a section(15.3%) of the study respondents reported initiating breastfeeding 2-3 hours after birth.

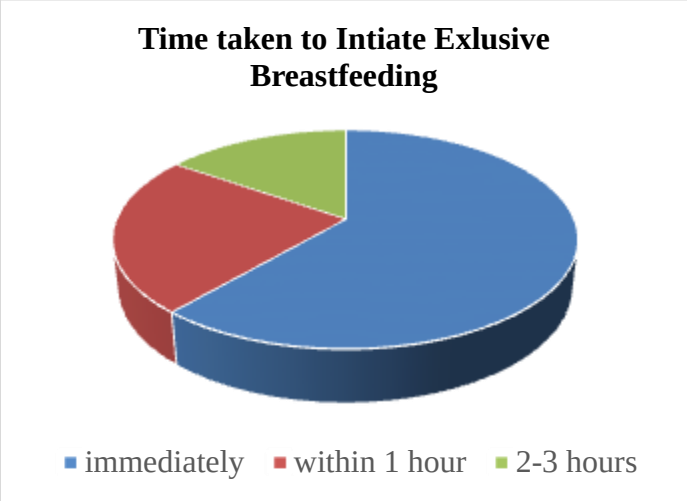

Figure 2: Time taken to Initiate Exclusive Breastfeeding

Descriptive Statistics on Maternal Factors Associated with Exclusive Breastfeeding

Table 1 below provides descriptive statistics on maternal factors associated with exclusive breastfeeding practices. more than half(51.6%) of the study respondents were aged below 24 years. Close to half(42.7%) of the study respondents had a primary level of education. Concerning marital status, the majority(68.5%) of the study respondents were married. Concerning antenatal clinic attendance, more than half(56.5%) of the study respondents reported having sought ANC-related services. Regarding mode of delivery, more than half(66.9%)of the study respondents reported having a normal delivery. Lastly, More than half(59.7%) of the study respondents were multipara while more than a quarter(40.3%) of the study respondents were primipara.

Table 1: Descriptive Statistics on Maternal Factor

Independent Variables	Categories	Frequency	Valid Percentage
Parity Status	primipara	50	40.3
	multipara	74	59.7
Age of Partaker	<24 years	64	51.6
	25-34 years	49	39.5
	>35 years	11	8.9
Education level	Never been to school	13	10.5
	primary	53	42.7
	secondary	45	36.3
	vocational	7	5.6
	Tertiary	6	4.8
Family Size	0-2	52	41.9
	3-5	51	41.1
	More than five	21	16.9
Mode of Delivery	vaginal	83	66.9
	cesarean	41	33.1
Marital Status	single	28	22.6
	married	85	68.5
	separated	11	8.9
ANC Attendance	yes	70	56.5
	no	54	43.5
Frequency of ANC Attendance	adequate	40	57.1
	inadequate	30	42.9

Maternal Factors Influencing Exclusive Breastfeeding Practices

The study participants' age (*X2=10.824, df=2, p=0.004*), family size (*X2=11.883, df=2, p=0.003*), education level (*X2=16.616, df=4, p=0.001*), parity status (*X2=6.256, df=1, p=0.01*), and attendance at antenatal clinics (*X2=7.538, df=1, p=0.006*) were found to be significantly correlated with exclusive breastfeeding practices in the maternal factors. These results were then imported for binary logistic regression analysis. The mode of delivery (*X2=0.682, df=1, p=0.409*) and marital status (*X2=4.25, df=2, p=0.12*) did not exhibit a

statistically significant correlation with exclusive breastfeeding practices.

As indicated in Table 2 below, Lactating mothers who had a secondary level of education were 3.5 times more likely to practice exclusive breastfeeding as compared to lactating mothers who had attained a tertiary level of education

These findings were not in harmony with the qualitative result where one of the key informants in the key informant interviews noted that:

"I don't think the level of education has a role in whether a mother practices exclusive breastfeeding or not. You find any pregnant who seeks antenatal care services from the nearest health facility receives a lot of health education and promotion forums where they are educated on the need for exclusive breastfeeding. "(Key informant 1, clinical officer).

In addition, lactating mothers who reported seeking ANC services were 2.3 times more likely to practice exclusive breastfeeding as compared to their counterparts. Study partakers who had a small size of 0-2 members were 2.5 times more likely to practice exclusive breastfeeding as

compared to those who had a bigger family size of more than five members.

These findings were in harmony with the qualitative result where one of the key informants in the key informant interviews noted that

"I would say lactating mothers who have a smaller family size are more likely to practice exclusive breastfeeding as compared to those who have a bigger family size, this is linked to the fact that mothers who have smaller family sizes have ample time to take care of their new child as compared to those mothers who have a big family. Family planning is key when deciding whether a mother practices exclusive breastfeeding"(Key informant 1, nurse).

Social-cultural Factors Influencing Exclusive Breastfeeding Practices

The following variables were included in the binary logistic regression analysis because they were found to be significantly correlated with exclusive breastfeeding practices in the social-cultural factors: harmful cultural beliefs (*X2=8.08, df=1, p=0.004*) and social support (*X2=6.43, df=1, p=0.01*). There was no statistically significant correlation found between exclusive breastfeeding practices and the employers' support (*X2=3.355, df=1, p=0.06*), perception of body image (*X2=0.749, df=1, p=0.387*), or prohibition from participating in social activities (*X2=0.002, df=1, p=0.964*).

As indicated in Table 3 below, study respondents who reported receiving adequate social support were 2.8 times more likely to practice exclusive breastfeeding as compared to their counterparts. Furthermore, the presence of harmful cultural practices reduced the odds of exclusive breastfeeding by 3.2. These findings were in harmony with the qualitative result where one of the key informants in the key informant interviews noted that:

"The harmful cultural practice remains the biggest barrier for lactating mothers in practicing exclusive breastfeeding and I feel a collaborative effort should be enrolled to curb this problem. We might be doing our part and putting in more effort but as long as these cultural practices continue to exist, our efforts will always be ruined"(Key informant 1, clinical officer).

Social-economic Factors Influencing Exclusive Breastfeeding Practices

The socioeconomic factors, namely income level (*X2=4.885,df=1,p=0.02*), employment status (*X2=3.355,df=1,p=0.000*), and mothers' workload (*X2=4.167,df=1,p=0.04*), were found to be significantly associated with exclusive breastfeeding practices. Consequently, these variables were included in the binary logistic regression analysis. There was no statistically significant correlation found between the type of occupation and exclusive breastfeeding practices (*X2=2.195,df=1,p=0.533*).

As indicated in Table 4 below, employed study respondents were 5.6 times more likely to practice exclusive breastfeeding as compared to their counterparts who were unemployed.

These findings were not in harmony with the qualitative result where one of the key informants in the key informant interviews noted that:

"I would say unemployed mothers are likely to practice exclusive breastfeeding as compared to their fellow counterparts. This is because they spend the majority of their time with their children as compared to the employed mothers who are likely to find an alternative method of feeding"(Key informant 1, clinical officer).

Discussion

From this study, more than a quarter(43.5%) of the study respondents reported practicing exclusive breastfeeding. From these findings, despite measures being put in place to promote 100% of exclusive breastfeeding, these figures are worrying since the practice of exclusive breastfeeding in this region is very, and collaborative measures should be enacted to promote exclusive breastfeeding. These findings were close to a study done in Kenya(17). However, the other two studies done in Ethiopia reported a higher prevalence of exclusive breastfeeding(18,19). The probable reasons for differences in the prevalence of exclusive breastfeeding could be linked to the difference in the sampling procedures and the difference in the study region.

Lactating mothers who had a secondary level of education were 3.5 times more likely to practice exclusive breastfeeding as compared to lactating mothers who had attained a tertiary level of education. This could be linked to these mothers being aware of the benefits of breastfeeding furthermore lactating mothers with higher levels of education are likely to have more responsibilities, a factor that can prevent them from practicing exclusive breastfeeding despite being aware of its benefits. These findings were in agreement with another study done in Ethiopia (20). This was contrary to another study in Malawi (21). Lactating mothers who reported seeking ANC services were 2.3 times more likely to practice exclusive breastfeeding as compared to their fellow counterparts. These

findings were in agreement with two other studies done in Kenya and Ethiopia where seeking ANC services was found to increase the odds of utilizing exclusive breastfeeding(17,22). This could be linked to increased awareness of the benefits associated with breastfeeding from health education and promotion forums provided in the health facilities. However, this was contrary to another study conducted in Lesotho(23).

Study partakers who had a small size of 0-2 members were 2.5 times more likely to practice exclusive breastfeeding as compared to those who had a bigger family size. The possible explanation for this was linked to the presence of ample time among study partakers with small sizes thus creating more time to practice exclusive breastfeeding. These findings were in harmony with another study conducted in Nigeria (8). Another study conducted in Brazil was contrary to these findings(24). Study respondents who reported receiving adequate social support were 2.8 times more likely to practice exclusive breastfeeding as compared to their counterparts. The provision of social support ensures lactating mothers are well aware and encouraged on the benefits of breastfeeding on their infants and their health status. Study findings were concurrent with two other studies in Kenya and Garbon (17,22).

The presence of harmful cultural practices reduced the odds of exclusive breastfeeding by 3.2. These findings were concurrent with two other studies done in Kenya and Nigeria where the presence of harmful cultural beliefs reduces the odds of exclusive breastfeeding(25,26). However, another study done in Ethiopia found no association between exclusive breastfeeding and harmful cultural practices(27). Employed study respondents were 5.6 times more likely to practice exclusive breastfeeding as compared to their counterparts who were unemployed. The possible explanation for this was linked to the presence of social support by the employers and friendly breastfeeding policies which advocated for adequate provision of support to lactating others. These findings were consistent with two other studies done in Nigeria and Ethiopia(8,20).

Conclusion

From this research, the prevalence of exclusive breastfeeding was low which is a public health concern. In the maternal factor associated with exclusive breastfeeding practices, having a smaller family size, lactating mothers who sought ANC attendance, and having a secondary level of education increased the odds of practicing exclusive breastfeeding. In the social-cultural factors associated with exclusive breastfeeding practices presence of social support increased the odds of practicing exclusive breastfeeding while the presence of harmful cultural practices reduced the odds of practicing exclusive breastfeeding. Lastly, the socioeconomic factors associated with exclusive breastfeeding practices being employed increased the odds of practicing exclusive breastfeeding.

Limitations of the Study

The study relied on own-reported statistics from lactating mothers, which could be biased by a recall. The mothers may not accurately remember the duration and exclusivity of their breastfeeding practices. The research depended on lactating mothers' self-reported data, which could be biased toward social desirability. The mothers may over-report the practice of exclusive breastfeeding to conform to social expectations. The study was conducted in English and Swahili, which may not be the primary languages spoken by all lactating mothers in the study zone.

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Competing Interests

The author declares that there is no conflict of interest.

Availability of Data Statement

The corresponding author can provide the datasets used and/or analyzed in the current study upon reasonable request.

Table 2. Binary logistic regression results on maternal factors

Step 1a	Variables	B	S.E	Wald	Df	Sig	Exp(B)	95% C.I for EXP(B)	
								Lower	Upper
	Family size			4.183	2	.001			
	0-2	.946	.657	2.075	1	0.03	2.5	.107	1.407
	3-5	-.020	.664	.001	1	.975	.980	.267	3.601
	>5						ref		
	educational level			10.058	4	.039			
	Never been to school	0.578	.511	1.276	1	.259	1.782	.654	4.852
	Primary	.860	.793	1.175	1	.278	2.36	.499	11.183
	Secondary	.894	.625	2.045	1	.003	3.5	.718	8.332
	Vocational	1.388	.437	10.109	1	.153	4.008	1.703	9.433
	Tertiary						ref		
	Age			1.964	2	.374			
	<24 years	-.581	.833	.485	1	.486	.560	.109	2.866
	25-34 years	.070	.853	.007	1	.935	1.073	.201	5.712
	>35 year						ref		
	Parity status	.746	.463	2.602	1	.107	2.109	.852	5.223
	multipara						ref		
	have you ever sort ANC services	.833	.448	3.462	1	.013	2.3	.181	1.046
	no						ref		
	Constant	-.815	.240	11.486	1	0.001	.443	-.815	

Table 3. Binary logistic regression results on social-cultural factors

Step 1a	Variables	B	S.E	Wald	Df	Sig	Exp(B)	95% C.I for EXP(B)	
								Lower	**Upper**
	Social support	1.030	.391	6.936	1	.008	2.8	.166	.768
							ref		
	Presence of cultural beliefs that prohibit EBF	-1.151	.395	8.474	1	.004	3.161	1.456	6.860
							ref		
	Constant	.283	.312	.824	1	.364	1.327		

Table 4: Multivariate Analysis of Social Economic Factors

Step 1a	Variables	B	S.E	Wald	Df	Sig	Exp(B)	95% C.I for EXP(B)	
								Lower	Upper
	Income level	.592	.424	1.955	1	.162	1.808	.788	4.147
	Above poverty line						**ref**		
	workload(1)	-.829	.441	3.528	1	.060	.436	.184	1.037
	Low workload						**ref**		
	Employment status	1.724	.421	16.772	1	.000	5.6	.078	.407
	no						**ref**		
	Constant	1.092	.519	4.434	1	.035	2.981		

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