

Prelacteal feeding practice and associated factors among children under 24 months old in Degahbour town, Somali region, Ethiopia

Ahmed Mahamed Ismaile¹ and Beruk Berhanu Desalegn^{2*}

¹Department of Food Science and Human Nutrition Program, Jigjiga University, Somali Region, Ethiopia

²School of Nutrition, Food Science and Technology, College of Agriculture, Hawassa University

Abstract

Prelacteal foods might not be safe due to high risk of contaminating them with biological entities, which can cause infection in the newborn and might affect the colostrum intake. However, in a nation like Ethiopia where diverse cultural practices are prevalent, this might vary depending on the context. Therefore, the aim of this study was to assess prelacteal feeding practice and its associated factors among children under 24 months old in Degahbour town, Somali region, Ethiopia. Methods: A community-based cross-sectional study was conducted from June 5 to July 30, 2021. Data were collected from 300 mothers with children under 24 months of age in Degahbour town by following systematic random sampling method. Bivariable and multivariable logistic regression analyses were performed in order to determine the factors associated with prelacteal feeding practices. Result: 47.3%, 95% CI (42.0%, 53.3%) of the mothers had given prelacteal foods to their newborn baby in the first three days of their life. Being a mother living in semi-urban area [AOR: 4.49 (95% CI 2.39,8.42)], delivered at home [AOR=2.15, 95% CI: (1.21,3.82)], lately initiated breastfeeding for indexed child after the first hour of delivery [AOR=2.34, 95% CI: (1.28,4.28)], not receiving counseling about breastfeeding [AOR = 2.23, 95% CI: (1.28,3.88)], not received ANC follow-up [AOR:2.11; 95%CI (1.19,3.74)], had poor maternal knowledge about breastfeeding [AOR:5.51; 95%CI (3.16,9.62)] were identified as factors associated with practicing prelacteal feeding. Conclusion: In comparison to the regional level figure of 38.8 % and nationally (7.9%) reported in the 2016 EDHS, the prevalence of prelacteal feeding practice is high in Degahbour town. Therefore, to reduce prelacteal feeding practice focus should be placed on initiatives that can enhance institutional delivery, ANC follow-up, and improve mothers' understanding of nutrition throughout their pregnancies, particularly the significance of colostrum feeding right away after delivery.

Keywords: Children, Colostrum, Prelacteal feeding, Early Initiation of breastfeeding Somali region

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***Corresponding author's address:** Beruk Berhanu, Email: beruk@hu.edu.et

Authors: Ahmed Mahamed, Email: axmeddhego11@gmail.com

INTRODUCTION

Prelacteal feeding is defined as the administration of any substance to newborn babies other than breast milk during the first three days after birth (CSA and ICF, 2016). Although prelacteal feeding is a barrier to the implementation of exclusive breastfeeding practice and raises the risk of mortality and neonatal illness, it is still practiced as a deep-rooted nutritional malpractice in

developing countries (Khanal et al., 2013). Among the commonest prelacteal foods provided to infants in many low and middle-income countries (LMICs), plain water, water-based products (rice water, herbal mixture and juices), and milk based products (milk and infant formula) are mentionable (Khanal et al., 2013). Thus, it contributes to the increased risk of illnesses such as infection related diarrhea and also diseases related to allergic reactions, once it is given before

the onset of feeding colostrum to the newborn (Koukou et al. 2023). Furthermore, if it is practiced, the suckling of the breast, intake of breast milk and the expected attachment between the baby and his/her mother might also be affected, resulting in inappropriate feeding practices of the newborn baby in general (Koukou et al. 2023).

Globally, prelacteal feeding has been practiced by more than half of mothers, which varies from region to region. For instance, it is higher in the middle East, Asia (59.0%) (Oakley et al., 2018), followed by middle east 46.3% and sub-Saharan Africa 32.2% (Berde & Ozcebe, 2017). However, of the estimated 3 million neonatal deaths has been registered every year, two-thirds are shared by South-East Asia and sub-Saharan Africa countries (UNICEF, WHO, World Bank, 2012). More specifically, the highest neonatal mortality rates have been registered in sub-Saharan African countries among different regions globally (UNICEF, WHO, World Bank, 2012).

Among the sub-Saharan African countries, plain water, raw butter, milk, and glucose solution are among the most popular prelacteal foods given to children in Ethiopian communities (Chea & Asefa, 2018; Legesse et al., 2014). They are given to newborn children, due to the deep rooted tradition or culture of the communities to give them since the mothers give birth, or sometimes related to insufficient amount of breast milk to feed the newborn baby (Belachew et al., 2016; Bililign et al., 2016). According to the Ethiopian Demographic and Health Survey (EDHS 2016),

25.9% of children were given prelacteal feeds during the first three days of their lives, and it was found to be more practiced and widespread in rural areas than in urban areas (CSA and ICF, 2016). Despite a lot has been improved after the endorsement of the National Infant and Young Child Feeding (IYCF) guidelines in Ethiopia and endorsed as one of the a major component of the primary health care activities, yet significant proportion of the society has been practicing prelacteal feeding practice (Federal Ministry of Health Family Health Department Ethiopia, 2004). However, the problem is more dominant in rural than urban communities, as the rural communities are cultural bounded, in which prelacteal feeding practice is among the recognized cultural practices. Unlike this evidence, CSA (2016) reported prelacteal feeding in urban (12.7%) and 7.3% for rural settings of the country. It also varied from region to region, of them Somali region is the 2nd most prevalent, where more than a third (38.8%) of children below the age of two year were fed with non-breast milk immediately after they were born. These variations in the prevalence of prelacteal feeding could be linked to inconsistencies of prelacteal feeding practices (Temesgen et al. 2018).

Therefore, the objective of this study was to determine the prevalence of prelacteal feeding practice and its associated factors among children less than 24 months old in Degahbour town of Somali region, Ethiopia. In order to achieve this objective, exhaustive literature review was conducted and the following conceptual framework developed (Figure 1).

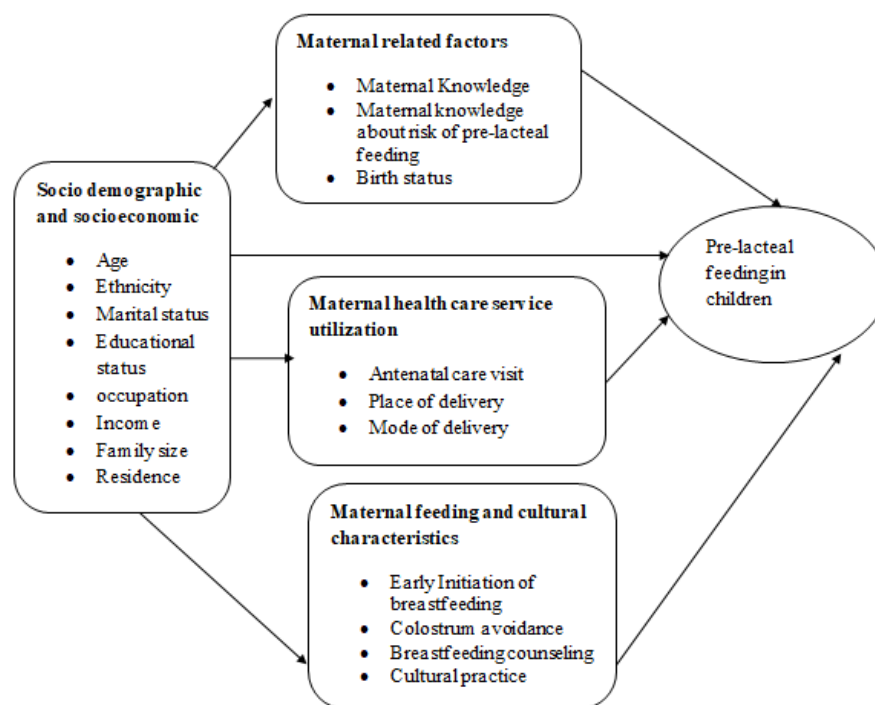


Figure 1. Conceptual framework adapted after reviewing different literatures

MATERIALS AND METHODS

Study Area and Period

The study was conducted in Degahbour town located in Jarar zone, Somali regional state of Ethiopia, located in the southeast part of the country. It is situated at a distance of 785 km away from Addis Ababa and 165 km away from Jigjiga, the regional capital. Degahbour has a hot semi-arid climate; the mean annual temperature of Degahbour is about 25.9 °C or 78.6 °F. The maximum and minimum annual temperatures are 32.8 °C (91.0 °F) and 19.0 °C (66.2 °F) respectively. There are two rain seasons in the region; a short rainy season from March to April, and a long rainy season from July to August. The region's average annual rainfall from these two seasons is around 583 millimeters or 23.0 inches (Deghabour town administration, 2018).

The total population of the city was 92,272, who are living in urban and semi-urban areas of the city. Out of the total population in the city, 526397 are male and female (39633). Almost all (99.7%) participants were Muslim. The total number of under-five aged children is estimated to be 7372.

The city has one type B health center, which provides a service for more than 35,000 people. The Degahbour zonal referral hospital is the main facility in the town, serving 1,000,000 people; on the other hand there are four health posts available in the town (Deghabour town administration, 2018). The study was conducted from June 5 to July 30 2021.

Study Design

A community-based cross-sectional study design was used to assess the prevalence of prelacteal feeding practice and associated factors among children under 24 months old in Degahbour town.

Source and Study Population

Mothers of children aged under 24 months living in the Degahbour town were the source population, while mothers of children aged less than 24 months living in the selected three kebeles of Degahbour town were the study population.

Inclusion and Exclusion Criteria

The mother of a child less than 24 months old who had lived for at least six months in the selected kebeles of the Degahbour town was the inclusion

criteria. Mothers of children who had unable to communicate due to disability or any other health problem were excluded from the study.

Sample Size Determination

Sample Size Determination for the First Objective

Sample size was determined based on the formula used to estimate a single population proportion. Estimated proportion of prelacteal feeding (72.5%) taken from the previous study conducted in Ethiopia (CSA, 2011) and considering the assumptions; a 95% confidence level, margin of error (0.05) and 10% non-response rate. The first sample size was 306. Therefore, the number of children less than 24 months in selected kebeles of Degahbour town was 2550, which is under 10,000 there for a correction formula used. Then, the sample size was adjusted using the finite population correction formula, which was 273. Then, adding 10% of non-response rate, which was 27, the final sample size for the first objective was 300. Whereas, for the second specific, considering the associated factors such as breastfeeding initiation and known risks of prelacteal feeding practices for prelacteal; feeding

practices, the sample sizes were 169 and 213, respectively (Legesse et al., 2014; Sorrie et al., 2020). Then, considering the largest sample size from the three calculated sample size, the final sample size was 300.

Sampling Technique and Procedure

Out of the ten kebeles in Degahbour town, three were chosen through the lottery method using a basic random sample technique. The chosen Kebeles received a proportionate share of the computed sample size of 300, determined by their average number. A systematic random sampling technique was used to choose the number of study participants; the study population (2550) should be divided by the sample size (300),

$$K = N/n = 2550/300 = 8$$

Then, based on the k value, it was identified. Then, randomly select one number between 1 and k value which is 8 for the 1st selection. Then, the next participants were selected by adding the k value (8) until the whole sample size was maintained (Figure 2).

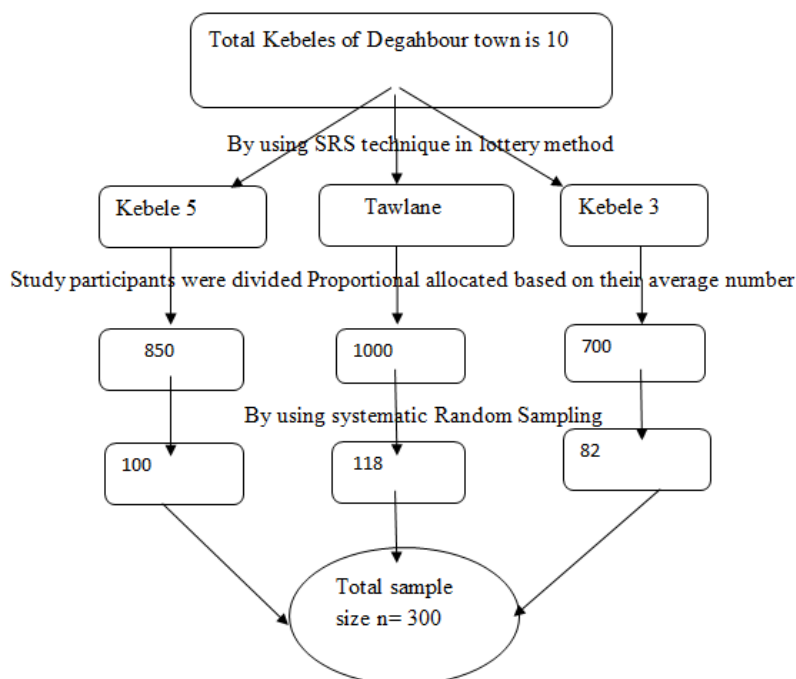


Figure 2. Schematic presentation of sampling procedure

Study Variables

The dependent variable of this study was prelacteal feeding practice whereas, socio-

demographic and economic characteristics (age, ethnicity, marital status, educational status, Occupation, income, family size and residence), maternal feeding and cultural characteristics (early Initiation of breastfeeding, colostrum avoiding, breastfeeding counseling and cultural practice) maternal health care service utilization (antenatal care visit place of delivery and mode of delivery) and maternal related factors (maternal knowledge about risk of prelacteal feeding and birth status) were the independent variables considered in this study.

Data Collection Tool and Procedure

Data was collected with face-to-face interviews using a pre-tested and structured questionnaire which was adapted from the Ethiopian National Nutrition Survey questionnaire and Ethiopian Demographic and Health Survey (CSA and ICF, 2016). The adapted questionnaire was modified according to the research objective and the actual setup. The questionnaire was written in English first and then translated into Somali (the local language) and back into English by fluent speakers of both languages to check its consistency. Two diploma midwives and additional one who had Bachelor of Science degree holder were hired as supervisors to collect the data. The data collectors and the supervisors' received an intensive training for two days and they were attentively followed during the practical training.

Data Quality Control

To ensure data quality, the following steps were taken: data collectors and supervisors were trained on the study's goals, validity, confidentiality of information, respondent rights, informed consent principles, and techniques of interviewing. The questionnaire was initially written in English and then translated into the Somali version (local language) by nutrition experts and then back translated to English to ensure accuracy. The pre-testing was taken place in 5% of the total sample size in the kebeles of Degahbour town not to be included in the study. Modifications were made based on feedback from the pretest to enhance consistency, understandability, and simplicity of the messages contained in the questionnaire to make them clearer. Throughout the data collection process, the supervisor and principal investigator

checked and reviewed completed questionnaires for their completeness, precision and continuity on a regular basis.

Data Processing and Analysis

The data was cleaned, coded and entered into Epi Data version 3.1 and exported to SPSS version 20 for analysis. Descriptive statistics was used to determine the results in frequencies, proportion, cross tabulation, and measures of central tendency. The results were presented using tables, graphs and texts. A bivariate logistic regression was used to identify candidate variables for the final multivariable binary logistic regression at p-value <0.25. Finally, multivariate binary logistic regressions were used to identify the independent predictors or variables that have a significant association with prelacteal feeding practice. The Hosmer-Lemeshow test was used to check the model fitness. The cut point to announce the existence of an association between the dependent and independent variable was p-value <0.05 with 95% confidence interval. Multicollinearity was checked using Variance Inflation Factor (VIF) and Standard Error (SE), which were less than 10 and 2, respectively, indicating that there was multicollinearity in the final regression model.

Ethical Considerations

Ethical clearance was obtained from the Institutional Review Board of Jigjiga University. Each study participant was adequately informed about the objective and purpose of the study and they were interviewed when they agreed to give verbal consent to participate individually. Participants were also told they had the right not to respond to the questions if they didn't want to respond or to withdraw from the interview at any time. Furthermore, both data collectors and supervisors ensured the confidentiality of information by using code numbers rather than personal identifiers and locking the questionnaire.

RESULTS AND DISCUSSION

Socio-Demographic Characteristics

A total of 300 mothers were participated in this study with a response rate of 100%.

Table 1. Socio-demographic Characteristics of the respondent Mothers of Children Aged <24 months in Degahbour town, Eastern Ethiopia, 2021

Variable	Categorical	Frequency	Percent
Sex of index child	Male	170	56.7
	Female	130	43.3
Age of child	0-6 Months	93	31.0
	7-12 Months	106	35.3
	13-23 Months	101	33.7
Birth order of the child	1	107	35.7
	2-3	111	37.0
	4 and above	82	27.3
Age of mother	15-24 years	114	38.0
	25-34 years	152	50.7
	35 and above	34	11.3
Marital status	Married	220	73.3
	Divorced	58	19.3
	Widowed	22	7.3
Ethnicity	Somali	260	86.7
	Oromo	22	7.3
	Amhara	14	4.7
	Others	4	1.3
Maternal religion	Muslim	287	95.7
	Christian	13	4.3
Residence	Urban	154	51.3
	Semi-urban	146	48.7
Maternal education level	Unable to read and write	137	45.7
	Completed primary	89	29.7
	Secondary level education	54	18.0
	Diploma and above	20	6.7
Maternal Occupation	House wife	127	42.3
	Merchant	98	32.7
	Farmer	10	3.3
	Student	16	5.3
	Government /private organization	49	16.3
Family monthly income	1000-2000 ETB	87	29.0
	2000-4000 ETB	111	37.0
	More than 4000 ETB	102	34.0
Family size	1-3	177	59.0
	4 and above	123	41.0

Maternal Health Care Service Utilization

Of them, 152 (50.7%) mothers were in the age group between 25 and 34 years. Regarding marital status, the majority of women 220 (73.3%) were married and belongs to Somali ethnic group, 260 (86.7%). more than half, 154 (51.3%) of the

women were living in urban areas based on the selected kebele of Degahbour town, had male children, 170 (56.7%) and living in a family sized 1-3, 240 (55.4%). Almost all mothers, 287 (95.7%) were followers of the Muslim religion, About half of the mothers, 127 (47.3%) were housewives, while more than one-thirds of the

mothers included in this study had 106 (35.3%) children in the age group of 7-12 months (Table 1). Of the mothers who took part, 186 (62.0%) had their babies at home. The majority of the mothers 292 (97.3%) were delivered naturally, and 151-50.3% of them had used ANC services. Of the moms who visited ANC services, 94 (31.3%) used

one to three times. Among mothers who attended an antenatal care visit, 143 (47.7%) mothers had received counseling on breastfeeding, more than 153 (51.0%) had initiated breastfeeding within the first hour after birth (Table 2).

Table 2. Maternal health care service utilization

Variable	Category	Frequency	Percent
Place of birth	Home	186	62.0
	Health facility	114	38.0
Mode delivery	Normal	292	97.3
	Cesarean	8	2.7
ANC Visit	No	149	49.7
	Yes	151	50.3
Time of ANC visit	1-3	94	31.3
	4 and above	55	18.3
Breastfeeding initiation	Immediately/within first hour after birth	153	51.0
	After the first hour	147	49.0
Breastfeeding Counseling	No	157	52.3
	Yes	143	47.7

Prevalence of Prelacteal Feeding Practice and Type of Prelacteal Food Given to Children

The prevalence of prelacteal feeding practice in this study was 47.3% (95% CI 42.0%, 53.3%) (Figure 3). Of them, 28.2% provided plain water, 33.1% gave sugar or glucose water, 19.7% fed milk based, 16.2% tea or infusions and 2.8% used butter. More than half, 165 (55.0%) mothers fed Colostrum to their children.

Among the main reasons for prelacteal feeding practices, 62.7% complained of insufficient breast milk, 20.4% cultural practice, 14.8% maternal sickness and 2.1% Infant illness, (Figure 4).

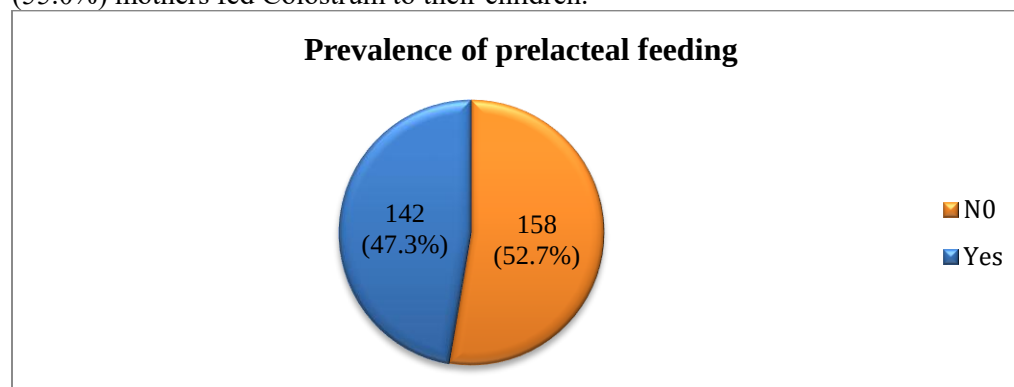


Figure 3. Prevalence of prelacteal feeding

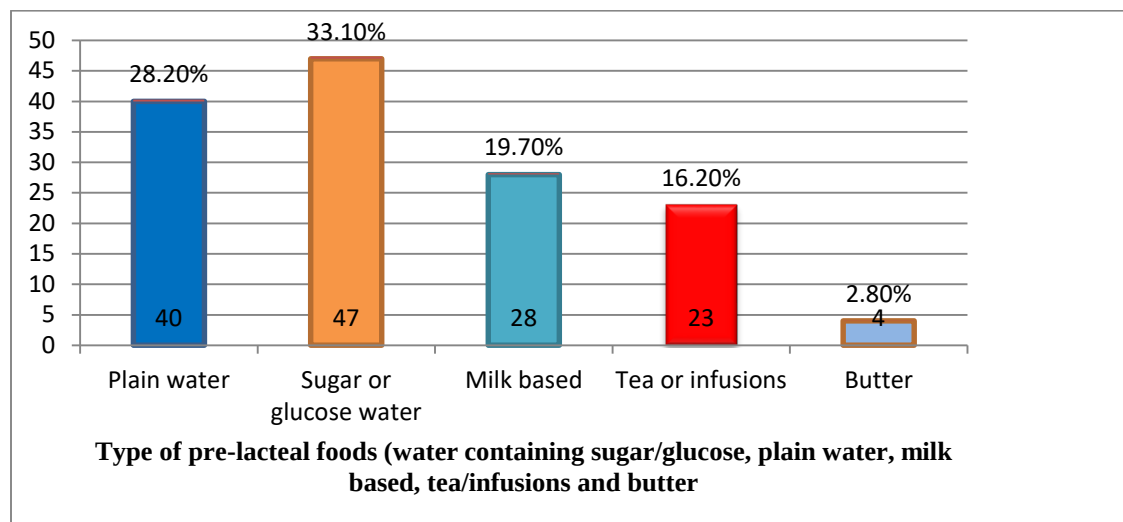


Figure 4. Types of prelacteal foods given by mothers of Degahbour town

Maternal Information and Knowledge

More than half, 182 (60.7%) of respondents mothers were told that they knew the risk of prelacteal feeding. According to maternal information related to PLF, 95 (31.7%) of the mothers knew the PLF practice causes poor growth for infants, followed by vomiting (18%)

and causes infant illness (16.7%). Whereas, 17.7% of the mothers said that PLF practice has nutritional benefits, while comparable proportion of mothers also revealed that PLF practice supported the growth of children (16%) (Figure 5).

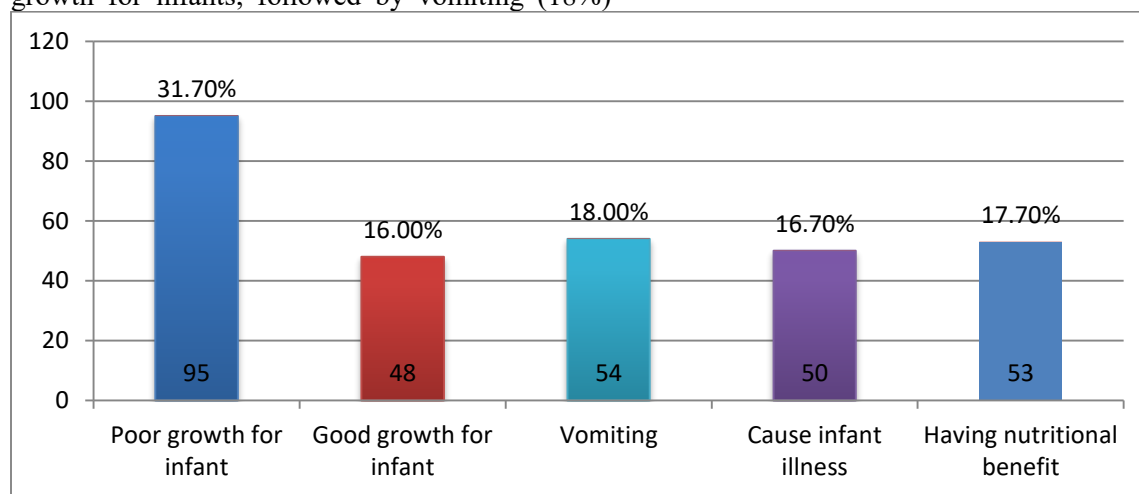


Figure 5. Maternal information about prelacteal feeding practice

Table 3. Maternal information and knowledge of prelacteal feeding practice

Variable	Category	Frequency	Percent
Prelacteal feeding practice	No	158	52.7
	Yes	142	47.3
Colostrum feeding	No	135	45.0
	Yes	165	55.0
Type of liquid	Plain water	40	28.2
	Sugar or glucose water	47	33.1
	Milk based	28	19.7
	Tea or infusions	23	16.2
	Butter	4	2.8
Time of introduced	within the first hours after giving birth	63	44.4
	After the first hours	79	55.6
Reason of practicing	Insufficient/breast milk secretion	89	62.7
	Cultural practice	29	20.4
	Maternal sickness	21	14.8
	Infant illness	3	2.1
Risk of PLF	No	118	39.3
	Yes	182	60.7
Maternal Knowledge on breastfeeding category	Poor	151	50.3
	Good	149	49.7

Factors Associated with Prelacteal Feeding Practice

Results of Bivariable Logistic Regression

Place of residence, place of delivery, breastfeeding counseling, colostrum feeding, ANC visits, known risk of PLF, and maternal knowledge of PLF were found to be statistically associated with prelacteal feeding in the bi-variable logistic regression analyses. Variables that demonstrated association in the bivariate analysis, defined as ≤ 0.25 , were included in the multivariate logistic regression analysis during the binary logistic regression analysis (Table 4).

Result of Multivariable Logistic Regression Analyses

The multivariable analysis showed that place of residence, place of birth, breast feeding initiation time, counseling related to breast feeding, ANC visit and maternal knowledge on breastfeeding were found to be statistically significant and identified as determinant factors for prelacteal feeding practices among mothers of children aged less than 24 months in Degahbour town. Mothers who were living in the semi-urban areas of Degahbour town were 4 times more likely to practice prelacteal feeding compared to those mothers who were living in urban areas of the town [AOR: 4.49 (95% CI 2.39,8.42)].

Those mothers who delivered their indexed child at home had 2.15 times higher odds of practicing prelacteal feeding compared to their counterparts [AOR=2.15, 95% CI: (1.21, 3.82)]. Mothers who lately initiated breastfeeding after the first hour of delivery had 2.34 odds for practicing prelacteal feeding to their children compared to mothers who started breastfeeding within an hour period immediately after delivery [AOR=2.34, 95% CI: (1.28,4.28)]. Mothers who were not counseled about breastfeeding had an odd ratio of 2.23 for providing prelacteal food to their children compared to the mothers counseled about breastfeeding [AOR = 2.23, 95% CI: (1.28, 3.88)]. Mothers who didn't attend ANC follow up were about 2.11 times more likely to practice prelacteal feeding than mothers who attended ANC follow up during the pregnancy period of the indexed children [AOR: 2.11; 95%CI (1.19, 3.74)]. Mothers who had poor nutrition knowledge on breastfeeding had an odd of 5.51 for practicing prelacteal feeding than mothers who had good maternal knowledge [AOR: 5.51; 95%CI (3.16, 9.62)] (Table 4).

DISCUSSION

Prevalence of Prelacteal Feeding

The purpose of this study was to determine the prevalence of prelacteal feeding among mothers in the Somali region of the Ethiopian town of Degahbour and to identify potential risk factors related to these practices. Accordingly, the prevalence of prelacteal feeding by the mothers was 47.3% (95% CI 42.0%, 53.3%) of the moms in Degahbour town reported prelacteal feeding. Similar findings have also been reported in various regions of Ethiopia, including the Amhara region (47.8%) (CSA and ICF, 2016), 46.4% for Kersa District (Adem et al., 2021), and 45.4% for Harari regions (Bekele et al., 2014).

However, the finding of this study was higher than reported for the Somali region, 38.8% in EDHS 2016 (CSA and ICF, 2016), Motta town, which was 20.2% (Tewabe, 2018), and also 15.9% for the Benishangul-gumuz region (Ayana et al., 2017). The difference might be due to variation in socio-demographic, cultural, lifestyle and maternal beliefs and attitudes towards breastfeeding. Furthermore, it might be related to the inclusion of mothers, both from urban and semi-urban areas of Degahbour, unlike that of the study in Motta town, and the better access to maternal and child health services, nearby to health institutions and would have more information those who are living in rural areas.

Table 4. Bivariable and multivariate logistic regression factors associated with prelacteal feeding practice among mothers of children aged less than 24 months in Degahbour town

Independent variables	Category	Prelacteal feeding		COR (95%CI)	AOR (95%CI)
		No, n (%)	Yes, n (%)		
Residence	Urban	96 (62.3%)	58 (37.7)	1	
	Semi-urban	62 (42.5%)	84 (57.5)	2.24 (1.41, 3.56)	4.49 (2.39,8.42)**
Place of birth	Home	86 (46.2%)	100 (53.8)	1.99 (1.24,3.21)	2.15 (1.21,3.82)*
	Healthy facility	72 (63.2%)	42 (36.8)	1	
Breastfeeding initiated	Within first hour	88 (57.5%)	65 (42.5)	1	
	After the first hour	70 (47.6%)	77 (52.4)	1.49 (0.94,2.35)	2.34 (1.28,4.28)**
Counseling on breastfeeding practice	No	71 (45.2%)	86 (54.8)	1.88 (1.19,2.98)	2.23 (1.28,3.88)**
	Yes	87 (60.8%)	56 (39.2)	1	
Colostrums feeding	No	64 (47.4%)	71 (52.6)	1.47 (0.93,2.32)	1.31 (0.76,2.26)
	Yes	94 (57.0%)	71 (43.0)	1	
ANC visit	No	70 (47.0%)	79 (53.0)	1.58 (0.99,2.49)	2.11 (1.19,3.74)*
	Yes	88 (58.3%)	63 (41.7)	1	
Knowledge on risk of prelacteal feeding practice	No	55 (46.6%)	63 (53.4)	1.49 (0.94,2.38)	1.34 (0.76, 2.36)
	Yes	103 (56.6%)	79 (43.4)	1	
Maternal Knowledge about breastfeeding	Poor	52 (34.4%)	99 (65.6)	4.69 (2.88,7.65)	5.51 (3.16, 9.62)**
	Good	106 (71.1%)	43 (28.9)	1	

* P < 0.05, **P<0.001, AOR: Adjusted Odds Ratio, COR: Crud Odds Ratio, CI: Confidence Interval, 1: Reference group

The finding of this study is also lower than what was reported for the Somali region (72.5 %) in EDHS 2011 (CSA and ICF, 2011), for Mansoura district in Egypt 58% (El-Gilany & Abdel-Hady, 2014) and Jubeck State, South Sudan 53% (Tongun et al., 2018). The variation could be due to the difference in study setting, year of the study, sample size, study selection and maternal health service utilization between study populations, for the former study. Furthermore, the differences from the other studies might be related to differences in culture, local beliefs and socio- demographic, lifestyle.

Factors Associated with Prolactal Feeding

The current study also showed that prolactal feeding of newborns in the first three days following delivery was associated with mothers residing in semi-urban areas of Degahbour town. Being mothers from semi-urban areas had 4.49 times higher odds of practicing prolactal feeding compared to their counterparts. A study conducted in Debre Tabor town reported consistent results (Bayih et al., 2020). This could be due to semi-urban residence mothers having less access, low awareness about optimal breastfeeding and risks of prolactal feeding, and also low BF counseling. Furthermore, access to ANC and PNC programs that incorporate optimal breastfeeding was difficult for mothers living in rural or semi-urban areas. Urban environments may offer better access to and the caliber of health services, and urban women tend to be better educated than their rural counterparts, which may enhance mothers' understanding of mental and psychological awareness (Temesgen et al., 2018).

Mothers who gave birth at home had more than two times higher odds of practicing prolactal feeding compared to those mothers who gave birth at health institution. This is consistent with the finding of a study conducted in Kersa District, Eastern Ethiopia (Adem et al., 2021). This could be because mothers who gave birth at home were frequently influenced by traditional birth attendants and used prolactal feeding, whereas mothers who gave birth at a health facility might have received better ANC visits and breastfeeding counseling, which includes proper breastfeeding practices and improves optimal breastfeeding practices (Bayih et al., 2020). Alternatively, health professionals may advise mothers who gave birth in a medical facility to refrain from prolactal feeding and

the associated risks that come with it for the children whose mothers or caregivers feed them before they are ready. This study showed that mothers who initiated breastfeeding after the first hour of delivery were nearly two and half times more likely to practice prolactal feeding compared to those initiated within the first hour. This is consistent with what was reported for Raya Kobo district, Northastern Ethiopia (Legesse et al., 2014). There is a close relationship between early initiation and avoiding prolactal feeding because prolactal feeding might also be the reason for the late initiation of breastfeeding (Temesgen et al., 2018).

In the present study, mothers who didn't get breastfeeding counseling were 2.23 times more likely to practice prolactal feeding when compared to those mothers who had it during their pregnancy period. A study conducted on the mothers of Jinka town also reported similar findings (Sorrie et al., 2020). This could be breastfeeding counseling is important for improving maternal knowledge, change attitude and also practice, including awareness about the risk of prolactal feeding practice and the importance of optimal breastfeeding practices that might decrease PLF practice.

Prolactal feeding was found to be 2.11 times more common in mothers who did not receive ANC services during the indexed child's pregnancy than in mothers who did receive ANC services during that same period. The findings of a study carried out in the Eastern Ethiopian region of Kersa District are in line with this outcome (Adem et al., 2021). Actually, this may have something to do with regular counseling that is provided at the health facility during the ANC follow-up. Additionally, our study revealed a 5.51-fold increase in the likelihood of prolactal feeding practiced by counterparts who had inadequate breastfeeding knowledge. A study conducted in Hawella Tula areas of Sidama region also reported the direct association of poor knowledge with prolactal feeding practice (Chea & Asefa, 2018).

Finally, like other studies, this study has its own strength and limitations. Accordingly, conducting it at the community level by including the semi-urban and urban setting is the strengths of this study as most often such kinds of studies are conducted in

rural and also facility-based settings. However, it also has two limitations. The first one is, as the data was collected from the mother self-report, the data could be affected by recall bias. The second one is related to the cross-sectional nature of the study design, which couldn't support to identify the causality.

CONCLUSIONS and RECOMMENDATIONS

In this study area, the prevalence of PLF was 47.3%, which is relatively lower than reported for the Somali region in EDHS 2011, but higher than reported in EDHS 2016. However, this prevalence is higher than the national level of 26% and remains as a challenge for optimal breastfeeding in the town, and the region at large. The most popular prelacteal food types offered to newborns were plain water, milk-based beverages, tea/infusions, butter, and water with sugar or glucose in it. The main justifications for feeding these prelacteal foods were the custom of feeding them as part of a cultural practice and the mothers' belief that nursing alone does not meet the needs of a newborn baby. Furthermore, place of residence, place of delivery, late initiation of breastfeeding after delivery, not receiving ANC during pregnancy period and poor maternal knowledge on breastfeeding were identified as determinants for prelacteal feeding practice by mothers of Degahbour town. Therefore, activities aiming to reduce the high prevalence of prelacteal feeding practice in Degahbour town and similar settings of Somali and other regions should consider the factors associated with practice feeding practice by mothers in this study.

CONFLICTS of INTEREST

The authors declare that they have no conflicts of interest.

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