ORİJİNAL ARAŞTIRMA ORIGINAL RESEARCH

DOI: 10.5336/healthsci.2020-79009

Prevalence and Predictors of Timely Initiation of Breastfeeding Among Rural Mothers in North Achefer, Ethiopia: A Multivariable Analysis

Kuzey Ankefer, Etyopya'da Kırsal Bölgede Yaşayan Annelerde Zamanında Anne Sütü Başlamanın Prevalansı ve Öngördürücüleri: Çok Değişkenli Analiz

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ABSTRACT Objective: To assess the prevalence of timely initiation of breastfeeding and associated factors. **Material and Methods:** A total of 371 mothers from Achefer district of Ethiopia were involved and a cross-sectional study was conducted in this study. Bivariate and multivariable logistic regression analysis was used to estimate the effect sizes of associated factors on timely initiation of breastfeeding. A pretested structured questionnaire was used to collect data. The strength of the association between variables were assessed using crude odds ratio (COR) and adjusted odds ratio (AOR). **Results:** The prevalence rate of timely initiation of breastfeeding within the first one hour in this study was 65.0%. Timely initiation of breastfeeding was highly associated with the previous breastfeeding difficulty [AOR 2.417; 95% confidence interval (CI) 1.099, 5.313] and previous two up to four pregnancy history (AOR 3.134; 95% CI 1.275, 7.705). Timely initiation of breastfeeding was negatively associated with mothers who have less than 250 Birr (AOR 0.0.350; 95% CI 0.127, 0.973), mothers having only one previous pregnancy history (AOR 0.306; 95% CI 0.109, 0.857) and having the information about importance of colostrum (AOR 0.245; 95% CI 0.144, 0.417). **Conclusion:** The prevalence of timely initiation of breastfeeding in the North Achefer district of Ethiopia was high. Timely initiation of breastfeeding was significantly associated with the previous pregnancy history, mothers' experiencing breastfeeding difficulty, the average income of mothers, previous pregnancy history of one child and knowledge about the importance of colostrum. Mothers who had lower average income was less likely to be a mother that timely initiate of breastfeeding. Health organizations should be aware of mothers knowledge about the importance of colostrum and early treatment for breast-related difficulties during antenatal care.

Keywords: Breastfeeding; timely initiation of breastfeeding; colostrum; prevalence; child health and Ethiopia

ÖZET Amaç: Anne sütüyle beslemeye zamanında başlamanın prevalansını ve ilişkili faktörleri değerlendirmek. **Gereç ve Yöntemler:** çalışmaya Etyopya'nın Akefer bölgesinden toplam 371 anne alındı ve kesitsel bir çalışma yapıldı. Anne sütüyle beslemeye zamanında başlama ile ilişkili faktörlerin etki büyüklüğünü hesaplamak için iki değişkenli ve çok değişkenli analiz yapıldı. Verilerin toplanmasında önceden test edilen yapılandırılmış anket kullanıldı. Değişkenler arasındaki ilişkinin gücü kaba odds oranı (KOO) ve ayarlanmış odds oranı (AOO) kullanılarak değerlendirildi. **Bulgular:** Çalışmada anne sütüyle beslemeye ilk bir saat içinde başlamanın prevalans hızı %65.0 idi. Anne sütüne zamanında başlama daha önce yaşanan anne sütüyle besleme ile ilişkili problem yaşama ile [(AOO 2.417; %95 güven aralığı (GA) 1.099, 5.313] ve önceden 2-4 gebelik yaşama ile [(AOO 3.314; %95 GA 1.275, 7.705] yüksek oranda ilişkiliydi. Anne sütüyle beslemeye zamanında başlama 250 Birr'den daha az geliri olma (AOR 0.0.350; 95% CI 0.127, 0.973), daha önce sadece bir gebelik yaşama (AOR 0.306; 95% CI 0.109, 0.857) ve kolostrumun önemi hakkında bilgi sahibi olma (AOR 0.245;95% CI 0.144, 0.417) ile negatif olarak ilişkiliydi. **Sonuç:** Etyopya'nın Kuzey Akefer bölgesinde anne sütüyle beslemeye zamanında başlamanın prevalansı yüksekti. Anne sütüyle beslemeye zamanında başlama daha önceki gebelik öyküsü, anne sütüyle besleme zorluğu yaşama, annelerin ortalama aylık geliri, bir çocuk sahibi olma öyküsü ve kolostrumun önemi hakkında bilgi sahibi olmayla anlamlı olarak ilişkiliydi. Ortalama geliri düşük olan annelerin anne sütüyle beslemeye erken başlayan anne olma olasılığı daha düşüktü. Sağlık organizasyonları annelerin kolostrumun önemi hakkındaki bilgilerinin ve doğum öncesi bakım sırasındaki memeyle ilgili zorlukların farkında olmalıdır.

Anahtar Kelimeler: Anne sütüyle besleme; anne sütüyle beslemeye zamanında başlama; kolostrum; prevalans; çocuk sağlığı ve Etyopya

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Peer review under responsibility of Turkiye Klinikleri Journal of Health Sciences.

Received: 16 Sep 2020 ***Received in revised form:*** 09 Nov 2020 ***Accepted:*** 10 Nov 2020 ***Available online:*** 27 Aug 2021

Breastfeeding is the feeding of offspring with milk from a woman's breast. The beginning of human development relies on mother's milk, nature's complete diet for the newborn. Research conducted worldwide indicates that babies who are not in breast milk are more vulnerable to disease.[1-3] Early initiation of breastfeeding within thirty minutes of delivery is one of the steps initiated by the World Health Organization/UNICEF to attain successful breastfeeding of newborn babies. Breastfeeding periods establish early lactation and prevent postpartum hemorrhage and a marked reduction in the rate of diarrhea throughout the first six months of life. when the baby nurses from the bosom, there is an overflowing of various gastrointestinal hormones in both the mother and the newborn child.[4-7]

Early initiation of breastfeeding turns into an additional responsibility on medical care staff particularly in tertiary consideration foundation that mostly furnishes cases sent from the peripheral facilities. The view of care suppliers with respect to the late initiation of breastfeeding is an understudied issue.[8-10] The extent of infants getting early commencement of breastfeeding expanded with expanding maternal instruction. The extent of mothers who conveyed in wellbeing offices initiated breastfeeding within the first hour after conveyance is more prominent than the extent of mothers who delivered at home.[11-15.]

In spite of the fact that breastfeeding is all inclusive in Ethiopia, scopes of local just as region contrasts in convenient initiation of breastfeeding have been reported. One strategy of the National Nutrition Program Implementing the Sectors Declaration in Ethiopia is to cultivating nutrition through promoting breastfeeding initiation within one hour of birth.[12,13,16] The government of Ethiopia developed National Infant and Young Child Feeding Guideline in 2004 and behavior change communications on breastfeeding have been going on from that point forward. Notwithstanding, there is little data on the act of ideal initiation of breastfeeding and predictors that foresee these practices after the usage of the public rule among mothers in Bale Goba District, South East Ethiopia.[13] Hence, late initiation of breastfeeding has relations with morbidity and mortality of newborns.[13,17]

Behaviors like controlling behavior or violent behavior have a few negative consequences for women's wellbeing behavior such as contraceptive use, sanity, reproductive health issues, and neonatal care. Accordingly, it might hurt initiation time of breastfeeding. Increased knowledge about the prevalence of and factors associated with breastfeeding in this district will help us understand the negative and positive factors that influence breastfeeding behavior. This study aimed to assess the major factors of breastfeeding initiation to distinguish the barriers to early initiation and continuation of breastfeeding. The study will be useful for developing, planning, and implementing prevention strategies of child morbidity and mortality in resource-limited settings like rural areas of Ethiopia.

MATERIAL AND METHODS

Study design: A community-based cross-sectional quantitative study was employed from September to June 2018. All rural mothers who have under-two children in the chosen kebeles of North Achefer district were considered.

Sample size and selection procedures: The required sample size of the study participants was determined by using a single population proportion formula with the following assumptions:

n=the number of mothers to be interviewed

$Z_{\alpha/2}$=critical value at 95% confidence interval (1.96)

p=50% (since there was no similar study in the area within the past ten years, initiation of breastfeeding within the first hour of delivery among under two children in rural communities of North Achefer district.

$$n = \frac{(z_{\alpha/2})^2 * P(1-P)}{d^2} = \frac{1.96)^2 * 0.5(1-0.5)}{0.05^2} = 384$$

d=marginal error between sample statistics and the population parameter (5%). The source population is less than 10,000 which are 4,388 expected antenatal care (ANC) mothers who had less than 24 months' children.

Therefore, desired sample size will be calculated as;

n*f*=n/(1+n/N)= 384/(1+384/4388)=353

Where nf=desired sample size; n=sample size by single population proportion

n=source population

Sample size becomes 353. After addition of 5% of non-response rate for households, such as for the participants either refuse to participate or may not be available after frequent attempts, the final sample size is 371.[18]

Variables included under investigation: The response/dependent variable for this study timely initiation of breastfeeding was assigned a value of 1 if the respondents (mothers) reported "yes" and 2 if the respondents (mothers) reported "No". Socio-demographic, socio-economic, and health-related variables were measured as predictor variables in this study.

STATISTICAL MODELS

Logistic Regression Model

The logistic regression model is a statistical model applied to assess the association between categorical variables. When the association held between only two categorical variables, it is so-called bivariate logistic regression; when the association held between more than two categorical variables, it is called multivariable logistic regression.[19] The logistic regression model is given by:

$$logit[pi(x) = \pi_i] = \beta_0 + \beta_1 X1 + \beta_2 X2 + \cdots + \beta_p Xp$$

Where: β_o is the intercept and $\beta_1, \beta_2, ..\beta_P$ are coefficients of $X_1, X_2 ... X_p$ covariates respectively. Whereas $pi(x)=\pi_i$ refers to the probability that the mothers timely initiated of breastfeeding.

The interpretation of the effects of covariates was carried out using odds ratio (OR). For instance, for a variable X_1 with two possible values 1 and 2, the OR can be computed as:

$$OR = \frac{pi(X1=1)/(1-pi(X1=1))}{pi(X1=2)/(1-pi(X1=2))}.$$

While estimating the OR, if the effects of other covariates are taken into consideration then the OR also called adjusted odds ratio (AOR) if not, we call it crude odds ratio (COR).

The Chi-square test of association, as well as bivariate logistic regression, was used and variables with p value less than 0.25 were transported into a multivariable binary logistic regression analysis to determine the factors of timely initiation of breastfeeding. Finally, variables with p values less than 0.05 (level of significance) in the multivariable logistic regression model were considered as statistically significant. The Wald statistics is also an optional test that is commonly used to test the significance of the individual of the logistic regression coefficient for each explanatory variable.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Ethical clearance was obtained from the Institutional Review Board of the College of Sciences (Ref: PRCSVD/12/2013), Bahir Dar University before the beginning of the actual data collection. Data collectors were trained and required to strictly adhere to ethical principles. Verbal consent (most were unable to read and write) was obtained from each study subject before the start of the interview, and similar verbal consent was obtained from a parent or guardian for participants under 16 years old and this was approved by the ethics committee. Respondents were assured that the data wouldn't have any positive or negative repercussions on the current or future aspects of their life and that if they don't feel comfortable, they could withdraw from the study without any problem at any stage of the data collection.

RESULTS

SOCIO-DEMOGRAPHIC FACTORS

A total of 371 mothers were interviewed. Of those, 26 (7.0%) were between the age of fifteen and nineteen. The minimum 3 (0.8%) and a maximum of 115 (31.0%) of mothers belonged in age group 40-45 and between ages 20-24 years old, respectively. Among the total children in the study, 164 (44.2%) were males and 207 (55.8%) were females. Out of the total study participants, 349 (94.1%) of mothers follows Orthodox religion, 331 (89.2%) mothers were married, 254 (68.5) of participants husband occupation were farming, 148 (39.9%) of participant mothers can't read and write, and 157 (42.3%) of participants husband education were "can read and write" only. Lastly, most mothers 331 (89.2%) were married and the rest were single, widowed, and divorced (Table 1).

TABLE 1: Socio-demographic variables.

Variables	Categories	Frequency (n)	Percent (%)
Mothers' age	15-19	26	7.0
	20-24	115	31.0
	25-29	104	28.0
	30-34	103	27.8
	35-39	20	5.4
	40-45	3	0.8
Age of the child in month	0-6	152	41.0
	6-12	156	42.0
	12-18	58	15.6
	18-24	5	1.3
Sex of the child	Male	164	44.2
	Female	207	55.8
Marital status	Married	331	89.2
	Single	10	2.7
	Divorced	23	6.2
	Widowed	7	1.9
Religion	Orthodox	349	94.1
	Muslim	21	5.7
	Others	1	0.3
Occupation of husband	Farming	254	68.5
	Daily laborer	89	24.0
	Home assistance	16	4.3
	Others	12	3.2
Educational level	Can't read and write	148	39.9
	Only read and write	126	34.0
	Primary school	85	22.9
	Secondary school completed	12	3.2
Husband educational level	Can't read and write	147	39.6
	Read and write only	157	42.3
	Primary school completed	55	14.8
	Secondary school completed	12	3.2

NEONATAL CARE PRACTICE

Of a total of 371 mothers, 153 (42.2%) had to get two and three pregnancies, and the remaining accounts one, four, and a greater number of pregnancy incidents. According to ANC follow up in the last pregnancy, 272 (73.3%) did not attend the ANC follow up but the rest. Among those 272 attended mothers, 144 (38.8%) attended once and the rest attended two and three times. Regarding counseling about breastfeeding during your ANC follow up, 265 (71.4%) has got counseling but not the rest. Lastly, 363 (97.8%) mothers had no history of a breast problem and the rest of mothers had a history of breast problems (Table 2).

BREASTFEEDING PRACTICE

The majority, 241 (65.0%) of mothers had to breastfeed initiation time in their last delivery within one hour, and the rest has been breastfeeding initiation time in their last delivery after one hour. The majority, 108 (29.1%) of mothers experienced breastfeeding and the remains had breastfeeding history in longer than three hours. Regarding colostrum, majority of 191 (51.5%) have been fed their colostrum in the last delivery, and among them, 64 (35.8%) squeezed out and threw away colostrum and the rest fed the child. Of the mothers, 193 (52%) have an experience of prelacteal feeding and the rest of them have no prelacteal feeding experience, and among prelacteal children's, 117 (65.8%) used cheese as prelacteal feeding and the rest used water and glucose as prelacteal feeding. Of the mothers, 258 (69.5%) were usually breastfeeding their child when crying and the rest usually breastfeed based on interest and other reasons, and also 314 (84.6%) were breastfeeding their child still during this period of study and the rest stopped breastfeeding. Among participant mothers, 364 (98.1%) had no breastfeeding difficulty in their last delivery and the rest had breastfeeding difficulty in their last delivery, with this point, majority of 240 (64.7%) of them had breastfeeding frequency six times per day and the rest had breastfeeding frequency less than six and greater than six times per day. Regarding counseling, 336 (90.1%) have got advice/counseling of infant feeding and the rest of them had no advice/counseling of infant feeding and 223 (66.3%) of participant mothers got advice from health professionals (Table 3).

MOTHERS' ATTITUDE TO TIMELY INITIATION OF BREASTFEEDING

The majority of mothers, 189 (50.9%), attitude for timely initiation of breastfeeding was agreed about breast milk is free from any contamination and the rest strongly disagreed, disagreed, neutral and strongly agreed, Among the total 169 (45.6%) mothers were disagreed about only breastfeeding is enough for the baby up to 6 months and the rest strongly disagreed, neutral, agree and strongly agree. 189 (50.9%) mothers were agreed about breast milk contains all the nutrients necessary for the infant and

TABLE 2: ANC characteristic variables.

Variables	Categories	Frequency (n=371)	Percent (%)
How many times did you get pregnant	1	70	18.9
	2-3	153	41.2
	4	51	13.7
	>4	97	26.1
ANC follow up in the last pregnancy	Yes	272	73.3
	No	99	26.7
What is the frequency of your ANC follow up?	0	99	26.7
	1	144	38.8
	2	98	26.4
	3	30	8.1
Did you get counseling about breastfeeding during your ANC follow up?	Yes	265	71.4
	No	106	28.6
Where you were delivered your last children	Health facility	310	83.6
	Home	61	16.4
Modes of delivery in your last children?	Spontaneous vaginal delivery	355	95.7
	Cesarean section	16	4.3
Who assisted you in your last child delivery	Relatives	43	11.6
	Health worker	314	84.6
	Traditional birth attendant	14	3.8
Did you get counseling about initiation of breastfeeding after you delivered at health facility?	Yes	284	76.5
	No	87	23.5
Do you have post-natal follow-up	Yes	287	77.4
	No	84	22.6
How many times did you have post-natal follow up?	Never	119	32.1
	1-3	143	38.5
	4-6	101	27.2
	>6	8	2.2
Have you had counseling on breastfeeding during the post-natal care	Yes	190	51.2
	No	181	48.8
History of infant hospital admission	Yes	25	6.7
	No	346	93.3
Any history of breast problem	Yes	8	2.2
	No	363	97.8

ANC: Antenatal care.

the rest strongly disagreed, disagree, neutral, and strongly agree. Similarly, 178 (48%) of them were agree about breast milk provides the infant with the immunity to prevent disease and the rest were strongly disagree, disagree, neutral, and strongly agree. Analogously, 263 (70.9%) of them were agree about timely initiation of breast milk makes the infant get liquid only and the rest strongly disagree, disagree, neutral, and strongly agree. Regarding colostrum, 241 (65%) of them were agreed that colostrum feeding causes disease and the rest strongly disagree, disagree, neutral, and strongly agree. With the previous point, the majority of 208 (56.1%) mothers agree to accept discarding colostrum as a culture and the rest strongly disagree, disagree, neutral, and strongly agree. The majority of mothers, 214 (57.5%), were agreed that dealing with breastfeeding is always time-consuming and the rest were strongly disagreed, disagree, neutral, and strongly agree. Lastly, 211 (56.9%) of mothers were Agree that prelacteal feeding is good for infant and the rest strongly disagreed, disagree, neutral and strongly agree (Table 4).

TABLE 3: Breastfeeding practice of participant mothers.

Variables	Categories	Frequency (n=371)	Percent (%)
What was your breastfeeding initiation time in your last delivery?	Before one hour	241	65.0
	2-3 hours	108	29.1
	>3 hours	22	5.9
Did you ever breastfeed?	Yes	280	75.5
	No	91	24.5
Did you feed your colostrum in your last delivery? If the answer is no, see the next question	Yes	191	51.5
	No	180	48.5
Did you squeeze out and throw away colostrum?	Yes	64	35.8
	No	116	64.2
Did you feed pre-lacteal feeding	Yes	178	48.0
	No	193	52.0
If yes, the above question, what type pre-lacteal food given?	Cheese	117	65.8
	Qater	56	31.5
	Glucose	5	2.7
When do you usually breastfeed your child?	İnterest base	109	29.4
	When crying	258	69.5
	Other	4	1.1
Do you still breastfeed your child?	Yes	314	84.6
	No	57	15.4
Did you have any breastfeeding difficulty in your last delivery?	Yes	7	1.9
	No	364	98.1
What was your breastfeeding frequency?	If needed	17	4.6
	When crying	73	19.7
	6 times a day	240	64.7
	>Six times	41	11.1
Did you get any advice/counseling of infant feeding?	Yes	336	90.1
	No	35	9.9
If you get advice/counseling about infant feeding, from whom did you get?	Health professional	223	66.3
	Friends	74	22.1
	Family members	7	2.2
	Others	32	9.4

TABLE 4: Mothers' attitude for timely initiation of breastfeeding.

	Categories				
Variables	Strongly disagree	Dis-agree	Neutral	Agree	Strongly agree
Breast milk is free from any contamination?	10 (2.7%)	117 (31.5%)	4 (1.1%)	189 (50.9%)	51 (13.7%)
Only breastfeeding is enough for the baby up to 6 months?	10 (2.7%)	169 (45.6%)	7 (1.9%)	142 (38.3%)	43(11.6%)
Breast milk contains all the nutrient necessary for the infant?	9 (2.4%)	106 (28.6%)	6 (1.6%)	189 (50.9%)	61 (16.4%)
Breast milk provides the infant with the immunity to prevent disease?	11 (3.0%)	126 (34.0%)	2 (0.5%)	178 (48.0%)	54 (14.6%)
Timely initiation of breast milk makes the infant to get liquid only.	7 (1.9%)	70 (18.9%)	7 (1.9%)	263 (70.9%)	24 (6.5%)
Do you believe colostrum feeding causes disease?	16 (4.3%)	92 (24.8%)	0 (0.0%)	241 (65.0%)	22 (5.9%)
Do you accept discarding colostrum as a culture?	24 (6.5%)	123 (33.2%)	0 (0.0%)	208 (56.1%)	16 (4.3%)
Dealing with breastfeeding is always time Consuming.	12 (3.2%)	132 (35.6%)	4 (1.1%)	214 (57.7%)	9 (2.4%)
Breastfeed affect the posture or health of the mother	11 (3.0%)	209 (56.3%)	15 (4.0%)	129 (34.8%)	7 (1.9%)
Believe prelacteal feeding is good for infant	32 (8.6%)	118 (31.8%)	2 (0.5%)	211 (56.9%)	8 (2.2%)

PREDICTORS ASSOCIATED WITH TIMELY INITIATION OF BREASTFEED

The study performed the Chi-square tests of independence between the timely initiation of participant mothers and independent variables under consideration to check the possible relationship. Different possible associated variables such as mothers age, marital status of the mother, monthly average income, number of pregnancy history, counseling for exclusive breastfeeding, importance of colostrum, importance of exclusive breastfeed, breastfeed history, colostrum feeding history, squeeze colostrum, prelacteal feeding and still breastfeed the child (p value less 0.05). Analogously, remaining included factors in the study have a p value greater than α-level of significance. Therefore, it can be concluded that there is no association between those variables and the timely initiation of breastfeeding at 5% level of significance.

Based on Table 5, bivariable and multivariable analyses were performed. On bivariate analysis, predictors which were related with timely initiation of breastfeeding include; monthly income of the mother, mother's pregnancy history, importance of colostrum and prelacteal feeding. Possible aspirant variables for multivariate analysis were used for multiple logistic regression analysis and statistically significant variables which were found to be associated with timely breastfeeding initiation include; the AOR of the average monthly income of mothers less than 250 Birr per month was 0.35 ($e^{\wedge -1.045}$) which indicates that the odds of mothers who had an average income less than 250 Birr per month were 65% less likely to timely initiation of breastfeeding as compared to mothers who had average monthly income greater than one thousand birr [AOR=0.35, 95% confidence interval (CI)=0.127, 0.973].

The AOR of mothers who had one previous pregnancy history was 0.31 ($e^{\wedge -1.186}$) which indicates the odds of mothers who had one previous pregnancy history were 69% less likely to timely initiation of breastfeeding as compared to mothers who had greater than four previous pregnancy history (AOR=0.31, 95% CI=0.109, 0.857). Similarly, the

TABLE 5: Bivariable and multivariable factors in the statistical model.

Variable in the Model	βc	COR (95%CI)	βa	AOR (95% CI)
Constant			-0.930	0.395
Mothers age				
15-19 (1)	-0.76	0.47 (0.10, 2.10)	-0.817	0.44 (0.08, 2.56)
20-24 (2)	0.85	2.33 (0.58, 9.426)	0.582	1.79 (0.35, 9.28)
25-29 (3)	0.288	1.33 (0.33, 5.48)	0.177	1.19 (0.23, 6.28)
30-34 (4)	0.43	1.54 (0.37, 6.47)	0.210	1.23 (0.22, 6.8)
35-49 (ref.)				
Monthly Income				
<250 (1)	-1.10	0.34 (0.15, 0.79)*	-1.045	0.35 (0.13, .97)*
251–500 (2)	0.05	1.01 (0.45, 2.49)	0.232	1.26 (0.45, 3.54)
501–1000 (3)	-0.33	0.72 (0.20, 2.54)	-0.577	0.56 (0.12, 2.68)
>1000 (ref)				
Pregnancy history				
Once (1)	-1.09	0.34 (0.14, 0.84)*	-1.186	0.31 (0.11, 0.86)*
Twice (2)	1.10	3.0 (1.39, 6.48)*	1.142	3.13 (1.28, 7.71)*
Three times (3)	0.42	1.52 (0.65, 3.57)	0.668	1.95 (0.74, 5.15)
Four and above (ref)				
Importance of colostrum	-1.28	0.28 (0.18, 0.43)*	-1.406	0.25 (.14, .42)*
Prelacteal feeding	0.43	1.54 (1.01, 2.34)*	0.507	1.66 (.99, 2.8)**
Breastfeeding difficulty	0.21	1.23 (0.27, 5.57)	0.882	2.42 (1.10,5.3)*

ref.: Reference category; *Significance at 0.05 (p value<0.05); **Significance at 0.1 (p value <0.1); βc & βa: The regression model coefficient for crude & Adjusted; COR: Crude odds ratio; AOR: Adjusted odds ratio; CI: Confidence interval.

AOR for mothers who have two previous pregnancy history was 3.134 ($e^{\wedge 1.142}$) which means that the odds of mothers who had two previous pregnancy history were 3.134 times more likely to timely initiation of breastfeeding as compared to mothers who had greater than four previous pregnancy history (AOR=3.134, 95% CI=1.275, 7.705).

The AOR of mothers who know the importance of colostrum was 0.25 ($e^{\wedge -1.406}$) which supposes that the odds of mothers who know the importance of colostrum were 75% less likely to timely initiation of breastfeeding as compared to mothers who didn't know the importance of colostrum (AOR=0.25, 95% CI=0.144, 0.417). Lastly, the AOR for mothers who had breastfeeding difficulty history was 2.417 ($e^{\wedge 0,082}$) which indicates the odds of mother who had breastfeeding difficulty history was 2.417 times more likely to timely initiation of breastfeeding as compared to mothers who haven't breastfeeding difficulty history (AOR=2.417, 95% CI=1.099, 5.313).

DISCUSSION

The prevalence rate of timely initiation of breastfeeding in this study revealed that 65% of mothers had the practice of timely initiation of breastfeeding within the first one hour. A similar study conducted observed that 186 (64.4%) mothers had started the breastfeeding within 1 hour after delivery and almost similar results were observed by a study done revealed that the prevalence rate of timely initiation of breastfeeding was 62.6%.[1,13,17] Found that the prevalence of timely initiation of breastfeeding was 52.4% at the national level.

It was found that mothers who have less average monthly income have poor timely initiation of breastfeeding as compared with mothers who have greater average monthly income, consistent with the study it suggests that income of the family has a positive relationship to timely initiation of breastfeeding.[1] In the study, it is also reported that 186 (64.4%) mothers have started breastfeeding within 1 hour after delivery and almost similar results were observed in the study of Ethiopia that revealed the prevalence rate of timely initiation of breastfeeding (62.6%) found that the prevalence of timely initiation of breastfeeding was 52.4% and similarly, in this study, we found that 62% of mothers have practiced of timely initiation of breastfeeding.[1,17]

The number of previous pregnancy history has more probability to timely initiation of breastfeeding when the mother has two and three previous pregnancy history. In contrast, the number of previous pregnancy histories has less probability of timely initiation of breastfeeding when the mother has only one previous pregnancy history.[20] 65% of respondent mothers correctly acknowledged that colostrum should be fed to a baby by realizing the importance of colostrum which in line with the study in, about 88.2% of the respondents correctly acknowledged that colostrum ought to be taken to a baby while 12.3% of them knew that breastfeeding should proceed for as long as 2 years or more.[21]

According to the research conducted, mothers who know the importance of colostrum has a greater probability of timely initiation of breastfeeding as compared with mothers who didn't know the importance of colostrum, unlikely this study.[16]

CONCLUSION

The prevalence of timely initiation of breastfeeding in the North Achefer district of Ethiopia was high. The practice of timely initiation of breastfeeding of mothers was significantly associated with the age of mothers, marital status of the mother, monthly average income, number of pregnancy history, counseling for exclusive breastfeeding, the importance of colostrum, importance of exclusive breastfeeding, breastfeeding history, colostrum feeding history, squeezing colostrum, prelacteal feeding and still breastfeed the child.

Mothers whose average income less than 250 Birr per month were less likely to timely initiate breastfeeding as compared to mothers whose average monthly income was greater than 1,000 Birr per month and mothers who have two and three previous pregnancy history were more likely to timely initiate breastfeeding as compared to mothers who have greater than four previous pregnancy history. Whereas, mothers who haven't breastfeeding difficulty history are less likely to timely initiate breast-

feeding compared to mothers who have breastfeeding difficulty history.

LIMITATION OF STUDY

The present study has an absence of information about the mother's nutrition type. Further studies that can fulfill these gaps need to determine the case for variation of timely initiations of breastfeeding.

Acknowledgments

We would like to thank North Achefer District health center for giving us permission to use the data for our study and Esseye Kebede Muluneh (Dr.) for his valuable scientific and language correction.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

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