

Prevalence of Timely Initiation of Breastfeeding Practice Among Primiparous Mothers at Bedessa Town, Wolaita Zone, Southern Ethiopia, 2018: A Community Based Cross-Sectionals Study

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Abstract

Introduction: Timely initiation of breastfeeding within one hour after birth and exclusive breastfeeding is recommended for the first six months of infant life along with continuation of breastfeeding up to two years. Globally over 1 million babies would be saved each year by timely initiating of breastfeeding. Study on prevalence of early initiation of breast feeding was limited in southern Ethiopia. So this study was aimed to assess the prevalence of timely initiation of breastfeeding practices among primi-para mothers whose infants six months of age and under in Bedessa town, southern Ethiopia.

Methods: Community based quantitative cross-sectional study was conducted from May to July 2018. The systematic random sampling technique was applied to select 413 study participants.

Results: The prevalence of timely initiation of breastfeeding was 81.1% and 91.04% of mothers were give their colostrum to their infant. Lack of information about timely initiation of breastfeeding was recorded as a barrier by 48 (11.62%) participants in this study.

Conclusion and recommendations: Prevalence of timely initiation of breast feeding in the study area was low compared to EDHS 2016 plan. Wherever possible, relevant information regarding early initiation of breastfeeding should be warned to all mothers.

Keywords: Prevalence; Timely initiation; Breastfeeding; Ethiopia

Abbreviations: ANC: Antenatal Care; CSA: Central Statistical Agency of Ethiopia; EDHS: Ethiopian Demographic and Health Survey; EIBF: Early Initiation of Breastfeeding; MCH: Maternal and child Health; TIBF: Timely Initiation of Breastfeeding; WHO: World Health Organization

Introduction

Timely Initiation of Breast Feeding (TIBF) is the proportion of children who were put to their mothers' breast within an hour of delivery [1]. Breastfeeding is a universally accepted program to reduce the high infant and childhood morbidity and mortality. It has a great price to reduce otitis media, gastroenteritis, respiratory illness, sudden infant death syndrome, necrotizing enterocolitis, obesity and hypertension [2].

Timely initiation of breastfeeding within an hour delivery has incredible benefits both to the mother and her newborns such as enhancing bonding, prevent against infection, reduce financial expense, increase mothers confidence and generally extending breastfeeding duration [3-5].

World Health Organization (WHO) states that, globally over 1 million babies would be saved each year by timely initiating of breastfeeding. Early initiation of breastfeeding could save about 1.45 million mortality each year in under developing countries alone. An investigation from fifty-three World Health Organization (WHO) European member countries states that, rates of early initiation of breast feeding lies between 5 to 84%. Untimely initiation of breastfeeding raises neonatal mortality by 22% [6,7].

The Ethiopia Ministry of Health recommends that infants and children be exclusively breastfed for the first 6 months of life with no additional liquids or foods given, and that continued breast

feeding beyond 6 months should be accompanied by consumption of nutritionally adequate, safe and appropriate complementary foods that help to meet the nutritional requirements of children [8].

Ethiopian Health Service Development Plan four (HSD-IV) had planned to increase in the proportion of timely initiation of breastfeeding to 92 % by the end of 2015 [9]. However, systematic review on prevalence of Early Initiation of Breast Feeding (EIBF) showed that, the prevalence of EIBF in Ethiopia ranged from 41.6 to 62.6% [2,10,11].

Though few studies have examined complementary feeding practices in Ethiopia, to our knowledge, there were no published studies examining the prevalence of timely initiation breast feeding in Bedessa town southern Ethiopia. So this study was aimed to assess the prevalence of timely initiation of breastfeeding among primipara mothers who have six months age and under infants in Bedessa town southern Ethiopia. Furthermore, it will have an input for program managers and policy makers in program designing, implementing and evaluating regarding under five mortality and also on improving childhood health care in the setting.

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Method and Materials

Study setting and period

This study was conducted in Bedessa town, southern Ethiopia from May to July 2018. Bedessa town is the capital of Damot Woyde woreda, located about 400 km away from Addis Ababa to the south and 26 km way from Sodo, the capital of Wolaita zone to the east. The town lies with altitude and longitude of 8°31'11"N and 27°57'4"E respectively. Based on the 2007 Census conducted by the Central Statistical Agency of Ethiopia (CSA), Bedessa town has a total population of 28,782 of whom 14,400 are men and 14,382 are women [12]. The town has two administrative kebele and both kebeles were included in the study.

Study design

Community based cross-sectional study was employed.

Source population

Source populations were all primi para mothers who have an infant of six month age and under in Bedessa town southern Ethiopia.

Study population

Study populations were prim para mothers who have an infant of six month age and under in the mapped house of Bedessa town, southern Ethiopia during the study period.

Sample size determination and sampling procedure

The sample size was determined using single population proportion formula, $N = (Z_{\alpha/2})^2 * P(1-P) / d^2$

Where:

N=Sample size

$Z_{\alpha/2}$ =Standard normal score= 1.96 at 95% confidence level

P= 50% prevalence of timely initiation breastfeeding (since there was no previous study done in the study area)

d=5% margin of error

By adding 7% non response rate the final study participants were calculated to be 413.

The total sample size was proportionally allocated in each kebele. Houses were mapped to get representatives and study participants were selected using a systematic random sampling method. The actual infants' age was determined either by asking the index mother or reviewing their birth certificate.

Exclusion criteria

Mothers who were seriously ill or unable to give informed consent and mothers with cleft lip or palate infant who had a difficulty of taking breast milk were exempted from in the study.

Variables of the study

Dependant variable: Timely initiation of breast feeding practice

Independent variable: Maternal socio-demographic characteristic (age of mother, ethnicity, religion, marital status, educational status, occupation, husband educational status, monthly income)

- Exposure to information about breastfeeding
- Obstetric and health service related characteristics (Antenatal

care, place of delivery, mode of delivery, delivery care, maternal illness)

- Infant characteristics (sex, age, colostrum's feeding, pre-lacteal feeding)

Operational definitions

Timely initiation of breastfeeding: A mother who puts her baby to breast within an hour of delivery [13].

Prelacteal feeding: An infant who fed something other than breast milk within the first three days of life [13].

Colostrum's feeding: Giving the first breast milk which has thick, sticky and clear yellowish appearance to their infant within one hour of delivery [14].

Data collection procedures and quality control

Data were collected from mothers through face to face interview using a structured and pretested questionnaire adapted from previous similar literatures [11,13,15,16]. The questionnaire has contained three parts. The first part was maternal social-demographic characteristics (age of mother, ethnicity, religion, marital status, educational status, occupation, monthly income) and the second part was obstetric characteristics (Antenatal care, Delivery care, Place of delivery, Mode of delivery). The third part embraces neonatal and health related factors (sex, age, colostrum feeding, pre-lacteal feeding, information about breastfeeding, maternal illness).

Quality of the data was controlled by giving one day training and appropriate supervisions for data collectors. The questionnaire was prepared in English language then translated to local (Wolaitina) language and then back to English to keep its internal consistency. Four trained BSc nurses gathered the data. The overall supervision was carried out by the principal investigators. A pre-test was conducted on 10% of similar population and necessary modifications were made.

Data processing and analysis

The filled questionnaires were checked for completeness and entered into Epi data version 3.1 statistical software and then exported to SPSS version 20 for further analysis. Descriptive statistics were made. The frequency and percentage of each variable was presented using texts and tables.

Results

Social-demographic characteristics

In this study a total of 413 mothers included making 100% response rate. The mean (\pm SD) age of mothers was 24 ± 4.08 years. Around half (86.5%) of mothers were aged between 20-35 years. About 257 (62.42%) and 153 (37.04%) mothers were protestants in religion and primary education in educational status respectively. Regarding monthly income, 120 (39.8%) mothers monthly income were between 500-1500 Ethiopian birr. Their marital status revealed that, all study participants were married (Table 1).

Obstetric, infant and maternal health service utilization characteristics

One hundred ninety nine (48.1%) neonates were male in sex. One hundred seventy five (42.37%) infants age were under three month. Regarding Antenatal Care (ANC), 94.2% of mothers received antenatal care during the current pregnancy of whom 94.2% of mothers were

Variable	Category (n=413)	Frequency	Percent
Age	<20	26	6.3%
	20-35	357	86.5%
	>35	30	7.2%
Religion	Orthodox	117	28.33%
	Protestant	257	62.42%
	Muslim	39	9.25%
Ethnicity	Walaita	345	83.5%
	GamoGofa	37	8.96%
	Gurage	21	5%
	Others	10	3.1%
Level of Education of mothers	Primary education	153	37.04%
	Secondary education	93	22.5%
	College and above	167	40.43%
Occupation of mothers monthly income	Employed	258	62.5%
	Unemployed	155	37.5%
	500	5	1.7%
	500-1000	120	39.8%
	>1000	176	58.5%

Table 1: Socio-demographic characteristic distribution among primi para mothers with an infant of six month age and under in Badessa town, Wolaita, Southern Ethiopia, 2018.

Variable	Response (n=413)	Frequency	Percent
Sex of children	Male	199	48.1%
	Female	214	51.9%
Age of children in month	0-2.9	175	42.37%
	3-3.9	107	25.9%
	4-4.9	73	17.67%
	5-5.9	58	14%
ANC follow up	Yes	389	94.2%
	No	24	5.8%
Place of ANC	Hospital	85	20.6%
	Health center	281	68.1%
	Private clinics	47	11.3%
Breast feeding Counseling during ANC	Yes	389	94.2%
	No	24	5.8%
Place of birth	Health institution	386	93.5%
	Home	27	6.5%
Mode of delivery	SVD	365	88.4%
	C/s	48	11.6%

Table 2: Infant and obstetric characteristic distribution among primi para mothers with an infant of six month age and under in Badessa town, Wolaita, Southern Ethiopia, 2018.

counseled about breast feeding. Hospital delivery was accounted by 85 (20.6%) deliveries and 365 (88.4%) paritcepants were delivered through spontaneous vaginal delivery (Table 2).

Breast feeding and related practices

Three hundred ninety six (95.9%) mothers had breastfed at the time of data collection. Of those who had breastfed, 335 (81.1%) mothers initiated breastfeeding within an hour of delivery making the prevalence of timely initiation of breast feeding among primi para mothers with an infant of six month age and under in Bedessa town southern Ethiopian found to be 81.1%.

Three hundred seventy six (91.04%) mothers fed first milk (colostrum's) to their infant. Exclusive Breastfeeding (EBF) was

practiced by 387 (93.7%) mothers while water (n=8), butter (n=12) and others (n=6) were practiced as additional (complementary) feeding to breast milk.

Of those 37 (8.9%) mothers who didn't give their colostrum's, 9 (2.17%) were due to traditional beliefs, 7 (1.69%) were due to yellow and cream appearance, 15 (3.6%) were due to thought as not good for infant and 6 (1.45%) were due to thought as infant can't take as food.

Barriers to early initiating of breastfeeding

Of the total 413 study participants, 61 (14.8%) mothers complained breast problems to initiate breastfeeding timely. The mentioned problems were, breast abscess (n=13), mastitis (n=39) and sore nipple (n=9). All those 61 (14.8%) mothers who faced breast problem initiated breastfeeding later than one hour of delivery. Lack of information (n=48), insufficient breast milk (n=23), work demand (n=7), cesarean section (n=67), child illness (n=92), maternal illness (n=56) and delayed milk secretion (n=98) were the documented reasons for untimely initiation of breastfeeding.

Discussion

Early initiation of breast feeding is one of the immediate and important newborn cares which promotes giving of breast milk within an hour of birth for neonate. Early Initiation of Breastfeeding (EIBF) has medical and economical advantage both for the neonate and mother. Limited data was available on prevalence of timely initiation of breastfeeding in the study area. So the study was setted to assess the prevalence of timely initiation of breastfeeding among primi para mothers who have an infant of six month age and under in Badessa town, Southern Ethiopia.

The finding of this study shown that, the prevalence of timely initiation of breastfeeding among primi para mothers with their six month and under child in Beddesa town found to be 81.1%. The finding was higher compared to studies done in Arba minch zuria, southern Ethiopia (57.6), in Addis Ababa (71.5%), in Somali region, Ethiopia (41.7%). This finding also higher than studies done in other African countries, Sudan (45.8-76.6%) (7, 8), Nigeria (34.7-78.3%) and Uganda (51.8%) [17-23].

On the other hand, this finding was low compared to studies done in eastern Sudan (90.6%), Khartoum (90.6%), Sidama zone, Ethiopia (80.1%), Wolaita zone (90%) and Debberhan town (84.5) and the 2016 natioanal plan of on prevalence of early initiation of breast feeding (92%) [9,24-28]. The difference in finding might be explained as due to variation in study time, setting, socio-cultural condition, economic status and obstetrics care among study population.

Based on World Health Organization (WHO) infant and young child feeding rating on early initiating of breast feeding, prevalence of EIBF was considered poor when it ranges a 0-29%, fair when it ranges 30-49%, good 50-89% and very good when it ranges 90-100% which makes that the prevalence of EIBF in the study area was good [29].

This study revealed that significant number (8.9%) of mothers responded as didn't give their colostrums and the most common reasons were traditional beliefs, colostrums color (yellow and cream appearance), not good for infant or it is not a food. Previous studies done in Northern Ethiopia, Ghana and Nigeria promotes that, mothers who give their colostrums more prone to timely initiation of breastfeeding compared with those who discarded their colostrums [30-32]. This might be due to the fact that colostrums is the milk obtained immediately after delivery and also mother who give her

colostrum might had a theme about the importance of early initiation of breastfeeding [33].

Moreover, this study also assessed the root causes for untimely initiation of breast feeding. Lack of information, insufficient breast milk, work demand, cesarean section, child illness, maternal illness and delayed milk secretion were the common liable reasons for delayed initiation of breastfeeding [34-36]. This finding was supported by previous studies done in Sudan, Uganda, Ethiopia and Nigeria

Study Limitation

- The study shares the limitation of cross-sectional study design and therefore, it does not show the seasonal variation of timely initiation of breast feeding.
- Since this study is pure descriptive, it didn't assess the independent predictors of timely initiation of breast feeding.

Conclusions and Recommendations

According to WHO breastfeeding guideline the prevalence of timely initiation of breastfeeding among primiparous mothers in the study area was good but it was low compared to EDHS plan 2016 making 90%. Initiation of breastfeeding within an hour delivery for all infants should be promoted. Further study on large scale through analytical study design was recommended.

Declarations

Ethics approval and consent to participate: Ethical clearance was obtained from institutional review board of Wolaita Sodo University. An official letter of permission was written to the respective district and Kebele administrators. After giving clear and deep explanation about the aim of the study, all mothers who were involved in the study were asked for their willingness and informed written consent was obtained from each participant. Those who were unwilling to the response were exempted from the study. The interview was conducted in a private environment convenient for the participants.

Consent for Publish: Not applicable.

Availability of data and materials: Data supporting this finding can be found up on request.

Competing interests: The author declares that there is no competing interest.

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