

Current Level and Correlates of Exclusive Breastfeeding among Employed Mothers in Debre Marko's Town, Northwest Ethiopia, 2013

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Abstract

Introduction: Breast milk promotes sensory and cognitive development, and protects the infant against infectious and chronic disease. Breastfeeding duration was found to be low among working mothers due to reasons like short maternity leave, workplaces were not allowed and even the allowed workplaces were not have privacy for breastfeeding or milk expressing.

Objective: The aim of this study was to assess current level and correlates of exclusive breastfeeding among employed mothers in Debre Markos town, Northwest, Ethiopia.

Methods: A cross-sectional study was conducted on 405 employed mothers selected simple random sampling. Data were collected by interview using structured self-administered questionnaire. The analysis was done using SPSS version 16. Logistic regression analysis was used to identify correlates of exclusive breastfeeding.

Result: one hundred thirty (34.95%) of mothers were exclusively breastfed their children as per recommended standard. Mother who had flexible time to express breast milk were 4.3 times more likely to exclusively breastfed as compared with those mother who did not, [AOR=4.26(1.97, 9.20)]. Those delivered mother who returned after 4 month of leave were 3.4 times more likely exclusively breastfed as compared to mother who returned after the 2 month, [AOR=3.38, 95% CI: 1.46, 7.87]. Job offers leave was also significantly associated with exclusive breastfeeding.

Conclusion: Exclusive breastfeeding level among employed mothers was low in town. Flexible time to express breast milk and time to return to work were found to have association with exclusive breastfeeding. It is advisable to give some flexible working hours to express breast milk for mother who have children.

Keywords: Exclusive breastfeeding; Length of maternity leave; Jobs offers leave

Introduction

Breast milk promotes sensory and cognitive development, and protects the infant against infectious and chronic disease. Exclusive breastfeeding reduces infant mortality due to common childhood illnesses such as diarrhea or pneumonia, and helps for a quicker recovery during illness. Breast milk is the natural first food for babies, it provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one-third during the second year of life [1].

Maternal employment has been one of the greatest barriers to breastfeeding. Due to this barrier many mothers return to work very shortly after giving birth. A number of factors have been identified for the causes of breastfeeding discontinuation; some of these are (physicians' recommendation, adequacy of milk, illness of mother or medication, infant illness, and return to work). The consequences of

these factors enforce to use partial breastfeeding, artificial breastfeeding and complementary feeding practice [2].

Worldwide, slightly more than one third of infants who are less than six months of age are exclusively breastfed while the majority of these receive some other food or fluid in the early months. More than 10 million children under the age of five die each year; 41% of these deaths occur in sub Saharan Africa and another 34% in South Asia and the major contributor to their death is poor breastfeeding practices [3]. Every day between 3000 and 4000 infants die from diarrhea and acute respiratory infection because of inadequate breast milk given to them [4].

About 472,000 Ethiopian children die each year before their fifth birth days. From this death inadequate breastfeeding practices contribute to 70,000 infant deaths every year in Ethiopia [5]. The Ethiopian Demography and Health Survey (EDHS) results indicate that, over half of children under six months in Ethiopian are being exclusively breastfed. However 10% of Ethiopian infants who are fewer than six months receive complementary foods [6].

As more and more women join the workforce, they think it is more convenient to them to bottle feed their babies with formula milk.

Increasing women's participation in the labor force is frequently blamed for the low rate of breastfeeding [7]. The promotion of breastfeeding is a key component of child survival strategies. If all infants were breastfed exclusively during the first six months of life one and a half million deaths among infants could be avoided each year and has the capability to prevent 13 percent of all under five deaths in developing countries [5,8].

A proper understanding of the current level and correlates of exclusive breastfeeding discontinuation among employed mothers are of paramount importance in tackling the problem related to breastfeeding, which gives the way for the improvement of the prevailing socioeconomic problems of the country. Particularly, it would have a substantial contribution in the improvement of the health status of women and children. Therefore, the ultimate objective of the study is to assess current level and correlates of exclusive breastfeeding among employed mothers in Debre Markos town.

Materials and Methods

Study setting and period

The study was conducted in Debre Markos town, from January 10 to March 23, 2013. Debre Markos town is the capital city of east Gojjam zone, which is found 300 kilometers North-west of the capital city, Addis-Ababa and 265 kilometers South-East of the Amhara National Regional State city, Bahir Dar. According to the 2007 Census result Debre Markos town total municipal area is approximately 60 square kilometers with a total population of 62,497 (29,921 men and 32,576 women [9]). Concerning health care facilities, it is broadly classified as public and private health care facilities.

Study design and populations

Institution based cross-sectional study was conducted in Debre Markos town on employed mothers whose age is less than or equal to 49 years old. All employed mothers who had children less than 2 years of age and who were working at the study area were included. Employed mothers who were unable to communicate, infants with congenital anomalies (such as Cleft lip and cleft palate) and mothers with twin's infants were excluded from this study for the sake of data quality.

Sample size and sampling

The required sample size was determined using single population proportion formula by considering 50% proportion of the employed mothers that exclusive breastfeed since there was no study conducted in the study area on similar topic using similar population group to the understanding of investigator's, Margin of error 5%, a 5% level of significance (two sided). Based on the above assumptions, with an additional 5 percent contingency for non-response the total sample size was 405. Stratified sampling technique was used to select study participants. All employed mothers at the town were classified in to three heterogeneous: such as government, Private and nongovernmental institution as nonprofit private. The calculated sample was allocated proportionally to the size of respective strata. Then the study participants were selected by using simple random sampling technique from a list of each stratum.

Measurement

Structured self-administered questionnaire was used which was adapted from review of different literatures in English to enable the comparability of the finding. Pretest was carried out on the 40 employed mothers at Yejube town which is one of neighbor town and necessary correction was made prior to the actual data collection.

Exclusive breastfeeding - The infant has received only breast milk from his/her mother or a wet nurse, or expressed breast milk, and no other liquids or solids, with the exception of drops or syrups consisting of vitamins, mineral supplements or medicines in the interval from birth to six months which is dichotomized as yes or no was the outcome variable. Independent variables include socio-demographic characteristics of respondents like Age, Religion, Marital status, income, number of children ever born; Job characteristics like maternity leave status, job flexibility, Job offers leave and Return to work place; Reasons for stopping EBF like adequacy of milk, painful breast or nipple, baby sucking/rejection of breastfeeding, illness of mother, illness of baby, baby's interest in breastfeeding, exhaustiveness of breastfeeding and prior experience of breastfeeding

Data collection method

Ten data collectors and two supervisors were recruited based on their prior experience on data collection. Training was given to the data collectors and supervisors on the objectives of the study, the content of the questionnaire, issue related to confidentiality of the responses and rights of the respondents for a day. They were also strongly informed about proper data handling, systematic answers for respondents' questions. Data were collected from January 10 to March 25, 2013. The supervisors and principal investigator performed immediate supervision on a daily basis. Each and every completed questionnaire was checked for completeness. Ten percent of the collected data were checked by the supervisor daily for completeness and finally the overall data collection process was controlled by the principal investigator. Data were entered in EPI data 3.1 computer programs to minimize data entry error.

Data processing and analysis

The entered data were exported to SPSS version 16 for analysis. Then, the data were recoded, categorized and sorted to facilitate its analysis. Descriptive analysis was used to describe the percentages and number distributions of the respondents by socio-demographic characteristics and other relevant variables of the study. Logistic regression was used to fit data in order to identify correlates of exclusive breastfeeding. All explanatory variables that were associated with the outcome variable in univariate analysis with p-value of 0.25 or less were included in the initial logistic models of multivariable analysis. The crude and adjusted odds ratio together with their corresponding 95% confidence intervals was computed. A P-value < 0.05 was considered to declare a result as statistically significant association in this study.

Ethical consideration

Ethical clearance was obtained from Ethical Review Board of College of Medicine and Health Sciences of Debre Markos University. Then officials at different levels in the study area were communicated through letters from College of Medicine and Health Sciences. Study participants were told about the purpose of the study and verbal informed consent was secured. In addition they were told that they

had the right to discontinue or refuse to participate in the study. In order to protect the confidentiality of the information, names and house numbers were not recorded on the questionnaire and privacy was maintained by independently answering the questionnaire.

Result

Socio-demographic characteristics

A total of 405 mothers whose children aged 2 years or less were included in this study of which 372 of them were willing and able to participate with over all response rates of 91.85%. The mean age of participants was 29.4 (\pm 4.52 SD) years. Of the total, 188 (45.16%) respondents belonged to the age group 25-35 years. Three hundred two (81.18%) were currently in union and 315 (84.68%) participants were full time workers. Two hundred eighty five (76.66%) of the respondents had diploma and above education and 326 (87.63%) were followers of orthodox Christian. Two hundred twenty three (60%) of the participant earn income between 34.26-157.89 dollar per month. Three hundred forty four (92.47%), 12 (3.23%), 10 (2.69%), 6 (1.61%) of the respondents were Amhara, Tigrie, Oromo and other ethnic group respectively. The majority of them, 248 (66.77%) had two or more children (Table 1).

Variables	Exclusive breastfeeding frequency	
	No	%
Age		
age<25	161	43.28
age 25-35	168	45.16
above 35	43	11.56
Marital status		
currently in union	302	81.18
currently not in union	70	18.82
Religion		
Orthodox	326	87.63
Protestant	32	8.60
Others	14	3.77
Ethnic group		
Amhara	344	92.47
Oromo	10	2.69
Tigre	12	3.23
Others	6	1.61
Maternal Education		
<=grade 8	22	5.91
grade 9-12	65	17.47
diploma/degree	285	76.62
Average monthly income		

less than 34.21 dollar	37	9.94s
34.21 to 157.89 dollar	223	59.95
Above 157.89 dollar	112	30.11
Work status		
full time	315	84.68
Part time	28	7.53
Both	29	7.79
Number of children		
one child	124	33.33
Two and above children	248	66.67

Table 1: Socio-demographic characteristics of exclusively breastfeeding among employed mothers, in Debre Markos town North West Ethiopia 2013.

ANC service and breastfeeding practice

Two hundred thirty five (63.17%) of participants were breastfed their children at the time of the study. Among those who were breastfed, 10(4.25%) of respondents were currently exclusively breastfed their babies up to age of six months, 57(24.26%) of respondents were not exclusively breastfed before their child only up to three month of age, 94(40%) of respondents were initiated complementary feeding between three to six months, and 74(31.49%) exclusively breastfed their child until six month. Among those currently breastfed mother, 157(41.13%) were assumed that they will continue exclusive breastfeeding until the children are 6 month to 2 years old. On the other hand during the study time 137(36.83%) had discontinued breastfeeding. Among those who discontinued breastfeeding, 40(29.19%) exclusively breastfed less than three months, 45(32.85%) of them were exclusively breastfed between three to six months and 52(37.96%) of respondents were exclusively breastfed until six month. Of those mothers discontinued, only 65(17.47%) were stopped breastfeeding when their children between 6 month and two years. Generally, 97(26.07%) of mothers were exclusively breastfed their child less than 3 month, 145(38.98%) of mothers were exclusively breastfed their children between three to six month of child age and slightly more than one third of those mothers, 130(34.95%) of them were exclusively breastfed their children as recommended. Respondents were asked about their history of ANC visit during pregnancy for the current child, 366 (98.39%) of them received ANC service, of those mothers only 126(34.43%) of them were exclusively breastfed their children and from those mothers who had visited ANC facility, 253(68.01%) of mothers were informed to breastfed exclusively for six months and not to introduce pre-lacteal feeding, but only 93(36.76%) of them were exclusively breastfed. Even though 356(95.7%) of the mothers believed breast milk is well balanced nourishing food, 364(97.85%), and 368(98.92%) of them earned husband and family support on the contradictory respectively, 265(71.24%) of the respondents believed that when they sick they must stop breastfeeding. About, 106(38.97%) of mothers from governmental institutions, 19(27.14%) of mothers from private and 5(16.67%) of mothers from NGO were exclusively breastfed their children (Table 2).

Knowledge, support variables	Exclusive breastfeeding			
	Yes	N%	No	N%
ANC during your pregnancy for this child				
Yes	126	34.43	240	65.57
No	4	66.67	2	33.33
Health education on BF				
Yes	93	36.76	160	63.24
No	37	31.09	82	69.91
Should breast stop when the mother sick				
Yes	80	30.19	185	69.81
No	50	46.73	57	53.27
Breast milk is well balanced nourishing food				
Yes	123	34.55	233	65.45
No	7	43.75	9	56.25
Husband support on EBF				
Yes	127	34.89	237	65.11
No	3	37.50	5	62.50
Family support on EBF				
Yes	128	34.78	240	65.22
No	2	50.00	2	50.00
Currently BF				
Yes	78	33.19	157	66.81
No	52	37.96	85	62.04
Anticipated time to continue BF				
<=6 month	2	0.40	3	0.60
6 month-2years	36	23.53	117	76.47
Above 2 years	40	51.95	37	48.05
Age of the discontinuation of BF				
<=6 month	7	25	21	75
6 month-2years	25	38.46	40	61.54
Above 2 years	20	45.46	24	64.54
Occupational status of the mother				
Government employee	106	38.97	166	61.03
private employee	19	27.14	51	72.86
non-government	5	16.67	25	83.33

Table 2: ANC service, practices and support for exclusive breastfeeding among employed mothers on the formal sectors, Northwest, Ethiopia, 2013.

Reasons of employed mothers for stopping exclusive breastfeeding

Figure 1 indicated that 32% of the mothers stopped exclusive breastfeeding because of mothers returned to work and 24% of the mothers stopped exclusive breastfeeding due to insufficient breast milk.

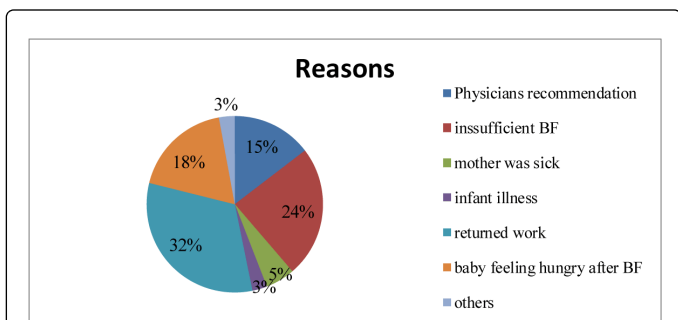


Figure 1: Reasons of employed mothers stopping EXB in the formal sectors Debre Markos, 2013.

Types of food used in the mothers

The types of food given for the children were not considered as factors for exclusive breastfeeding. This was because they were given after the discontinuation of exclusively breastfeeding. Mostly accustomed fluid in this study was Cow's milk which constituted 334(52.69%) for feeding the child, followed by porridge 151(23.19%), different baby food 127(19.51%), powder and other constituted 14(2.15%) and 9(1.38%) respectively and butter was the least used in the employed mother 7(1.08%).

Apart from identifying the important contributing types of food that affect exclusive breastfeeding either positively or negatively this study had also investigate the considered reasons why some additional food was used and their correlation because giving additional food was highly correlated with maternal characteristics so that they didn't considered as determinant factors with exclusive breastfeeding. As shown in Table 4, concerning the reasons why mothers give additional food for their children at the study time 217(21.96%) of the mother gave their children additional food since the age of child was above 6 month, 190(19.23%) gave by fearing that breast milk alone was insufficient, 226(22.87%) gave additional diet because of mother returned work, the rest 17(1.72%), 8(0.81%), 57(5.77%), 78(7.90%), 62(6.28%) and 133(13.46%) of mother were gave additional diet due to mother and child were sick, Physicians recommendation, insufficient breast milk, baby feeling hungry after breastfed and shortage of time for lactation respectively.

Utensils used by employed mothers to feed the infants

As displayed in Figure 2, the material used by mother to feed their children of which 243(34.91%) bottle users, 236(33.91%) were cup users and spoon users and finger users account 70(10.06%) and, 137(19.68%) respectively (Figure 2).

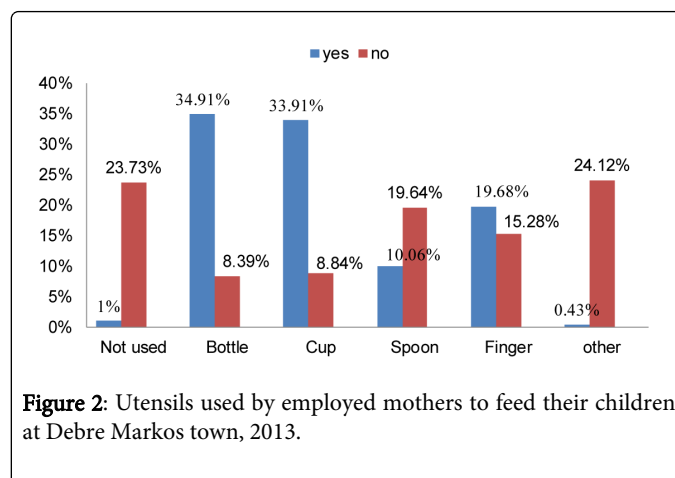


Figure 2: Utensils used by employed mothers to feed their children at Debre Markos town, 2013.

Job characteristics

Almost all of the respondents, 368(98.92%) of respondents has been working in fixed work arrangement. Two hundred seventy eight (74.73%) of the respondents have got job offers maternity leave. Of those mothers, 195 (52.42%) of the respondents have got the leave for 3 weeks. Fifty five (55.10%) of mothers with children got their maternity leave one month ago before of delivery (Table 3)

Job characteristics variables	Frequency	
	N	N%
Work arrangement		
Fixed	368	98.92
mobile	4	1.08
Allocate lighter job		
Yes	163	43.82
No	209	56.18
Job offers maternity		
Yes	278	74.73
No	94	25.27
Length of the leave		
No	94	25.27
<3wks	195	52.42
>3 wks	83	22.31
Paternity leave		
Yes	111	29.84
No	261	70.16
Length of the paternity leave		
No	261	70.16
<7 days	75	20.16
7-14 days	24	6.45
>7 days	12	3.23
Maternity leave gotten		

One month ago before delivery	205	55.11
b/n 1 and 3wks before delivery	59	15.86
At the time of delivery	108	29.03
Actual time back to work after		
2 months of delivery	35	9.41
after 3 months from delivery	241	64.78
above>=4 month of delivery	96	25.81
Flexible working time		
Yes	52	13.98
No	320	86.02
How many were working in a day		
For 8 hrs	326	87.63
For 6 to 8hrs	36	9.68
For 4 to 6 hrs	7	1.88
Less than half a day	3	0.81
Flexible time to express breast milk		
Yes	36	9.68
No	336	90.32
Postpartum leave		
Yes	125	33.60
No	247	66.40

Table 3: Job characteristics variables with EBF among employed mothers in Debre Markos town, March, 2013

Correlates of exclusive breastfeeding

In order to investigate the association of independent variables with exclusive breastfeeding both univariate and multivariate analysis were used. Those variables showed association with outcome variables at p-value of less than or equal to 0.25 in the univariate like marital status, religion, maternal educational status, occupational status, job offers leave, flexible working time, flexible time to express breast milk, postpartum leave, paternity leave, actual time back to work were selected as candidate variables for multivariable logistic regression analysis. The multivariable logistic regression analysis was used by taking all the ten factors into account simultaneously and only three of the most contributing factors remained to be significantly and independently associated with exclusive breastfeeding (job offers leave, flexible time to express breast milk and actual time mothers returned to work). Mothers who had children and got job offers leave were 1.9 times more likely to exclusively breastfed when compared to mothers who did not get job offers leave with [AOR=1.894; 95% CI (1.14, 3.15)]. Mother who had children and who had flexible time to express breast milk were 4.3 times more likely to exclusively breastfed when compared with those mother who did not had access for flexible time to express breast milk [AOR=4.26(1.97, 9.20)]. The time of employed mothers returned to work had significant association with exclusive breastfeeding in the study area. Those delivered mother who did not returned work after 3 months' of leave were 2.3 times more likely to exclusively breastfed and those delivered mother who returned after 4 month of leave were 3.4 times more likely exclusively breastfed as well when compared those mother who returned after the 2 month of leave

with [AOR=2.28, 95% CI: 1.08, 4.84], [AOR=3.38, 95% CI: 1.46, 7.87] respectively (Table 4).

Variables	EBF		Crzude OR and 95%CI	Adjusted OR 95%CI	P-value
	Yes	No			
Age					
age<-25	54	111	1	1	
age 25-35	61	103	0.821(0.52,1.29)	1.09(0.39,3.00)	
above 35	15	28	0.91(0.45,1.84)	1.17(0.45,3.08)	
Marital status					
currently in union	113	189	1	1	
currently not in union	17	53	1.86(1.03,3.38)*	1.08(0.60,1.94)	
Religion					
orthodox	125	201	0.11(0.03,0.46)*	2.30 (0.44,12.08)	
protestant	2	30	1	1	
others	3	11	0.24 (0.04,1.66)	16.20(0.81,156.80)	
Maternal Education					
<=grade 8	12	10	1	1	
grade 9-12	23	42	2.19(1.00,5.75)*	0.42(.13,1.36)	
diploma/degree	95	190	2.40(1.00,5.76)*	0.94(0.44,2.10)	
Average income					
less than 34.21 dollar	16	21	1	1	
34.21 to 157.89 dollar	80	143	1.36(0.67,2.76)	0.70(0.247,2.00)	
Above 157.89 dollar	34	78	1.75(0.81,3.76)	0.76(0.45,1.44)	
No. of children					
one child	45	79	0.92(0.58,1.44)	0.66(0.34,1.27)	
2 and above children	85	163	1	1	
Work arrangement					
Fixed	128	240	1.88(0.26,13.48)	5.09(0.31,92.90)	
Flexible	2	2	1	1	
lighter job allocation					
Yes	51	112	1.34(0.87,2.06)	0.96(0.59,1.97)	
No	79	130	1	1	
Job offers leave					
Yes	47	48	2.29(1.37,3.57)*	1.89(1.14,3.15)**	0.014
No	83	194	1	1	
Paternity leave					

Yes	48	63	1.66(1.05,2.63)*	1.33(0.72, 2.49)	
No	82	179	1	1	
Maternity leave taken					
Before one month	66	139	1	1	
Between 1 and 3wks	25	34	0.65(0.36,1.17)	2.05(0.998,4.15)	
During delivery	39	69	0.84(0.52,1.37)	0.89(0.38,2.1)	
Flexible working time					
Yes	104	216	0.48(0.27,0.87)*	0.63(0.29,1.34)	
No	26	26	1	1	
Time to express breast milk					
Yes	24	12	4.34(0.11,0.49) *	4.26(1.97,9.20) **	0.001
No	106	230	1	1	
Postpartum leave					
Yes	54	71	1.71(1.10,2.67)*	1.28(0.72,2.27)	
No	76	171	1	1	
Breast feed need					
On demand of the baby	32	34	1.97(0.83, 4.68)	0.40(0.19,1.84)	
when the child cries	11	23	1.32(0.68, 2.57)	0.59(0.23,1.54)	
On schedule	32	45	2.39(1.35,4.26) *	0.75(0.37,1.53)	
On convenience	55	140	1	1	
Time back to work					
After 2 months	18	17	1	1	0.018
After 3 month	85	156	1.94(.95,3.97)	2.27(1.08,4.81) **	0.031
After 4 month	27	69	2.71(1.22,6.01)*	3.38(1.46,7.87) **	005
Significant at p<0.05 *significant in univariate **significant in multivariate					

Table 4: Multivariate analysis of variables versus with exclusive breastfeeding among employed mothers in Debre Markos, Northwest, Ethiopia, 2013.

Discussion

The finding of this study indicated that exclusive breastfeeding rate was lowest among working mothers 34.95% when compared with WHO recommendation. Exclusive breastfeeding appears to be increase when the level of education of the mother increases 73.08%, 17.69%, 9.23% for diploma/degree, grade 9-12, and bellow grade 8 respectively.

In the current study, 34.95% employed mothers were exclusively breastfed for 6 month of age which was lower than the World Health Organization recommendation for exclusive breastfeeding for the first 6 months of life [10]. This figure is consistent with study conducted in Addis Ababa yeka sub-city in which 34.1% of mothers exclusively breastfed their children, and also consistent with 2000 EDHS in which

exclusive breastfeeding rate was 38% [11,12] but lower than the EDHS 2005, 49.0% and EDHS 2011, 52% and finding of study conducted in Tigray with 41.8% of mothers were exclusively breastfed their children for less than 6 months [6,12,13]. This finding revealed that lower prevalence during the study area. This might due to the EDHS result might be inflated by house wives, unemployed and private owners' mothers who have enough time to exclusively feeding. On the other hand the current study showed higher prevalence of exclusive breastfeeding as compared to the practice in Jimma 7.0% and study done in Dabat 18.0%, were exclusively breastfeeding for 0<6 months of age [14,15]. This might due to cultural difference between study population, and Jimma and Dabat. Also in Jimma mothers may be participated in coffee cultivations. On the other hand in Dabat there may be high work load.

The exclusive breastfeeding rate for three months by working mothers were 26.07% which is lower than the study conducted in European and Saudi Arabian women [8,16] and 34.95% for six month which similar to Kenya, Bangladesh, Vietnam and Turkey and it was contradictory at Australia and the US research [17]. But, it's very high as compared to the study done on Saudi Arabian women [16].

Of the total respondents 95.7% believed Breast milk is well balanced nourishing food. This finding was consistent with the study conducted in Addis Ababa which showed majority of respondents believed that breast milk is well balanced food (97.85%) [18]. Mothers having such knowledge are an encouraging point which contributes much to reduce morbidity and mortality among infants and children [19].

The finding of this study revealed that flexible time to express milk was significantly associated with exclusive breastfeeding which found to be similar in a study done in Malaysia [7]. This was because in both countries permission to some flexibility of working hours for mothers to express milk should not damage/did not has negative effect on the job, as the time required to express their breast milk is minimal. Breastfed babies have been found to be free from illnesses and their mothers are less likely to miss work to take care of their sick child.

Job offers maternity leave and duration of maternity leave unlike that of the Malaysia study which was conducted on breastfeeding discontinuation were associated with exclusive breastfeeding [7]. Duration of maternity leave in our country is 3 month paid leave. In other countries maternity leave classified as paid leave, partial paid leave and Unpaid leave these were the cause of longer maternity leave. The longer maternity leave lead to a better opportunity for exclusive breastfeeding.

The most common reason given for not exclusive breastfed was work-related problems that were return to work (22.9%) the next most important factor for early cessation of exclusive breastfeeding was insufficiency of breast milk (19.2%) which was the reverse in a study conducted at south western Saudi Arabia [16]. Mothers might have difficulty of remembering when she stopped breastfeeding for her child. As a result, exclusive breastfeeding discontinuation is subjected to potential recall bias.

In conclusion, the level of exclusive breastfeeding among employed mothers was low in Debre Markos town. Job offers maternity leave, flexible time to express breast milk and duration of maternity leave were found to have statistically significant association with exclusive breastfeeding.

Based on the findings of the study, the following recommendations were made:

1. For employed mothers it is advisable to use their annual leave after the end of the maternity leave.
2. For health care providers in addition to ANC service they should focus on telling about exclusive breastfeeding.
3. For Debre Markos city administrators it is advisable to give some flexible working hours to express breast milk for mother who have children.
4. For the policy makers it is advisable to revise the existing maternity leave.

References

1. Kramer MS, Chalmers B, Hodnett ED, Sevkovskaya Z, Dzikovich I, et al. (2001) Promotion of Breastfeeding Intervention Trial (PROBIT): a randomized trial in the Republic of Belarus. *JAMA* 285: 413-420.
2. Olang B, Heidarzadeh A, Strandvik B, Yngve A (2012) Reasons given by mothers for discontinuing breastfeeding in Iran. *Int Breastfeed J* 7: 7.
3. Robert E, Saul S, Jennifer B, et al. (2003) Child survival I. the lancet 361.
4. Moon, S, Tuata, M (1992) Case reports and short communications. *Pacific Health Dialog* 1: 34-50
5. Guidelines for the Enhanced Outreach Strategy (EOS) for child survival interventions (2006) FMOH/UNICEF
6. Ethiopia Demographic and Health Survey. Addis Ababa, Ethiopia: Central Statistics Agency (2011) CSA.
7. Amin RM, Said ZM, Sutan R, Shah SA, Darus A, et al. (2011) Work related determinants of breastfeeding discontinuation among employed mothers in Malaysia. *Int Breastfeed J* 6: 4.
8. Peters E, Wehkamp KH, Felberbaum RE, Krüger D, Linder R (2006) Breastfeeding duration is determined by only a few factors. *Eur J Public Health* 16: 162-167.
9. The Population and Housing Census of Ethiopia. Results at Country Level (2007) Addis Ababa, CSA Ethiopia
10. World Health Organization (2002) Report of the expert consultation on the optimal duration of exclusive breastfeeding. Geneva: World Health Organization.
11. Gebru S (2007) Assessment of breastfeeding practice in yeka sub-city addis ababa, Ethiopia master's thesis. Ethiopia.
12. Ethiopian Demographic and Health survey, 2005, Central Statistical Authority (2006) Addis Ababa CSA
13. Getachew G (2006) Feeding profile and diarrheal morbidity among 7-12 month infants in Tigray, Master's Thesis, Ethiopia.
14. Biruk KT (2002) The status of breastfeeding among mothers of children aged less than two years and implication for the occurrence of acute diarrhea, Master's Thesis, Ethiopia.
15. Assessment of Infant and Young Child Feeding Practice in Dabat town, Northwest Ethiopia, (2006) EPHA.
16. Ali M Al-Binali (2012) Breastfeeding knowledge, attitude and practice among school teachers in Abha female educational district, southwestern Saudi Arabia; *International Breastfeeding Journal* 7:10.
17. Cooklin AR, Donath SM, Amir LH (2008) Maternal employment and breastfeeding: results from the longitudinal study of Australian children. *Acta Paediatr* 97: 620-623.
18. Lakati A, Binns C, Stevenson M (2002) Breast-feeding and the working mother in Nairobi. *Public Health Nutr* 5: 715-718.
19. Berlian R (2007) Factors Influencing the Practice of Exclusive Breastfeeding in Indonesia.