

Opportunities and Barriers of Exclusive Breastfeeding in South Western Oromia, Ethiopia

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Received: 5 February 2017 Accepted: 28 February 2017 Published: 15 March 2017

Abstract

Breast milk is an optimal nutrition with no substitute for an infant. The advantage gained from exclusive breastfeeding in the first six months is paramount for the infant's health. To understand mothers' practice of exclusive breastfeeding identifying and examining factors affecting exclusive breastfeeding is vital. The aim of the current study was, therefore, to identify major factors that determine the practice of exclusive breastfeeding among South Western Oromia specifically in Jimma and Wo liso towns. Towards this end, a cross-sectional study was conducted using both quantitative and qualitative study approaches. A total of 135 mother-infant pairs attending maternal and child health (MCH) at public hospitals in the two selected towns were interviewed. Six (6) key informant interviews, 6 FGDs and observations of mother-infant conditions were conducted. Quantitative data was analyzed using SPSS and qualitative information was thematically analyzed. The breast milk initiation is 100

Index terms— exclusive breastfeeding, facilitators, barriers, oromia.

1 Opportunities and Barriers of Exclusive Breastfeeding in South Western Oromia, Ethiopia

Abstract-Breast milk is an optimal nutrition with no substitute for an infant. The advantage gained from exclusive breastfeeding in the first six months is paramount for the infant's health. To understand mothers' practice of exclusive breastfeeding identifying and examining factors affecting exclusive breastfeeding is vital. The aim of the current study was, therefore, to identify major factors that determine the practice of exclusive breastfeeding among South Western Oromia specifically in Jimma and Wo liso towns. Towards this end, a cross-sectional study was conducted using both quantitative and qualitative study approaches. A total of 135 mother-infant pairs attending maternal and child health (MCH) at public hospitals in the two selected towns were interviewed. Six (6) key informant interviews, 6 FGDs and observations of mother-infant conditions were conducted. Quantitative data was analyzed using SPSS and qualitative information was thematically analyzed. The breast milk initiation is 100% at the study site out of which 80% of them were exclusively breastfed up to two months of age while only 48.9% continue exclusive breastfeeding up to six months. Factors identified as facilitators of exclusive breast feeding include knowledge of mothers, personal satisfaction, family support, media and visits to health institutions. Working condition of some employed woman, perception of insufficient milk, health condition and advises from their family member or neighbors are identified as barriers to the practice of mothers' exclusive breastfeeding. The significance of having knowledge on practice of exclusive breastfeeding was evidenced with the logistic regression model and results from the qualitative analysis. A linear regression analysis shows that increase in mother's educational level have strong statistically significant association with level of exclusive breastfeeding. The prevalence of exclusive breastfeeding was relatively low (48.9%) hence to promote the practice of exclusive breast feeding creating supportive environment by focusing on facilitating factors and setting strategies to overcome the challenges should be the focus area for policy interventions. Further

investigation of how traditional beliefs influence the practice of exclusive breastfeeding in the rural part of the region is commendable.

2 Introduction

Exclusive breastfeeding (EBF) can be defined as giving your baby only breast milk with no supplementary feeding of any type (solid or liquid foods, water, juice or animal milk) except for minerals, vitamins and medications prescribed by a doctor or healthcare worker when medically indicated (UNICEF 2010). Nutrition experts advocate that EBF plays a great role in protecting infants against common infections and reducing the frequency and severity of infectious episodes and minimizing infant mortality by 13 percent (WHO 2001; Nankunda 2006). A report by UNICEF (1999) expresses the importance of EBF as:

If every baby were exclusively breastfed from birth, an estimated 1.5 million lives would be saved each year. And not just saved, but enhanced, because breast milk is the perfect food for a baby's first six months of life - no manufactured product can equal it.

The report shows that breastfeeding contains all nutrients needed for a baby; it plays a preventive role from diseases even from the leading ones for infant mortality; and it supports normal and healthy growth. As a result, all babies regardless of where they are can benefit from EBF. Breastfeeding also has psychosocial benefits as it lays a foundation of love; builds caring and trusting relationship between the baby and the mother (UNICEF 1999). Additionally, breastfeeding has economic benefits by reducing cost of purchasing infant formula and expenses related to medication resulted from purchased artificial food which is particularly unaffordable in developing countries. EBF is the single most effective intervention to save 13-15 percent of children's death (Gupta 2008). The practice also prevents mothers from breast and ovarian cancers (Aslam S 2010) and initiation of breastfeeding controls mother's bleeding after delivery. Generally, breast feeding has benefits for infant, mothers and the economy (Leroy, Habicht et al. 2007).

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MOH (2004) designed Ethiopian National Strategy on Infant and Young Child Feeding document realizing that there is high prevalence of inappropriate child feeding practices in Ethiopia which is better intervened at early ages of infants. According to this document, 47% were exclusively breastfed infants under six months and more than 80% continued feeding into the child's second and third year (MOH 2004). The same document stated a contrary idea to other implied findings on similar issue regarding the prevalence of introduction of complementary foods be it in solid or liquid form. The document reads (pp.2) as follows:

"Analysis of the survey also showed delayed introduction of complementary foods and more than 50% of infants aged six to nine months had not received any solid or semi-solid foods during the week preceding the survey." The National Strategy also reported the existence of harmful infant feeding practices yet the prevalence of EBF by mothers in rural areas is about 70 percent. The document recognizes the need of EBF and committing itself to WHO values attached to the practice by stating its importance as (pp. 8):

Breastfeeding provides the ideal food for healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for maternal health. As a national public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health.

Mothers, MCH health workers, program designers and policy makers need to know the major opportunities and barriers of EBF up to six months as it is being strongly recommended by authorities in the field. There are limited published research findings as far as opportunities and barriers of EBF in Ethiopia are concerned. More research is required to further validate the results of prior studies targeting both urban and rural areas in the country. This study was conducted to identify major opportunities and barriers of EBF among mother-infant pairs attending MCH at public hospitals in Woliso and Jimma towns. The specific objectives include: to assess mothers' awareness and attitude towards EBF practice, to examine the major opportunities for effective EBF, to estimate the prevalence of EBF in the study area among mothers with infants during the study time and finally to identify the major barriers (personal, cultural, and socioeconomic) mothers face in practicing EBF. Findings of this research reveal major opportunities that should be further developed to encourage the practice of EBF while making known the barrier also helps in setting action plan for intervention. Hence, it recommends ways of improving situations of the practice to potential stakeholders.

4 II.

5 Literature Review

UN organizations such as World Health Organization (WHO) and United Nations Children's Fund (UNICEF), professionals and researchers in the field recommend that infants should initiate breastfeeding within an hour of birth, exclusively feed breast milk until six months, and continue feeding breast and complementary food till two years or beyond (Sapna 2009; Al-Sahab 2010; Aslam S 2010). Researchers also suggest that mothers should be supported and receive counseling on breastfeeding in general and exclusive breastfeeding in particular from trained and/or peer counselors (Nankunda 2006; UNICEF 2010; Nankunda 2011). Victoria (2005) emphasized improving

breastfeeding needs intervention and support to bring behavioral change related to the practice. Creating positive policy environment for breastfeeding and nutrition should also get due attention. Identifying and overcoming barriers to breastfeeding is also commended in a report provided by WIC (2006).

EBF is not a popular maternity practice both in developed and developing countries although it is even lesser in the later (WHO 2001). Literature reveal that a few number of mothers exclusively breastfeed their children beyond four months. For instance, although research literature and professionals suggest that breast milk contains 88% water which is enough for infants' need of water, it is common practice to give water for infants under six months. A study conducted in Malawi showed that 4% infants only breastfed until six months whereas 65% of infants were given food in their first month (Kerr 2005). Yet in prolonged EBF until 9 to 12 months of age, some infants can thrive. However, such prolonged EBF has a risk of nutritional deficiency not only in poor countries but also in privileged ones (WHO 2001).

WHO revised its global recommendation of 4-6 months EBF prevailing before 2001 following findings from a systematic review and expert consultation on the optimal duration of EBF (Fewtrell 2007). According to Fewtrell (2007), comparison of infants who were exclusively breastfed for the first six months were less susceptible to death from gastrointestinal infection than those who started complementary foods earlier. However, these authors have reservations that EBF up to 6 months can limit infants' growth and development because of nutritional and energy deficiencies proportional to their age. Iron deficiency in susceptible infants is among such reported micronutrients. It was also recommended that WHO's recommendation should still wait for more conclusive evidence regarding the duration of EBF (Dyson 2005; Fewtrell 2007). Butte et al., (2002) evaluated whether human milk has adequate nutrients in terms of energy, protein, calcium, iron, zinc, and vitamins A, B6, and D in an assessment of the nutrient adequacy of EBF focusing on growth. Accordingly, different evidences are produced about the effects of EBF on adequacy of micronutrient need of the child. For example, the adequacy of vitamin A and vitamin B6 in human milk is highly dependent upon maternal diet and nutritional status. Maternal diet and

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nutritional status in turn depend on whether mother's population is well-nourished or not. On the other hand, EBF enables mothers to meet energy needs of their infants for 6 months. In the case of insufficient nourishment, the organization recommended corrective measures either through maternal and/or infant supplementation, or complementary feeding for infants (Butte et al., 2002). Human milk has adequate protein requirements for the first two months of life after which it needs a plus condition/s for its continuing adequacy (Butte et al. 2002; Aryeetey 2013). Prenatal stores rather than maternal complementation may serve as a source of zinc in case lower milk zinc concentrations occurs (Aryeetey 2013).

The practice of EBF till the first four months is on the rise in many developing countries (UNICEF 1999). The global trend of EBF up to six months increased in the last two decades with modest increment in the developing countries; the prevalence increased in all developing regions where as Central and West Africa showed the biggest improvement (Cai, Wardlaw et al. 2012). Central and West Africa was among the lowest (only 20 percent) among all regions in the world (Sokol E 2007). According to UNICEF (1999), among the top ten developing countries, Ethiopia (74%) ranked 8 th whereas Mongolia (93%), Rwanda (90%) and Burundi (89%) respectively ranked first to third based on per cent of babies exclusively breastfed under four months old. Compared to the 90 percent 'Universal Coverage' target even for infants aged less than four months (Jones G 2003), Ethiopia's coverage is far lower.

The existence, initiation and duration of EBF varies depending on various biological, bio-social, economic, socio-demographic, cultural and personal factors as well as employment policies. Maternal education, marital status, economic status and infant's age are among the determinant factors strongly influencing the practice. On the other hand, maternal age, place of residence, current employment of women, and access to mass media, attending antenatal care, and sex of the child have no correlation with the practice (Tewodros 2009). High prevalence rate (56%) of EBF up to six months is observed in Arba Minch area rural communities as reported by (Dessalegn 2013) even though it is among the lowest achievement relative to WHO's Universal Coverage recommendation. These author also found strong association between optimal breastfeeding and maternal knowledge, number of births, attending antenatal care, having radio, using family planning and giving birth in the hands of health workers (Dessalegn 2013). Maternal knowledge in turn was strongly associated with paternal educational level. Abera (2012) reported 52% EBF practices among women living in Harer. According to this report, mothers with better income, who follow antenatal care, and delivered in healthcare institutions practice more EBF than their respective counterpart mothers. Similar investigations has been conducted on determinants of timely initiation of breastfeeding among mothers in Goba Woreda (Setegn 2011).

The rate of breastfeeding, timely initiation, and exclusive breastfeeding in Mekele was 98.9%, 60.8%, and 77.9% respectively (Berhe H 2013). Mothers commonly introduce supplementary feeding such as water as early as two months and they consider bottle feedings as a good practice because they assume that bottling keep the food clean. Breastfeeding pattern among immigrant mothers to Israel is found better compared to native mothers in the country. EBF was among the highest (92 percent) for children born in Ethiopia whereas 76 percent for Israeli born children (Rubin 2010). Moreover, immigrant mothers' attitude towards breastfeeding was found positive and duration of breastfeeding was longer than native mothers.

7 III.

8 Theoretical Framework

This research used Salutogenic approach as a guiding principle to look for what creates health and wellbeing than looking for defects(Antonovsky 1996). Thus attention is given for factors that help mothers in practicing EBF. Besides, the study also investigated factors that hinder the practice of EBF which can also directly help to trace out facilitating factors. Salutogenic has two core concepts which is generalized resistance resources (GRRs) and sense of coherence (SOC). The SOC is life orientation or the person's view of life and capacity to respond to stressful situation ??Antonovsky 1996). SOC also provides capacity to use GRRs. According to Lindström and Eriksson (2009),Volume XVII Issue II Version I 1 (C)

Salutogenesis is the process of enabling individuals, groups, organizations and societies to emphasize on abilities, resources, capacities, competences, strengths and forces in order to create a sense of coherence and thus perceive life as comprehensible, manageable and meaningful.

The GRRs can be identified at the individual, family and community levels. According to current studies, GRRs can be any material or non-material resources that encourage the mothers in making practical EBF. People have to be able to use the key elements mentioned in order to control, cope with or overcome barriers as well as taking advantage of the opportunities around them to reach or maintain good health and wellbeing (Lindström and Eriksson 2009). Identifying these resources helps in encouraging breast feeding mothers to use the available resources and opportunities to overcome the challenges they face. These challenges can be any sociocultural constraints including attitude that can be forwarded by her family member or neighborhood that can undermine the importance of EBF. Encouraging mothers to provide water besides breast milk to prevent the feeling of thirsty is an example of such constraints.

In this study, the available resources at individual, family, community and the health care system levels were considered. The available resources at individual level such as knowledge towards the importance of EBF; their attitude and their experiences of dealing with similar cases were also investigated especially if they have children before. At community level, the existence of family support, social support, the availability of supportive education or counseling on EBF& the way they process the information they got from their counselors/friends/peers and from health professionals were also assessed.

Identifying these resources contributes to the knowledge of GRRs. When people perceive that GRRs are available for them, they can easily deal with the challenges. Dealing with stressful situation by using available resources will help them in mastering their life situation and adapting to a healthy behavior which means manageability of life. Mothers who developed the skill of using these available resources or any opportunities that enables them in making practical exclusive breastfeeding by overcoming the challenges would be said to have strong sense of coherence. Having knowledge of these resources will help in encouraging the practice of EBF which in turn promotes health and well-being. The breast feeding practices has dual health benefits, both for the mother and child as it prevents infant mortality rate and the chance of developing breast cancer. Identifying the enabling factors also helps the service providers in encouraging mothers to exclusively breast feed their children by using the available resources and opportunities. In addition, identifying the barriersbenefits the policy makers and other concerned bodies in setting strategy on how to tackle the challenges which in turn promotes health and well-being.

9 IV.

10 Research Methods

A health institution based cross-sectional study was conducted in south west Ethiopia inJimma and Woliso towns. A mixed approach of qualitative and quantitative methods was used to carry out the study and data were collected from breastfeeding mothers who have infants from 45 days of age to one year. The study was performed from March 1 up to April 30, 2015. All breast feeding women with an infant of 45 days of age to one year living in Jimma and Woliso coming to health institutions in the towns were considered as source population. Including all breastfeeding mothers was not possible due to factors associated to economic and time feasibility. Thus, convenient sampling was performed to determine the study population considered for the study. Accordingly, 135 breast feeding mothers were included.

A semi-structured close and open ended questionnaire was used for an interview. A check list guided in-depth interview was performed. The quantitative data was triangulated with information obtained through observations, key-informant interview and focus group discussions (FGDs). Mothers with infants of 45 days of age to one year were selected to minimize recall bias on their experiences of EBF. This study only considered mothers visiting MCH clinics for child vaccines, family planning and other MCH services to avoid repeated consideration of mothers.

The quantitative data collected through semistructured questioners was double edited, coded and analyzed using software package for social scientists (SPSS v.20). Descriptive statistical analysis involving frequencies of respondents is presented to indicate the socio-demographic characteristics of the populations and the prevalence of EBF according to the residents. Factors presumably significant to determine the EBF were analyzed using regression models to indicate the likelihood of their degree of associations. The degree of statistical significance

was determined at 95% confidence interval with margin of error of 5%.The data obtained through extended interview and focus group discussion was analyzed qualitatively by using thematic approach. New emergent ideas or themes are grouped into different categories and interpreted. Confidentiality, oral consent and voluntary participation were considered in data collection and analysis processes.

V.

11 Results and Discussions

This section deals with major findings of the study which are presented under different themes in line

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with the specific objectives of the study. Simultaneously, the major findings are discussed in relations to other similar studies.

13 a) Socio-demographic characteristics of respondents

Table 1 shows the socio-demographic characteristic of the study participants. Totally 135 individuals were interviewed, out of which seven of them are under 18yrs. The largest age group (45.9%) is between the ages of 25-30 years and (37.8%) is between 18-24 years of age groups. The largest (80%) of the study participants were from urban areas. This might be due to high accessibility of urban mothers to available health facilities in the town. Majority of them (71.9%) are unemployed mothers and 17.8% of the participants are unable to read and write. The high unemployment rate could be due to the fact that the largest study participants were housewives who are dependent on their husbands' income. The data from six key informant interviews and six FGDs were also included in the analysis. The prevalence of breastfeeding and EBF practice of mothers are presented in Table 2. Data shows a 100% initiation of breastfeeding, out of which 48.9% practiced EBF up to the age of six months. This result is relatively comparable with the national level prevalence rate (52%) but greater than the results presented in WHO (2015). Out of the rest about 35% of feed breast milk mixed with water and 16.3% feed with milk. About 30% reported as they started additional feeding (i.e. water and milk) below the age of 2 months. Among sub-groups, the percentage of young children who are exclusively breastfed decreases sharply from 80% of infants of age <2 month to 62% of those age 2-3 months and to about 54% among infants of 4-5 months. This pattern is similar to Ethiopian Health Demographic Survey data of 2011 (CSA 2011). These mothers are asked their reason of starting to give additional feed other than breast milk. Most of them responded that breast milk is not sufficient for their baby and to avoid their thirsty. Feeding only breast milk up the age of six months can be affected by several factors. These factors can be facilitative which encourage mothers to feed their babies only breast milk or hindering factors which enforce mothers to feed additional nutrition in addition to breast milk in less than six months of age. These factors are identified and presented as facilitative and hindering factors based on the quantitative and qualitative evidence. Some of the factors can be considered as both facilitators and barriers which require careful interpretations. For instance, having sufficient knowledge can be facilitator while lack of it can be considered as barriers for mothers to feed their baby only breast milk up to the age of six months. Thus, such kind of factors are interpreted in this study with great care. Both factors (facilitators and barriers) can be attributed to individual, family, society or institution. Accordingly, knowledge of mothers, personal satisfaction, family support, media and visit to health institutions are some of the factors identified at individual, family and organizational levels. 3, 77 mothers from urban and 23 from rural or (74.1%) of the study participants have knowledge of EBF. However, having sufficient knowledge may not imply good practice. Even though about two-third of the study participants are knowledgeable on EBF, less than 50% reported practicing it (Table 3). Evidence from the qualitative analysis also shows similar results. Thus, most mothers have favorable attitude towards EBF but they are hesitating to rely only on breast milk for six month duration. The significance of having knowledge on practice of EBF was evidenced with the logistic regression model results (Table 4). Accordingly, women with knowledge of EBF are more likely to practice it as evidenced with strong statistical association. This study is in line with the study conducted in Arba Minch in 2013 that shows knowledge has strong association with optimal breastfeeding (Dessalegn 2013) while it differs from the finding of a study conducted in Jamaica where knowledge and practice of mothers on EBF vary (Chatman, Salihu et al. 2004). A linear regression analysis shows that increase in mother's educational level has strong statistical significant association with level of EBF. Educated mothers are 1.7 times more likely to feed their babies exclusively with breast milk [1.7; 95%, CI, 1.4-1.9]. As a participant (22yrs old woman) in the study mentioned, there are challenges that they sometimes experience that can compromise the practice of EBF as "My neighborhood advises me to give water for my child mentioning that the child feels thirsty but I refused them and continued to give only breast milk." This woman has a good knowledge about the benefit of exclusive breast feeding as she mentioned during the interview and she could manage to practice regardless of peer pressure. However, others introduce water and additional food item like milk because of advices of their family members or neighborhoods. A 28yrs old woman described her experiences as follows, "I gave water to my baby at his two months of age to please my neighbors because they repeatedly told me that he feels thirsty." VI.

14 Organizational Factors

Moreover, many of them mentioned that the involvement of mass media in promoting EBF was also encouraging mothers to practice it. The frequently mentioned sources of information are TV and Radio, education transmitted through published materials such as leaflets. This was observed during the data collection when these mass media are used as means of information dissemination on EBF. Several opportunities were raised as facilitative approach for EBF by FGD participants. Arrangement of nursery in organizational setup for breast feeding employed mothers can be a good opportunity that can encourage EBF and keep mothers in work. In line with the current study, other scholars also mentioned that providing counseling and education on breastfeeding can enhance the practice of EBF (Nankunda 2006; UNICEF 2010; Nankunda 2011).

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16 Exclusive breast feed

The roles health professionals play in improving the practice of EBF is not easy. As many of the participants reported during the interview, approaches of nurses and doctors are encouraging. The participants of key informant interview also mentioned similar point. As some of the key informant interviewees reported, the health institutions use several approaches to promote EBF. Some of the approaches they mentioned are individual counseling during the ANC follow ups, postnatal education after delivery especially for those who gave birth at health facilities and mass health education. A 25 yrs. old nurse as key informant in in-depth interview stated service approaches they use at Woliso St. Luke hospital as "We appoint a mother who gave birth at this hospital on 14 th day for postnatal follow up to take weight of the baby and monitor mother's condition if any problem was faced when feeding breast milk; then counseling is provided." a) Barrier to Exclusive Breastfeeding Among those who claim the existence of challenges for EBF, the frequently mentioned were working condition of employed women, perception of insufficient milk, health condition, and advice from their family member or neighborhoods. For some employed mothers, their working condition is a challenge that hinders them from using exclusive breast milk. As a reason for initiation of additional feeding, some of them mentioned that they have to return back to their job as soon as they finished their maternity leave. The issue of maternity leave was a hot agenda for discussion during FGDs. As many of them mentioned, for an employed mother practicing EBF is a dream that can't be true. The participants mentioned that knowing the benefit of EBF cannot be sufficient to encourage the practice unless suitable conditions are arranged for employed mothers. As a result, several options like prolonging maternity leave for six months or arranging nursery at work places were suggested by FGD and interview participants to encourage breastfeeding. Otherwise, EBF remains a challenge for employed mothers who are unable to feed breast milk every two hours. During the interview we encountered two mothers who quit their job to breastfeed their baby. One 22 years old mother presented her case as "Practicing EBF is unthinkable with my working condition so I decided to quit my job and continue to take care of my baby." This mother mentioned that she tried her best to make her baby start additional feeding before two months of age thinking that she has to return back to her job. But as she reported her baby refused to adapt to bottle feeding and lastly she decided to quit her job. There are also other mothers who reported similar cases but some of them tried to keep breast milk at home by milking it manually and keep on feeding their baby using bottle. Some mothers perceive their breast milk is not sufficient to their baby to provide appropriate nutrient. Similar to the current finding, the study conducted in Ghana in 2013 also showed that some breast feeding mothers perceive that their breast milk is not sufficient (Aryeetey 2013). Besides, some also mentioned promotion of processed powdered milk as the cause of misperception and initiation of additional feeding earlier.

For instance, some think that their baby feels thirsty that they introduce water as a supplement. The practice of breast feeding varies from culture to culture as it was also evidenced in other studies (Leong 2011). Hence, for breastfeeding mothers to overcome the challenges they face like advices from their families or neighbors that compromise the practice of EBF, regular counseling has to be given. Counselors can guide the breastfeeding mothers towards the desired behavior by shaping number of identified beliefs that can challenge the practice of EBF (Y. K. Bai 2009). As another challenge, some service providers mentioned the existence of work load that enforces them to ignore counseling on breastfeeding by only focusing on the services that the mothers are in need by the time of her visit.

17 VII. Conclusion and Recommendation

This study was conducted to understand facilitators and barriers of EBF in Jimma and Woliso towns in south western Oromia. The study concluded that breastfeeding mothers who have less awareness about the importance of EBF can easily be influenced by their neighbors or family members that can undermine the practice of EBF. Besides, strong promotion of the advantages of EBF by national and international stakeholders contradicts with government's lack of commitment to create workable conditions for employed women. These aforementioned conditions tend to be similar across regions in Ethiopia. Therefore, one can easily conclude that optimal level of EBF practice is less likely to be achieved in the country unless these two factors are properly addressed. Hence, to promote the practice of EBF, health service providers should provide ongoing counseling and policy makers have to give attention to creating supportive environment for breast feeding mothers as well as for service providers.

338 Factors identified as facilitators have to be enhanced while barriers have to be minimized or avoided to encourage
 339 EBF. Further research is required to investigate how traditional beliefs influence the practice of EBF in Ethiopia.

1

participants					
Characteristics		Residence	Urban	Rural	Total %
Education	Not able to read & write	14	10	24	17.8
	primary and secondary	37	8	45	33.3
	high school and above	57	9	66	48.9
	Total	108	27	135	100.0
Occupation	Unemployed	75	22	97	71.9
	Employed	33	5	38	28.1
	Total	108	27	135	100.0
Age	<18	3	4	7	5.2
	18-24	46	5	51	37.8
	25-30	49	13	62	45.9
	31-36	9	4	13	9.6
	>36	1	1	2	1.5
	Total	108	27	135	100.0

b) Prevalence of Exclusive Breast Feeding

Figure 1: Table 1 :

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2

Characteristics of breastfeeding	population		Residence			%
	Months		Urban	Rural	Total	
Exclusive breastfeeding	<2		37	6	43	31.9
	2-3		15	3	18	13.3
	4-5		6	2	8	5.9
	>=6		50	16	66	48.9
	Total		108	27	135	100
With water	<2		25	4	29	21.5
	2-3		10	2	12	8.9
	4-5		4	2	6	4.4
	Total		39	8	47	34.8
With milk	<2		12	2	14	10.4
	2-3 4-5	5 2	1 0	6 2	4.4 1.5	
	Total		19	3	22	16.3

c) Factors Determining Exclusive Breastfeeding

Figure 2: Table 2 :

3

Characteristics		feeding		Residence			%
		Urban	Rural	Total			
Have	Yes	77	23	100			74.1
Knowledge	No	31	4	35			25.9
about EBF	Total	108	27	135	100.0		
Breast feeding prac- tice	Exclusive	50	39	16	8	66	48.9
	With water	19		47	22		34.8
	With milk			3			16.3
	Total	108	27	135			100

Figure 3: Table 3 :

4

Factors	practice			95% CI .for	
	B	Sig.	Exp(B)	EXP(B)	
Knowledge of mothers	3.4	0.00	29.3	6.6	129.4
Occupation of mothers	0.38	0.31	1.5	0.7	3.1
ANC visit	1.08	0.35	2.9	0.3	29.1
Husband's education	0.34	0.18	0.7	0.4	1.18

Figure 4: Table 4 :

5

: Linear regression showing association of
mothers' education with exclusive breast feeding

	Unstandardized Coefficients B Std. Error	Sig.	95.0% Confidence Interval for B Lower Bound Upper Bound
Education	1.7	0.139 .000	1.4 1.9

Figure 5: Table 5

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