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Badondor Shylla
Epidemiologist and Project
Coordinator, Center for the
Study of Complex Malaria in
India (CSCMI), Indian
Institute of Public Health
(IIPH-Shillong)
Lawmali, Pasteur Hill,
Shillong, Meghalaya, India

Mebarika Toi
M.Sc. Nursing Student, College
of Nursing, NEIGRIHMS,
Shillong, Meghalaya, India

Nochovono Tase
Lecturer, Department of
Pediatric Nursing, Shillong,
Meghalaya, India

Jodibala Haobijam
Lecturer, Department of
Obstetrics and Gynecology
Nursing, Shillong, Meghalaya,
India

Dr. Himashree Bhattacharyya
Assistant Professor,
Department of Community
Medicine, Shillong,
Meghalaya, India

Corresponding Author:
Badondor Shylla
Epidemiologist and Project
Coordinator, Center for the
Study of Complex Malaria in
India (CSCMI), Indian
Institute of Public Health
(IIPH-Shillong)
Lawmali, Pasteur Hill,
Shillong, Meghalaya, India

Knowledge, practice and barriers of exclusive breastfeeding among mothers in East Khasi hills district, Meghalaya, India: A mixed method study

**Badondor Shylla, Mebarika Toi, Nochovono Tase, Jodibala Haobijam
and Dr. Himashree Bhattacharyya**

Abstract

Introduction: The benefits of Exclusive Breastfeeding are widely recognized, yet worldwide a large number of infants are not exclusively breastfed. WHO recommends Exclusive Breastfeeding for the First 6 months? In India, as per NFHS 4 (2015-16) reports, Exclusive Breastfeeding rate is 54.9%. Meghalaya has a low Exclusive Breastfeeding rate of 35.8% only. Low rate of Exclusive Breastfeeding imply that mothers in this region are constantly facing multiple barriers which limit them to exclusively breastfeed their infants. Understanding these barriers is crucial.

Aim of the study: To assess Knowledge, Practice and Barriers of Exclusive Breastfeeding.

Methodology: A Cross sectional study was conducted in areas under Mawlai Nongkwar UHC which was chosen randomly. The data collection period was 1 month. 181 mothers having children aged less than two years were recruited out of which 15 mothers were chosen purposely for the in-depth interview which aimed at identifying the barriers. Data collected using structured and semi-structured questionnaires.

Results: Out of 181 mothers, 175 mothers have knowledge about duration of Exclusive Breastfeeding (i.e. Six months). The Mean Knowledge score was found to be 13.425 ± 2.1085 and the Median score is 14. Based on the Median score, 126 (69.6%) mothers were found to have adequate knowledge about Exclusive Breastfeeding. The Exclusive Breastfeeding rate found in the study is 44.2%. Majority of the mothers i.e. 56.65% use bottle for feeding and Prelacteal feeding is practiced by 10.5%. Association was found between Exclusive Breastfeeding Practice and Mother's Occupational status. The common issues that emerged from the qualitative survey regarding barriers to Exclusive Breastfeeding are- Breast milk alone not sufficient to satisfy baby's hunger, Exclusive Breastfeeding affecting mother's day to day life, problems encountered during breastfeeding, influenced decision by family members and others, mothers returning to work and baby's health condition at birth.

Conclusion: The present study shows that although mothers have knowledge about Exclusive Breastfeeding but still they fail to practice due to various barriers. Unless these barriers are addressed, Exclusive Breastfeeding will remain a distant dream.

Keywords: Barriers, Exclusive Breastfeeding, Knowledge, Practice

Introduction

The benefits of Exclusive Breastfeeding for both the mother and the infant are widely recognized and researched. Considering the extensive benefits of breastfeeding, World Health Organization (WHO) recommends Exclusive Breastfeeding for the First Six months of life and continued breastfeeding up to Two years of age or beyond ^[1].

Exclusive Breastfeeding reduces infant mortality due to common childhood illnesses such as diarrhea or pneumonia, and helps for a quicker recovery during illness ^[1]. Infants aged 0-5 months who are not breastfed have 7- fold increased risk of death from diarrhea and 5 – fold increased risks of death from pneumonia as compared to infants who are exclusively breastfed ^[2].

Need for the study

Worldwide a large number of infants are not exclusively breastfed as per infant feeding recommendations. According to the United Nations International Children's Emergency Fund (UNICEF) global database 2015 only 38% of infants less than six months of age are exclusively breastfed worldwide while in South Asia, 47% are exclusively breastfed ^[3]. India as per the National Family Health Survey 4 (NFHS 4) 2015-16 report, Exclusive Breastfeeding rates is reported to be 54.9%.

As per the NFHS 4 report, Meghalaya has a low percentage of about 35.8% of infants less

than six months of age who are exclusive breastfed^[4]. Even though Meghalaya has a low Exclusive Breastfeeding rate, the reasons as to why this essential infant feeding practice is unsatisfactory remains unclear and very few studies have been conducted in this region. Low rate of Exclusive Breastfeeding imply that mothers in this region are constantly facing multiple barriers which limit them to exclusively breastfeed their infants. Understanding these barriers is crucial so as to promote this essential feeding practice in infancy. By identifying the barriers of Exclusive Breastfeeding, new strategies can be developed to promote Exclusive Breastfeeding in Meghalaya.

Objectives of the study

1. To assess the knowledge and practice regarding Exclusive Breastfeeding among mothers having children aged less than two years.
2. To identify the barriers towards Exclusive Breastfeeding among mothers having children aged less than two years.
3. To determine the association between mothers' demographic characteristics and Exclusive Breastfeeding practice.
4. To determine the association between knowledge and Exclusive Breastfeeding practice.

Methodology

After obtaining Institutional Ethical clearance and Administrative permission, a Community based Cross sectional study was conducted using Mixed Method approach (both quantitative and qualitative methods). The study setting was chosen by Cluster random sampling, where an Urban Health Center was chosen randomly by lottery method from a total of 13 UHCs in East Khasi Hills District. Pretesting of the tool for testing reliability and Pilot study was conducted in Pynthorbah Urban Health Center. The Final study was conducted on January 2018 in Mawlai Nongkwar Urban Health Center in East Khasi Hills District

which was chosen randomly as the setting for the study. Further, 5 blocks which are under this Urban Health Center were chosen randomly by lottery method and all the mothers who met the inclusion criteria who resides in these 5 blocks were recruited for the study. For the qualitative part of the study, i.e, for the identification of the barriers towards Exclusive Breastfeeding a Purposive sampling was done, in which those mothers who do not practice Exclusive Breastfeeding were chosen purposely.

Considering the prevalence of Exclusive Breastfeeding as 35.8% in Meghalaya (as per NFHS 4 data) and taking 7% as margin of error, the sample size was calculated to be 180. However, in the study 181 mothers were included and based on data saturation, 15 mothers were purposely chosen for the in-depth interview.

Study procedure

Participants were informed about the purpose of the study and informed consent was taken from those participants who met the inclusion criteria. Quantitative data was collected first by structured questionnaire interview which assessed Demographic and Obstetric characteristics, Knowledge and Practice regarding Exclusive Breastfeeding. Then based on the practice, if practice was found desirable i.e. exclusively breastfed till six months data collection ended here and participants were given a leaflet which contained information regarding Exclusive Breastfeeding. But if practice was found to be undesirable i.e. not exclusively breastfed till six months then using purposive sampling technique those participants were further selected for Qualitative data collection in which Semi-structured questionnaire was used for an in-depth interview to identify the Barriers towards Exclusive Breastfeeding. The interview was audio recorded. After the interview, data collection ended and the participants were given a leaflet which contained information regarding Exclusive Breastfeeding.

Findings related to samples' characteristics

Table 1: Frequency and Percentage distribution of Samples' Demographic n = 181

Sl. No.	Sample characteristics	Frequency (f)	Percentage (%)
1.	Age (in years)		
	18-23	40	22
	24-29	65	36
	30-35	56	31
	36-41	16	8.8
	42-47	4	2.2
2	Educational status		
	Post graduate or professional degree	4	2.2
	Graduate degree	26	14.36
	Higher secondary certificate	26	14.36
	High school certificate	24	13.26
	Middle school certificate	31	17.1
	Primary school	51	28.18
Illiterate	19	10.5	
3	Occupational status		
	Stay-at-home mothers	131	72.4
	Working	47	26
	Student	3	1.6
4	Type of family		
	Joint family	71	39.2
	Nuclear family	110	60.8
5	Marital status		
	Married	170	94
	Separated	10	5.5
	Widow	1	0.5

Result

The quantitative data were analyzed using descriptive statistics (Mean, Median, Standard deviation and Percentage) whereas qualitative data were thematically analyzed.

Table 1 shows that 65 mothers (36%) are within the age group between 24-29 years. With regard to Educational

status, 51 mothers (28.18%) have Primary level schooling, 4 mothers (2.2%) have Post graduate degree and 19 mothers (10.5%) are Illiterate. Majority are Stay-at-home mothers i.e. 131 (72.4%). Majority i.e. 110 (60.8%) comes from nuclear type of family and Marital status wise, majority 170 (94%) are married whereas only One (0.5%) was a Widow.

Table 2: Frequency and Percentage distribution of Samples' Demography characteristics n = 181

S. N.	Sample characteristics	Frequency (f)	Percentage (%)
1.	Parity		
	Primipara (1 child)	51	28.176
	Multipara (2-3 children)	81	44.75
	Grand multipara (≥4 children)	49	27.02
2	Antenatal clinic attended		
	Yes	175	96.7
	No	6	3.3
3	Place of delivery		
	Health facility	166	91.7
	Home	15	8.3
4	Mode of delivery		
	Vaginal	147	81.2
	Caesarian section	34	18.8
5	Postnatal clinic attended		
	Yes	122	67.4
	No	59	32.6

The findings related to Obstetric characteristics in table 2 shows that 80 mothers (44.75%) have 2-3 children. 175 (96.7%) out of 181 mothers attended antenatal clinic with Institutional delivery rate of 91.7%. Majority (81.2%) had vaginal delivery and 67.8% went for postnatal follow-up after delivery.

Findings related to knowledge and practice.

With respect to knowledge, the average knowledge score is 14. Mean ± SD is 13.425 ± 2.1085 and the Median is 14 Figure 2 reveals that as many as 95.58%, knows that the duration of Exclusive Breastfeeding is up to six completed months.

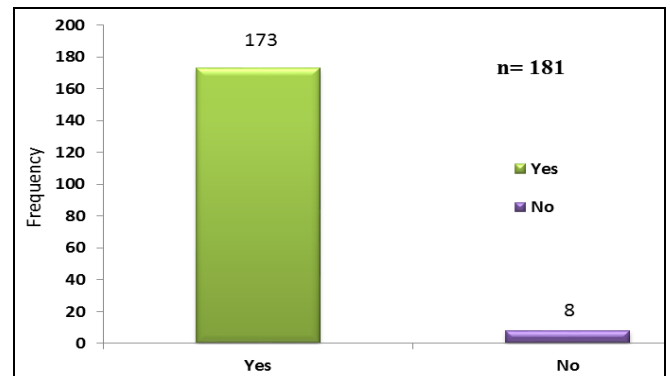


Fig 2: Distribution of Participants according to Knowledge regarding duration of Exclusive Breastfeeding

Figure 2 reveals that as many as 95.58%, knows that the duration of Exclusive Breastfeeding is up to six completed months.

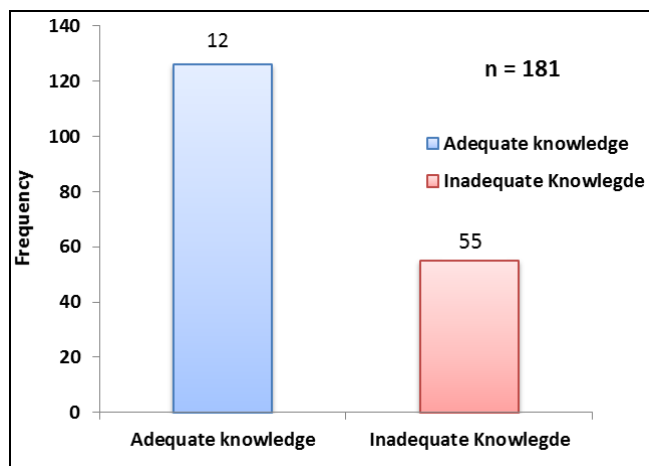


Fig 1: Distribution of Participants according to Knowledge Score regarding Exclusive Breastfeeding

Figure 1 depicts that majority, 126 mothers have adequate knowledge regarding Exclusive Breastfeeding

Table 3: Frequency and Percentage distribution of Participants according to Practice. n = 181

Practice	Frequency (f)	Percentage (%)
Exclusive Breastfeeding		
Desirable	80	44.2
Undesirable	101	55.8
Bottle feeding		
Yes	102	56.65
No	79	43.35
Prelacteal feeding		
Yes	19	10.5
No	162	89.5

Findings depicted in Table 3 shows that only 80 (44.2%) out of 181 mothers practice Exclusive Breastfeeding up to the recommended age. Bottle feeding was found to be practice

by 56.65% mothers and prelacteal feeding practice with sugar water and formula milk by 10.5% only.

Findings related to association between Mothers' characteristics, knowledge and exclusive breastfeeding practice.

In the study, computed Chi-square shows association between Mothers' Occupational status and Exclusive Breastfeeding practice. It was found that stay-at-home mothers tend to exclusively breastfeed their infants more than working mothers.

Finding related to identification of barriers of exclusive breastfeeding.

The barriers of Exclusive Breastfeeding were identified by collected qualitative data through in-depth interviews among 15 mothers who were chosen purposively based on practice.

After careful, thorough and in-depth reading of the written transcripts, six themes were identified based on the coding of the responses obtained from the interviews. Findings are reported using thematic analysis. The six themes are:

1. Breast milk alone is insufficient for the baby: 10 out of 15 participants stated that the main reason for early weaning is because they think that breast milk alone is not sufficient for the baby.
2. Inconvenience to the mother: Some mothers mentioned problems like sleepless nights, time bound and inability to carry out other household works when they exclusively breastfeed.
3. Perceived maternal problem: Some mothers even mentioned that they have problem with breastfeeding because the baby does not suckle well and also milk production is not sufficient. Exclusive Breastfeeding till six months makes it difficult to wean the baby is also one of the problem mentioned by one mother.
4. Influenced decision: 11 out of 15 mothers mentioned that someone advised them to do or it is because they have seen others do so.
5. Working mothers: Among the working mothers the sole reason for early weaning is because they have to return back to work.
6. Baby's condition: Baby's health condition at birth is also found to be one of the reasons for failure of Exclusive Breastfeeding.

Discussion

The present study aimed to assess the Knowledge, Practice and Barriers of Exclusive Breastfeeding among mothers having children aged less than two years in selected areas of East Khasi Hills District.

Exclusive Breastfeeding rate was found to be 44.2% in the present study. This is higher than the findings of the National Family Health Survey-4 (NFHS-4) conducted in 2015-16 [8] where Exclusive Breastfeeding rate was reported to be 35.8% in Meghalaya and lower than the rate reported in the study conducted in the same district of Meghalaya in 2012 by Pala *et al.* which was 59% [5].

According to the present study, it was found that majority i.e. 69.6% of mothers have adequate knowledge regarding Exclusive Breastfeeding and 95.58% have knowledge regarding the duration of Exclusive Breastfeeding. These findings are in consistent with the findings reported by Vijayalakshmi *et al.* (2014) [6] where 85.2% of the mothers

were aware of Exclusive Breastfeeding [6] and findings reported by Tadele *et al* (2015) where 94% have knowledge that Exclusive Breastfeeding should be given for 6 months [7].

The present study revealed that the rate of prelacteal feeding practice is 10.5% which is lower than the findings by Pala *et al.* (2012) [5] where it was reported to be 21.75% [5]. The present study also revealed that the rate of bottle feeding is 56.35%, which is slightly lower than the findings reported by Lokare *et al.* in 2015 in Karnataka [8].

Association was found between Mothers' Occupational status and Exclusive Breastfeeding Practice in the present study, where mothers who stay-at-home are more likely to exclusively breastfed their infants than working mothers. This is in consistent with the study by Mohamed *et al.* (2015) [9] where there was association between occupation and Exclusive Breastfeeding, where housewives were found to exclusively breastfeed their infants.

Barriers to Exclusive Breastfeeding that were identified in the present study are- breast milk alone not sufficient to satisfy baby's hunger, Exclusive Breastfeeding affecting mother's day to day life, problems encountered during breastfeeding, influenced decision by family members and others, mothers returning to work and baby's health condition at birth. This is in correspondence to many studies carried out previously. A study by Vijayalakshmi *et al.* (2014) [6] also reported that the common reasons for early weaning were insufficient milk, to calm down the baby and believed that breast milk alone is insufficient for a growing baby. Other findings such as stress and boredom associated with regular breastfeeding of babies and influenced by mother-in-law were also reported in a study by Ella *et al.* (2016) [10]. A qualitative study by Seidu in Ghana (2013) [11] showed that breastfeeding mothers' quests to exclusively breastfeed were regularly influenced by their families' beliefs and practices over which they lacked control. Tekle who studied about the barriers to compliance to Exclusive Breastfeeding in South Africa in 2015 also reported that, those mothers who did not exclusively breastfed till six months perceived that only breast milk will make the child hungry, it will not help the child to adapt to other foods when the child is ready for complimentary foods and that breast milk alone does not make the baby strong and healthy [12].

The limitation of the study is since the study group was mothers having children up to two years, there could be a chance of recall bias as they had to recall from their memory and answer the questions.

One of the main recommendations is that a similar study can be carried out by interviewing those mothers who were able to exclusively breastfed their infants up to the recommended age and explore how they overcame the barriers.

Conclusion

Findings of the study reveal that although mothers have adequate knowledge regarding Exclusive Breastfeeding, they still fail to practice due the presence of certain barriers that limits them to practice. Unless these barriers are addressed, Exclusive Breastfeeding will remain a distant dream.

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