ORIGINAL ARTICLE

Assessment of Knowledge, Attitude & Practices regarding Breast Feeding among Lactating Mothers in urban areas of Srinagar Garhwal, Uttarakhand

Gajalakshmi S, Janki Bartwal, Chandra Mohan Singh Rawat, Nidhi Nautiyal
Department of Community Medicine, Veer Chandra Singh Garhwali Government Institute of Medical Science & Research, Srinagar Garhwal, Uttarakhand- 246174

CORRESPONDING AUTHOR
Dr Janki Bartwal, Associate Professor, Department of Community Medicine Veer Chandra Singh Garhwali Government Institute of Medical Science & Research, Srinagar Garhwal, Uttarakhand - 246174
Email: jankibartwal@yahoo.in

CITATION
Gajalakshmi S, Bartwal J, Rawat CMS, Nautiyal N. Assessment of Knowledge, Attitude & Practices regarding Breast Feeding among Lactating Mothers in urban areas of Srinagar Garhwal, Uttarakhand. Indian J Comm Health. 2024;36(5):647-653. https://doi.org/10.47203/IJCH.2024.v36i05.005

ARTICLE CYCLE
Received: 03/07/2024; Accepted: 03/10/2024; Published: 31/10/2024

ABSTRACT

Background: Breastfeeding is widely recognized as the most crucial measure for lowering infant mortality rates and promoting optimal growth and development in children. However, its practices and implementation remain limited. According to NFHS-5 only 63.7% of the children were exclusively breastfed. **Objectives:** The study aims to assess lactating mothers' knowledge, attitude, and practices regarding breastfeeding, identify socio-demographic determinants influencing their knowledge, and examine barriers that prevent adherence to correct breastfeeding practices. **Methods:** A cross-sectional study was conducted, involving randomly selected lactating mothers of children less than 2 years, registered in Anganwadi centres of urban Srinagar Garhwal, Uttarakhand. Mothers were interviewed using pretested semi structured questionnaire. **Results:** In this research conducted among 359 lactating mothers, 35.4% were between 25-29yrs, 87.5% were housewife, 80.8% literate, and 66% living in joint family. 41.8% of the study participants, initiated breast feeding within one hour, and 55% of mothers also continued exclusive breastfeeding (EBF) until six months. Most common reason (50%) for not practicing EBF was inadequate milk production. **Conclusion:** In our sample, we observed that exclusive breastfeeding (EBF) practices and the initiation of breastfeeding within the first hour after birth was suboptimal compared to NFHS-5 India but better compared to the state NFHS- 5.

KEYWORDS

Assessment; Knowledge; Practice; Breastfeeding; Barriers; Lactating Mothers

INTRODUCTION

Enhancing infant and young child feeding practices is essential for boosting child survival, as well as fostering healthy growth and development. The initial two years of a child's life holds particular significance, as ensuring optimal nutrition during this period, not only decreases illness and mortality rates but also diminishes the likelihood of chronic diseases and supports comprehensive development.(1) The act of exclusively breastfeeding (EBF) involves providing a newborn with exclusively

breast milk in the first six completed months of life, except for necessary supplements, vitamins, or medications if prescribed by doctors. (2,3) Breastfeeding is recognized as a valuable strategy in attaining the objectives of the "Global Strategy for Women's, Children's, and Adolescents' Health (2016-2030)", which was introduced amid conjunction with the "Sustainable Development Goals" as a blueprint to eliminate avoidable fatalities within a single generation.(4) Breastfeeding is a gift for both mothers and infants, with a recent Lancet series on breastfeeding suggesting that ideal breastfeeding practices might potentially avert 20,000 deaths among mothers due to breast cancer annually.(5) Opting for exclusive breastfeeding during the initial 6 months can serve as a natural form of contraception, supporting the promotion of adequate birth spacing.(6) The Government of India introduced the National Health Mission in 2013, incorporating Reproductive-Maternal-Neonatal-Child-Adolescent Health plus Nutrition (RMNCAH + N) initiative. This strategy strengthens connections between different interventions across thematic areas to increase coverage throughout the lifecycle, ultimately aiming to improve child survival in India.(7) In India, despite strong recommendations for exclusive breastfeeding, the practice remains suboptimal, with only 63.7% of infants between 0-6 months of age are exclusively breastfed as per the National Family Health Survey-Round 5 (NFHS-5).(8) Challenges such as traditional feeding methods and early practice of giving pre-lacteal feeds, including water, sugar water or honey hinder the promotion of exclusive breastfeeding. Inadequate infant feeding practices, whether direct or indirect, play a significant role in undernutrition, morbidity, and infant mortality. The traditions, customs, knowledge, beliefs, and socio-cultural practices of a community influence both breastfeeding and complementary feeding behaviours, with considerable variation among different communities.

The study aims to identify socio-demographic factors influencing mothers' knowledge of breastfeeding, assess their overall knowledge, attitude, and practices relating to breastfeeding, and pinpoint barriers that hinder mothers from adhering to correct breastfeeding practices.

Material & Methods

Study setting and population: A cross-sectional study was carried out within the community in urban areas.

Sample size calculation: Based on the previous study, (9) it was found that the prevalence of breastfeeding initiation stood at 37%. Considering a confidence level of 95% and an allowable error of 5%, the formula (Z^2pq/d^2) was applied to ascertain the required sample size, yielding a result of 359.

Inclusion criteria: Eligible participants were lactating mothers with children under 2 years old, registered in Anganwadi centres of urban Srinagar Garhwal.

Exclusion criteria: Mothers who were not giving consent.

Sampling Technique: A simple random sampling technique was employed to select participants for the study. Lactating mothers with children under the age of two, registered at Anganwadi centres in the study area, were compiled into a list. A computer-generated random number table was then used to randomly select participants, ensuring that the desired sample size was achieved.

Study Instrument: The data collection utilized a pretested semi-structured questionnaire, which underwent pilot testing on 50 lactating mothers. Following this, amendments were made to enhance clarity, including the addition of supplementary answer options. The questionnaire was then appropriately adjusted to cover sociodemographic details, breastfeeding practices, opinions regarding colostrum, and other pertinent factors. Throughout the process, care was taken to ensure clarity in the questions and to obtain informed consent from all participants.

Data Collection Procedure: All breastfeeding mothers with children younger than two years who were registered in Anganwadi centres were meticulously listed. Study participants were chosen through a simple random technique. Before commencing interviews, the study's objectives were formally explained to them. Participants were approached during

village health nutrition days, vaccination days, and Anganwadi centre visits. Those who were unavailable after three attempts were excluded from the study.

Ethical Clearance: Ethical approval was obtained from IEC of the institution prior to the study.

Statistical Analysis: The statistical analysis was done using SPSS version 20.0. All variables in the study were categorical and described using frequencies and percentages. Crosstabulation with Chi square test was conducted to assess the relationship between participants socio-demographic factors and their Knowledge, Attitude, and Practices (KAP) toward breastfeeding. Furthermore, Binary Logistic Regression Analysis was employed for variables found to be associated in the Chi-square test. $p<0.05$ were found significant.

RESULTS

The cross-sectional research conducted in an urban community involved 359 lactating mothers with children under 2 years old. Around 335(93.3%) of mothers were aware that breastfeeding is optimal for the baby. Additionally, 298(83%) of them believed that colostrum is advantageous to the baby, and 102(28.4%) were against giving pre-lacteal feed. Regarding breastfeeding practices, 322(89.7%) believed in feeding on demand, while 33(9.2%) preferred fixed timing. However, only 150(41.8%) were mindful that breastfeeding should commence as early as possible. 298(83%) had fed colostrum to their children and half had initiated complementary feed by the completion of six-month period (Table 1).

Table 1: Knowledge, attitude and practice of the mothers regarding Breast Feeding

Variables		Duration of EBF			
		<6 months		≥6 months	
		N1=167	%	N2=192	%
Initiation of Breastmilk	<1hr	69	41.3	81	42.1
	<4hrs	58	34.7	49	25.5
	4<24hrs	31	18.5	43	22.3
	24<48hrs	9	5.38	19	9.89
Opinion about Pre lacteal feed	Given	120	71.8	137	71.3
	Not given	47	28.1	55	28.6
Knowledge about BF duration	< 6 months	18	10.7	18	9.37
	6months -1year	143	85.6	163	84.8
	>1 year	6	3.59	11	5.72
Source of knowledge about EBF	Family members	44	26.3	56	29.1
	Health worker	86	51.4	103	53.6
	Others	37	22.1	33	17.1
Opinion about age at which CF started	Greater than 6 months	108	64.6	113	58.8
	Less than 6 months	59	35.3	79	41.1

Among the participants, 244(68%) mothers were above 25 years, 304(84.7%) had children older than 6 months, while 55(15.3%) had children younger than 6 months. Approximately 290(80.8%) of the lactating mothers were literate, with the majority 314(87.5%) being housewives. Additionally, 237(66%) of the respondents were part of joint families (Table 2).

Table 2: Sociodemographic profile of the study participants

Variables		N= 359 (%)
Age (years)	≤24	115(32.0)
	25-29	127(35.4)
	≥30	117(32.6)
Education of the mother	Graduate & above	93(25.9)
	High school & above	89(24.8)
	Primary & above	108(30.1)
	Illiterate	69(19.2)

Variables		N= 359 (%)
Occupation of the mother	Housewife	314(87.5)
	Working	45(12.5)
Type of family	Joint Family	237(66.0)
	Nuclear Family	122(34.0)
Religion	Hindu	329(91.6)
	Muslim	30(8.4)
Category	General	145(40.4)
	OBC	110(30.6)
	SC	104(29)
Age of the child	1≤2 years	122(34)
	6months<1 year	182(50.7)
	<6 months	55(15.3)
Place of delivery	Home	16(4.4)
	Institutional	343(95.6)
Mode of Delivery	C section	76(21.2)
	Assisted	13(3.6)
	Normal	270(75.2)
Term of the baby at birth	Full term	290(80.7)
	Preterm	69(19.2)

Most mothers thought breastfeeding could be continued during menstruation, mother's illness, and child illness (Figure 1). The most common barriers to adhering to optimal exclusive breastfeeding (EBF) practices has been shown in (Figure 2).

Figure 1: Knowledge about breast feeding among the study participants

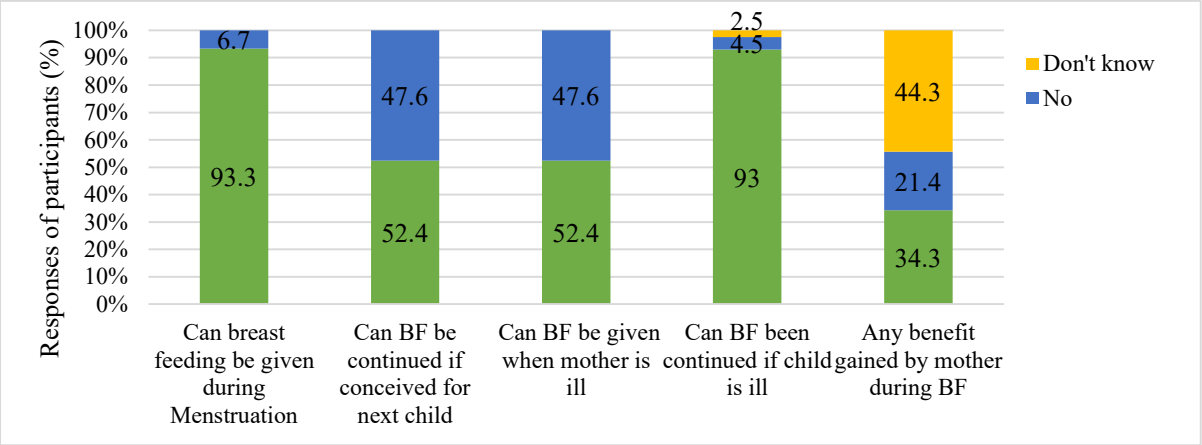

Figure 2: Most common causes affecting ideal EBF practice

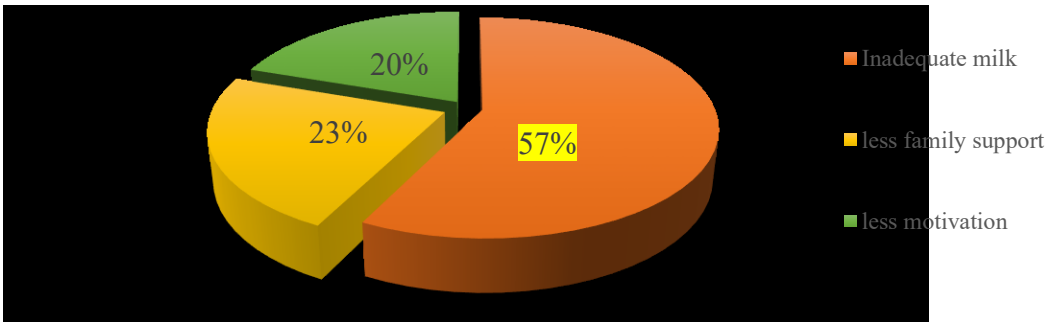

Table 3 illustrates the association between the factors influencing exclusive breastfeeding (EBF) practices among lactating mothers. Binary logistic regression analysis was used to analyze the determinants of EBF practices. The results showed that mothers with higher education were more inclined to practice exclusive breastfeeding in comparison with illiterate mothers, and this disparity showed statistical significance (p = 0.006). Similarly, participants with a normal delivery were more inclined to follow exclusive breastfeeding than those with other types of delivery, and this difference was also statistically significant (p= 0.033). Furthermore, the model demonstrated a good goodness of fit based on the Hosmer and Lemeshow test.

Table 3: Binary logistic regression analysis for correlates of exclusive breastfeeding practices

Variable(s)	B	S.E.	Sig.	AOR	95% C.I.	
					Lower	Upper
Place of delivery	0.176	0.541	0.745	1.192	0.413	3.442
Mode of delivery	0.593	0.278	0.033	1.809	1.05	3.116*
Type of family	0.062	0.239	0.796	1.064	0.666	1.699
Occupation of the mother	0.102	0.329	0.756	1.108	0.581	2.112
Education of the mother	0.82	0.298	0.006	2.27	1.267	4.067*
Term of baby at birth	0.255	0.283	0.366	1.291	0.742	2.245
Source of knowledge about EBF	0.372	0.33	0.261	1.45	0.759	2.771

**significant*

DISCUSSION

While the World Health Organization (WHO) advises exclusive breastfeeding for the first six months, our research found that only 53.5% of mothers were aware of this guideline. In our current study, a mere 24.2% of mothers exhibited insufficient understanding regarding the recommended period of exclusive breastfeeding for the infants. This contrasts with findings from a research done by Girish S et al., where 38% of mothers were found to be unaware of the recommended duration of exclusive breastfeeding. (10) Our research revealed that 41.8% of infants were exclusively breastfed. Rastogi S et al., observed in Gujarat that in urban areas, 7.5% infants began breastfeeding more than one hour after birth, whereas in rural areas, 42.5% under-five children started breastfeeding after the same time period.(11)

In our study, 41.8% of lactating mothers had knowledge about the importance of initiating breastfeeding within an hour after birth. Additionally, 83% of lactating mothers held a positive attitude about colostrum. These findings align with previous research conducted by Subbaiah N, where 91% knew they should feed colostrum, but only 50% understood the reason behind it.(12) A study by Kumar S et al. found that 88.8% of mothers had a positive attitude towards colostrum, and 37% were aware of the importance of initiating breastfeeding within the first hour of birth.(9) Similarly, in the current study, 38.4% of mothers believed that starting complementary feeding before six months was appropriate, while 41% felt that breastfeeding should be continued for two years or more. These findings are in line with those of Kumar S et al., who reported rates of 46% and 35.8%, respectively.(9)

In our research, we found that among various determinants of exclusive breastfeeding, mother's education level was statistically significant, with an adjusted odds ratio (AOR) ranging from 1.24 to 4.06. This result aligns with the findings of a study by Duan Y et al., which reported an AOR between 1.14 and 2.07. However, in contrast to our findings, the mode of delivery did not show a similar level of statistical significance in other studies.(13)

In the present study, the most common barriers to optimal exclusive breastfeeding (EBF) practices were inadequate milk supply (57%), insufficient family support (23%), and lack of motivation (20%). A study by Charantimath U et al., conducted in the Belagavi region of Karnataka, similarly found that mothers often resorted to top-up feeds due to concerns such as dry lips, blackened lips,

insufficient milk in the early days, and traditional community practices.(14)

Conclusion

This study reveals that while most lactating mothers understand the advantages of breastmilk and colostrum, there is a significant lacuna in awareness about the optimal timing to start breastfeeding. Many practice feeding on demand and have given colostrum, but timely introduction of complementary feeding needs improvement. Maternal education and normal deliveries positively influence exclusive breastfeeding (EBF) practices

Recommendation

The positive correlation between education, normal delivery, and EBF practices highlights the need for targeted educational trainings and supportive healthcare practices to enhance breastfeeding outcomes. Encouraging proper Infant and young child feeding practices to the mothers as well as Anganwadi workers on the same are vital.

Limitation of the Study

This study was conducted in urban areas of the hilly region, so care should be taken when applying the results to other populations or geographical areas. Additionally, the study did not aim to investigate the subjective reasons behind discrepancies in parents' adherence to appropriate child feeding practices, limiting the understanding of these factors. Factors such as socioeconomic status, paternal and family views were not considered which would have also been responsible influencing child growth and development. Interview was done based on maternal recall, which may introduce recall bias. Furthermore, the absence of a qualitative study means that additional insights into the underperformance of Anganwadi workers were not captured, which could have provided a deeper understanding of the issues.

Relevance of the Study

This study aimed at identify the most common challenges that prevent mothers from following optimal breastfeeding practices.

Authors Contribution

GS: Concepts, Design, Definition of intellectual content, Literature search, Data acquisition, Data analysis, Statistical analysis, Manuscript preparation, Manuscript editing, Manuscript review and Guarantor. JB: Concepts, Design, Definition of intellectual content, Literature search, Data analysis, Statistical analysis, Manuscript preparation, Manuscript editing, Manuscript review and Guarantor. CMS Rawat: Concepts, Design, Manuscript preparation, Manuscript editing, Manuscript review. NN: Design, Data analysis, Statistical analysis, Manuscript preparation, Manuscript editing.

Financial Support and Sponsorship

Nil

Conflict of Interest

There are no conflicts of interest.

Acknowledgement

I express my heartfelt thanks to all the healthcare workers who graciously provided their valuable time despite their busy schedule. I am also deeply grateful to all the respondents for their full cooperation, which was essential in bringing this research to fruition.

Declaration of Generative AI and AI Assisted Technologies in the Writing Process

During the preparation of this work, the authors have not used any AI tools or services.

References

1. World Health Organization. Infant and Young Child Feeding [Internet]. Geneva: WHO;2009. Available from: http://www.who.int/news-room/fact-detail/infant- sheets/and-young-child-feeding. [Accessed on 25/10/2024]
2. Dukuzumuremyi JPC, Acheampong K, Abesig J, Luo J. Knowledge, attitude, and practice of exclusive breastfeeding among mothers in East Africa: a systematic review. Int Breastfeed J. (2020) 15:70–17.
3. Hossain M, Islam A, Kamarul T, Hossain G. Exclusive breastfeeding practice during first six months of an infant's life in Bangladesh: a country based cross-sectional study. BMC Pediatr. (2018) 18:93–9.
4. Kuruvilla S, Bustreo F, Kuo T, et al. The Global strategy for women's, children's, and adolescents' health (2016-2030): a roadmap

based on evidence and country experience. Bull World Health Organ. 2016;94(5):398-400.
5. Rollins NC, Bhandari N, Hajeebhoy N, et al. Lancet Breastfeeding Series Group. Why invest, and what it will take to improve breastfeeding practices? Lancet. 2016;387(10017):491-504.
6. Gartner LM, Morton J, Lawrence RA, Naylor AJ, O'Hare D, Schanler RJ, Eidelman AI. Breastfeeding and the use of human milk. Pediatrics. 2005 Feb 1;115(2):496-506.
7. National Health Mission. RMNCAH+N [Internet]. Available from: https://nhm.gov.in/index1.php. [Accessed on 25/10/2024].
8. National Family Health Survey - 5 2019-21. International Institute for Population Sciences (Deemed University) State Fact Sheet [Internet]. Available from: https://www.nfhs5.pdf. [Accessed 25/10/2024].
9. Kumar S, Jha SK, Singh A, Rawat CM, Awasthi S, Bano M, Surana A. Knowledge, attitude and practices (KAP) regarding breastfeeding: a community based cross sectional study from rural Uttarakhand. Healthline. 2015;6(2):17-22.
10. Girish S, Gandhimathi M. Primipara mother's knowledge, attitude and practice of breastfeeding. Int J Adv Nurs Sci Pract.. 2015;2(1):41-8.
11. Rastogi S, Lala MK. Assessment of breast-feeding and weaning practices of under-fives and their associated co-morbidities in urban and rural areas of Ahmedabad City, Gujarat, India. J Family Med Prim Care. 2024;13(2):600-6.
12. Subbaiah N. A study to assess the knowledge, attitude, practice and problems of post-natal mothers regarding breastfeeding. Nurs J India. 2003; 94(8):177-9.
13. Duan Y, Yang Z, Bi Y, Wang J, Pang X, Jiang S et al. [Internet].What are the determinants of low exclusive breastfeeding prevalence in China? A cross-sectional study. Maternal & Child Nutrition. 2022;18(2):e13324.
14. Charantimath U, Bellad R, Majantashetti N, Washio Y, Derman R, Kelly PJ, et al. [Internet] Facilitators and challenges to exclusive breastfeeding in Belagavi District, Karnataka, India. PLoS ONE. 2020; 15(5): e0231755..

