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Original Research Article

Community-Based Assessment of Exclusive Breastfeeding Practices among Lactating Mothers in Rajasthan

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Abstract:

Introduction: The World Health Organization (WHO) strongly advocates for breastfeeding as the optimal means of nourishment for babies and toddlers. Unfortunately, two-thirds of infants do not receive exclusive breastfeeding for the suggested duration of 6 months. Lower practices of exclusive breastfeeding among lactating mothers have multidimensional concerns. This study was performed to find the prevalence of exclusive breastfeeding practices among lactating mothers and its correlates in Jaipur, Rajasthan.

Material & Methods: This community-based study was carried out by the Department of Community Medicine in the field practice area, Achrol, National Institute of Medical Sciences and Research, Jaipur (Rajasthan). It involved lactating women residing in the field practice area, selected randomly in the study area. A single face-to-face interview by door-to-door approach with local ASHA and health workers was done.

Results: In our study, the majority of the mothers are in the age group of 20-24 years (37.5%) and 25-29 years (25%) and schooled up to middle and high school, 23.75% and 7 23% respectively. 60% have adhered to exclusive breastfeeding practices although one-fourth of the participants initiated breastfeeding a day after childbirth. Colostrum feeding was given after birth by 80% of mothers. Exclusive breastfeeding is significantly associated with increasing age, literacy status, multipara, joint family, and being a housewife.

Conclusion: This study demonstrates that the prevalence of knowledge and attitude toward exclusive breastfeeding was moderate, but there is a gap in breastfeeding practices among lactating women. A significant number of lactating women have lacked the practice to initiate breastfeeding within the recommended time of one hour. Maternal educational status, being a housewife, multipara and joint family were predictors of exclusive breastfeeding. Community-driven campaigns are necessary to enhance knowledge among families.

Keywords: Exclusive Breastfeeding, Practices, lactating Mothers, Community-based assessment.

Introduction

Exclusive Breastfeeding stands as a highly efficient method of offering optimal nourishment for the robust advancement and progress of babies. It's a secure option, carrying vital antibodies that safeguard against numerous typical childhood ailments.

The nourishment and energy essential for infants in their initial months are completely supplied by breast milk, which also caters to at least half, if not more, of their nutritional requirements in the latter part of the first year, followed by about a third in the second year. Children who are breastfed have reduced odds of experiencing weight issues or diabetes in their later years. Furthermore, a connection has been established between breastfeeding and improved educational accomplishments in later phases of life. Females who engage in breastfeeding also encounter a decreased probability of developing breast and ovarian cancers. The World Health Organization (WHO) and UNICEF propose that mothers should commence breastfeeding during the initial hour following birth and maintain exclusive breastfeeding for the initial half-year of a child's existence. This exclusivity entails refraining from introducing any alternative nourishment or fluids, including water. [1]

Maintaining exclusive breastfeeding for six months holds significance for the well-being of both the infant and the mother. Infants who do not receive exclusive breastfeeding face an elevated likelihood of encountering gastrointestinal infections. The mortality risk attributed to conditions like diarrhea and other infections sees a substantial rise in infants

who are either partially breastfed or not breastfed at all. [2] The World Health Organization (WHO) strongly advocates for breastfeeding as the optimal means of nourishment for babies and toddlers. Their efforts are directed towards enhancing the prevalence of exclusive breastfeeding for the initial half-year to a minimum of 50% by the year 2025. [3]

Unfortunately, two-thirds of infants do not receive exclusive breastfeeding for the suggested duration of 6 months, and this rate has shown no enhancement over the course of 20 years. The practice of breastfeeding has experienced a global decrease in recent times due to urbanization and maternal employment away from home. Suboptimal feeding approaches and perspectives towards exclusive breastfeeding persist as significant contributors to unfavourable health results among children, particularly in developing nations. Studies in India have also shown a decline in breastfeeding trends, especially in urban areas, early initiation of breastfeeding has not been seen in over 60% of the nation's children, and over 36% of children are not exclusively breastfed. [4, 5] Lower practices of exclusive breastfeeding among lactating mothers have multidimensional concerns. In addition to social, cultural, and religious beliefs, maternal infant feeding knowledge and attitude appear to be the most important determinants prevalent in communities.

A "community-based assessment" refers to a process of evaluating and analyzing various aspects of a community's needs, resources, challenges, and strengths within its own context. This type of assessment involves engaging directly with the community members to gather information, insights, and perspectives that are relevant to their specific situation. The assessment aims to understand the community's social, economic, cultural, and environmental factors that impact their well-being and quality of life. It often involves collaboration between researchers, practitioners, and community members to identify solutions, develop strategies, and make informed decisions that cater to the community's unique requirements and aspirations.

Several hospital-based studies have assessed knowledge, attitude, and practice of breastfeeding but there are limited community-based studies for assessment of practice of exclusive breastfeeding. With this background, the present study was planned to find the prevalence of exclusive breastfeeding practices among lactating mothers and its correlates.

Materials and Methods

Study area: This community-based study was carried out by the Department of Community Medicine in the field practice area, Achrol, National Institute of Medical Sciences and Research, Jaipur (Rajasthan).

Study design: A community-based, cross-sectional study was carried out over the period from January 1 to June 30, 2023.

Study population: It involved lactating women residing in the field practice area; Achrol was selected randomly in the study area.

Inclusion Criteria: Lactating mothers with at least one living child aged between six months and consented to participate in the research activity met the inclusion criteria.

Exclusion Criteria: Women who did not volunteer to participate in the research study had medical reasons not to breastfeed, or had adopted a child were excluded from the study.

Methodology

After obtaining written consent, study participants were enrolled for a single face-to-face interview by door-to-door approach with local ASHA & health workers. An interview with a research participant took, on average, 15 minutes. A predesigned, pretested questionnaire was administered by the trained interviewer. The questionnaire contained both closed-ended and open-ended questions to fulfill our study objectives. The questionnaire contains the following sections; Section A: Lactating Mothers' socio-demographic profile.

This questionnaire included a general profile of the lactating mother wherein the information about the personal details of the subject such as age, occupation, educational status, and family type was ascertained.

Section B: Exclusive Breastfeeding Practices Questionnaire

This questionnaire included questions to assess the knowledge, attitude, and practices about breastfeeding.

Sample size determination: Calculation of sample size by the Cochrane formula [6]:

$n = (Z\alpha)2 \times P \times (1-P)/d2$,

Where standard normal variate that is 1.96 at a 95% confidence interval,

p=prevalence of interest in the event (prevalence of EBF from the previous study is 65%)} **[7]** and d=error of absolute precision, which is 5%. Putting all the values into the above formula, n= (1.96)2*0.65*0.35/(0.05)2 = 350. Taking 10% as the nonresponsive rate, the minimum sample size (n) was 385.

Data Analysis: The collected data was compiled into Microsoft Excel and analyzed using the SPSS 23 version. The data was analyzed using

descriptive statistics such as frequencies, percentages, and tables.

Also, a Chi-square test was used to determine the association of various correlates with exclusive breastfeeding among study subjects.

Results

In our study, the majority of the mothers are in the age group of 20-24 years (37.5%) and 25-29 years (25%). The majority of our study participants have schooled up to middle and high school, 23.75% and 7 23% respectively. Of these, 86% of our study participants were housewives. Most of our study participants belong to IV and III socio-economic statuses 41% & and 22% respectively. In our study 300(75%) of mothers-initiated breastfeeding within 1 hour of delivery. Colostrum feeding was given after birth by 80% of mothers. [Table 1]Of the feeding practices among 400 study participants 240(60%) have adhered to exclusive breastfeeding practices; 19% of the participants gave mixed feed to their infants; 11% fed cow's milk 11% and 10% fed powder milk. While 25% of the participants initiated breastfeeding a day after childbirth. [figure 1]

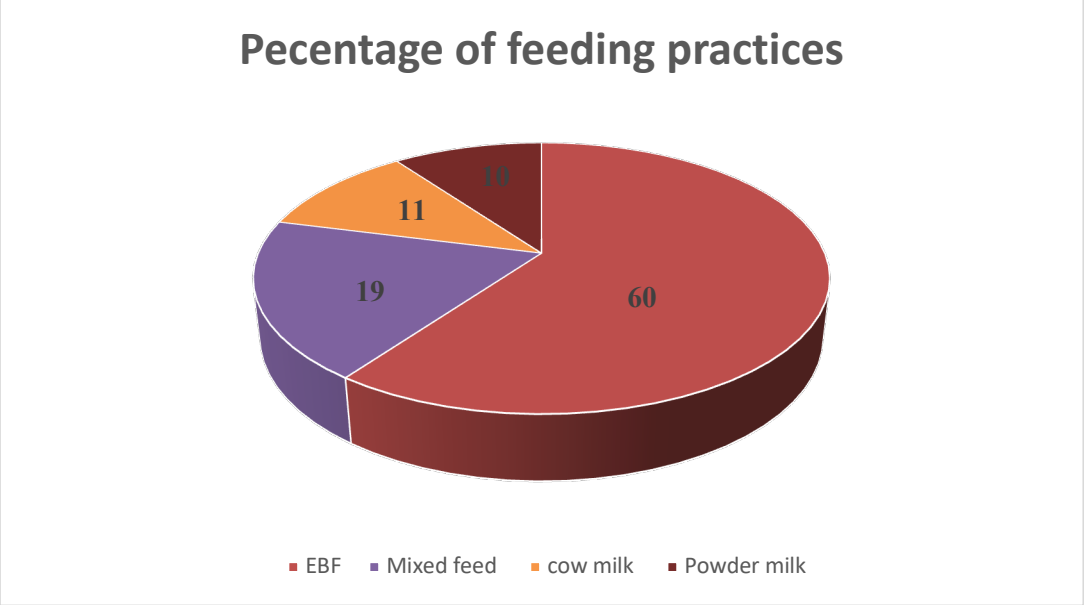

Figure 1: Distribution of percentage of feeding practices

Table 1: Distribution of Sociodemographic Characteristics of Lactating Mothers

Variables	Sub-category	Frequency	Percentage
Age (in years)	Below 18	40	10%
	18-24	150	37.5%
	25-29	100	25%
	30-34	80	20%
	35 and above	30	7.5%
Education status	Illiterate	70	17.5%
	Primary	55	13.75
	Middle	95	23.75%
	High School	92	23.0%
	Intermediate and above	88	22%
Type of family	Nuclear	122	30.5%
	Joint	228	57%
	3-Generation	50	12.5%
Birth order	Primigravida	152	38%
	Multigravida	248	62%
Occupational status	Working	56	14%
	Housewife	344	86%
Socioeconomic status	Class I	16	4%
	Class II	60	15%
	Class III	88	22%
	Class IV	164	41%
	Class V	72	18%

Then we analyzed the association of exclusive breastfeeding practices with various correlates. An exclusive breastfeeding practice is more prevalent in females belonging to the age group of 25-29 years followed by 20-24 years, which is statistically significant with a p-value of 0.00.

Table 2: Association of exclusive breastfeeding various correlates

Variables	Sub-category	EBF	Non EBF	Chi-square value	P-value
Age (in years)	Below 18	22	18	34.81	**0.00**
	18-24	102	48		
	25-29	74	26		
	30-34	32	48		
	35 and above	10	20		
Education status	Illiterate	32	38	13.86	**0.02**
	Primary	28	27		
	Middle	57	38		
	High School	60	32		
	Intermediate and above	63	25		
Type of family	Nuclear	60	62	12.57	**0.00**
	Joint	154	74		
	3-Generation	28	22		
Birth order	Primigravida	106	46	9.68	**0.00**
	Multigravida	134	114		
Occupational status	Working	19	37	18.44	**0.00**
	Housewife	221	123		
Socioeconomic status	Class I	9	7	7.11	0.13
	Class II	39	21		
	Class III	62	26		
	Class IV	90	74		
	Class V	40	32		

Exclusive breastfeeding is more prevalent in the multipara and then primigravida. it is significantly associated with a p-value of 0.00. Exclusive breastfeeding is more prevalent in females living in a joint family and being a housewife, it significantly associates with a p-value of 0.00.
Exclusive breastfeeding is significantly associated with increasing literacy status with a p-value of 0.02. Exclusive breastfeeding practice is not significantly associated with socioeconomic status with a p-value of 0.13. [Table 2]

Discussion

This community-based study evaluates and analyzes various aspects of needs, resources, and correlates with breastfeeding in the field area. In our study the prevalence exclusive breast-feeding practices is 60% while 19% of the participants gave mixed feed to their infants; 11% fed cow's milk 11% and 10% fed powder milk. N.A. Gebeyehu et al. (2023) [8] conducted a systematic review and meta-analysis for knowledge, attitudes, practices (KAP), and factors influencing exclusive breastfeeding and indicated a significant relationship between the national pooled estimates of KAP and the practice of exclusive breastfeeding, with maternal educational status, antenatal care visits, giving birth in a healthcare facility, occupation, and vaginal delivery playing important roles. Consequently, the overall prevalence of satisfactory knowledge about exclusive breastfeeding was found to be 74.17% (95% CI: 62.93–85.41), which aligns with similar research conducted in Nigeria (71.3%) [9]. Results were notably higher than those reported in studies from Malaysia (44%–55%) [10] and Nigeria (31%) [11]. Conversely, these findings were lower than those from a systematic review in East Africa, which indicated a knowledge rate of 84.4% for exclusive breastfeeding and 81% for the appropriate time to introduce complementary feeding [12], as well as lower than the rate observed in Bhutan (98%). [13] The variations in knowledge levels regarding exclusive breastfeeding among the study participants in each country and the extent of awareness could account for these disparities. In our study findings, exclusive breastfeeding practice is more prevalent in females belonging to the age group of 25-29 years followed by 20-24 years, which is statistically significant with a p-value of 0.00. It is more prevalent in the multipara and then primigravida. it is significantly associated with a p-value of 0.00 and prevalent in females living in a joint family and being a housewife, it significantly associates with a p-value of 0.00. As the literacy rate the exclusive breastfeeding practice is more prevalent and significantly associated with with a p-value of 0.02 Housewives were observed to be three times more inclined to engage in exclusive breastfeeding compared to mothers who were employed. This discovery mirrors the outcomes of a meta-analysis conducted in Iran [14]. This can be

explained by the challenges faced by employed mothers, such as time constraints and fatigue, which can hinder their ability to maintain exclusive breastfeeding [15].

Additionally, in line with a comprehensive analysis of demographic and health surveys encompassing nine Sub-Saharan African nations [16], our own meta-analysis demonstrated that women with a secondary level of education were 3.3 times more likely to embrace exclusive breastfeeding in comparison to women without any formal education. This trend can be attributed to the fact that an elevated level of women's education corresponds to heightened awareness about maternal and child health matters, thus exerting a positive impact on the practice of exclusive breastfeeding. Awareness of the benefits associated with breastfeeding for both the mother and the child play very important role. This encompassed aspects like fostering the child's growth and development, as well as nurturing the bond between mother and child. This observation aligned with earlier investigations carried out across various regions of India, such as Kerala, Punjab, Haryana, Uttarakhand, and Jammu, as all these studies indicated that mothers possessed a satisfactory level of understanding in these realms. [17-20] This research study unveiled that 25% of the participants initiated breastfeeding a day after childbirth. This finding diverged from a study conducted in Ethiopia, where a majority of mothers commenced breastfeeding within the initial hour of birth. [21] The practice of initiating breastfeeding after a 24-hour interval can impact the practice of exclusive breastfeeding. Additionally, most mothers introduced supplementary feeds after their infants reached six months of age, with reasons cited being the perceived inadequacy of breast milk to sufficiently support the growing baby and a perceived insufficiency in milk production. Available reports indicate that inadequate milk production was the most common rationale provided by women for discontinuing breastfeeding found in studies. [22,23]

Conclusion

In conclusion, our study demonstrates that the prevalence of knowledge and attitude toward exclusive breastfeeding was moderate, but there is a gap in practice. We found that the majority of lactating women lacking the practice to initiate breastfeeding within the recommended time of one hour.

Besides, the prevalence of knowledge, attitudes, and practices differed based on the study settings and regions. Maternal educational status, being a housewife, antenatal care service, health facility delivery, and vaginal births were predictors of exclusive breastfeeding. Accordingly, it is better to increase the quality of antenatal care service, institutional delivery, and promotion of vaginal birth among reproductive-age women. Community-driven campaigns are necessary to enhance knowledge among the families and both parents. Equally important is the provision of prenatal instruction for both mothers as well as fathers concerning breastfeeding.

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