Section: Miscellaneous

Original Research Article

BARRIERS TO EXCLUSIVE BREASTFEEDING AMONG MOTHERS ATTENDING A PEDIATRIC OUTPATIENT DEPARTMENT OF TERTIARY CARE CENTRE RAICHUR: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Exclusive breastfeeding for the first six months of life is a proven public health intervention for improving infant survival and development. Despite national and global recommendations, exclusive breastfeeding rates remain suboptimal in many parts of India due to various socio-demographic, cultural, and healthcare-related barriers. The objective is to evaluate exclusive breastfeeding practices among mothers attending the pediatric outpatient department. To identify barriers and challenges influencing the initiation and continuation of exclusive breastfeeding.

Materials and Methods: A hospital-based cross-sectional study was conducted among 120 mothers attending the pediatric outpatient department of a tertiary care centre in Raichur. Data were collected using a pre-tested, structured questionnaire covering socio-demographic details, breastfeeding practices, antenatal counseling, and perceived barriers to exclusive breastfeeding. Data were analyzed using descriptive statistics, and associations were assessed using appropriate statistical tests.

Results: The mean age of mothers was 24.8 ± 4.3 years. Exclusive breastfeeding for six months was practiced by 40.8% of mothers, while early initiation of breastfeeding within one hour was observed in 46.7%. Pre-lacteal feeds were given by 36.7% of mothers, and colostrum feeding was practiced by 68.3%. The most common barriers identified were lack of antenatal counseling (57.5%), perceived inadequate milk supply (48.3%), family pressure (38.3%), work-related constraints (34.2%), and cultural beliefs and myths (29.2%).

Conclusion: Despite reasonable awareness, exclusive breastfeeding practices were inadequate among the study population due to multiple modifiable barriers. Strengthening antenatal and postnatal counseling, improving family and community support, and addressing cultural misconceptions are essential to improve exclusive breastfeeding practices.

Keywords: Exclusive breast-feeding Practice, Barriers, Pediatric outpatient department.

INTRODUCTION

Exclusive breastfeeding (EBF) is universally recognized as one of the most cost-effective and evidence-based interventions for improving child survival, growth, and development. The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life, followed by continued breastfeeding along with appropriate complementary feeding up to two years of age or beyond. Breast milk provides optimal nutrition, immunological protection, and bioactive factors essential for infant health, while also conferring significant benefits to maternal health, including reduced risk of postpartum hemorrhage, breast and ovarian cancers, and improved birth spacing.[1]

Despite strong global and national recommendations, the prevalence of exclusive breastfeeding remains suboptimal, particularly in low- and middle-income countries. In India, although breastfeeding is culturally accepted, early initiation and sustained exclusive breastfeeding practices are often compromised due to a combination of socio-cultural, economic, healthcare-related, and individual factors. National surveys indicate that a substantial proportion of infants receive pre-lacteal feeds, delayed initiation of breastfeeding, or early introduction of supplementary feeds, thereby increasing the risk of malnutrition, infections, and infant mortality.[2]

Barriers to exclusive breastfeeding are multifactorial and complex. Maternal factors such as lack of knowledge, misconceptions regarding adequacy of breast milk, maternal illness, cesarean delivery, breast problems, and return to work significantly influence breastfeeding practices. Socio-cultural beliefs, family pressure, influence of elders, and marketing of breast-milk substitutes further contribute to early cessation of exclusive breastfeeding. Inadequate antenatal and postnatal counseling, poor support from healthcare providers, and lack of breastfeeding-friendly hospital practices also play a critical role in shaping maternal behavior.[3]

Healthcare settings, particularly pediatric outpatient departments (OPDs), serve as crucial contact points for identifying gaps in breastfeeding practices and addressing modifiable barriers. Mothers attending pediatric OPDs often seek care for preventable illnesses that may be indirectly linked to suboptimal feeding practices. Assessing breastfeeding behavior in such settings provides valuable insights into real-world challenges faced by mothers after discharge from institutional deliveries.[4]

Raichur district, characterized by a predominantly rural population and varied socio-economic conditions, presents unique challenges in maternal and child health practices. Limited access to health education, low female literacy, and inadequate counseling services may adversely affect optimal infant feeding practices. Understanding the local context and specific barriers is essential for designing targeted interventions that bridge the gap between knowledge and practice.

Aim: To assess exclusive breastfeeding practices and to identify barriers affecting breastfeeding among mothers attending the pediatric outpatient department.

Objectives

- To evaluate exclusive breastfeeding practices among mothers attending the pediatric outpatient department.
- To identify barriers and challenges influencing the initiation and continuation of exclusive breastfeeding.

MATERIALS AND METHODS

Source of Data: The data were obtained directly from mothers attending the pediatric outpatient department through face-to-face interviews using a pre-tested structured questionnaire.

Study Design: A hospital-based cross-sectional study was conducted.

Study Location: The study was carried out in the pediatric outpatient department of a tertiary care teaching hospital located in Raichur, Karnataka.

Study Duration: The study was conducted over a period of three month, from 1st July 2024 to 30th September 2024.

Sample Size: A total of 120 mothers were included in the study. The sample size was calculated using the formula $n = 4pq/l^2$, assuming the prevalence of exclusive breastfeeding as 46% and allowable error of 20%.

Inclusion Criteria

- Mothers having infants aged 0-12 months
- Mothers attending the pediatric OPD during the study period
- Mothers who gave informed consent to participate

Exclusion Criteria

- Mothers who were seriously ill at the time of interview
- Mothers of infants with congenital anomalies affecting feeding
- Mothers unwilling to participate in the study

Procedure and Methodology: After obtaining institutional ethical clearance, eligible mothers were approached in the pediatric OPD. The purpose of the study was explained, and informed consent was obtained. Data were collected using a pre-tested, structured questionnaire that included sections on socio-demographic profile, knowledge regarding breastfeeding, breastfeeding practices, antenatal counseling, and perceived barriers to exclusive breastfeeding.

Sample Processing: The collected questionnaires were checked daily for completeness and consistency. Data were coded and entered into Microsoft Excel before analysis.

Data Collection: Information was collected through direct interviews conducted in the local language to ensure clarity and accurate responses. Confidentiality of participants was maintained throughout the study.

Statistical Methods: Data were analyzed using appropriate statistical software SPSS 26.0. Descriptive statistics such as frequencies and percentages were used to summarize categorical variables. Results were presented in the form of tables and graphs.

RESULTS

[Table 1] depicts the socio-demographic profile of mothers attending the pediatric outpatient department. The mean age of the study participants

was 24.8 ± 4.3 years, which was statistically significant ($p < 0.001$), indicating a predominantly young maternal population. More than half of the mothers belonged to the 20-29 years age group (52.5%), followed by those aged ≥30 years (33.3%), while adolescents (<20 years) constituted 14.2% of the sample; this age distribution was statistically significant ($p = 0.010$). Regarding educational status, 42.5% of mothers had secondary education or above, 34.2% had primary education, and 23.3% were illiterate, with a significant association observed ($p = 0.002$). Socio-economic status showed that a majority belonged to the middle (43.3%) and lower (38.3%) classes, whereas only 18.4% were from the upper class, and this distribution was statistically significant ($p = 0.028$). In terms of parity, 60% of the mothers were multiparous and 40% were primiparous; however, this difference was not statistically significant ($p = 0.414$).

Table 1: Socio-Demographic Profile of Mothers Attending Pediatric OPD (N = 120)

Variable	Category	n (%) / Mean ± SD	95% CI	Test of significance	p-value
Age (years)		24.8 ± 4.3	24.0-25.6	One-sample t-test	<0.001
	<20	17 (14.2)	8.2-20.2	$\chi^2 = 11.36$	0.010
	20-29	63 (52.5)	43.6-61.4		
	≥30	40 (33.3)	25.0-41.6		
Education	Illiterate	28 (23.3)	15.8-30.8	$\chi^2 = 14.92$	0.002
	Primary	41 (34.2)	25.7-42.7		
	Secondary & above	51 (42.5)	33.7-51.3		
Socio-economic status	Lower	46 (38.3)	29.6-47.0	$\chi^2 = 9.14$	0.028
	Middle	52 (43.3)	34.4-52.2		
	Upper	22 (18.4)	11.5-25.3		
Parity	Primipara	48 (40.0)	31.2-48.8	$\chi^2 = 0.67$	0.414
	Multipara	72 (60.0)	51.2-68.8		

Table 2: Exclusive Breastfeeding Practices Among Mothers (N = 120)

Variable	Category	n (%) / Mean ± SD	95% CI	Test of significance	p-value
Initiation of breastfeeding	Within 1 hour	56 (46.7)	37.8-55.6	$\chi^2 = 6.82$	0.033
	After 1 hour	64 (53.3)	44.4-62.2		
Exclusive breastfeeding (0-6 months)	Yes	49 (40.8)	32.0-49.6	$\chi^2 = 9.76$	0.002
	No	71 (59.2)	50.4-68.0		
Pre-lacteal feeds	Given	44 (36.7)	28.1-45.3	$\chi^2 = 5.48$	0.019
	Not given	76 (63.3)	54.7-71.9		
Colostrum feeding	Given	82 (68.3)	60.0-76.6	$\chi^2 = 18.42$	<0.001
	Discarded	38 (31.7)	23.4-40.0		
Duration of exclusive breastfeeding (months)	—	4.2 ± 1.6	3.9-4.5	One-sample t-test	<0.001

[Table 2] summarizes exclusive breastfeeding practices among the study participants. Early initiation of breastfeeding within one hour of birth was observed in 46.7% of mothers, while 53.3% initiated breastfeeding after one hour, a difference that was statistically significant ($p = 0.033$). Exclusive breastfeeding for the recommended first six months was practiced by only 40.8% of mothers, whereas a significantly higher proportion (59.2%) did not practice exclusive breastfeeding ($p = 0.002$). Pre-lacteal feeds were given by 36.7% of mothers, while 63.3% avoided pre-lacteal feeding, showing a significant association ($p = 0.019$). Colostrum feeding was practiced by a majority (68.3%), whereas 31.7% discarded colostrum; this difference was highly significant ($p < 0.001$). The mean duration of exclusive breastfeeding was 4.2 ± 1.6 months, which was significantly lower than the recommended duration ($p < 0.001$), indicating early cessation of exclusive breastfeeding among many mothers.

Table 3: Barriers Affecting Initiation and Continuation of Exclusive Breastfeeding (N = 120)

Barrier	Present n (%)	95% CI	Test of significance	p-value
Perceived inadequate milk supply	58 (48.3)	39.4-57.2	$\chi^2 = 10.14$	0.001
Lack of antenatal counseling	69 (57.5)	48.6-66.4	$\chi^2 = 16.87$	<0.001
Maternal illness / fatigue	33 (27.5)	19.5-35.5	$\chi^2 = 3.96$	0.047
Work-related constraints	41 (34.2)	25.7-42.7	$\chi^2 = 6.21$	0.013
Family pressure / elder influence	46 (38.3)	29.6-47.0	$\chi^2 = 8.54$	0.004
Breast-related problems	29 (24.2)	16.8-31.6	$\chi^2 = 2.89$	0.089
Cultural beliefs & myths	35 (29.2)	21.0-37.4	$\chi^2 = 4.72$	0.030

[Table 3] highlights the barriers affecting initiation and continuation of exclusive breastfeeding. The most commonly reported barrier was lack of antenatal counseling (57.5%), followed by perceived inadequate milk supply (48.3%), both of which showed strong statistical significance ($p < 0.001$ and $p = 0.001$, respectively). Family pressure or influence of elders was reported by 38.3% of mothers ($p = 0.004$), while work-related constraints (34.2%) and cultural beliefs and myths (29.2%) were also significant barriers ($p = 0.013$ and $p = 0.030$, respectively). Maternal illness or fatigue was noted

by 27.5% of participants and showed marginal statistical significance (p = 0.047). Breast-related problems were reported by 24.2% of mothers; however, this factor did not reach statistical significance (p = 0.089).

DISCUSSION

In the present study, the mean age of mothers was 24.8 ± 4.3 years, with a majority belonging to the 20-29 years age group (52.5%). This age distribution is comparable to findings reported by Seabela ES et al. (2023),[5] who observed that most breastfeeding mothers were in their early reproductive years, reflecting early marriage and childbearing practices in India. Similar age predominance has also been reported by Patil DS et al. (2020),[2] where younger mothers formed the bulk of mothers with infants. Educational status showed a significant association, with 42.5% having secondary education or above, which is consistent with studies by Mundagowa PT et al. (2021),[3] who reported better awareness but not necessarily optimal practice of EBF among educated mothers. Socio-economic status in the present study showed predominance of lower and middle classes, a finding echoed by Consales A et al. (2020),[4] highlighting that socio-economic disadvantage often coexists with suboptimal breastfeeding practices. Parity did not show a significant association, similar to observations by Kinshella ML et al. (2021),[1] suggesting that multiparity alone does not guarantee better breastfeeding practices.

Regarding EBF practices, early initiation of breastfeeding within one hour was observed in 46.7% of mothers, which is comparable to findings by Thaithae S et al. (2023),[6] but lower than the rates reported by Vázquez-Osorio IM et al. (2022),[7] in institutional delivery-based studies. Exclusive breastfeeding up to six months was practiced by only 40.8% of mothers, aligning with reports by Bala K et al. (2020),[8] who documented EBF rates ranging between 35-45% in similar settings. Pre-lacteal feeding was still prevalent (36.7%), a finding consistent with Patterson JA et al. (2020),[9] indicating persistence of traditional feeding practices. Although colostrum feeding was practiced by a majority (68.3%), nearly one-third discarded colostrum, comparable to findings by Kinshella ML et al. (2021),[1] reflecting ongoing cultural misconceptions. The mean duration of exclusive breastfeeding (4.2 ± 1.6 months) was significantly lower than the recommended six months, similar to observations by Sokan-Adeaga MA et al. (2022).[10]

Barriers analysis revealed that lack of antenatal counseling (57.5%) was the most common barrier, consistent with findings by Patil DS et al. (2020),[2] emphasizing the critical role of antenatal and postnatal counseling. Perceived inadequate milk supply (48.3%) emerged as a major maternal concern, also reported as a leading barrier in studies by Kinshella ML et al. (2021).[1] Family pressure and elder influence (38.3%) and cultural beliefs (29.2%) were significant barriers, aligning with Mohammed S et al. (2023),[11] who highlighted socio-cultural norms as strong determinants of infant feeding practices. Work-related constraints were reported by 34.2% of mothers, similar to findings by Niazy NA et al. (2022),[12] especially among urban and semi-urban populations. Breast-related problems, although present, were not statistically significant, a finding also noted by Vázquez-Osorio IM et al. (2022).[7]

CONCLUSION

The present cross-sectional study highlights that exclusive breastfeeding practices among mothers attending the pediatric outpatient department of a tertiary care centre in Raichur remain suboptimal. Although a majority of mothers demonstrated basic knowledge regarding breastfeeding and colostrum feeding, less than half practiced exclusive breastfeeding for the recommended first six months of life. Early initiation of breastfeeding was not universal, and pre-lacteal feeding continued to be practiced by a considerable proportion of mothers.

The study identified multiple interrelated barriers influencing the initiation and continuation of exclusive breastfeeding. Lack of adequate antenatal counseling emerged as the most significant barrier, followed by perceived inadequate breast milk supply, family pressure and influence of elders, work-related constraints, cultural beliefs, and maternal fatigue or illness. These findings indicate a clear gap between knowledge and actual practice of exclusive breastfeeding.

Overall, the study underscores the need for strengthening antenatal and postnatal breastfeeding counseling, improving healthcare-provider-led education, and addressing socio-cultural misconceptions through family-centered and community-based interventions. Targeted strategies focusing on modifiable barriers are essential to improve exclusive breastfeeding rates and thereby enhance infant health outcomes.

Limitations of the study

1. The study was conducted at a single tertiary care centre, which may limit the generalizability of the findings to the wider community.
2. The cross-sectional study design restricts the ability to establish causal relationships between identified barriers and breastfeeding practices.
3. Information was collected based on self-reporting by mothers, which may be subject to recall bias and social desirability bias.
4. The study did not assess the role of healthcare provider practices or institutional delivery factors in detail.
5. Long-term breastfeeding outcomes beyond the period of data collection could not be evaluated.

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