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ORIGINAL ARTICLE

Breastfeeding practices among infants at Madina Teaching Hospital in Faisalabad: A comprehensive analysis.

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ABSTRACT… Objective: To gain insight into the breastfeeding practices of new mothers within a tertiary care facility. **Study Design:** Descriptive, Cross-sectional Approach. **Setting:** Department of Pediatric Medicine, Madina Teaching Hospital in Faisalabad. **Period:** Jan 2023 to June 2023. **Methods:** The study included 350 infants, of both genders, aged between 6 months and 1 year, who were attending the outpatient department for a routine checkup. Infants with congenital respiratory or cardiac conditions, as well as congenital anomalies such as cleft lip, diaphragmatic hernia, tracheoesophageal fistula, and congenital pneumonia at birth were excluded from the study. The researcher in training meticulously recorded data in the structured study Performa, utilizing this instrument to gather information on breastfeeding practices. **Results:** Findings revealed that 34.57% of mothers initiated breastfeeding within an hour after childbirth, while 53.43% did so between one and twenty-four hours later. Additionally, 30.57% of mothers chose not to provide their newborns with colostrum, whereas 69.43% did. Only 32.86% of women exclusively breastfed their infants. Furthermore, 35.71% of mothers fed their babies honey, 33.71% used ghutti, 17.14% opted for top feed, and 1.43% provided water. A backache hindered 32% of women from breastfeeding, while weakness affected 40.57%. Additionally, nostalgia, experienced by 13.43% of mothers, and depression experienced by 11.71%, also posed obstacles to breastfeeding. **Conclusion:** The study indicated that while the majority of mothers possessed knowledge about breastfeeding, there was a noticeable gap between knowledge and its application in practice. Surprisingly, a relatively small percentage of women engaged in exclusive breastfeeding.

Key words: Breastfeeding Practices, Breastfeeding, Initiation Timing.

INTRODUCTION

The most straightforward and effective approach to fulfilling an infant's nutritional requirements is initiating breastfeeding promptly after birth and adhering to exclusive breastfeeding for the initial six months of life.[1] This method is not only the most economical but also the most accessible way to nourish a child.[2] Due to enhanced immunity, breastfed infants necessitate fewer hospital visits.[3] Extensive research in low and middle-income countries has demonstrated that breastfeeding serves a protective role, reducing infant mortality by 12% compared to non-breastfed infants.[4] Additionally, children who receive breast milk tend to exhibit higher IQ scores and perform better in school than those who are not breastfed.[5]

Surprisingly, a significant portion of the population in countries like Pakistan, where a substantial segment lives below the poverty line, opt not to provide their infants with free breast milk and instead invest in expensive formula milk. Alternatively, some parents resort to diluting cow or buffalo milk, which is not a nutritionally sound option. In Pakistan, children under the age of five constitute 45% of the stunted population.[6] Chronic malnutrition in females leads to stunting, reduced long-term IQ, and impaired fertility. Children are the cornerstone of a nation's future, and it is imperative that they grow into productive citizens contributing to the progress of the country.[7]

A local study conducted in Dera Ghazi Khan, encompassing 360 mother-infant pairs

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and examining the prevalence of exclusive breastfeeding in infants under 6 months, concluded that various factors, including inadequate milk supply, weakness, depression, mastitis, and backache, contribute to sub-optimal breastfeeding practices.[8] Only 25% of mothers initiated breastfeeding within an hour, while 68% did so within one to twenty-four hours post-delivery. Colostrum was administered to babies by 73% of mothers, while 27% discarded it. Solely 12% of women exclusively breastfed their infants. Additionally, 34% of women fed their babies honey, 22% used ghutti, 24% opted for top feed, and 2% offered water. Backaches led to 32% of mothers refraining from breastfeeding, weakness influenced 39%, nostalgia played a role for 21%, and depression for 8%.[8] Various social and cultural norms and misconceptions, such as the belief in the malevolence of breastfeeding due to the evil eye or the notion that initial milk is spoiled, further contribute to sub-optimal breastfeeding practices.[9]

In an effort to promote breastfeeding, the World Health Organization (WHO) and the United Nations International Children Emergency Fund (UNICEF) introduced the Baby-Friendly Hospital Initiative course in 1993, leading to an improvement in breastfeeding practices.[2] Despite the emphasis on breastfeeding practices, data nationwide indicate that it is not being practiced to its full potential. According to Pakistan's demographic and health data from 2012–2013[6], only 38% of infants in the country are exclusively breastfed. This finding underscores the need for local studies to identify the reasons for breastfeeding challenges and the development of innovative coping mechanisms. Without concerted efforts, achieving the global objective of 50% exclusive breastfeeding by 2025, as outlined in the WHO's Global Nutritional Targets 2025, may prove elusive.[10]

OBJECTIVE

The study's aim was to "discover the breastfeeding practices among new mothers in a tertiary care hospital."

METHODS

This cross sectional study was conducted at Department of Medicine from Jan to June 2023. Feeding procedures for infants encompass various critical elements. First, the initiation of breastfeeding is categorized into three distinct criteria: a) commencing breastfeeding within an hour of birth, b) initiating breastfeeding within twenty-four hours of delivery, or c) not being breastfed at all. The subsequent operational definition pertains to the type of initial feeding an infant receives, which may include options such as honey, breast milk, ghutti, top feed, or water.

Another key aspect is the receipt of colostrum, which is assessed based on whether or not the infant received this vital early milk according to the defined criteria. Exclusive breastfeeding is then evaluated to determine if the infant was solely nourished through breastfeeding.

Breastfeeding practices are examined in terms of their feasibility and frequency. This involves assessing if and when breastfeeding is possible and whether it occurs on demand.

In instances where nursing does not take place, documented historical records are consulted to ascertain the reasons. These may include factors such as backache, weakness, depression, or nostalgia.

Furthermore, the classification of socio-economic status is established through specific income brackets. Lower class families are characterized by a monthly income under 10,000 Pakistani rupees, while lower middle class families earn between 10,000 to 30,000 PKR on a monthly basis. Families falling within the upper middle class bracket have a monthly income ranging from 30,001 to 100,000 PKR. Finally, families with a monthly income exceeding 100,000 PKR are classified as upper class.

Sample Selection

Infants of both genders aged 6 months to 1 year attending the outpatient department for routine check-ups were included. Mothers with mental disabilities, those medically advised against breastfeeding, preterm (less than 37 weeks) or low birth weight (less than 2500 g)

neonates, newborns in continued neonatal ICU care, those diagnosed with congenital cardiac disease via echocardiography, and infants with congenital conditions like cleft lip, diaphragmatic hernia, tracheoesophageal fistula, congenital pneumonia, or other lung diseases were excluded from the study.

Data Collection and Analysis Procedures

Prior to commencing the study, ethical clearance (UMDC/Principal/2022/03) (05.01.20) and relevant administrative approvals were obtained. Parents were duly informed about the study's potential risks and benefits, and explicit consent was secured for the use of data in research and publication. The study encompassed all eligible children, and their demographic information pertaining to age and gender was systematically recorded. Breastfeeding behaviors were assessed in accordance with the operational definition.

In terms of data analysis, SPSS version 20 was employed for data entry and subsequent analysis. Descriptive statistics were employed to characterize and summarize the data set. Frequency and percentage were computed for categorical (qualitative) variables such as gender and breastfeeding behaviors, while mean and standard deviation (SD) were calculated for numerical (quantitative) variables, including the count of infants receiving breast milk. Moreover, variables such as maternal age, baby's gender, educational attainment, employment status, number of children, monthly income, residential environment, and family structure were stratified in the data set. The Post Stratification Chi-Square Test was applied, with a significance level set at 0.05.

RESULTS

Mothers in the study had an average age of 30.25 ± 5.51 years. Mean age of mother was 30.25 ± 5.51 (Table-I) with 42.86% mother belongs to age group age 18 to 30 years and 57.14% belongs to age group 31 to 40year. Distribution of patients according to place of living (Table-I) There were 172(49.14%) cases who belonged to rural areas and 178 which is 50.86% is form urban area, 186(53.14%) were with > 3 children 164(46.86%) having < 3 children. Only 43(12.28%) belonged to upper socioeconomic status and 198(54.29%) is from poor and 117(33.43%) from middle socioeconomic states. 106(30.29% had matric or lower education and 98(28.0%) had post-graduation. Majority of the mothers were unemployed 220(62.86%) and 130(37.14%) employed also most of them 219(62.57%) were living as a nuclear family and 131(37.43%) living as joint family. (Table-I)

In this study, it was observed that 53.43% of mothers initiated breastfeeding between one to twenty-four hours postpartum, while 34.57% did so within the first hour. Additionally, 30.57% of mothers chose not to provide their newborns with colostrum, whereas 69.43% did. Only 32.86% of women exclusively breastfed their infants. Further feeding practices included 35.71% of mothers offering honey, 33.71% using ghutti, 17.14% opting for top feed, and 1.43% providing water. The reasons for discontinuing breastfeeding are outlined in Table V, with factors such as backaches (32%), weakness (40.57%), nostalgia (13.43%), and depression (11.71%) being cited. (Table-II)

		n	%
Age (in years)	18-30	150	42.86
	31-40	200	57.14
Residence	Rural	172	49.14
	Urban	178	50.86
No. of children	≤3	164	46.86
	>3	186	53.14
Socioeconomic status	Poor	190	54.29
	Middle	117	33.43
	Upper	43	12.28
Mother education	Below Matric	106	30.29
	Undergraduate	146	41.71
	Post-graduate	98	28
employment	employed	130	37.14
	unemployed	220	62.86
Family type	Joint	131	37.43
	Nuclear	219	62.57

Table-I. Basic characteristics of the mothers of infants included in the study

Breastfeeding Practices		n	%
Time of initiation of breastfeeding	Within one hour	121	34.57
	Within twenty four hours of delivery	187	53.43
	Not breast fed	42	12.0
First feed given to the baby	Honey	125	35.71
	Breast milk	42	12.0
	Ghutti	118	33.71
	Top Feed	60	17.14
	Water	05	1.43
Colostrum given	Yes	243	69.43
	No	107	30.57
Breastfeed the child	On demand	243	69.43
	When feasible	107	30.57
Exclusively breast feed	Yes	115	32.86
	No	235	67.14
Reasons for not breastfeeding	Backache	120	34.29
	Weakness	142	40.57
	Depression	41	11.71
	Nostalgia	47	13.43

Table-II. Breastfeeding practices among mothers of infants

Breastfeeding practices were further analyzed in relation to age of mothers. It was observed that the older mothers had significantly higher practice of starting breastfeeding within one hour of birth. Also there were 42 out of 200 mothers with age 31-40 years who gave breast feed as the first feed to baby while none among younger mothers did so. The practice of giving colostrum and feeding the child on demand was significantly higher among younger mothers. While the exclusive breast feeding practice was more common among elder mothers which was significantly higher than in younger ones. (Table-III)

DISCUSSION

Optimal nursing practices play a pivotal role in reducing infant mortality rates and fostering long-term health outcomes for children.[11] A Lancet series published in 2016 highlighted that adhering to best breastfeeding practices could potentially prevent 823,000 deaths of children under five years old each year, guarding against hospitalization for conditions like diarrhea, respiratory infections, and otitis media.[12] Recognizing the global significance of early and exclusive breastfeeding, the World Health Organization (WHO) recommends initiating breastfeeding within the first hour of birth, maintaining 90% exclusive breastfeeding coverage for six months, and complementing it with safe, adequate diets for two years or longer.[13] Recent studies affirm that mothers who commence breastfeeding early are more likely to sustain exclusive nursing for six months.[14] In contrast, bottle feeding has been shown to have adverse effects on the duration of exclusive breastfeeding. Despite the prevalence of breastfeeding in Malawi, there is a dearth of comprehensive studies examining breastfeeding practices across the nation, with the majority of research conducted in specific regions, leaving a knowledge gap on a national scale.[15,16,17,18,19,20,21,23]

Breastfeeding Practices		18-30 yrs (n=150)		31-40 yrs (n=200)		P-Value
Time of initiation of breast feeding	Within one hour	35	23.3%	86	43%	<0.001
	Within twenty four hours of delivery	97	64.6%	90	45%	
	Not breast fed	18	12%	24	12%	
First feed given to the baby	Honey	51	34%	74	37%	<0.001
	Breast milk	00	0%	42	21%	
	Ghutti	70	46.6%	48	24%	
	Top Feed	24	16%	36	18%	
	Water	05	3.3%	00	0%	
Colostrum given	Yes	117	78%	126	63%	0.003
	No	33	22%	74	37%	
Breastfeed the child	On demand	117	78%	126	63%	0.003
	feasible	33	22%	74	37%	
Exclusively breast feed	Yes	29	19.3%	86	43%	<0.001
	No	121	80.6%	114	57%	

Table-III. Breast feeding practices among mothers with respect to their age groups

In this study, it was observed that 53.43% of mothers initiated breastfeeding between one to twenty-four hours postpartum, while 34.57% did so within the first hour. Additionally, 30.57% of mothers chose not to provide their newborns with colostrum, whereas 69.43% did. Only 32.86% of women exclusively breastfed their infants. Further feeding practices included 35.71% of mothers offering honey, 33.71% using ghutti, 17.14% opting for top feed, and 1.43% providing water. Various maternal factors such as backaches, weakness, nostalgia, and depression were identified as impediments to breastfeeding. These findings align with a study conducted in Pakistan's Dera Ghazi Khan District, which revealed similar challenges to breastfeeding, including a lack of milk production, weakness, depression, mastitis, and back pain, resulting in sub-optimal breastfeeding practices.[8]

Malawi has demonstrated commendable progress in breastfeeding practices, with rates of early initiation and exclusive breastfeeding on an upward trajectory from 2004 to 2010.[24] During this period, the proportion of mothers exclusively breastfeeding rose from 53.3% to 71.3%, surpassing rates in other African countries like Tanzania, Ethiopia, and Nigeria, and even outperforming industrialized nations like the USA and Taiwan.[26,27] This improvement can be attributed, in part, to the implementation of the Baby-Friendly Hospital Initiative (BFHI) and associated training programs for medical staff.[28] However, it is worth noting that exclusive breastfeeding tends to decline as infants reach six months of age, a trend observed in other regions like Iran and Nigeria, possibly influenced by factors such as the introduction of supplements and maternal concerns.[30]

In conclusion, this study underscores that while mothers possess knowledge about breastfeeding, there exists a noticeable gap between knowledge and practice. Exclusive breastfeeding rates decrease as infants age, mirroring trends observed in other countries. To address these challenges, targeted interventions and support mechanisms are needed to empower mothers in their breastfeeding journey. This includes comprehensive education during pregnancy and postnatal care, as well as routine follow-ups for continuous guidance on breastfeeding practices and related issues.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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