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ORIGINAL ARTICLE

Impact of Maternal age and Parity on Exclusive Breast Feeding Practices

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ABSTRACT

Aim: To determine the impact of maternal age and parity on incidence of exclusive breast feeding practices in infants.
Study Design: Cross sectional study
Place and duration of study: Department of Pediatric medicine, University of Lahore Teaching Hospital Lahore from December 2020 till May 2021
Methodology: A Total of 231 mothers who were having children up till 1 year of age were registered for the study after ethical clearance. Verbal consent was taken from the mothers. Demographic details of the study population were recorded. The study population was interviewed with the help of predesigned questionnaire which included maternal age, parity and feeding practices. Confidentiality of data was ensured. All data was entered and analyzed using SPSS 23. Quantitative variables are presented as mean and standard deviation.
Results: The study participants were between age range of 19 years to 37 years. Out of 231 mothers 145(62.8%) breastfed their babies of which 96(41.6%) were exclusively breastfeeding and 49 were either giving formula milk 28(4.8%) or fresh milk 11(4.8%). In addition, 86(37.2%) did not breastfed at all. There was no statistical difference in pattern of breast feeding with maternal age and parity, p-value more than 0.05
Conclusion: Importance of breastfeeding should be emphasized in antenatal and postnatal visits to mothers regardless of their age and parity
Keywords: Breastfeeding, Maternal age, Parity

INTRODUCTION

Under-nutrition is responsible for nearly 45% deaths annually in children that accounts for almost 3 million child deaths globally. Adequate feeding is responsible for survival, healthy growth and development of infant and child. It also reduces the risk of chronic disease[1].

Human milk is the ideal milk for infants as it is peculiarly adapted to meet the need of the infant[2]. Optimal breastfeeding can save more than 8 million children under the age of 5 years. World Health Organization (WHO) recommends exclusive breastfeeding for initial six months of life as it enhances child's immunity and shields them from major causes of infant mortality that are acute respiratory infections and diarrhea. It also promotes cognition and decrease the risk of obesity in adulthood. It also improves their responses to vaccination. (1) Breastfeeding not only improves nutritional status and immunity but also promotes bonding between infant and mother. It also helps to prevent breast cancer in mothers in advance age[2].

The duration of EBF is still not up to the mark in both under developed and as well as developed nations. (3) The UNICEF published a global data on breastfeeding which showed that between 1990-2012 the prevalence of EBF remained static i.e. around 36%[4] Demographic and health survey of Pakistan indicated that in 2012-2013 rate of exclusive breastfeeding was 38%[5]. According to UNICEF exclusively breastfeed for a first 5 months is more in Sri Lanka (82%) Bangladesh (65%) and India (58%) as compared to Pakistan (48%)[6].

Initiation and duration of breastfeeding is multifactorial that includes social and economic factors, mother and infant behavior, cultural habits and contribution of health care workers. Among many factors mother age and parity are the one that are compelling and fascinating research topics.

The aim of this study is to determine the impact of maternal age and parity on incidence of exclusive breast feeding practices in infants.

METHODOLOGY

This cross sectional study was conducted in the Department of Pediatric medicine, University of Lahore Teaching Hospital Lahore Sampling technique used was non probability convenience sampling technique. Sample size is calculated using WHO sample size calculator keeping 95% confidence interval, 6% absolute precision, and 69.4% previously reported frequency (least among all). Sample size was 231. Mothers of infants from attending pediatric OPD for routine checkup of their babies from December 2020 to May 2021 were included

Data collection and statistical analysis procedure: Mothers who were having children up till 1 year of age attending the outpatient Pediatrics department of university of Lahore teaching hospital were registered for the study after ethical clearance. Verbal consent was taken from the mothers. Demographic details of the study population were recorded. The study population was interviewed with the help of a predesigned questionnaire which included maternal age, parity and feeding practices. Confidentiality of data was ensured. All data was entered and analyzed using SPSS 23. Quantitative

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variables were presented as mean and standard deviation. Qualitative variables were presented as frequency and percentages.

RESULTS

The study participants were between age range of 19 years to 37 years. Out of 231 mothers 145(62.8%) breastfed their babies of which 96(41.6%) were exclusively breastfeeding and 49 were either giving formula milk 28(4.8%) or fresh milk 11(4.8%). In addition, 86(37.2%) did not breastfed at all. Pre lacteal feed were given to 46(35.5%) of the newborns. Mothers were divided into 4 groups according to age, 2 mothers were having age less than 20 years, 115 mothers were between 21-25 years, 80 mothers were between 26-30 years and 34 mothers were having age above 30 years. Percentage of breastfeeding in relation to age of mother is shown in Table-I. Mothers in group 2 have highest percentage of breastfeeding (68.7%) followed by group 3(61.3%) and Group 4(47.1%). Only 2 mothers were less than 20 years. Table-II shows relation of number of children with breastfeeding practices and it was also divided into 4 groups.

Figure II: Feeding pattern

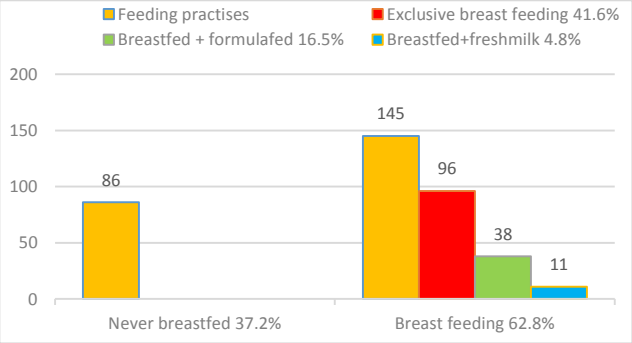

Table I: Relationship of maternal age with breast feeding

Age of mother		Breast feeding		Total
		Yes	No	
Less than 20 years	Count	1	1	2
	%	50.0%	50.0%	100.0%
21 To 25 years	Count	79	36	115
	%	68.7%	31.3%	100.0%
26 To 30 years	Count	49	31	80
	%	61.3%	38.8%	100.0%
More than 30 years	Count	16	18	34
	%	47.1%	52.9%	100.0%
Total	Count	145	86	231
	%	62.8%	37.2%	100.0%

P value 0.136

Table-II: Relation of number of children with breastfeeding practices.

Number of children		Breast feeding		Total
		Yes	No	
1	Count	50	27	77
	%	64.9%	35.1%	100.0%
2	Count	51	32	83
	%	61.4%	38.6%	100.0%
3	Count	23	13	36
	%	63.9%	36.1%	100.0%
4	Count	17	10	27
	%	63.0%	37.0%	100.0%
5	Count	4	3	7
	%	57.1%	42.9%	100.0%
6	Count	0	1	1
	%	0.0%	100.0%	100.0%
Total	Count	145	86	231
	%	62.8%	37.2%	100.0%

P-value 0.847

DISCUSSION

This study was done to find out breastfeeding practices and its relation to maternal age and parity and we found that breastfeeding practices decreases as age and number of children increases. These findings demonstrated that multigravida and older women are least focused group that may require more attention to enhance success rate of breastfeeding.

A study carried out in Japan showed that breastfeeding practices were the lowest in primiparous mothers. According to the study success rates of EBF was 69.4% in primiparous aged ≥35, 73.5% in multiparous aged ≥35, 74.3% in primiparous aged <35, and 82.3% in multiparous aged <35. Older maternal age and primiparous became independently associated with EBF initiation[7]. Another study done at Kenyatta University showed that 39.4% primiparous and 49.3% multiparous mothers exclusively breastfed their babies[8].

Study done by the Ministry of Health, Labor and Welfare in Japan also favors that older and primipara women have negative impact on EBF[9]. One study showed that EBF practices increased with increasing numbers of children which is against our finding[10].

A study revealed that mothers aged 30–49 years were more likely to practice exclusive breastfeeding. While mothers having 3–4 children were less likely to practice exclusive breastfeeding[11]. A study done at Tanzania showed that older women aged 35 years had higher prevalence of EBF compared to those aged 18–24 years [(12)]. Study done in Nigeria showed that adolescent mothers had lower prevalence for three of the six key breastfeeding indicators including early initiation of breastfeeding, exclusive breastfeeding <6 months and no pre lacteal feed. However, age of mother was not associated with these factors[13].

Another study done by Abdul Hamid showed that breastfeeding is more common in primiparous and mothers age less than 30 years[14].

Studies done by Hackman[15] Griffiths et al[16] and stated that multiparous mothers and those who gave birth at younger age were having decrease rate of breastfeeding.

Study done by Kandeel WA showed that mothers less than twenty-five years, those who were primipara, divorced or widow were more likely to artificially feed than exclusively breastfeeding. Study also concluded that babies who were 3rd in number or higher were more likely to be artificially fed[17]. A study done by Lorenzo documented that older women were less likely to breastfed than younger ones. [(18)] According to Simsa, breastfeeding rate was low in young and teenage mothers[19].

Although effect of old age on breastfeeding is not clearly explain, this point need special attention that an increased maternal age at first childbirth has been recorded in most countries in the last 2 decades so older mothers should be specially focused during antenatal visits[7].

Studies show erratic relation between breastfeeding and parity. Few favor multiparous while other found no association with prolonged exclusive breastfeeding. Some reported that primiparous mothers were more likely to initiate and continue breastfeeding. Similarly, some favor

older women have more EBF percentage while other studies have results opposite to these.

This study has some limitations as social, economic and cultural behaviors which have influential effect on EBF were not considered in this study. These included mother's schooling and employment status, marital status, assisted conception, maternal psychological factors, and family preference for breastfeeding. Another limitation was that women less than 20 years are very low in number in our study however as age of marrying is increasing in our country like rest of world that may be the cause but this factor should be focused. In our study we focused on two factors i-e maternal age and parity however maternal personal background should be explored and concerns regarding previous breastfeeding should be identified.

CONCLUSION

It has been observed that with increasing maternal age and parity, the frequency of breast feeding decreased apparently but on statistical analysis no significant difference was found. However other finding was failure of exclusive breast feeding in majority of lactating mother consequently increased number of children are deprived of breast feeding and its potential beneficial effects. So there is an increased need of breast feeding and lactation awareness program at all level including establishment of an in hospital lactation management program for all pregnant women coming to hospital for antenatal checkup and awareness of benefits of breastfeeding in all age groups of mother.

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Author's contribution: MBS: Concept & design **MN:** Analysis and interpretation **MR:** Analysis and interpretation **ME:** Data collection, **AT:**Data collection **AWR:** Final approval

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