



Original Article

Knowledge, Attitude and Practice towards Exclusive Breastfeeding among Lactating Mothers visiting Sir Ganga Ram Hospital, Lahore: A Descriptive Cross-Sectional Study

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ABSTRACT

Breastfeeding is important public health issues having numerous benefits for both infants and mothers but rates of exclusive breastfeeding remain low throughout the world. Several studies have investigated the factors that influence breastfeeding behaviors including maternal education, social support, and cultural beliefs. However, there is still much to be learned about the knowledge, attitudes, and practices of lactating mothers and how these factors affect breastfeeding outcomes. **Objective:** To assess knowledge, attitude, and practices of exclusively breastfeeding among lactating women attending Sir Ganga Ram Hospital. **Methods:** The cross-sectional study is carried out in Sir Ganga Ram Hospital, Lahore. The study is conducted in 4 months from February 2023 to May 2023. SPSS version 21.0 is used for data analysis. In this research, all individuals aged from 18 to 40 years; mothers having infant of from 0-24 months from Pediatric, Gynecology Wards and OPD were included. In exclusion criteria: non-cooperative mothers. Mothers with psychological problems were not bothered. Mothers with severely ill infants (e.g., cleft palate) **Results:** 54% of mothers were within normal ranges of BMI and only 4% were within the range of obesity. In our study, 46% of lactating mothers had 1-2 children and 13% had 5 or more than 5 children. 67% of mothers believed breastfeeding helped gain optimal weight gain. 44% of mothers gave their child colostrums. About 28 Children <4 months were breastfed less than 4 times. **Conclusion:** The study shows that mothers were well informed and had proper knowledge, positive attitude and behavior towards breastfeeding. Most of the lactating mothers know the benefits of breastfeeding for 2 years.

INTRODUCTION

Human milk or breast milk is an ideal food for newborn babies and infants [1]. As breastfeeding is beneficial for infants, it is also beneficial for mothers. It decreases the risk of breast and ovarian cancer in females [2]. There are significant benefits for the babies that were fed on breast milk for the first two years after birth [3]. Breast milk is a unique combination of all the vital nutrients and antioxidants an infant's body needs to grow mentally and physically [4]. WHO has recommended that breastfeeding

should start in the first hour of birth and continue till 6 months without any other food or liquid. Weaning should start at the age of 6 months but breastfeeding should not be discontinued until the age of 24 months. Children who did not receive complementary meals on time had a greater risk of wasting. Infants who did not obtain the required amount of nutritional diversity had a greater risk of being underweight than those who did. In comparison to their counterparts who received the minimal feeding frequency,

children who did not receive it were more likely to be stunted. Hence it is proved that infant malnutrition is predisposed by inadequate complementary feeding [5]. According to several studies, the attitude of a mother towards breastfeeding is very important for initiation, duration and decision regarding breastfeeding [6]. So, it has been found that to raise the rate of exclusive breastfeeding, it is vital to boost education before and after birth, refrain from using any other nutrition, pacifiers, or bottles after delivery, and spend appropriate time with the infant [7]. The knowledge about breastfeeding is very important as if a mother has proper knowledge about breastfeeding, it will help her in the process and same goes with the attitude of a mother towards breastfeeding and the health of her child. Improved Knowledge and attitude could contribute in increasing the prevalence of exclusive breastfeeding in both working and non-working mother [8]. Regular continuous individualized prenatal education and postnatal assistance can effectively enhance rates of exclusive breastfeeding from birth to 4 months postpartum and modify breastfeeding behavior [9]. Exclusive Breastfeeding was predicted by age, anticipated pregnancy, postpartum education, frequent nighttime nursing, and formula introduction time. Pregnant adolescents may begin nursing sooner if the pregnancy is planned and the family and medical professionals educate and promote breastfeeding. As a result, methods for improving breastfeeding programs should be developed [10]. Undoubtedly, breastfeeding exclusively is a crucial infant feeding method that helps ensure children's health and wellness, particularly in developing and underdeveloped nations. This feeding technique not only ensures a child's survival but also benefits the mother's health and offers defense against several non-communicable illnesses [11]. Even though many mothers were aware of the value of colostrum, the statistics show that more work must be done to change people's knowledge, attitudes, and practices towards colostrum feeding [12]. The world's exclusive breastfeeding rate is now at 38%, but the World Health Assembly set a goal in 2012 to raise it to at least 50% by 2025 [8]. Despite these guidelines, it has been shown throughout the time that the practice of exclusive breastfeeding has not been widely embraced; most women support the notion but do not exclusively nurse their babies for the first few weeks after giving birth. Numerous aspects, including cultural, societal, and economic circumstances, have been noted as potential barriers to the effective practice of exclusive breastfeeding [13]. The BSP proved to be an efficient technique for delaying any breastfeeding cessation, hence increasing breastfeeding length and exclusivity. Also, this intervention could help promote breastfeeding if

implemented widely [14]. Health education programs and neonatal feeding strategies are affected by late breastfeeding initiation [15]. More noteworthy public mindfulness, regulations that support breastfeeding in broad daylight and the work environment, as well as help of relatives may all be critical to effective breastfeeding [16]. To improve exclusive breastfeeding practice, it was suggested that women be educated, husbands be engaged, antenatal care follow-up be encouraged, and exclusive breastfeeding counseling be provided during antenatal care [17].

METHODS

The cross-sectional study is carried out in Sir Ganga Ram Hospital, Lahore. The study is conducted in 4 months from February 2023 to May 2023. SPSS version 21.0 is used for data analysis. In this research, all individuals aged from 18 to 40 years; mothers having infant of from 0-24 months from Pediatric, Gynecology Wards and OPD were included. In exclusion criteria: non-cooperative mothers. Mothers with psychological problems were not bothered. Mothers with severely ill infants (e.g., cleft palate).

RESULTS

Table 1 demonstrates the demographic characteristics of the participants; number of children, BMI of mother, Maternal Employment status, General Health status of mother, education level of mothers. In the above table majority (54%) of mothers are at normal BMI and about 28% are underweight., whereas most of the mothers below to age of 21-25 years. About 75% having C-section delivery, most of the mothers have 1-2 numbers of children. 54% below to urban area and 42% are illiterate and 39% are graduate or above. 68% are housewives, 46% mothers have good health status.

Table 1: Demographic Characteristics of Participants

Number of Children	Frequency
1-2	46
3-4	40
5 or more	13
Type Of Delivery	Frequency
Normal	43
C-section	57
BMI Of Mother	Frequency
<18.5	28
18.5-24.92	54
5-29.9	14
30-34.9	4
Family Background	Frequency
Rural	44
Urban	56
Maternal Education Level	Frequency
Illiterate	42
Intermediate	19
Graduate or above	39

Maternal Employment Status	Frequency
Housewife	68
Service	32
Socioeconomic status	Frequency
A	26
B	54
C	20
General Health Status Of Mother	Frequency
Healthy	30
Good	46
Poor	24

Table 2 demonstrates the importance of breastfeeding, age gap between children, benefits of breastfeeding, initiation of breastfeeding, effect of bonding between mother and child, benefits of formula milk and if anyway breastfeeding can harm your child.

Table 2: Knowledge of lactating mothers towards exclusive breastfeeding

Do you know the importance of Breast feeding?	Frequency			
	Yes	No		
	91	9		
Do you think Breastfeeding can harm your child in anyway?	Frequency			
	Yes	No		
	16	84		
Do you think formula milk can be beneficial to your child	Frequency			
	1 year	2 year	3 year	4 year
	31	41	23	5
Do you think breastfeeding is beneficial for mother?	Frequency			
	Yes	No		
	85	14		
At what time did you initiate breastfeeding to your child after delivery?	Frequency			
	1 hr. of birth	Between 1-4hrs	24hrs of birth	2nd day onwards
	27	31	17	25
Is there any effect of breast feeding between the mother and child bond?	Frequency			
	Bonding increase	No effect	Bonding decrease	
	86	14	0	

Table 3 demonstrates the changes in the body due to breastfeeding, nutritive value of substitute formula milk is same as the mother milk, extra food than breast milk and is it necessary to give water along with breast milk and if fenugreek and almonds can improve production of milk.

Table 3: Attitude of lactating mothers towards exclusive breastfeeding

Can fenugreek and almonds improve milk production?	Frequency	
	Yes	No
	53	47
Is it necessary to give water along with breast milk?	Frequency	
	Yes	No
	23	77
Can breastfeeding bring any changes in the body shape?	Frequency	
	Yes	No
	80	20

The nutritive value of substitute formula milk is same as the mother milk?	Frequency	
	Yes	No
	48	52
Do you feel comfortable giving extra food rather than breast milk to your infant?	Frequency	
	Yes	No
	56	44

Table 4 demonstrates the questions regarding practices of exclusively breastfeeding; demand of breastfeeding, colostrums feeding, breastfeeding during illness of child and your illness, first nutrient to your baby.

Table 4: Practices of lactating mothers towards exclusive breastfeeding

Do you breastfeed on demand?	Frequency		
	Yes	No	
	74	26	
How frequently do you feed your child during the night?	Frequency		
	1-3 times	More than 3 times	
	47	53	
Did you give colostrum to your baby?	Frequency		
	Yes	No	
	44	56	
Does exclusive Breastfeeding help the child to gain optimal weight?	Frequency		
	Yes	No	Don't Know
	57	33	10
If you use formula milk do you know the exact method to make the formula?	Frequency		
	Yes	No	
	92	8	
Do you continue breastfeeding during your illness?	Frequency		
	Yes	No	
	68	32	
Do you continue breastfeeding if your child is sick?	Frequency		
	Yes	No	
	74	26	
What was the first nutrient given to the baby?	Frequency		
	Honey	Plain water	Breast milk
	77	1	22

DISCUSSION

The research was conducted to study the knowledge, attitude and practices of exclusive breastfeeding in lactating mothers by visiting Sir Ganga Ram Hospital, lactating mothers were selected through non-probability convenient sampling technique. According to the results, 46% of lactating had 1-2 children, 40% lactating mothers had 3-4 children while 13% had 5 or more children. In addition, the socioeconomic status of lactating mothers and their family also contribute, 26% mothers belong to upper class, 54% belongs to middle class and 20% belongs to poor class category. Moreover, the health status of a mother is also associated with the health of an infant. The results have shown that 30% of mothers are healthy, 46% are in good status of health while 24% of mothers had a poor health status. Furthermore, the maternal employment status also effects the continuation of

breastfeeding till optimal age. The results have shown that 68% lactating mothers are housewife and 32% of them are working women. The maternal education of mothers also had a huge impact on the knowledge, attitude and practices of lactating mothers towards exclusive breastfeeding. The illiteracy level of lactating mothers is 42% while 19% of mothers has intermediate level education and 39% are graduated. Similarly, a survey was conducted and published by John Elflein in 2017. The results showed that majority 90% of mothers were graduated and they initiated breastfeeding and continued it while 69% had less education or diplomas [18]. Current studies have shown that most of the lactating mothers have proper knowledge, a positive attitude towards breastfeeding and they practice breastfeeding till 2 years after the birth. The study is conducted among 100 lactating mothers out of which 56% mothers considered colostrum is good for baby's health while 38% mothers had no idea what colostrum is and 6% mothers do not consider it beneficial. While 68% mothers also believe that it is fine to continue breastfeeding during their illness and 32% mothers do not feed their infant when they are not feeling well. Similarly, a cross-sectional study was conducted by Bashir *et al.*, in 2018 [19]. By using interviews and semi structured questionnaire, data were gathered. In this study conducted among 100 lactating mothers we have also concluded that 83% of mothers stated that they have practiced breastfeeding after the birth of their child while 17% did not practice breastfeeding and they believe formula milk could fulfill the nutritional needs of their child. Similar results were found in a cross-sectional study was conducted by Ayalew in 2016 [20]. It is a community-based study. The purpose of this cross-sectional study was to determine the prevalence and factors among first-time mothers about exclusive breastfeeding. Results shows that 57.3% of women out of 400 used exclusive breastfeeding 24 hours before the survey. Compared to the nationally advised threshold, a significant number of moms practiced exclusive breastfeeding at a low level. These findings suggest that in order to increase exclusive breastfeeding among first-time mothers, multidisciplinary and intersectoral strategies are required [19]. This study also revealed that among 100 lactating mother, 65% mothers have proper knowledge about breastfeeding and only 35% mothers have very less or no knowledge about breastfeeding. In this survey we have concluded that 65% mothers breast feed their child for first 6 months while 35% mothers did not give breast milk to their infant for 6 months after birth. Similar type of study was conducted by the authors of this cross-sectional study was Hegazi *et al.*, and this study was conducted in 2019 [21]. This study was conducted to find out the prevalence of Exclusive breastfeeding and variables

influencing this type of breastfeeding. The data were collected from 420 breastfeeding mothers. The results of this study indicate that six-month prevalence of Exclusive breast feeding was 27.6%, which is significantly lower than what the World Health Organization recommends [20]. According to this study we have concluded, 68% mothers consider formula milk beneficial to the health of their infant while 32% of lactating mothers do not think that giving formula milk instead of breast milk is beneficial for the baby's health. In another factor, lactating mothers were asked the time of initiation of breastfeeding after the birth. Among 100 lactating mothers, 27% start breastfeeding within the 1st hour after delivery, 31% of them initiated breastfeeding within 1-4 hours after delivery, 17% of mothers fed their child breastmilk within 24 hours while only 25% of mothers initiated breastfeeding from 2nd day onwards. A similar study took place by Yilmaz *et al.*, in 2016 [10]. In present research, early breastfeeding initiation, the prevalence of Exclusive Breastfeeding throughout the first six months. 200 adolescent mothers having children aged 6 to 24 months participated in this cross-sectional research. The proportion of patients who began breastfeeding within one hour was 45.5%. As the baby's first source of nourishment, 74% of adolescent moms chose nursing over any sort of formula [10]. The current study has shown that duration of breastfeeding and the health of the baby is very much dependent on the employment status of the mother. In the results, data collected from 100 lactating mothers, 40% mothers were housewife and considered that breastfeeding is the best way to feed the child while 28% of them think that formula milk is also a good option. On the other hand, 15% working mothers consider formula milk is good for the health of the infant and it is easily available while 17% working mothers do not give formula milk to their child. From another similar cross-sectional study, carried out by Salcan *et al.*, in 2016 [7]. The study is done among 100 lactating mothers out of which 86% mothers stated that bonding increases between mother and child while 17% mothers think that breastfeeding has no effect of any type on mother-child bonding. A similar study was conducted by the authors Hongo *et al.*, in 2015 [23]. In this study, the relationship between breastfeeding satisfaction, length of the breastfeeding, and exclusivity among mothers and baby-friendly breastfeeding support was described. Results shows that early skin-to-skin contact with newborns increased the pleasure of breastfeeding among nursing mothers compared to mothers who did not do skin to skin contact. When compared to mothers who did not intend to breastfeed exclusively, those who were encouraged to do so were more likely to breastfeed exclusively at one month and to believe that breastfeeding is beneficial to their child [17]. The current study has shown

the positive attitude and practices towards breastfeeding. The frequency of night time breastfeeding is calculated through given questionnaire to lactating mothers. The results are that 53% of lactating mother breastfeed their child more than 3 times at night while 47% mothers give feed to their child 1-3 times at night. The authors of this cross-sectional study are Carillo-Diaz *et al.*, and this research was conducted in 2021. This study was conducted to evaluate the relationship between early childhood caries (ECC) and nighttime breastfeeding. 212 children (aged 2-4 years) who breastfed at night was evaluated. Less than 18 months of breastfeeding resulted in a lower dft index for the group ($p = 0.02$). Furthermore, there were significant differences in the dft index between co-sleepers for eighteen months or more and those who co-slept for less than eighteen months ($p 0.05$), as well as between co-sleepers for eighteen months or more and those who did not co-sleep ($p 0.01$). Hence, it is proved that nighttime nursing after 18 months is thought to increase the likelihood of early childhood caries [24]. From the current study we have derived the knowledge, attitude and behavior of lactating mothers towards colostrum feeding. Among 100 lactating mothers, 56% mothers consider colostrum is good for infant while 6% mothers think it is bad for the health of infant and 38% have no idea what colostrum is and how it is important for the newborn. Another question that was asked to lactating mothers is if they see any counsellor or health care provider if they face any difficulty during breastfeeding, 19% mothers said that they consult to health care provider if they face any issue regarding breastfeeding while 81% mothers do not consult to any health care professional. The cross-sectional study was conducted by Aisha R *et al.*, in 2014 [12]. The main goals of this research are to assess the understanding of pregnant women about the necessity of colostrum feeding and to encourage the practice of colostrum feeding. This research revealed that 35% of women learned about colostrum during prenatal visits, whereas 65% of women learned about them from the healthcare provider. Only 6% of moms were aware that the milk is beneficial for newborns. Only 9% women were aware of its protective qualities and knew that it aids in improving fetal development and infection prevention. While 35% of women believed that there is something toxic that is not good for the infant, 25% of women requested that this is the milk that should be fed to the baby, and 15% of women asked that this is the milk that should be thrown before feeding. Only 14% of the women in this survey recognized that the ideal time for feeding colostrum is shortly after delivery (1/2-1 hour), but 86% of women began feeding after 6 - 24 hours. 39% of the women had no knowledge about colostrum [12]. The current study has shown that most of

the lactating mothers believe that exclusive breastfeeding helps in gaining optimal weight. The results have concluded from 100 lactating mothers out of which 57% lactating mothers think that exclusive breastfeeding helps child in gaining optimal weight, 33% lactating mothers do not believe that exclusive breastfeeding has any role in child's development or gaining optimal weight while 10% mothers do not have any knowledge about the link between exclusive breastfeeding and optimal weight. This study was conducted by Rito *et al.*, 2015 and its purpose was to find out the relationship between infant obesity and early life characteristics like breastfeeding, exclusive breastfeeding, and birth weight. Results shows that obesity prevalence rates were highest in Spain (17.7%), 2nd highest in Malta (17.2%), and then in Italy (16.8%). The percentage of infants who were exclusively breastfed for 6 months was greatest in Tajikistan (94.4%). In comparison to children who had been nursed for at least six months, the pooled study revealed that children who had never been breastfed or who had only received general or exclusive breastfeeding had increased probabilities of being fat [25].

CONCLUSIONS

Exclusive breastfeeding is an essential practice that provides optimal nutrition and protection to infants. It is essential to understand the knowledge, attitude, and practices of lactating mothers towards exclusive breastfeeding. The study found that mothers had a positive attitude towards exclusive breastfeeding and had good knowledge about its benefits. Significant number of lactating mothers had knowledge of breastfeeding and its importance while insignificant number of mothers thinks that formula milk could be beneficial to their infant. Most of the mothers exclusively breastfed their infants for 6 months while insignificant number of mothers exclusively breastfeed their infant for less than 4 months.

Authors Contribution

Conceptualization: YW, BRHMJ

Methodology: HMJ, MI, AR, JS

Formal Analysis: MI, AR, JS

Writing-review and editing: YW, BR, EF, WAZ, ATC

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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