

## Knowledge, Attitudes, and Practices of Mothers on Breastfeeding Benefits in Peri-Urban Lahore: IMNCI-C Focus

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### Abstract

**Objective:** The objective of current study is to assess the knowledge, attitude and practices of breast-feeding benefits among mothers in peri urban area of Lahore.

**Material and Methods:** A cross-sectional study was done in Shah di Khoi, a peri urban area in Lahore, Johar Town. From 1250 mothers of 2932 under five children of locality, 180 respondents were enrolled by the systematic sampling technique. Information about sociodemographic characteristics, knowledge, attitudes and practices of breastfeeding among participants was collected. Data analysis was done using SPSS version 24 for outcome variables of knowledge and age-appropriate breast-feeding practices, means and standard deviation (SD) were calculated for numerical data and frequencies and percentages for categorical data. The chi square test was applied for statistical significance with a p value at <0.05.

**Results:** A majority 164 (91.1%) mothers had adequate knowledge of general benefits of breast milk whereas 104 (60.5%) mothers practised age-appropriate breast feeding. The adequate maternal knowledge of breastfeeding was statistically associated with age-appropriate breastfeeding practices among mothers determined by the Chi-square test. ( $\chi^2=6.299$ ) ( $p=0.012$ )

**Conclusion:** This study evaluated the knowledge, attitudes, and practices of breastfeeding among women. Despite women displaying good knowledge (91%) and positive attitudes toward exclusive breastfeeding, there existed a notable gap in age-appropriate breastfeeding practices (60.5%).

**Keywords:** Knowledge, Breast-feeding, Benefits, Mother, Baby.

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### Introduction

Breastfeeding is the perfect and amazing natural method for providing nourishment to the thriving infant which ensures all the energy and nutrients' require-

ment for the first six months, more than half of such demands during the next 6 months, and about one-third during the second year of baby's life.<sup>1</sup> The World Health Organization (WHO) and United Nations Children's Fund (UNICEF) developed the Integrated management of childhood illness -Community component (IMCI-C) in 2002 to improve child survival in community. The WHO & UNICEF duo advocate early commencement of breastfeeding within an hour of birth and then continued breastfeeding as the most effective low-cost intervention for optimal growth and development of child.<sup>2</sup>

From the age of 6 months, safe age-appropriate nutritious semi-solid soft foods should be introduced along side continued breastfeeding till the age of two years. Mother's milk signifies the best nourishment for the children's adequate physical and mental health.<sup>1</sup> The World Alliance

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for Breastfeeding Action (WABA) celebrates World Breastfeeding Week<sup>3</sup> every year from 1<sup>st</sup> to 7<sup>th</sup> August to emphasize the significance of breastfeeding globally because only 44% (less than half) of all newborns are exclusively breastfed during the first six months of their lives all around the world.<sup>1</sup> The benefits of breastfeeding (BF) are related to well being, social and economic perspective are acknowledged throughout the world, yet breastfeeding rates vary markedly across the globe with the highest in low and middle-income countries and the lowest in upper-middle-income countries.<sup>4</sup> According to demographic and health survey of Pakistan 2017–18, mothers breastfed their children for a median of 19.4 months and age-appropriate breastfeeding practice is 54%.<sup>5</sup> Breastfeeding is considered as a health investment due to its several health advantages for baby and mother. It decreases the occurrence of many childhood ailments like pneumonia, gut infections, infections of ear, sudden infant death syndrome, diabetes mellitus type 1. Whereas among mothers, breast feeding decreases the risk of hypertension, type 2 diabetes and cancers of ovaries and breast.<sup>6</sup>

## Material and Methods

A cross-sectional study was done in Shah di Khoi, a peri urban area in Lahore, Johar Town. after the approval from IRB Committee of Central Park Medical College, Lahore. Ref No.25-05-ERB/25<sup>th</sup> dated: 07-08-2015. From 1250 mothers of 2932 under five children of locality, the sample size of 180 mothers was calculated based on 13.3% prevalence of overall adequate knowledge i.e., about community component of IMNCI among mothers with 95% confidence level and 5% margin of error.<sup>7</sup> Mothers with cancer, active tuberculosis, galactosemia and psychoses were excluded. Every seventh mother was enrolled by the systematic sampling technique. Confidentiality was maintained, data was gathered after written consent taken from the respondents following an approval by Institutional Ethical Committee of Allama Iqbal Medical College. For data collection, a pretested semi-structured questionnaire was utilized, divided into two parts; the socio-demographic profile of participants and assessment of knowledge, attitudes and practices of breastfeeding among participants. The dependent variables were knowledge and practices of breast feeding among mothers. Independent variables were age of respondent, education, occupation and age & sex of child.

Overall knowledge was evaluated by a total of 10 ques-

tions with each correct response scoring one point. Knowledge related items included benefits of breastfeeding for children and mothers. Knowledge was labelled as adequate (Score of >6) and inadequate (Score < 6) Thus, minimum 60 % of the correct answer were defined as adequate knowledge. Attitude towards breastfeeding was determined through open ended questions by enquiring breast feeding benefits for both mothers and children. The practices about BF were measured by asking duration of breast feeding. Age-appropriate breast-feeding duration was given 1 point and labelled as adequate practice. Reasons for not breastfeeding were explored by an open format response. Data analysis was done using SPSS version 24, means and standard deviation (SD) were calculated for numerical data and frequencies and percentages for categorical data. The Chi-squared test assessed the association between knowledge on breastfeeding and age-appropriate breastfeeding practices, the p-value was set at <0.05 as significant.

## Results

The data was collected from total of 180 mothers with mean age was 27.86 +4.214 years. The mean age of children was 22.33 +12.30months. (Table-1) A majority 164 (91.1%) mothers had adequate knowledge of general benefits of breast milk. Almost all 99.4% mothers (n=179) knew that breast milk is important for infant's health, whereas 72.2%(n=130) mothers agreed that BF is important for their own health. About 98.3%(n=177) and 96.7%(n=174) respondents agreed that breast milk play an important role in child's physical and mental growth respectively. In addition, 62.2% (n=112) women correctly knew that breastfeeding protects mothers from the risk of breast cancer. About 94%(n=169) mothers believed that breastfeeding increase mother-baby bonding. (Table -2) Regarding the advantages of breast milk for babies specifically, 120 mothers (66.7%) was of the opinion that breast milk provides ideal nutrition for babies (health, growth and development) Nearly half of respondents 49.9% (n=89) stated that breastfeeding reduces disease risk against diarrhoeal diseases and respiratory infections, whereas 57mothers (31.7%) said that breastmilk makes children stronger (strong bones and teeth). (Fig 1(a)). Mothers were asked to give their views about advantages of breastfeeding for mothers themselves. About 33.9 % (n=61) mothers said that it might help them to lose weight, 28(15.6%) mothers stated that breast milk is easily available specially at

night. Whereas 9.4%(n=17) mothers had a viewpoint that it is economical, also boosts their immunity, protects mothers from ovarian and breast cancers and osteoporosis each.(Fig 1(b). Out of 180 repondents, 172(95.6%) mother breastfed their babies, whereas 104 (60.5%) mothers practised age-appropriate breast feeding, taken as adequate practice. (Table-2) The adequate maternal knowledge of breastfeeding was statistically associated with age-appropriate breastfeeding practices among mothers determined by the Chi-square test. ( $\chi^2= 6.299$ )

**Table 1:** Socio demographic characteristics of respondents regarding Knowledge and Practices about benefits of breast feeding to infants and mothers as per IMNCI– C

Characteristics	Frequency	Percentage (%)
<b>Age of mother</b>		
20-25 years	58	32.2
26-30 years	84	46.7
31-35 years	38	21.1
Mean age = 27.86 ±4.214 years		
<b>Age of Children</b>		
6 months-24 months	119	66.1
25months-42months	49	27.2
43months-60 months	12	6.7
Mean age=22.33 ±12.30months		
<b>Educational status of mothers</b>		
Illiterate	48	26.7
Primary to Matric	95	52.8
Intermediate to Masters	37	20.5
<b>Occupation of respondents</b>		
House wife	177	98.3
Government employee	2	1.1
Manual worker	1	0.6
<b>Sex of children</b>		
Male	90	50
Female	90	50

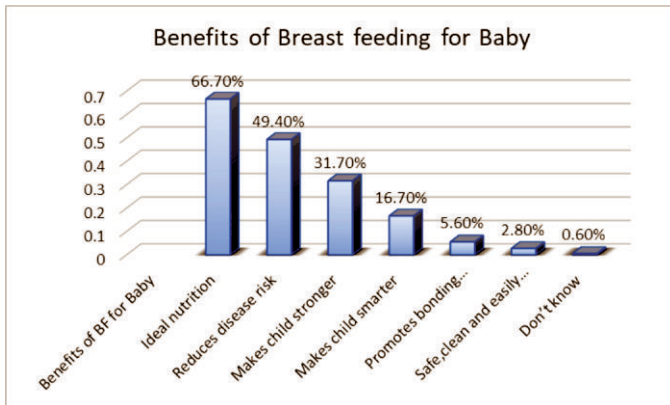
(p=0.012) (Table-3). Reasons for not breastfeeding the child were probed from 39.5% mothers (n=68) who had an early cessation of BF shown in (Fig -2)

**Table 2:** Knowledge and Practices about benefits of breast feeding to infants and mothers among respondents as per IMNCI– C

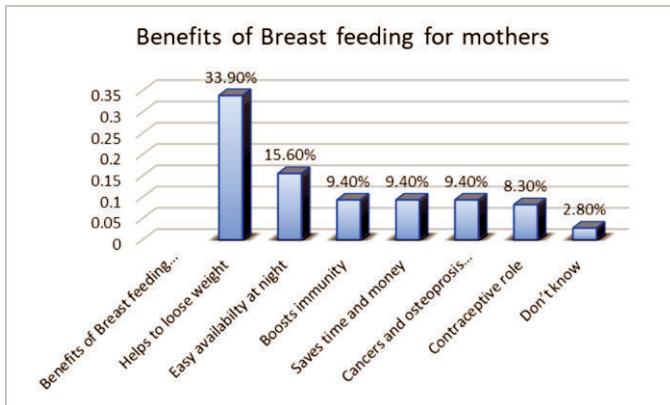
Benefits of breast feeding	KNOWLEDGE		
	Yes	No	Don't Know
<b>Adequate 164(91.1%)(Score of ≥ 6)</b>			
<b>Inadequate 16(8.9%) (Score &lt; 6)</b>			
1.Is breast milk important for infant's health?	179 99.4%	1 0.6%	0
2.Is breast feeding important for mother's own health?	130 72.2%	43 23.9%	7 3.9%
3.Can mother's illness be transmitted to child through breast milk?	71 39.4%	104 57.8%	5 2.8%
4.Can medicines be transmitted to infant via breast milk?	97 53.9%	76 42.2%	7 3.9%
5.Does breast milk play an important role in child's growth(physical)?	177 98.3%	3 1.7%	0
6.Does breast milk play an important role in child's development(mental)?	174 96.7%	4 2.2%	2 1.1%
7.Does breast milk protect a child from diarrhoea?	163 90.6%	10 5.6%	7 3.9%
8.Does breastfeeding make a bond stronger between mother and child?	169 93.9%	10 5.6%	1 0.6%
9.Does breastfeeding protect mother from breast cancer?	112 62.2%	45 25%	23 12.8%
10.Does breast feeding cause weight loss in mother's weight?	143 79.4%	30 16.7%	7 3.9%
<b>PRACTICE</b>			
Do you breast feed your child?	Yes 172 95.6%	No 8 4.4%	
Have you breastfed your child?	104 60.5%	68 39.5%	
Total duration of breast feeding (age appropriate)			

**Table 3:** Maternal knowledge and age-appropriate breastfeeding practices among mothers as per IMNCI– C

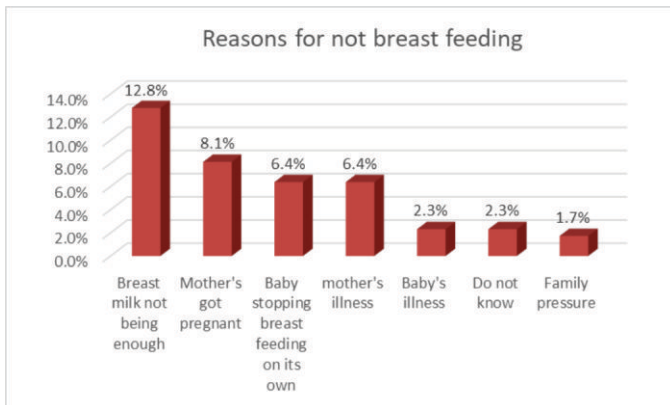
Age-appropriate breast-feeding Practices	Maternal Knowledge	Total		Chi Square	p-value
		Inadequate	Adequate		
		Count	(%)	Count	(%)
Inadequate	Inadequate	11	16.20%	57	83.80%
	Adequate	5	4.80%	99	95.20%
<b>Total</b>		<b>16</b>	<b>9.30%</b>	<b>156</b>	<b>90.70%</b>
				<b>104</b>	<b>100%</b>



**Figure 1 (a):** Attitude towards breastfeeding ----- Benefits of Breast Feeding For Baby



**Figure 1(b):** Attitude towards breastfeeding--- Benefits of Breast Feeding For mothers.



**Figure 2:** Reasons for early cessation of breastfeeding

## Discussion

Breastfeeding knowledge encompasses a mother's understanding of breastfeeding and the practices associated with it. This study evaluated the knowledge, attitudes and practice as well as recognized perceived obstacles to optimum breast feeding among respondents. More than 90% of mothers had adequate overall know-

ledge score of breast-feeding benefits. It is in agreement with studies done in Kenya,<sup>8</sup> Nigeria (76.7%)<sup>9</sup> Jordan (78%)<sup>10</sup> and South Africa.<sup>11</sup>

The high level of knowledge among the respondents of our study can be attributed to several factors, 73% respondents were educated women ranging from primary to master's degree, they lived in the vicinity of a tertiary care hospital and were more likely to receive accurate breast-feeding information from local lady health workers as well.

Breastfeeding is a unique and individualized experience for both mother and baby, and it's essential that women are informed about its benefits when making decisions about how to feed their future child. Knowledge about breastfeeding shapes intentions and influences the approach to newborn feeding. In present study, mothers had an excellent knowledge pertaining to certain aspects of breast milk benefits for good infant health, nearly all 99.4% mothers knew that breast milk important for infant's health similar to studies in India(71.4%)<sup>12</sup> and Italy(96%)<sup>13</sup>.

About 98.3% and 96.7% respondents agreed that breast milk plays an important role in child's physical and mental growth respectively in accordance with studies from India (64%)<sup>12</sup> and China (90%)<sup>14</sup>. Nearly 94% respondents thought that breastfeeding makes a bond stronger between mother and child, in line with a studies from India(71%)<sup>12</sup> and Saudi Arabia(85.9%)<sup>15</sup>. About 90.6% mothers knew that breast milk protects a child from diarrhoea, in agreement with a research from Saudi Arabia (66.4%)<sup>15</sup> and China (94%)<sup>14</sup> also another study from Jordan showing the positive effect of breastfeeding on the infant immunity (85%)<sup>10</sup>.

In present study, only 39.4% respondents knew that mother's illness could be transmitted to child through breast milk and 53.9% had knowledge that medicines can be transmitted to infant via breast milk similar to a study from Nigeria (54%)<sup>16</sup>.

This is crucial because most of maternal infections are compatible with breastfeeding, but certain infections can be transmitted to babies through breast milk. Whether an infected mother should breast feed her child or not, the decision should balance the benefits of breastfeeding against the risks of infection transmission.

In current study, 72% mothers knew that breast feeding is important for mother's own health, 79.4% mothers felt that breast feeding causes weight loss in nursing mothers and 62.2% respondents agreed that breastfeeding

protects mother from breast cancer in congruence with a studies from Italy(45.5%)<sup>13</sup> and China (79%).<sup>14</sup>

Good knowledge and positive attitude of mothers leads to higher successful breastfeeding practices among mothers. In recent study, when probed specifically about advantages of BF for babies , 66.7% mothers told that breast milk provides ideal nutrition for babies. Nearly half of respondents stated that breastfeeding reduces disease risk against diarrhoeal diseases and respiratory infections, whereas 31.7% mothers had an opinion that breastmilk makes children stronger in accordance with a studies from Dhaka (55.2%)<sup>17</sup> and Kenya (95%)<sup>18</sup> where majority of mothers had an overall favorable attitude towards breastfeeding.

A positive association between breastfeeding and post-partum weight loss has been reported in current study by 34 % mothers similar to study from Italy(28.8%).<sup>13</sup> Only 15.6% respondents of current study stated that breast milk is easily available specially at night in contrast to result from Italy (61.9%).<sup>13</sup> Only 9.4% mothers had a viewpoint that it is economical, also boosts their immunity and protects mothers from ovarian cancer, breast cancer and osteoporosis in agreement from studies done in Vietnam<sup>19</sup> and Australia.<sup>20</sup>

Although our results pertaining to positive attitude of respondents on breastfeeding and its benefits are similar as in previous studies conducted in Dhaka(55.2%),<sup>17</sup> India,<sup>12</sup> Jordan<sup>10</sup> (72%) and Kenya (95%)<sup>18</sup> but a comparison of the attitudes in current study with previous investigations on the same topic is rather tough due to the diverse study objectives, sample size , methodologies and geographical areas.

Implementing age-appropriate feeding practices (ADF) during early childhood is crucial for ensuring optimal nutrition. Such practices are essential for enhancing child survival, realizing growth and developmental potential, preventing micronutrient deficiencies, reducing future morbidity, and mitigating the risk of obesity in adulthood.

Out of 180 repondents,95.6% mothers breastfed their babies similar to study from Italy (93.2%), but 60.5% mothers practised age-appropriate breast feeding, taken as adequate practice in congruence with studies from India (53%)<sup>12</sup> and Indonesia(63.9%).<sup>21</sup>

The adequate maternal knowledge of breastfeeding was statistically associated with age appropriate breastfeeding practices among mothers. ( $\chi^2=6.299$ )( $p<0.012$ ). It is in accordance with studies from Saudi Arabia<sup>22</sup> and Nepal.<sup>23</sup>

However, when respondents were probed in depth

about breastfeeding advantages to baby and mothers there was a significant gap in knowledge and attitudes which was in turn reflected in comparative low breastfeeding practices reported in current study.

Our results regarding knowledge (91.1%) and practice (60.5%) gap about breastfeeding were comparable to a study in Nigeria (76.7% good knowledge vs only 41.7% good overall breastfeeding practices)<sup>5</sup> and South Africa.<sup>11</sup> This gap indicates that there is a dire need to improve health education initiatives to promote breastfeeding. It highlights the importance of antenatal, early postpartum and periodical breastfeeding education for nursing mothers along with support from family and friends.

## Conclusion

This study evaluated the knowledge, attitudes, and practices of breastfeeding among women. Despite women displaying good knowledge (91%) and positive attitudes toward exclusive breastfeeding, there existed a notable gap in age-appropriate breastfeeding practices (60.5%).

**Conflict of interest** None

**Funding Source** None

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### **Authors Contribution**

**SH, MJK, ZPB:** Conceptualization of Project

**MJK:** Data Collection

**MJK, ZPB, TA, ASM, SHM:** Literature Search

**SH, MJK, ZPB, TA, ASM, SHM:** Statistical Analysis

**SH, MJK, ZPB, TA, ASM, SHM:** Drafting, Revision

**SH, MJK, ZPB, TA, ASM, SHM:** Writing Manuscript