

Orginal Research Article

The Assessment of Knowledge, Attitude and Practices of Exclusive Breast Feeding Among Lactating Mothers: A Case of Children Hospital of Lahore, Pakistan

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Abstract: Exclusive breast feed is way to nourish a baby with totally human milk without any food and liquid for first 6 months. Breast feed helps to maintain immunity of baby and provide optimal growth and development. Prevalence of exclusive Breast feeding is only 38% in Pakistan. The purpose of recent study was to assess knowledge and attitude of exclusive breast feeding among lactating mothers. This study was conducted in public hospital named as The Children Hospital Lahore. Present study was descriptive cross-sectional in nature. Sample size was 384 lactating mothers. Convenient sampling technique was used to distribute the questionnaire. Data was analyzed by using SPSS version 21 and results were presented in form of figures and tables. Finding of current study reveal that a mostly 81.3% of the lactating mothers were currently breast feeding their babies. Only 37.8% of the lactating mother was exclusively breast feed and merely 35.9% started breast feeding within an hour of delivery. This study result indicate that mothers have good knowledge about exclusive breast feeding, lactating mothers have neutral attitude towards exclusive breast feeding and poor practice of exclusive breast feeding (37.8%). Present research concludes that mothers holds good knowledge, neutral attitude and poor exclusive breast feeding practices. Prenatal education should be started at antenatal units and outdoors. Health education should be provided at community level to obtain optimal exclusive breast feeding rate.

Keywords: Knowledge, practice, attitude, exclusive breast feeding

Background

The study noted that merely 37% of the children older than 6 months of age get exclusively breastfeeding in low income and middle income countries [1]. Moreover, breast feeding saves up to 1.5 million infant life every year [2]. Breast feed is pure and free from germs and comprises of complete nutrients required for babies. Supplementary foods should be discouraged before 6 months of age because it can be unhygienic and cause diarrhoea. The study emphasizes on the breast feed less than 6 months and it is 38% followed by women [3]. According to Pakistan Demographic and Health Survey 2012-2013, breast feeding practices and initiation of complementary foods are significant factors of poor nutritional status of the children [3].

However, the study mentions that World Health Organization suggests that every newborn should get breastfed within one hour of the delivery. Breastfeeding in the 1st hour of the baby is related to

the prolonged period of breastfeeding and decrease infant mortality rate [4]. In addition, newly born babies have three needs which are warmth from mother's arms, nutrients from the breasts and safety in of her presence, so, breast feeding fulfils all three [5]. On the other hand, Quran is the Muslim's holy book mentions in surah Baqarah, verse 233 that, "And mothers should breastfeed their children for two complete years" [6].

In Pakistan breast feeding practices are substandard, going to lead unfavorable consequences. Maternal, neonatal and child health (MNCH) projects in Pakistan are running to enhance the feeding practices in countryside by co-operation of global organizations inclusive of WHO and UNICEF [7]

However, breast feeding is beneficial for both mother and infant. Despite powerful authentication in the favour of the breast feeding the rate of breast feeding is low universally [8]. In 2011, World Health Assembly accepted the infant feeding strategy that was

comprises on exclusive breast feeding completion at the age of 6 months and breast feeding will be continued till the start of complementary foods start. . Therefore, babies should fed exclusively with mother's human milk for 2 years with the addition to complementary foods [9].

According to study breast feeding is optimal technique for development and healthy growth of children [10]. Further, mothers' poor knowledge and negative attitude regarding breastfeeding may affect practices and develop hurdle to optimize the advantages of the baby-friendly initiatives [11]. Likewise, a study conducted in North Carolina revealed that mother's knowledge regarding child health advantages and breastfeeding in the social context both are interrelated which intent to exclusively breastfeed [12].

Breast-feeding within one hour of delivery has many nutritional and immunological benefits and decreases the neonatal mortality rate [13]. Mothers who participated in immediate skin to skin contact and beginning breast feeding in 2 hours following child birth stayed more thoughtful to the infant's need and the child appeared additional gratified at 1 year [14]. Furthermore, initial post-partum period is a critical phase for breastfeeding support. Mothers who have physical and emotional encouragement during this spell are more probably to be successful in breastfeeding [15].

Problem statement

Mother's poor knowledge, negative attitude towards suboptimal breastfeeding practices become the reason of poor health of the babies. In addition, hundreds of children admin in in Children Hospital due to gastrointestinal infections, pneumonia and other allergies and infections. One of the contributing factor in children mortality is suboptimal breastfeeding. Therefore, Pakistan is at third number globally among the highest fatal, maternal and child mortality rate. Moreover, mothers are unaware of the benefits of exclusive breastfeeding and hazards and risk associated with bottle feed. So, there is need to investigate the knowledge attitude of Pakistani mothers towards exclusive breastfeeding practices so that new born babies' health problems can be avoided.

Purpose of study

The purpose of present study is to assess knowledge, attitude and practice toward exclusive breastfeeding among lactating mothers.

Significance of study

Surely the study will helpful for mothers as it will increase their knowledge about importance of exclusive breastfeeding. Furthermore, this study will improve infant survival rate after the exclusive breast feeding and strengthen the maternal behavior regarding exclusive breastfeeding. This Study will support

globally, Millennium Developmental Goal by improving maternal health (5 Goal) and decrease infant mortality rate (4 Goal). The study findings will helpful for the organizations by reducing burden as exclusively breast feeding children are less prone to diarrheal and other diseases.

Literature Review

Children mortality is a complex indicator reflecting financial, public, ecological, healthcare services and their delivery state in a country. Worldwide, Pakistan holds the number three uppermost among the higher infant mortality rate. Issues influencing child mortality in Pakistan are literacy rate of mother, order of birth, interval between birth, baby size at delivery, breastfeeding [16].

Proper nutrition is vital for babies' survival, mental growth and overall health. Improper nutrition in early 1,000 days of children's life can put the child to the permanent adverse situation. Further, breast feeding and complementary nutrition is necessary among the infant and children under 2 years of age [17].

Moreover, Pakistani is also among the list of countries where bottle feeding rate is increasing and lowest in the exclusive breast feeding rate [18]. According to American Academy of Pediatrics that exclusively breast feeding should be given in the early six months of infant's life followed by breast feeding along with complementary food till the age of 2 years [4].

Breast feeding is ideal source of nutrition for the infant of early 6 months of life. All over the world promotion and protection of breast feeding is exhibiting in public health policy but rate of breast feeding is persistently decreasing. Mothers having IIFAS score more than 65 were potential to exclusively breast feed. Furthermore, females of rural areas had better attitude regarding breast feeding follow the extensive breast feeding [19].

However, trend of formula feeding is rising day by day. The publicizing of infant/ child milk-based formulas (MS) contributes to substandard breast feeding and negatively affects the maternal and child health outcomes internationally [20]. Likewise, exclusive breast feeding is estimated to decrease the infant mortality rate in low income nations up to 13% [18]. Exclusive breast feeding is the mostly successful action for avoiding childhood mortality. Proper feeding practices can stop death up to 1.4million worldwide under 5 years of age children [21].

The study conducted in India exposed that the most of lactating mothers (88.5%) were breastfeeding, just 27% of lactating mothers were exclusively breast feeding the infants and 36.9% mothers were started breast feeding in one hour of delivery[8]. Moreover; a

study revealed that mothers were having good mean score of breastfeeding regarding starting of milk within an hour of delivery but the practice of starting breastfeeding in an of delivery was lesser than knowledge which indicate majors difference between knowledge and practice of mothers [22].

METHODOLOGY

The cross-sectional descriptive study was done among lactating mothers at paediatrics outpatient department of The Children hospital Lahore by using convenient sampling (n=384). Data was collected through self-administered questionnaire adopted from [8, 24]. The Iowa Infant Feeding Attitude Scale (IIFAS)

was used to measure mother's attitude regarding breast feeding. According to study Iowa Infant Feeding Attitude Scale (IIFAS) is exhibit satisfactory validity & reliability to judge attitude of infant feeding practices in different countries [25]. The questionnaire was based on 5-point Likert scale except the practices questions (bases on category). In print consent was taken from contributors and they had liberty to quit study. Permission was taken for the research by ethical committee of the university on a letter. Permission from hospital was acquired.

RESULT

Demographic data analysis & results

Table-1: Demographic characteristic of Participants (n=384)

Sr#	Demographic Variables	Grouping	F	%
1	Age	Less than 19	32	8.3
		20-25	146	38.0
		26-30	166	43.2
		More than 31	40	10.4
2	Income	15000-20000	81	21.1
		20001-25000	158	41.1
		250001-30000	103	26.8
		Above	42	10.9
3	Religion	Muslim	353	91.9
		Christian	31	8.1
4	Background	Rural	195	50.8
		Urban	189	49.2
5	Employment	Employed	165	43.0
		Unemployed	219	57.0
6	Education	Illiterate	61	15.9
		Primary	76	19.8
		Middle	93	24.2
		Matric	82	21.4
		Above	72	18.8
7	Type of delivery	Normal	292	76.0
		C-section	92	24.0

Demographic item 1

Table 1. shows that this study's participants 100 % (n=384) were lactating mothers, 43.2 % (n= 166) mothers were of 26- 30 years' age group, 38% (n=146) fall in 20-25 years of age groups. 10.4% (n=40) were of less than 19 years and remaining 8.3% (n= 32) were of above 31years of age. Table 1 also depicts the average income of 41% (n= 158) participant's monthly income was 20,000- 25000, 26.8% (103) income was 25001-30000, 20.8% (n=80) and 10. 9% lactating women income was 30,000. In addition, table 1 show the results that 91.9% (n=353) of the study respondents were Muslim and only 8.1% (n=31) were Christians. Further,

table 1 shows that 50.8% (n=195) of the study participants were belong to rural area and 49.2 % (n=189) were from urban area. Similarly, table 1 reveals that 42% (n=165) lactating mothers were employed and remaining 57% (n=219) were unemployed. Likewise, table 1 shows that 15.9% (n=61) respondent were illiterate, 19.8 % (n= 78) were primary, 24.2% (n= 93) were middle educated, 21.4% (n=82) were matric and 18.8% (n=72) were educated above matric. However, results in table 1 depicts that 76.3% (n=293) of the study participants were normally deliver a child only 23.7% (n=91) did deliver child through C-section.

Practice Items**Table-2: Practice Items**

Sr#	Practice Variables	Group	Frequency	Percentage
1	Current breastfeeding practices	Yes	312	81.3
		No	72	18.8
2	Exclusive breastfeeding	Yes	145	37.8
		No	239	62.2
3	Breastfeeding initiating within an hour	Yes	138	35.9
		No	246	64.1

Table 2 shows that shows that 81.3% (n=312) of mothers were breast feeders merely 18.8 % (n=72) mothers were not breast feeders. Similarly, Table 2 shows that only 37.8% (n=145) participants were exclusive breast feeders and majority of the respondents 62.2% (n=230) were not exclusively breast

feed their babies. Results shows in table 2 that nearly 35.9% (n=138) participants initiated breast feed within an hour of delivery and majority 64.1% (n=239) of respondents were not initiated breast feed within one hour of delivery.

Table-3: Knowledge Items

Section A Knowledge Questionnaire			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
1	Colostrum is first breast milk.	F	4	5	54	139	182	4.28	.828
		%	1.0	13	14.1	36.2	47.4		
2	Colostrum is important for the baby to maintain immunity.	F	8	16	57	137	166	4.14	.958
		%	2.1	4.2	14.8	35.7	43.2		
3	Burping should done after each feed.	F	8	17	44	111	204	4.27	.971
		%	2.1	4.4	11.5	28.9	53.1		
4	Breast feeding should be continued up to 2 years.	F	9	25	54	105	191	4.16	1.043
		%	2.3	6.5	14.1	27.3	49.7		
5	Exclusive breast milk can be given during first 6 months.	F	15	26	57	121	165	4.03	1.097
		%	3.9	6.8	14.8	31.5	43.0		
6	Lactating mothers should take healthy food to improve secretion of milk.	F	11	25	36	131	181	4.16	1.030
		%	2.9	6.5	9.4	34.1	47.1		
7	During breast feed mother should sit comfortably.	F	15	28	ss44	122	175	4.08	1.100
		%	3.9	7.3	11.5	31.8	45.6		
8	During breast feeding the mother should	F	28	36	73	114	133	3.75	1.228

	maintain eye to eye contact and talk with baby.	%	7.3	9.4	19.0	29.7	34.6		
9	Wash each breast with warm water before breast feeding.	F	22	36	81	118	127	3.76	1.174
		%	5.7	9.4	21.1	30.7	33.1		
10	Awakening the baby while breast feeding.	F	20	46	65	115	138	3.79	1.199
		%	5.2	12.0	16.9	29.9	35.9		
11	Breast feeding helps in mother and child Bonding.	F	12	32	66	99	175	4.02	1.116
		%	3.1	8.3	17.2	25.8	45.6		
12	Breast feeding can prevent disease affecting breast.	F	41	47	75	97	124	3.56	1.335
		%	10.7	12.2	19.5	25.3	32.3		
13	Breast feed affect the beauty of feeding mothers.	F	56	65	97	84	82	3.18	1.340
		%	14.6	16.9	25.3	21.9	21.4		
14	Mother should not feed the child when she has diarrhea.	F	73	49	81	95	86	3.19	1.415
		%	19.0	12.8	21.1	24.7	22.4		
15	Stop breast feeding when you start weaning.	F	63	72	95	103	51	3.02	1.283
		%	16.4	18.8	24.7	26.8	13.3		
Mean Knowledge Score							57.39	1.33	

Table 3 depicts the results of the study participant's knowledge regarding breast feeding and its participants. The results show that majority of the study participants have good knowledge regarding breast feeding and its benefits. Table 3 shows the response of the study participants regarding first question of knowledge that "colostrum is first breast milk". The

results show that majority of participant 83.6% (n=321) responded as agree, 14.1% (n= 54) respondent shows neutral response and merely 2.3% (n=9) responded as disagree towards this question. Similarly, majority of the study participants responded as agree and strongly agree that they keep the knowledge regarding breast feeding and its benefits.

Attitude Items

Table-4: Attitude Items

Section B= Iowa Infant Feeding Attitude Scale (IIFAS)		SD	D	N	A	SA	Mean	SD	
	The benefit of breast milk lasts only as long the baby is breast feed.*	F	77	87	101	71	48	2.81	1.296
		%	20.1	22.7	26.3	18.5	12.5		
2	Formula feeding is more convenient than breast feed.	F	114	75	90	47	58	2.64	1.408
		%	29.7	19.5	23.4	12.2	15.1		
3	Breast feeding increase mother	F	12	41	50	81	200	4.08	1.164
		%	3.1	10.7	13.0	21.1	52.1		

		infant bonding.							
		F	81	75	117	61	50	2.80	1.298
4	Breast milk is lacking in iron.*	%	21.1	19.5	30.5	15.9	13.0		
5	Formula fed babies are more likely to be overfed than breastfed babies.	F	16	42	59	82	185	3.98	1.205
		%	4.2	10.9	15.4	21.4	48.2		
6	Formula feeding is better choice if mother plans to go back to work.*	F	142	110	70	39	23	2.20	1.210
		%	37.0	28.6	18.2	10.2	6.0		
7	Mothers who formula feed miss one of the great joys of motherhood.	F	21	40	54	108	161	3.91	1.210
		%	5.5	10.4	14.1	28.1	41.9		
8	Women should not breast feed public place such as restaurant.	F	143	95	62	54	30	2.30	1.308
		%	37.2	24.7	16.1	14.1	7.8		
9	Breastfed babies are healthier than formula fed babies.	F	16	32	56	84	196	4.07	1.167
		%	4.2	8.3	14.6	21.9	51.0		
10	Breastfed babies are more likely to be overfed than formula fed babies.	F	94	97	82	57	54	2.69	1.360
		%	24.5	25.3	21.4	14.8	14.1		
11	Father feels let out if mother breast feeds.*	F	135	95	56	66	32	2.39	1.338
		%	35.2	24.7	14.6	17.2	8.3		
12	Breast milk is the ideal foods for babies.	F	18	22	42	96	206	4.17	1.127
		%	4.7	5.7	10.9	25.0	53.6		
13	Breast milk is more easily digested than formula.	F	14	23	34	107	206	4.22	1.071
		%	3.6	6.0	8.9	27.9	53.6		
14	Formula is as healthy for infant as breast milk.*	F	72	86	107	75	44	2.83	1.265
		%	18.8	22.4	27.9	19.5	11.5		
15	Breast feeding is more convenient than formula.	F	14	31	41	98	200	4.14	1.123
		%	3.6	8.1	10.7	25.5	52.1		
16	Breast milk is cheaper than formula.	F	16	41	52	99	176	3.98	1.183
		%	4.2	10.7	13.5	25.8	45.8		
17	A mother who occasionally drinks alcohol should not breast feed.*	F	86	74	67	55	102	3.03	1.516
		%	22.4	19.3	17.4	14.3	26.6		
		Mean Attitude Score					56.24	1.57	

*Reversed items.

Table 4 shows the responses of the study participants regarding the question that "The benefit of breast milk lasts only as long the baby is breast feed". The results in table 4 show that 12.5% (n= 48) mothers were strongly agree, 18.5% (n= 71) were agree, 26.3% (n=101) were neutrally respond, 22.7% (n=87) mothers respond disagree and 20.1 % (n=77) mothers were strongly disagree toward this question. Similarly, table 4 depicts the responses of the study participant

regarding question that "Formula feeding is more convenient then breast feed". The results show that 15.1% (n=58) were strongly agree, 12.2% (n=47) mothers were agree, 23.4% (n=90) participant were respond neutral, 19.5% (n=75) were disagree and 29.7% (n= 114) were respond strongly disagree in reaction of above question. Likewise, table 4 shows that the current study participants responded as average to high level of ignorance attitude towards the breast feeding.

Chi-Square Test**Table-5: Type of delivery * Current Breast Feeding practices**

Pearson Chi-Square	Value	Asymp.sig
	9.336	.002

The value of chi-square is 9.336 and p=.002 (p<.05) which shows significance. Thus, there is association between type of delivery and mother's current breast feeding practices.

Table-6: Type delivery * Exclusive Breast feeding

Pearson Chi-Square	Value	Asymp.sig
	3.834	.050

The value of chi-square is 3.834 and p=.050 (p=.05) which shows insignificance. Thus, there is no association between type of delivery and exclusive breast feeding.

Table-7: Type_delivery * Breast Feeding initiating within an hour

Pearson Chi-Square	Value	Asymp.sig
	2.811	.094

The value of chi-square is 2.811 and p=.094 (p>.05) which shows insignificance. Thus, there is no association between type of delivery and breast feeding initiating within one hour of delivery.

Table 8: Education * Current Breast Feeding practices

Pearson Chi-Square	Value	Asymp.sig
	3.236	.519

The value of chi-square is 3.236 and p=.519 (p>.05) which shows insignificance. Thus, there is no association between education and current breast feeding practices.

Table-9: Education * Exclusive Breast feeding

Pearson Chi-Square	Value	Asymp.sig
	23.156	.000

The value of chi-square is 23.156 and p=.000 (p<.05) which shows significance. Thus, there is association between education and exclusive breast feeding practices.

Table-10: Education * Breast Feeding initiating within an hour

Pearson Chi-Square	Value	Asymp.sig
	19.885	.001

The value of chi-square is 19.885 and p=.001 (p<.05) which shows significance. Thus, there is association between education and breast feeding initiating within an hour of delivery.

Table 11: Background * Current Breast Feeding practices

Pearson Chi-Square	Value	Asymp.sig
	.004	.948

The value of chi-square is .004 and p=.948 (p>.05) which shows insignificance. Thus, there is no association between background and current breast feeding practices.

Table-12: Background * Exclusive Breast feeding

Pearson Chi-Square	Value	Asymp.sig
	2.178	.140

The value of chi-square is 2.178 and p=.140 (p>.05) which shows insignificance. Thus, there is no association between background and exclusive breast feeding.

Table-13: Background * Breast Feeding initiating within an hour

Pearson Chi-Square	Value	Asymp.sig
	.891	.345

The value of chi-square is .891 and p=.345 (p>.05) which shows insignificance. Thus there is no association between background and breast feeding initiating within an hour.

Table 14: Employment * Current Breast Feeding practices

Pearson Chi-Square	Value	Asymp.sig
	.602	.438

The value of chi-square is .602 and p=.438 (p>.05) which shows insignificance. Thus there is no association between employment and current breast feeding practices.

Table 15: Employment * Exclusive Breast feeding

Pearson Chi-Square	Value	Asymp.sig
	3.328	.068

The value of chi-square is 3.328 and p=.068 (p>.05) which shows insignificance. Thus there is no association between employment and exclusive breast feeding.

Table-16: Employment * Breast Feeding initiating within an hour

Pearson Chi-Square	Value	Asymp.sig
	1.021	.312

The value of chi-square is 1.021 and p=.312 ($p>.05$) which shows insignificance. Thus there is no association between employment and breastfeeding within an hour of delivery.

DISCUSSION AND CONCLUSION

Present research was done to measure knowledge and practices of exclusive breast feeding among lactating mothers. In present study, majority 81.3% of mothers were breast feeders. Only 37.8% lactating mothers were exclusively breast feeders and 35.9% lactating mothers were initiating breast feed within an hour of delivery. In this study, lactating mothers have good knowledge of exclusive breast feeding as majority (80%) of mothers were agree regarding the method and benefits of breast feeding.

Moreover, mothers' explicit good knowledge toward breastfeeding but the practice of exclusive breastfeeding was poor among the mothers of the current study. The results in table 9.1, 9.5 and 9.6 show that the type of delivery and current breast feeding, education and exclusive breast feeding, education and breast feeding within an hour of delivery has significant association with each other respectively.

Therefore, mothers exhibit good knowledge and poor exclusive breast feeding practices. Findings reveal that exclusive breast feeding ratio is suboptimal. So, there is need to identify the factors which contribute to suboptimal exclusive breastfeeding practices. Gap should be assessed between knowledge, attitude and exclusive breastfeeding. Female's education should be focused as it is important for the awareness and for the children sound health.

Recommendations

Recommendation includes that in future research should be done on both breast feed and non-breast feed mothers to identify lacking and area to work it will enhance their knowledge and encourage exclusive breast feeding practices. Health education session should promote to teach mothers about significance of exclusive breast feeding. Health education should be provided at community level to obtain optimal exclusive breast feeding rate. Pakistan has low rate of exclusive breast feeding it is time to explore cultural and traditional practices which cause suboptimal practice of exclusive breast feeding. Further research should done to identify factors which influence exclusive breastfeeding; for example self-efficacy, subjective norms, social norms, cultural values, traditions and maternal intentions.

Limitations

This study is limited itself as it is descriptive cross-sectional. Sample was taken from only one setting which will be made hurdle to generalize the findings. Non probability convenient sampling is also a limitation of study.

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