

Factors associated with knowledge about breastfeeding among female garment workers in Dhaka city

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Background: Knowledge about breastfeeding among women is very important for healthy children. The present study aims to determine the level of knowledge and factors associated with knowledge on breastfeeding among female garment workers in a selected garment factory in Dhaka city.

Methods: A cross-sectional study was conducted among 200 female garment workers in the reproductive age group (15–49 years). Data were collected through a pre-tested questionnaire using the face-to-face interview method. Bivariate and multivariate analysis was done to determine the association between sociodemographic variables and knowledge on breastfeeding.

Results: The study showed that, overall the level of knowledge regarding breastfeeding is very poor (88%) among the study subjects. Most of the respondents have very poor knowledge regarding advantages of exclusive breastfeeding (89%) and breastfeeding (100%). In contrast, a majority have good knowledge on duration of exclusive breastfeeding (74%) and breastfeeding (66%). No significant association was found between the knowledge score of breastfeeding with remaining socio-demographic variables like age, marital status, family income and expenditure. Education is significantly ($p < 0.001$) associated with a higher total knowledge score of breastfeeding. Women with secondary level of education had a significantly higher ($p < 0.001$) level of total knowledge score than other categories (illiterate, primary and higher secondary) of education.

Conclusion: A large proportion of female garment workers had inadequate knowledge regarding breastfeeding. It is also important that health education on breastfeeding is urgently provided to the female garments workers of Bangladesh.

Key words: Knowledge, breastfeeding, female garment workers, sociodemographic factors.

Introduction

Breastfeeding is the fundamental component of the child-survival strategy. Breast milk is the natural first food for babies. It provides all the energy and nutrients that the infant needs for the first months of life. It continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one third during the second year of life.¹

It has been estimated that 1.3 million deaths could be prevented each year if babies were exclusively breastfed from birth for six months.² The benefits of exclusive breastfeeding on child survival, growth, and development are well documented. Exclusive breastfeeding also provides health benefits for mothers.³ The colostrum is of particular

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nutritional and health value to the infants and it is the infants' first immunization.⁴ Colostrum also contains numerous nutrients such as protein, fat, carbohydrates, vitamins and minerals.⁵

The following are exclusive breastfeeding rates in: Benin 44%, Uzbekistan 26%, and Philippines 34%. Both Bangladesh and Uganda's exclusive breastfeeding rates remained flat at around 45% and 57%, respectively.⁶ National demographic and health surveys provide trend data for Infant and Young Child Feeding (IYCF) practices in Bangladesh between 1994 and 2007. The exclusive breastfeeding rate showed little change over the past 15 years, ranging between 42% and 46%, colostrum feeding 87% and continuation of breastfeeding for 20–23 months 91%.⁷

Improper knowledge is a major cause of the onset of malnutrition in young children⁸. Children who are not breastfed appropriately have repeated infections, grow slowly, and are almost six times more likely to die by the age of one month compared to children who receive at least some breast milk.⁸

In Bangladesh the biggest gaps were found in putting the baby to the breast within the first hour of birth (76% gap), feeding colostrum and not giving other fluids, foods or substances within the first three days (54% gap), and exclusive breastfeeding from birth through 180 days (90% gap).⁹ Exclusive breastfeeding reduces mortality and morbidity. Exclusive breastfeeding helps to quick recovery from common childhood illness such as diarrhea, pneumonia.

But improper practices such as introduction of pre-lacteal foods, rejection of colostrum, delayed initiation of breastfeeding, water intake during early months (within 5 months), and complementary feeding (within 5 months), might often significantly increase the risk of morbidity and mortality, decrease milk intake

and premature termination of breastfeeding^{10–12}. Several studies have been carried out on breastfeeding in Bangladesh and there have been some important factors influencing breastfeeding practice to reach satisfactory levels. Education of the mother is one of the most important determinants for increasing breastfeeding practice.

Dhaka is a rapidly growing mega-city. The country's recent and sustained surge in economic growth has been driven by an increase in entrepreneurship, in large part due to the growth of the ready-made garments industry which is the leading sector in terms of employment. Women represent 85% of the total 2.4 million employees in this sector.¹³

Female workers in Bangladesh tend to have very little education as they drop out of school early to help support their families, and some are illiterate. Children are the future leaders of a nation. If children are well nourished, they will make a healthy nation. An educated mother can help make a healthy nation. A nourished nation can enrich its human resources and thus proper knowledge on breastfeeding among female workers is very important. The present study aims to investigate the existing knowledge and associated factors influencing breastfeeding among female garment workers in Dhaka city.

Materials and methods

This was a cross-sectional analytical study conducted during a six-monthly period in the selected garment factory, Mond Apparel Ltd., Kollanpur, Dhaka city. The study covered 600 female garment workers in the reproductive age group of (15–49 years) in the factory. Purposive sampling technique was applied and 200 respondents were selected who agreed to participate in the study. A structured questionnaire (schedule) was pretested

among 5% of the total sample to prepare the information sheet more precisely. Data were collected on sociodemographic information. Age, occupation, education, marital status, number of children, income and expenditure were considered as independent variables and knowledge about breastfeeding, knowledge about exclusive breastfeeding, knowledge about colostrum feeding, knowledge about advantages of breastfeeding, initiation of breastfeeding and duration of breastfeeding were considered as dependent variables by face-to-face interview method. After the interview, a scoring system was developed for each component: each correct answer was given a score of 1, and for multiple answers a score of 1 was divided by the total number of answers. Two categories were defined on the basis of the score obtained by each participant: poor (<60% of the total score); and good (>60% of the total score). Data were analysed by appropriate univariate as well as multivariate analysis. $p < 0.05$ was taken as 95% of significance level.

Results

The mean \pm SD of age of the respondents was 22 ± 4.6 and a majority of them were married (63%). Most of the respondents (46%) had completed at least primary level of education, (Table 1).

From this study it was found that the overall level of knowledge regarding breastfeeding among female garment workers is poor (88%). Among them, a majority of the respondents have good knowledge regarding initial feeding (89%) and colostrum feeding (77%). But, most of the respondents have very poor knowledge regarding advantages of colostrum feeding (87%), exclusive breastfeeding (89%) and breastfeeding (100%). A majority of the respondents have good knowledge regarding duration of exclusive breastfeeding (74%) and breastfeeding (66%).

In contrast, a majority of the respondents have very poor knowledge on most crucial components of breastfeeding such as frequency of breastfeeding (95%); positioning (97%); and storage of breast milk (85%). Among the study subjects 62% have good knowledge on breastfeeding during child's sickness but only 38% have good knowledge on breastfeeding during mother's sickness (Table 2).

A majority (44.5%) of the respondents who have poor knowledge have attained only a primary level of education (Table 3). Education is significantly ($p < 0.001$) associated not only with total knowledge score (Table 4) but also some of the important components of breastfeeding such as duration and advantages of exclusive breastfeeding and duration of breastfeeding.

Among the educational categories, a secondary level of education is significantly associated ($p < 0.001$) with total knowledge score compared with other categories (illiterate, primary, higher secondary) education.

Discussion

Colostrum feeding has reached 92% according to Bangladesh Demographic and Health Survey (BDHS) report 2007.¹⁹ In spite of this success, exclusive breastfeeding could not reach a satisfactory level.

In this study, 88% female garment workers have very poor knowledge on proper breastfeeding. But in another study conducted among women attending a hospital, the mean knowledge score obtained by the mothers was 58.9%⁴, which was also poor like our study.

Our study reveals that knowledge on initial and colostrum feeding (89% and 77% respectively) is very high. A similar finding was supported by another study depicting that 75.8% had the knowledge on initiation of breastfeeding.⁴ In other study, early initiation

Table 1: Sociodemographic characteristics of the study subjects (n=200)

Variables	Category	No (%)
Age (yrs)	<25	157 (78.5)
	25–35	40 (20.0)
	>35	3 (1.5)
House of the respondent	Rent	190 (95.0)
	Own	10 (5.0)
Type of family	Nuclear	193 (96.5)
	Joint/combined	7 (3.5)
Type of house construction	Cement	75 (37.5)
	Tin	123 (61.5)
	Mud	2 (1.0)
Education	Illiterate	14 (7.0)
	Primary	92 (46.0)
	Secondary	83 (41.5)
	Higher secondary	11 (5.5)
Marital status	Unmarried	74 (37.0)
	Married	126 (63.0)
Family income (BDT)	< 5000	28 (14.0)
	5000–10000	64 (32.0)
	>10000	108 (54.0)
Family expenditure (BDT)	< 5000	41 (20.5)
	5000–10000	152 (76.0)
	>10000	7 (3.5)
No. of children	No. children	107 (53.5)
	<2	80 (40)
	>2	13 (11)

n= Number of subjects

of breastfeeding was found to be low (43%).¹⁵ This may be due mainly to the existing traditional beliefs and practices in the rural community. It appears that the belief that breast milk “does not come down” before the third day¹⁶ is still prevalent.

In this study, a large proportion of the respondents (87%) have poor knowledge on the advantages of colostrum feeding. A similar study showed that only (10%) of the newborns received colostrum as the first food.¹⁶ The present study has also shown that almost all (100%) of the respondents

have poor knowledge on advantages of breastfeeding. In contrast, another study done among Indian mothers showed average knowledge (53.3%) about advantages of breastfeeding.⁴ Knowledge of advantages of exclusive breastfeeding is also very poor (89.5%) in our study. Beside these, another two major components such as knowledge about breastfeeding during mother’s sickness and breastfeeding during child’s sickness found contradictory results. Whereas knowing the advantages of breastfeeding is the first step which may stimulate breastfeeding practice.

This study has revealed that most of the respondents have good knowledge regarding duration of exclusive breastfeeding and breastfeeding. Similar findings were supported by the result of the study showing that (73.3%) of respondents knew about duration of exclusive breastfeeding.¹⁷ In another study done in India, mothers had good knowledge (63.3%) on duration of breastfeeding.⁴ Duration of breastfeeding is a good indicator to achieve breastfeeding practice. But women breastfeed their children without knowing advantages of breastfeeding, which is poor indicator of knowledge.

A significant association was found between education with total knowledge score of breastfeeding and no significant association was found between total knowledge score of breastfeeding with remaining sociodemographic variables like age, marital status, family income and expenditure. A minimum level (secondary) of education of mothers seems to be directly related to good knowledge about breastfeeding. A similar study showed that knowledge regarding breast milk is highly associated with mothers' education.¹⁴ The results show that maternal education has a very significant impact on overall knowledge about breast milk. Mothers with higher education were found to have

Table 2: Knowledge regarding various components of breastfeeding among study subjects (n=200)

Variables regarding knowledge on breastfeeding		Level of knowledge, n (%)	
		Poor	Good
a) Colostrum feeding	i) Initial feeding (colostrum, water/honey)	22 (11)	178 (89)
	ii) 1st yellow breast milk (colostrum)	45 (22.5)	155 (77.5)
	iii) Advantages	174 (87)	26 (13)
b) Exclusive breastfeeding	i) Duration	51 (25.5)	149 (74.5)
	ii) Advantages	179 (89.5)	21 (10.5)
c) Breastfeeding	i) Duration	68 (34)	132 (66)
	ii) Advantages	200 (100)	0 (0)
	iii) Frequency	191 (95.5)	9 (4.5)
	iv) Positioning	194 (97)	3 (3)
	v) Breastfeeding during mother's sickness	124 (62)	76 (38)
	vi) Breastfeeding during child's sickness	75 (37.5)	125 (62.5)
	vii) Storage of breast milk	171 (85.5)	29 (14.5)

n= Number of subjects

Table 3: Frequency distribution of sociodemographic variables and knowledge on breastfeeding (n=200)

Variables	Category	Level of knowledge, n(%)		χ^2 Value	p Value
		Poor	Good		
Age (yrs)	<25	140 (70.0)	17 (8.5)	0.950	0.330
	25–35	36 (18.0)	7 (3.5)		
	Total	176 (88.0)	24 (12.0)		
Education	Illiterate	11 (5.5)	3 (1.5)	13.16	0.004*
	Primary	89 (44.5)	3 (1.5)		
	Secondary	68 (34.0)	15 (7.5)		
	Higher secondary	8 (4.0)	3 (1.5)		
	Total	176 (88.0)	24 (12.0)		
Marital status	Unmarried	66 (33.0)	8 (4.0)	0.157	0.692
	Married	110 (55.0)	16 (8.0)		
	Total	176 (88.0)	24 (12.0)		
Family income	<BDT 10000	84 (42.0)	8 (4.0)	1.762	0.184
	>BDT 10000	92 (46.0)	16 (8.0)		
	Total	176(88.0)	24(12.0)		

n= Number of subjects; *= Significant

more knowledge regarding breast milk, as compared to mothers with lower education and illiterate ones.¹⁴ A mother's education seemed to be directly related to the life of a child.¹⁸ More educated mothers make better use of life, health services, provide better child care, and have knowledge about appropriate feeding of their child.

Conclusions

Breastfeeding is a unique source of nutrition that plays an important role in the growth, development and survival of infants. The benefits of breastfeeding are well established. The results from this study indicate that the level of total knowledge score regarding

breastfeeding is poor among female garment workers. Major concerns were inadequate knowledge on advantages of breastfeeding, frequency of breastfeeding, and storage of breast milk. The findings showed that limited education was a major factor for lack of knowledge about breastfeeding compared with other factors such as marital status, family income, and age.

Acknowledgements

We are indebted to the female garment workers in Kollanpur, Dhaka, who took part in this study. Our special thanks go to Md. Maswud-ul-Hassan for his support throughout the study.

Table 4: Binary logistic regression analysis of percentage of total knowledge score with different sociodemographic variables of the study subjects

Variables (n=200)	β	p value	Confidence interval	
			Lower bound	Upper bound
Age (yrs)	1.332	0.559	0.509	3.483
Education	2.268	0.049	1.003	5.131
Marital status	1.240	0.680	0.446	3.443
Monthly family income	4.065	0.182	0.519	31.855

n= Number of subjects, β = Standardized regression coefficient, $p < 0.05$ was taken as level of significance.

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