

## Awareness of Breast Feeding Among Mothers Attending Antenatal OPD of NRS Medical College

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**Abstract:** Breast milk is safe, clean, cheap, hygienic & fully meets the nutritional requirements of the infant in first few months of life. It also protects mother from ovarian, breast cancers & osteoporosis, but a considerable numbers of women in India have lack of correct knowledge regarding breast feeding. A cross sectional observational study was conducted among 288 pregnant mothers attending the antenatal OPD of NRS medical college, Kolkata during three months period to assess their knowledge of breastfeeding. 86.5% of study populations were aware about the benefits of breast feeding, but overall awareness score regarding breast feeding was satisfactory ( $\geq 11$ ) only in 32.3% cases. A higher proportion of satisfactory awareness score was found in mothers aged  $\geq 20$  years, muslims, belonging to reserved caste, from nuclear families and multigravida. The major source of information was family and neighbours. So emphasis must be given on involvement of health workers and mass media to impart correct knowledge on breast feeding practices among women for future benefit.

**Keywords:** awareness, breast feeding initiation, frequency of breast feeding.

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### I. Introduction

Breast milk has nutritional, immunological, behavioral and economic benefits and helps to build mother infant bonding [1]. Breastfed children have lower rates of childhood cancers, infections, asthma, allergies, childhood diabetes, gastrointestinal illnesses and infections that can damage their hearing [2]. The major causes of death among under five children in India are neonatal sepsis, diarrhoea and pneumonia and breast milk is protective against all the three diseases [3].

Infant mortality rate (IMR), considered to be one of the most sensitive indicators of the health status of a community, still remains high in India and one of the most important contributory factors is inadequate breastfeeding. According to NFHS-3, 75% of the children are not breastfed from birth and over 50% are not exclusively breastfed [4]. Studies in 2008 have shown that breastfeeding promotion alone contributes to an 11.6% reduction in IMR and it reduces the risk of dying from diarrhoea and pneumonia [5].

The benefits of breastfeeding are not just restricted to child, it protects the mother who has breastfed from developing ovarian and premenopausal breast cancers and it also reduces the risk of postpartum bleeding and osteoporosis [6,7].

More than 15% of 24 lakhs child deaths could be avoided in India by optimal breastfeeding practices, but very few women in India have access to counseling services on infant and young child feeding [8]. Despite the knowledge of benefits of breastfeeding, its prevalence and duration among general population in many countries are still lower than the international recommendations of six month of exclusive breastfeeding [9]. In India it is common practice amongst mothers to extract the initial breast milk which they think is watery and is harmful to the baby [10]. The prevalence of exclusive breastfeeding of six months duration is 46.4% and the early initiation of breastfeeding in India is less than 41% which are far below from the desired level and interestingly breastfeeding practices vary among different regions and communities [11,12].

A study was conducted to assess the knowledge of breast feeding among antenatal mothers attending NRS medical college & to determine the relationship between socio demographic factors and awareness of breast feeding among the study participants.

### II. Methodology

An observational, descriptive, cross sectional study was undertaken among pregnant mothers attending the antenatal OPD of NRS medical college, Kolkata and willing to participate in the study during three months period (from 25<sup>th</sup> August to 24<sup>th</sup> November 2015). Sample size was estimated by following way:

According to NFHS 3, in West Bengal only 59% of children under 6months of age are exclusively breastfed as per recommendations of WHO [4]. Therefore based on anticipated population proportion P= 59% and assuming confidence level of 95% and absolute precision of 6% , the minimum required sample size was calculated using the formula [13]:

$$n = \frac{Z_{1-\alpha/2}^2 P (1-P)}{d^2}$$

$$= \frac{(1.96)^2 \times 0.59 (1-0.59)}{(0.06)^2}$$

$$= 258$$

P = 59%  
Z<sub>1-α/2</sub> = 1.96  
d = 6%

Assuming 10% of non responder, minimum sample size was 284. A total of 288 antenatal mothers were included in the study after interviewing every third mother attending antenatal OPD, using the predesigned, pretested & semi structured schedule. Prior institutional ethical clearance and informed verbal consent were obtained from the participants who were assured of anonymity and confidentiality of information collected.

Independent study variables were age, residence (rural/urban), religion (Hindu/Muslim), caste (general/SC/ST/OBC), literacy status of mother (illiterate/non-formal/primary/secondary/higher secondary and above), occupation of mother (homemaker/working), type of family (nuclear/Joint), gravida (primi / multi) and dependent variable was awareness of breast feeding. Each correct response was given a score of 1; wrong response was given score 0, thus maximum attainable score was 22 and minimum 0. Respondents were divided into two groups depending on the total score. Those scoring 11 and above were considered to have satisfactory knowledge & those below 11 having unsatisfactory knowledge. Collected data were analyzed by proportions & expressed as percentages.

### III. Results

In this study majority of women were in the age group of 20-30 years (73.9%), residing in urban areas(67.7%), Hindus(89.6%), belonged to general caste(75%) & educated upto middle school and beyond(81.3%). Most of the mothers were home makers (98.9%) & from joint families (71.9%). Little more than half of the study subjects (56.3%) were primi gravid [Table 1].

**Table 1: Socio demographic profile of the study population**

(n = 288)

Variables	Characters	No (%)
Age Group (years)	< 20	51 (17.7)
	20 – 30	213 (73.9)
	>30	24 (8.4)
Residence	Rural	93 (32.3)
	Urban	195 (67.7)
Religion	Hindu	258(89.6)
	Muslim	30 (10.4)
Caste	General	216 (75.0)
	OBC	15 (5.2)
	SC	54 (18.8)
	ST	3 (1.0)
Education	Illiterate	18 (6.3)
	Non formal literate	6 (2.0)
	Primary	30 (10.4)
	Middle	105 (36.5)
	Secondary & above	129 (44.8)
Occupation	Homemaker	285 (98.9)
	Working	3 (1.1)
Type of family	Nuclear	81 (28.1)
	Joint	207 (71.9)
Gravida	Primi	162 (56.3)
	Multi	126 (43.7)

Majority of study subjects (86.5%) were aware about the benefits of breast feeding. About 96.3% of mothers knew that breast feeding was beneficial for their babies & most of them (70.0%) knew that breast milk was essential for physical growth of the infant. Of those respondents who were aware that breast feeding was beneficial for mothers, cited various reasons while 48.6% had no idea at all. More than half of the study subjects (51%) were unaware of benefits of colostrum. Although 249 participants were aware about benefits of breastfeeding, but 282 of total population had some knowledge regarding breastfeeding. The major source of information regarding breast feeding was family and neighbours (74.5%) followed by health workers [Table 2].

**Table 2: Awareness of respondents regarding benefits of breast feeding**

Variables	Number	Percentage
Awareness about benefits (n=288)		
Yes	249	86.5
Beneficiaries of breast feeding (n=249)*		
Baby	240	96.3
Mother	111	44.5
Family	6	2.4
Don't know	9	3.6
Benefits to baby (n=240)*		
Prevents disease	81	33.8
Physical growth	168	70.0
Intelligence development	9	3.8
Don't Know	39	16.2
Benefits to mother (n=111)*		
Prevents disease	21	18.9
Prevent breast engorgement	39	35.1
Hassle free	3	2.7
Don't Know	54	48.6
Benefits of colostrums (n=288)		
Good for baby	114	39.6
Harmful	27	9.4
Don't Know	147	51.0
Source of information regarding breastfeeding(n=282)*		
Health worker	69	24.5
Family & neighbor	210	74.5
TV & media	18	6.4

\* Multiple responses

Almost half (46.9%) & 74% of the antenatal mothers had no knowledge regarding initiation of breast feeding in normal delivery & in Caesarian section respectively. Majority (81.3%) of the antenatal mothers were aware that breast milk should be the first food offered to the baby. More than two third (70.8%) of the antenatal mothers were aware about exclusive breast feeding & 69.1% of study subjects were aware that exclusive breast feeding should be continued for 6 months. Two thirds (66.2%) of antenatal mothers knew that babies should be breast fed for more than 8 times in a day. Majority (73.5%) of study participants were of the opinion that babies should be demand fed. 60.4% of antenatal mothers believed that satisfaction of baby justifies the adequacy of breast feeding. More than half (54.2%) of the study participants were aware that breast feeding should be continued even during illness of baby [Table 3].

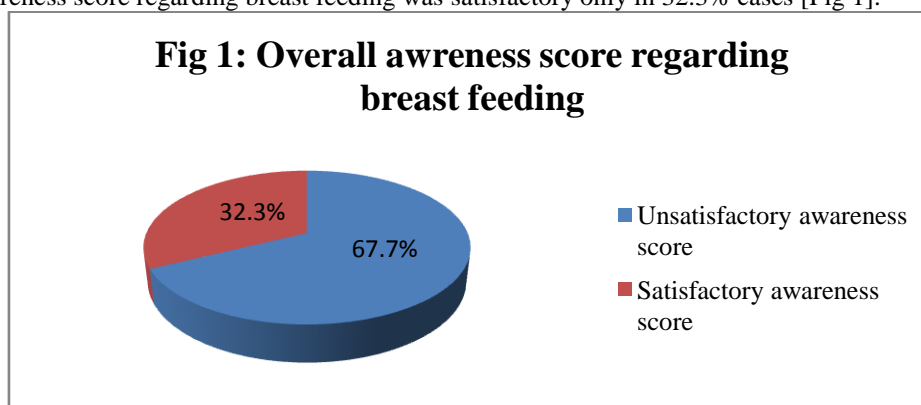
**Table 3: Awareness of respondents regarding breast feeding practices**

Variables	Number	Percentage
Initiation of breast feeding in Normal delivery (n=288)		
As soon as possible or Within 1 hour	102	35.4
>1 Hour	51	17.7
Don't know	135	46.9
Initiation of breast feeding in Caesarian section (n=288)		
As soon as possible or <4 hours	60	20.8
>4 hours	15	5.2
Don't know	213	74
First food offered (n=288)		
Breast milk	234	81.3
Honey	3	1.0
Artificial milk	15	5.2
Others(Sugar water)	3	1.0
Don't know	33	11.5
Feeding for the first 6 months (n=288)		
Only Breast milk	204	70.8
Breast milk and water	21	7.3
Breast milk and formula feed/ cow's milk	30	10.4
Breast milk and other commercial cereals	12	4.2
Don't know	21	7.3
Awareness about duration of exclusive breastfeeding (n=204)		
<6 months	3	1.5
=6 months	141	69.1
>6 months	48	23.5
Don't know	12	5.9
Awareness about frequency of breastfeeding in 24 hours(n=204)		
<8 times	15	7.3
>=8 times	135	66.2
Don't know	54	26.5

Awareness about type of feeding(n=204)			
Demand feeding		150	73.5
Regular interval		30	14.7
Don't know		24	11.8
Awareness about adequacy of breastfeeding (n=288)*			
Growing well		48	16.6
Passes urine >8 times		0	0
Satisfied		174	60.4
Don't know		69	23.9
Awareness about continuation of breastfeeding during illness(n=288)			
Yes		156	54.2
No		24	8.3
Don't know		108	37.5

\* Multiple responses

Overall awareness score regarding breast feeding was satisfactory only in 32.3% cases [Fig 1].



A higher proportion of satisfactory awareness score was found in mothers aged  $\geq 20$  years, muslims, belonging to reserved caste, from nuclear families and multigravida [Table 4].

**Table 4: Distribution of study subjects by socio demographic factors and awareness score**

(n = 288)

Variables		Awareness Score		Total (%)
		Unsatisfactory	Satisfactory	
Age(years)	<20	45(88.2)	6(11.8)	51(100)
	$\geq 20$	150(63.2)	87(36.8)	237(100)
Religion	Hindu	177(68.6)	81(31.4)	258(100)
	Muslim	18(60.0)	12(40.0)	30(100)
Caste	General	153(70.8)	63(29.2)	216(100)
	SC	33(61.1)	21(38.9)	54(100)
	ST	0(0.0)	3(100)	3(100)
	OBC	9(60.0)	6(40.0)	15(100)
Literacy status	Primary&below	36(66.6)	18(33.4)	54(100)
	Middle & above	159(67.9)	75(32.1)	234(100)
Family	Nuclear	39(48.1)	42(51.9)	81(100)
	Joint	156(75.3)	51(24.6)	207(100)
Gravida	Primi	141(87.0)	21(13.0)	162(100)
	Multi	54(42.9)	72(57.1)	126(100)

#### IV. Discussion

Breast feeding confers short term and long term benefits on both child and mother including helping to protect children against a variety of acute and chronic disorders [14]. Breastfeeding is best gift for child from mother. A tertiary center based study conducted among postnatal mothers by pediatric department revealed 67% of mothers were housewives, hailed from joint family, 42% of them were primi para and majority belonged to poor economic status [8]. Similarly in the present study majority of antenatal mothers were homemakers (98.9%) and from joint families (71.9%). Little more than half of study subjects (56.3%) were primi gravida.

In this study majority of study subjects( 86.5%) were aware about the benefits of breast feeding. Most mothers (96.3%) knew that breast feeding was beneficial for their babies, while little less than half (44.5%) believed that breast feeding was beneficial for themselves too. Among mothers in rural community of Papua New Gini 87.9% believed breastfeeding is good and 48% believed it is healthy for child, while 38% believed it helps for child growth.63% responded breastfeeding helps in mothers by reducing breast tightness and pain, 17% believed it is

bad for mother due to weight loss [15]. Similarly in Sanghai, China 99% expectant mothers knew benefits of breastfeeding for baby but 22% mothers did not think breastfeeding has any benefit for mothers & 57.8% of mothers had appropriate knowledge that breast milk is the first food. They knew first thick yellow milk should be offered to child (84.3%), it has beneficial effects [16]. Similarly in Karnataka, India 56% of respondents knew that colostrum need to be given to child [12]. In rural community of Chandigarh, baseline knowledge about benefits of breastfeeding was 70% and 71.9% agreed to give colostrum to their child [17]. The present study revealed that more than half of the study subjects (51.5%) were unaware of benefits of colostrums. Almost half (46.9%) and three fourth(74%) of the antenatal mothers had no knowledge regarding initiation of breast feeding in normal delivery and caesarian section respectively. In Puducherry, majority of mothers (92%) knew breastfeeding should be initiated within one hour only but 36% actually practiced, major reason for non practicing was sick newborn [18]. Knowledge about initiation was fairly good 69.3% in Chandigarh [17]. In Chandigarh nursing mothers were interviewed but in this study antenatal mothers in different stages of pregnancy were interviewed, hence their knowledge were different in two studies, but in a study by Mukhopadhyay in rural Bengal revealed a different picture only 16.5% of mothers were allowed to breastfeed within 1 hour of delivery and 47.9% breastfed their child after 24 hours. In majority of cases colostrums was discarded in fear of harm to baby and prelacteals were offered to cleanse system [19]. In this study majority (81.3%) of the antenatal mothers were aware that breast milk should be the first food offered to the baby. More than two third (70.8%) of the antenatal mothers were aware that breast milk should be the only food given to baby for first six months. More than two thirds (69.1%) of study subjects were aware that exclusive breast feeding should be continued for 6 months. In China 91% were intended to breastfeed and 67% of were intended for exclusive breastfeeding [16]. In Bangladesh BDHS-11 revealed proportion of exclusive breastfeeding for six months was 64.1% while 88.9% of children aged 20-23 months were still receiving breastfeeding along with other home available foods [20].

The present study found that the major source of information regarding breast feeding was family and neighbours (76%) followed by health workers. In a study in Tanzania ,61% had received some knowledge from elderly family members [21]. In another study from Puducherry revealed only 21% of booked mother received information on breastfeeding during antenatal visit [18].

In an Australian study mothers with high grade of education has better awareness of WHO recommended exclusive breastfeeding (ARR=1.48, 1.08-1.94) [22]. In China, awareness of breastfeeding guidelines (OR=2.66, 1.08-3.78) and no intention to return to work within 6 months after delivery (OR=1.89,1.03-3.47) were associated with intention for breastfeeding [16]. In this study no difference was observed in the proportion of satisfactory awareness score between women less educated i.e, primary and below ( 33.4%) compared to women who had completed middle school and above(32.1%). Instead a higher proportion of satisfactory awareness score was found in mothers aged more than 20 years, residing in urban areas, Muslims, belonging to reserve caste, from nuclear families and multi gravida.

### **Limitations**

As the study was not community based, study findings may not be generalized. There was assignment of arbitrary knowledge score. Further studies are needed to explore whether awareness and intention of breastfeeding can be translated to future breastfeeding practices.

### **V. Conclusion**

The present study reveals that benefits of breast feeding were known to 86.5% of the study subjects, but correct duration, intervals and initiations were lacking among them. The fact that adequate nutrition during infancy is essential to ensure growth, health, development of children to their full potential is well known<sup>13</sup>. Hence increased IEC (Information, Education & communication) activities by ANM, AWW, and ASHA workers should be promoted to improve awareness among the antenatal mothers. Greater involvement of mass media (TV, FM & Newspaper) will also disseminate the information to a wider population including family members and peer groups to facilitate awareness and translate knowledge to practice.

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