

Knowledge and awareness of infant feeding practices in antenatal mothers: A cross sectional study

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Abstract

Background: As per World Health Organization (WHO) the appropriate method of infant feeding is breastfeeding which is the ideal food for the healthy growth and development of infant and young child. Implementations of proper infant and young child feeding practices can result in reduction in infant mortality rate. **Material and Method:** an observational cross sectional study Pediatric department and the participants were the antenatal mothers attending obstetric OPD. **Results:** Out of 275 participants majority were between 20 – 30 years age group, from rural background, Hindu in religion, house-wife and from nuclear family. Majority had the knowledge that breast feeding should be started within 4 hours (in normal delivery 81.7%, in caesarean delivery 71.6%). Knowledge about colostrum feeding was also present in 70% participants. **Conclusion:** Knowledge and awareness of infant feeding practices among antenatal mothers was assessed and results show that antenatal counseling about proper breast feeding practices should be given so as to improve infant's proper growth and development.

Key Words: Breastfeeding, colostrum, World Health Organization.

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INTRODUCTION

Breast milk is the complete food for the newborn made available by nature along with colostrum, which works as first vaccine¹. WHO has described breast feeding as the unequalled way of providing ideal food for the infant and newborn required for healthy growth and development.^{2,3} As per WHO breast feeding is a global priority and exclusive breast feeding should be advised for first six

months, when only breast milk and not even water should be given to newborn⁴. Implementations of correct infant feeding practices can result in reduction of neonatal mortality and morbidity¹. In our country many under-five deaths can be prevented by early initiation of breast feeding and exclusive breast feeding up to the age of six months⁵. In developing countries non breast fed infants are more vulnerable to die during first month than those who are exclusively breast fed.^{6,7} As per NFHS 3 data national average of percentage of children who were exclusively breast fed for six month was 46.4% which has increased to 54.9% in NHFS 4 survey data, but there is still a large gap in data from Uttar Pradesh, where it is found to be in the range of 51.3% in NHFS 3 and 41.6% in NHFS 4 reflecting a decline in exclusive breast feeding rate in first six months in UP. Similarly, children under three year in whom breast feeding started within one hour of birth were 23.4% and 41.6% in NHFS 3 and NHFS 4 respectively in national average and in Uttar Pradesh similar data were 7.2% and 25.2% in NHFS 3 and NHFS

4 survey. These data suggest although there is an increase in the rate of early initiation of breast feeding but the exclusive breast feeding rate up to six months is declining in UP. Therefore this study was undertaken to know the knowledge and awareness of breast feeding in antenatal mothers and to give them proper advice about the same during antenatal period, so as to increase the proper infant feeding practices in mothers after child birth.⁸

MATERIAL AND METHODS

This study was an observational, cross sectional study conducted in Rama Medical College Mandhana, Kanpur by Pediatric department and the participants were the antenatal mothers attending obstetric OPD, who gave consent for the study, period being four months, July-October, 2017. A predesigned, pretested, questionnaire was used to assess knowledge and awareness of breast feeding in antenatal mothers. Ethical committee approval was obtained prior to study. Sample size was calculated by following way. As per NFHS 4, infants exclusively breast fed for first 6 months in Uttar Pradesh are 41.6% (8). So assuming the anticipated population proportion P =42% and confidence interval 95%, and 6% absolute precision, the minimum sample size calculated by using following formula⁹.

$$n = \frac{Z^2 \cdot P(1-P)}{\alpha/2 \cdot d^2} \quad \begin{matrix} P = 42\% \\ Z^2 \cdot 1-\alpha/2 = 1.96 \\ d = 6\% \end{matrix}$$

$$= \frac{(1.96)^2 \times 0.42(1-0.42)}{(0.06)^2}$$

$$= 260$$

Assuming 5% of non-responders a sample size of 273 was required and we included 275 antenatal mothers in our study.

RESULTS

In our study group majority of women were 20-30 years (78.5%) age group, resident of rural area (67.2%), Hindu (63.2%) by religion and age at marriage of most mothers was between 20 to 30 years, and age at first pregnancy was also mostly between 20 to 30 years in mothers (73%), more than half of women educated high school or beyond (58%). Mostly study group women were house-wives (72.3%) and family type was nuclear (46.5%) and joint (53.5%).

Table 1: Socio-demographic variables of the study group

Variables	Characters	No.	(%)
Mother's Age	<20	24	8.7%
	20-30	216	78.6%
	>30	35	12.7%
Residence	Rural	185	67.3%
	Urban	90	32.7%
	Hindu	174	63.2%
Religion	Muslim	92	33.4%
	Christian	9	3.2%
Age at marriage	<20 years	41	14.9%
	20-30 years	204	74.2%
	>30 years	30	10.9%
Age at first pregnancy	<20 years	35	12.8%
	20-30 years	201	73%
	>30 years	39	14.2%
Educational Qualification	Illiterate	25	9%
	Primary	35	13%
	Middle	55	20%
	High school	73	26.5%
	Intermediate	47	17%
Occupation	Graduate or Above	40	14.5%
	House-wife	199	72.4%
	Working Woman	76	27.6%
Type of family	Nuclear	128	46.5%
	Joint	147	53.5%

In our study group, primi gravida females were less 32.3% compared to multigravida (67.7%), birth interval was 1 to 3 years in maximum number of participants (58.2%). Out of 275 participants of study group, half the participants had 1 to 3 antenatal visits and 44% had 4 to 7 antenatal visits. 67.3% participants received breast feeding education in previous ANC visits.

Table 2: Pregnancy and Health Services Related Variables:

Variables	Characters	No.	(%)
Gravida	1	89	32.4%
	2 – 3	130	47.3%
	>3	56	20.3%
Birth Interval	<1 yr	85	30.9%
	1 – 3 yrs	160	58.2%
	>3 yrs	30	10.9%
No. of Antenatal Visits	1 – 3	135	49.1%
	4 – 7	121	44%
	>7	19	6.9%
Breast feeding education in previous ANC visits	Yes	185	67.3%
	No	90	32.7%

Family members (63%) played the major role in providing knowledge of proper breast feeding practices, other sources being health worker (45.4%) and media (TV, FM) 36.2%. Majority of antenatal mothers had the knowledge, that breast feeding should be initiated between one to four hour after birth [normal delivery (54.5%) and in caesarean delivery (63.6%)]. The ideal time for initiation of breast feeding that is within one hour was known to very less number of participants [27.2% after normal delivery and 9% after caesarean delivery].

About pre lacteal feeds majority of study group was aware that it should not be given (60%). More than half of the participants knew that exclusive breast feeding should be given for at least 6 months (58.1%). Rest antenatal mothers answered that along with breast milk either goat milk, cow milk or formula milk should be added. An infant should be fed on demand was known by majority of mothers (64.3%). The study group participants were well aware of the advantages of breast feeding but the majority considered it good for the baby (41.8%), less number considered it good for mother (27.2%). Those having the knowledge of advantages of breast feeding to both mother and baby were only 31%.

Table 3: Knowledge and Awareness of Breast Feeding Practices and its Benefits among Antenatal Mothers:

Variables	Characters	No.	(%)
source of information*	Health worker	125	45.5%
	Family members	173	63%
	Media	60	22%
	All of the above	43	15.6%
Initiation of b.f. in normal delivery	Within 1 hour	75	27.3%
	1 – 4 hour	150	54.5%
	No idea	50	18.2%
Initiation of b.f. in LSCS	Within 1 hour	25	9.1%
	1 – 4 hours	175	63.6%
	No idea	75	27.3%
Pre lacteal feeds	Should be given	110	40%
	Should not be given	165	60%
Duration of exclusive b.f.	<4 month	55	20%
	4 – 6 month	60	21.8%
	6 month	160	58.2%
Knowledge about colostrum feeding	Should be given	195	70%
	Should be discarded	80	30%
Types of feeding in first 6 months	Breast milk(BM)	160	58.2%
	BM, goat milk	48	17.5%
	BM, cow milk	32	11.6%
	BM, with formula milk	35	12.7%
Frequency of b.f.	On demand	177	64.4%
	2 – 3 hourly	58	21.1%
	4 – 5 hourly	40	14.5%
Any knowledge about advantages of b.f.	Advantageous to baby	115	41.8%
	Advantageous o mother	75	27.3%
	To both	85	30.9%

*multiple responses

DISCUSSION

Present study was conducted to know about the knowledge and awareness of breast feeding practices in antenatal mothers so as to detect the knowledge gap and give them proper advice for the same. In our study

majority of the participants got the knowledge of breast feeding from family members (63%) followed by health workers(45.5%) and media (22%), similar study from West Bengal shows that their source of information was health workers (31.3%) and both elderly family members and health worker (31.3%).¹⁰ In our study maximum number of participants had the perception that timing of initiation of breast feeding should be between 1 to 4 hour (54.5% in normal delivery and 63.6% in caesarean delivery) whereas another study shows that maximum participants thought that breast feeding should be started between 1 to 24 hours after normal delivery (51.8%) and within 4 to 24 hours after caesarean delivery (51.8%)¹⁰. In contrast to our findings on timing of initiation of breast feeding another study from Puducherry shows that majority of antenatal mothers had the right knowledge, that breast feeding should be started within 1 hour after birth (92%).¹¹ Another study from Mekelle, Northern Ethiopia shows that correct knowledge about timing of initiation was present in 78% of participants¹². In contrast to our finding study from West Bengal shows that only 16.5% mothers breast fed their newborn within 1 hour and 47.9% started breastfeeding after 24 hours.¹³ When asked about the pre lacteal feed majority of mothers were aware that, it should not be given (60%), our findings correlates well with the study from Kannur, Kerala where 59.6% mothers were aware that pre lacteal feeds should not be given¹⁴. In our study approximately 58% mothers had the knowledge of giving exclusive breastfeeding up to the age of 6 months, this awareness level is a bit lower than observed in Kolkata, which shows the knowledge of continuation of exclusive breastfeeding in antenatal mothers as 69.1%¹⁵. In our study 63.6% antenatal women knew that colostrum should be given to the neonate and it should not be discarded, another study from Nepal 89% women replied that they will feed their baby with colostrum first¹⁶. In our study 58.1% were willing to exclusively breastfed their babies and rest of the mother said they may add goat milk (17.4%), cow milk (11.6%) or formula milk (12.7%). Most of the mother 64.3% knew that breastfeeding should be given on demand and in varying proportion they knew that breastfeeding in beneficial to baby (41.8%), to mother (27.2%), and to both (30.9%).

CONCLUSION

Breast feeding benefits are well known to antenatal mothers and most are intended to start with colostrum feeding and continuing exclusive breastfeeding up to the age of 6 months. But there is also some knowledge gap in significant number of antenatal mothers. We recommend that counseling about correct breast feeding practices should be given to each and every expectant mother so as

to increase the implementation of correct Infant and Young Child feeding practices and further reduce the Infant Mortality Rate and malnutrition.

RECOMMENDATIONS

Antenatal checkups should include education about proper breastfeeding practices to expectant mothers so as to encourage them about early initiation of breastfeeding and provide them knowledge so that exclusive breastfeeding can be continued up to 6 months.

LIMITATIONS

As this study was conducted within the hospital, including the antenatal mothers attending obstetrics OPD for checkup, data may not be representative of whole population and further field studies are needed to know the exact knowledge, awareness and practices about breastfeeding in antenatal mothers.

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