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Original Research Article

Association of counselling with breastfeeding technique: a study from rural area of southern Haryana

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ABSTRACT

Background: Correct breastfeeding technique (BFT) has been shown to be important to establish breastfeeding, to ensure milk transfer and to prevent breastfeeding problems. Counselling is seen as an important pathway to address the problem of inappropriate BFT. This study was conducted to assess breastfeeding technique and its association with counselling.
Methods: The study was community based cross sectional study. After taking permission from institutional ethical committee a cross-sectional study was undertaken among the mothers of children (0 to 23 months). A total of 360 mothers were interviewed and observed with the help of semi-structured interview schedule based on WHO breastfeeding observation checklist after taking written informed consent. Descriptive statistics were used to summarize all variables of interest in the study population. The data were analysed using Epi-Info.
Results: Out of 360 mothers, only 1/5th of the mothers (21.4%) were found to be currently not practicing breastfeeding, 78.6% were doing breastfeeding, in 18.9% correct breastfeeding technique and in 59.7% incorrect breastfeeding technique was seen. ANC counselling significantly improves breastfeeding technique (p=0.000). PNC counselling was found to be significantly improving the current breastfeeding status (p=0.011).
Conclusions: In the study area the proportion of ineffective breastfeeding was very high and was significantly associated with not receiving counselling during ANC and PNC.

Keywords: Breastfeeding technique, Counselling

INTRODUCTION

Correct breastfeeding technique (BFT) has been shown to be important to establish breastfeeding, to ensure milk transfer and to prevent breastfeeding problems.[1-3] Once the mother knows the steps of correct breastfeeding positioning and attachment, she can better prevent and cope with most breastfeeding problems that might occur. Most difficulties can be avoided together if good attachment and positioning are achieved.[4] Incorrect BFT results in insufficient intake of breast milk and this will cause poor weight gain and stunting and the baby may also become difficult to feed. Poor positioning, attachment and suckling also leads to sharp reduction of exclusive breastfeeding and increase in breastfeeding problems.[5-9] Infant who are not breastfed are 15 times more likely to die from pneumonia and 11 times more likely to die from diarrhoea than children who are exclusively breastfed, which are the two leading causes of death in children under five years of age.[10] So by improving their breastfeeding positioning and attachment improvement can be done in the status of exclusive breastfeeding and nutrition of the children, and mortality due to diarrhoea and pneumonia can be reduced. Facilitating behaviour change among caregivers through increased awareness, skill building and effective counselling is seen as an important pathway to address the problem of inappropriate BFT. The present study was conducted to assess the role of counselling in correct BFT.

METHODS

It was a community based cross-sectional study conducted at the area catered by Primary Health Centre, Nagina from February 2019 to October 2019.

Study subjects

The sample size amounted to 360 mothers having children 0 to 23 months using the formula $4PQ/L^2$, where P is the prevalence of exclusive breastfeeding which was considered as 56% 11 and allowable error of 10% was assumed.

Data collection

After taking permission from institutional ethical committee a cross-sectional study was undertaken among the mothers of children (0 to 23 months) residing in area catered by PHC Nagina. Out of the six sub-centres of PHC Nagina, two anganwadi centres (AWC) were selected randomly from each sub-centre and house to house survey of mothers having children (0 to 23 months) was conducted, 30 mothers from each AWC were taken to complete the desired sample size. The mothers were interviewed and observed with the help of semi-structured interview schedule based on WHO breastfeeding observation checklist after obtaining written informed consent.[12]

Operational definition for correct breastfeeding technique- all signs of correct positioning, attachment and suckling seen.

Correct baby position

Baby body should be straight and slightly extended, baby body close to the mother's body, whole body supported, baby facing toward the mother's breast.

Correct attachment

More areola is visible above the baby's top lip, the baby's mouth is wide open, the baby's lower lip is turned outwards, the baby's chin is touching or almost touching the breast.

Correct suckling

Slow sucks, deep suckling, sometimes pausing.

Data analysis

Data were analysed by using Epi info 7 (Centre for Disease Control, Atlanta). Categorical data was presented as proportions (%). Numerical data was presented as means and standard deviation. Categorical variables were analysed by using chi square test and the variables with quantitative data were analysed using odds ratio statistic. The statistical tests were performed at a 5% level of significance; thus, association was significant if the p value was less than 0.05.

RESULTS

In present study, age of study subjects ranged from 18 years to 45 years with mean age of 26.37 years and standard deviation (SD) of 5.230. Out of total mothers, 38.4% of study subjects were in the age group of 15-24 years, followed by 36.1% in the age group of 25-29 years.

Table 1: Distribution of mothers according to socio-demographic characteristics (n=360).

Socio-demographic characteristics	N (%)
Age group of mothers	
Mean age of 26.37 years with standard deviation (SD) 5.230	
15-19	16 (4.4)
20-24	124 (34.4)
25-29	130 (36.1)
30-34	57 (15.8)
≥35	33 (9.2)
Education status	
Illiterate	231 (64.2)
Read and write	10 (2.8)
Primary school	38 (10.6)
Middle school	35 (9.7)
Higher secondary school	34 (9.4)
Graduate and above	12 (3.3)
Socio-economic status	
I. Upper	3 (0.8)
II. Upper middle	15 (4.2)
III. Middle	54 (15.0)
IV. Lower middle	161 (44.7)
V. Lower	127 (35.3)
Religion	
Hindu	101 (28.1)
Muslim	259 (71.9)
Type of family	
Nuclear	179 (49.7)
Joint	181 (50.3)
Employment status	
Non-working	348 (96.7)
Working	12 (3.3)

Of total mothers, 9.2% were in the age group more than 35 years. Majority of the mothers (64.2%) were illiterate. Only 10.6% of the study subjects had education up to primary level, 9.4% had education up to secondary level and 9.7% had schooling up to middle school and only 2.8% were those who could read and write, 3.3% subjects were graduate or postgraduate. The majority of the study subjects belonged to socio-economic Class-IV (44.7%), followed by Class-V (35.3%), Class-III (15%) Class-II (4.2%) and Class-I (0.8%) as per Modified BG Prasad scale (May 2019). Majority of the study subjects were

Muslim (71.9%). Half of the respondents (50.3%) were living in joint family and 49.7% were living in nuclear family. The number of family members ranged from 2 to 22 members with mean of 7.77 and standard deviation (SD) of 3.346. Regarding mother's occupation, 96.7% mothers were non-working and only 3.3% were working. Since the study was done in rural area of Nuh district so all study participants belonged to rural area (Table 1).

Majority (78.6%) were doing breastfeeding, while 1/5th of the mothers (21.4%) were not practicing breastfeeding. Correct breastfeeding technique was observed among 18.9% mothers (all signs of positioning, attachment and suckling seen) while 59.7% were practicing incorrect breastfeeding technique (all signs of positioning, attachment and suckling not seen). Out of those who received PNC counselling, 83.8% were found to be doing breastfeeding and those who did not receive PNC counselling, 73.5% were found to be doing breastfeeding. PNC counselling was found to be significantly (p=0.011) improving the current breastfeeding status (Table 2). Those in whom ANC counselling was imparted, majority 60% of mothers were having correct breastfeeding technique, while those in whom ANC counselling was not done only 7.3% were practicing correct breastfeeding. This shows ANC counselling significantly (p value <0.001) improves breastfeeding technique (Table 3). Out of those in whom PNC counselling was done, 28.7% were doing correct breastfeeding while those in whom PNC counselling was not done only 18.8% were doing correct breastfeeding (Table 3).

Table 2: Association of current breastfeeding status and counselling received by mothers (n=360).

Counselling	If baby is currently breastfeeding		Total N (%)	Test of significance
	Yes-n (%)	No-n (%)		
Received ANC counselling	90 (76.9)	27 (23.1)	117 (100.0)	Chi-square =0.294 p= 0.581; df =1
Not received ANC counselling	193 (79.4)	50 (20.6)	243 (100.0)	
Received PNC counselling	150 (83.8)	29 (16.2)	179 (100.0)	Chi-square=5.69 p= 0.011; df =1
Not received PNC counselling	133 (73.5)	48 (26.5)	181 (100.0)	

Table 3: Association of breastfeeding technique and counselling received by mothers (n=283).

Counselling	Breast feeding technique		Total N (%)	Test of significance
	Correct n (%)	Incorrect n (%)		
Received ANC Counselling	54 (60.00)	36 (40.0)	90 (100.0)	Chi-square= 93.545 p=0.000; df =1
Not received ANC Counselling	14 (7.3)	179 (92.7)	193 (100.0)	
Received PNC Counselling	43 (28.7)	107 (71.3)	150 (100.0)	Chi-square= 3.762 p=0.055; df =1
Not received PNC Counselling	25 (18.8)	108 (81.2)	133 (100.0)	

Table 4: Association of ANC counselling and PNC counselling with breastfeeding technique (odds ratio statistic) (n=283).

Incorrect breastfeeding technique			
ANC counselling	**OR**	**95% CI**	**P value**
Yes	Reference		
No	16.678	5.649-49.241	0.000
PNC counselling			
Yes	Reference		
No	2.291	1.036-5.066	0.041

Those who were not counselled during ANC were having 16.678 times more odds of having incorrect breastfeeding than those who were counselled during ANC and those who were not counselled during PNC were having 2.291 more odds of having incorrect breastfeeding than those who were counselled during PNC. The association of ANC counselling and PNC counselling with breastfeeding technique was found to be statistically significant (Table 4).

DISCUSSION

Almost one-fifth (18.9%) were using correct breastfeeding technique and 59.7% were using incorrect breastfeeding technique. The prevalence of correct breastfeeding technique was lower than in a study done in west Denmark (52%).[13] The prevalence of incorrect BFT in this study was higher than the studies conducted in the rural population of India (49%), Cheluvamba hospital, India (57%), Libya (52%) and Harar, Ethiopia (57%).[14-17] On the contrary, it was lower than a study conducted in West Bengal/Kolkata hospital India (69.7%).[18] This discrepancy might be due to the difference in the quality of health services, counselling, and demonstration about breastfeeding techniques during pregnancy and the postpartum period. Performing correct breastfeeding technique is important to establish breastfeeding, to ensure milk transfer and to prevent breastfeeding problems. Although breastfeeding technique is a natural act or phenomenon, it is not an instinctual behaviour and requires a learned skill. Once the mother knows the steps of correct breastfeeding technique, she can better prevent and cope with most breastfeeding problems that might

occur. Most difficulties can be avoided together if good attachment and positioning are achieved at the first and early feeds. Highly significant association was found between ANC counselling and correct breastfeeding technique (p=0.000). Significant association was found between PNC counselling and currently breastfeeding mothers (p=0.011).

In our study, presence of routine provision of ANC and PNC counselling had significant impact on practice of correct BFT, which is consistent with several studies done in Bangladesh, Saudi general hospital, rural area of North India and rural area of Nagpur district.[19-22] Those who were not counselled during ANC were having 16.678 times more odds of having incorrect breastfeeding than those who were counselled during ANC This finding is consistent with the studies conducted in Libya and Coastal Karnataka.[16,23] Those who were not counselled during PNC were having 2.291 more odds of having incorrect breastfeeding technique than those who were counselled during PNC. This is consistent with the studies conducted in rural areas of Nagpur district, India and Harar Ethiopia.[17,22] This is likely to be due to psychological support for breastfeeding mothers through ANC counselling and hands on support for achieving proper techniques, particularly positioning and attachment through PNC counselling.

CONCLUSION

In the study area the proportion of incorrect breastfeeding technique was very high and was significantly associated with not receiving counselling during ANC and PNC. As counselling is already inherent part of ANC and PNC, it should become a routine practice. Need to strengthen the health service provider's ability to analyse breastfeeding technique, identify the problems, infer appropriate action and subsequently render personalized counselling to lactating mothers. Repeated practical reorientation training sessions can be planned with more focus on demonstration of breastfeeding positioning and attachment so that the breastfeeding technique of the mothers can be improved.

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