Original Research Article

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

Vandana Rana1*, Sonam Aggarwal2

1Civil Hospital, Sonepat, Haryana, India
2Department of Community Medicine, SHKM GMC, Nuh, Haryana, India

Received: 23 November 2021
Accepted: 13 January 2022

*Correspondence:
Dr. Vandana Rana,
E-mail: dr.vandana.16@gmail.com

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 $4PQL^2$, where $P$ is the prevalence of exclusive breastfeeding which was considered as 56% 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.²

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.
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 |
| Not received ANC counselling | 193 (79.4)                          | 50 (20.6)   | 243 (100.0)         | p= 0.581; df =1   |
| Received PNC counselling | 150 (83.8)                          | 29 (16.2)   | 179 (100.0)         | Chi-square = 5.69 |
| Not received PNC counselling | 133 (73.5)                          | 48 (26.5)   | 181 (100.0)         | p= 0.011; df =1   |

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 |
| Not received ANC Counselling | 14 (7.3)               | 179 (92.7) | 193 (100.0)         | p=0.000; df =1    |
| Received PNC Counselling | 43 (28.7)               | 107 (71.3) | 150 (100.0)         | Chi-square= 3.762 |
| Not received PNC Counselling | 25 (18.8)              | 108 (81.2) | 133 (100.0)         | p=0.055; df =1    |

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 | PNC counselling |
|----------------------------------|-----------------------------------|----------------|
| ANC counselling                  | OR 5.649-49.241 0.000             | Yes Reference  |
| PNC counselling                  | OR 2.291 1.036-5.066 0.041         | No Reference   |

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.\(^{10,22}\) 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.\(^{16,21}\) 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.

**Funding:** No funding sources

**Conflict of interest:** None declared

**Ethical approval:** The study was approved by the Institutional Ethics Committee SHKM GMC, Nuh

**REFERENCES**

1. De Oliveira LD, Giugliani ERJ, Santo LC do E, França MCT, Weigert EML, Kohler CVF, et al. Effect of intervention to improve breastfeeding technique on the frequency of exclusive breastfeeding and lactation related problems. J Hum Lact. 2006;22:315-21.
2. World Health Organization. Baby Friendly Hospital Initiative, Section 3. Geneva: Breastfeeding Promotion and Support in a Baby-Friendly Hospital; 2009:99-104.
3. Parashar M, Singh S, Kishore J, Patavegar BN. Breastfeeding attachment and positioning technique, practices and knowledge of related issues among mothers in colony of resettlement Delhi. ICAN. 2015;7:317-22.
4. Dongre AR, Deshmukh PR, Rawool AP, Garg BS. Where and how breastfeeding promotion initiatives should focus its attention? A study from rural Wardha. Indian J Community Med. 2010;35:226-9.
5. Federal Ministry of Health. Integrated Management of Childhood Illness. Addis Ababa: Federal Ministry of Health; 2016.
6. Abul-Fadl AM, Shawky M, El-Taweel A, Cadwell K, Turner-Maffle C. Evaluation of mother’s knowledge, attitudes and practice towards the ten steps to successful breastfeeding in Egypt. Breastfeed Med. 2012;7:173-8.
7. Central Statistics Agency. Demographic and Health Survey. Addis Ababa: Central Statistics Agency; 2011:162-173.
8. Kent JC, Ashton E, Hardwick CM, Rowan MK, Chia ES, Fairclough KA, et al. Nipple pain in breastfeeding mothers: incidence, causes and treatments. Int J Environ Res Public Health. 2015;12:12247-63.
9. Suresh S, Sharma KK, Saksa M, Thukral A, Agarwal R, Vatsa M, et al. Predictors of breastfeeding problems in the first postnatal week and its effect on exclusive breastfeeding rate at six months: experience in a tertiary care center in northern India. Indian J Public Health. 2014;58:270-3.
10. Ministry of Women and Child Development. GOI. Rapid Survey on Children. New Delhi: MOWCD. GOI; 2013-14. Available from: https://wcd.nic.in/sites/default/files/RSOC%20FAC T%20SHEETS%20Final.pdf. Accessed on 15 September 2018.
11. International Institute for Population Sciences. District Fact Sheet. District Level Household and Facility survey-4: Mumbai: International Institute for Population Sciences; 2014:8.
12. World Health Organization. Breastfeeding Counselling- A Training Course Trainer's Guide, Part One, Sessions 5- Observing A Breastfeed. Geneva, Switzerland: World Health Organization, Control of Diarrheal Disease Programme, UNICEF; WHO/ Diarrheal and Acute Respiratory Disease Control/93.4 UNICEF/93.2; 1993. Available from: https://www.who.int/maternal_childadolescent/documents/pdfs/bc_trainers_guide.pdf. Accessed on 15 September 2018.
13. Kronborg H, Væth M. How are effective breastfeeding technique and pacifier use related to breastfeeding problems and breastfeeding duration? Birth. 2009;36:34-42.
14. Kishore MSS, Kumar P, Aggarwal KA. Breastfeeding knowledge and practices amongst
mothers in a rural population of North India: a community-based study. J Trop Pediatr. 2008;55:183-8.

15. Nagendra K, Shetty P, Rudrappa S, Jaganath S, Nair R. Evaluation of breast feeding techniques among postnatal mothers and effectiveness of intervention: Experience in a tertiary care centre. Sri Lanka J Child Health. 2017;46.

16. Goyal RC, Banginwar AS, Ziyo F, Toweir AA. Breastfeeding practices: positioning, attachment (latch on) and effective suckling—a hospital-based study in Libya. J Fam Community Med. 2011;18:74.

17. Tiruye G, Mesfin F, Geda B, Shiferaw K. Breastfeeding technique and associated factors among breastfeeding mothers in Harar city, Eastern Ethiopia. Int Breastfeeding J. 2018;13:5.

18. Dasgupta U, Mallik S, Bhattacharyya K, Sarkar J, Bhattacharya S, Halder A, et al. Breast feeding practices: positioning attachment and effective suckling- a hospital based study in West Bengal/Kolkata. Indian J Matern Child Health. 2013;15:10.

19. Mannan I, Rahman SM, Sania A, Seraji HR, Arifeen SE, Winch P, et al. Can early postpartum home visits by trained community health workers improve breastfeeding of newborns? J Perinatol. 2008;28:632-40.

20. El-Khedr SM, Lamadah SM. Knowledge, attitude and practices of Saudi women regarding breastfeeding at Makkah al Mukkaramah. J Biol Agricult Health Care. 2014;4:56-65.

21. Gupta M, Aggarwal AK. Feasibility study of integrated management of newborn and childhood illness guidelines on effective breastfeeding in a rural area of north India. Indian J Community Med. 2008;33:201-3.

22. Thakre SB, Thakre SS, Ughade SM, Golawar S, Thakre AD, Kale P, et al. The breastfeeding practices: the positioning and attachment initiative among the mothers of rural Nagpur. J Clin Diagn Res. 2012;6:1215-8.

23. Tella K, Guruvare S, Hebbar S, Adiga P, Rai L. Knowledge, attitude, and practice of techniques of breast-feeding among postnatal mothers in a coastal district of Karnataka. Int J Med Sci Public Health. 2016;5:28-34.

Cite this article as: Rana V, Aggarwal S. Association of counselling with breastfeeding technique: a study from rural area of southern Haryana. Int J Community Med Public Health 2022;9:795-9.