ORIGINAL ARTICLE

EFFECT OF ANTENATAL COUNSELLING ON EXCLUSIVE BREASTFEEDING

Muhammad Owais Ahmad, Ume Sughra*, Umay Kalsoom*, Muhammad Imran, Usman Hadi*****

Department of Physiology, Kabir Medical College, Peshawar, *Community Medicine, Foundation University Medical College, **Fauji Foundation Hospital, Rawalpindi, ***Health Services Academy, Islamabad, Pakistan

Background: The promotion and support of breastfeeding is a global priority. However, in reality most of the mothers are unable to practice exclusive breastfeeding. Most mothers discontinue breastfeeding because of lack of confidence in their ability to breastfeed, problem with infant suckling, breast pain, perception of insufficient milk, in addition to other unspecified difficulties. Some these problems can be solved if the women are counselled antenataly about the benefits of breastfeeding and prepared mentally for exclusive breastfeeding. The aim of the study was to determine whether the mothers with antenatal counselling on breastfeeding would improve their exclusive breast feeding and compare this with that of the mothers without antenatal counselling. It was a cross-sectional comparative study which took place at the Maternity ward of Fauji Foundation Hospital, Rawalpindi. **Methods:** Hundred mothers selected by consecutive non probability sampling divided in two groups. Group A: 50 mothers who were counselled on breastfeeding and Group B: 50 mothers who were not counselled on breastfeeding. Fifty mothers practicing breast feeding after antenatal counselling in the maternity ward of Fauji Foundation Hospital, Rawalpindi were recruited in the study. Another fifty mothers practicing breastfeeding without antenatal counselling were asked to take part in the study as a control group. Performa was completed and an informed consent was obtained. **Results:** As compared to the not counselled group, the mothers who initiated breastfeeding immediately after birth were statistically significantly higher ($p<0.046$) in the counselled group (84% and 96% respectively). Similarly the number of counselled mothers who practiced exclusive breastfeeding was statistically very highly significantly more ($p<0.001$) than the not counselled group (68% and 16% respectively). **Conclusion:** Antenatal counselling helps in motivating the mothers for initiation of breastfeeding immediately after birth and practicing exclusive breastfeeding for first six months of infant's life. Existing antenatal counselling on breastfeeding is inadequate in the population studied and needs to be strengthened.

Keywords: Breastfeeding, Antenatal counselling, Exclusive breastfeeding

INTRODUCTION

Breast-feeding has long been recognized to have anti infective and anti-immunomodulating effect on infant beside its nutritious value.[1] Human breast milk is the best source of nourishment for human infants. Breastfeeding promotes health, helps to prevent disease and reduces health care and feeding costs. In both developing and developed countries artificial feeding is associated with more deaths from diarrhoea in infants. The benefits of prolonged breastfeeding for mother and infant health are documented in a vast scientific literature.[2]

The American Academy of Paediatrics recommends exclusive breastfeeding for the first 6 months of life, continuing to 1 year with the addition of complementary foods at 6 months of age.[3] In its Healthy People 2010 recommendations, the US Department of Health and Human Services sets goals of 75% of mothers breastfeeding exclusively in the early postpartum period and 50% continuing to breastfeed for at least 6 months.[4]

Exclusive breast feeding is the most natural and scientific way of feeding infant in the first 6 months of life. Breast feeding can contribute to the reduction of mortality and morbidity.[5] But in spite of continuous education regarding breast feeding, most of mothers do not adhere to these practices. Both the World Health Organization (WHO) and the American Academy of Paediatrics (AAP) recommend exclusive breastfeeding for the first six months of life and then breastfeeding up to two years or more (WHO) or at least one year of breastfeeding in total (AAP). Antenatal counselling on breastfeeding and postnatal lactation support are likely to improve the rates of exclusive breastfeeding.

The promotion and support of breastfeeding is a global priority and an important child survival intervention. However, in reality many mothers are unable to practice exclusive breastfeeding as advocated by WHO. Reasons for early breastfeeding discontinuation are complicated. Mothers who discontinue breastfeeding early are more likely to report a lack of confidence in their ability to breastfeed[6,7] problems with the infant latching or suckling, breast pain or soreness[8] perceptions of insufficient milk supply or a lack of individualised encouragement from their

clinicians in the early post-discharge period. Some of these problems can be overcome if the women are informed antenatally about the benefits of breastfeeding and prepared mentally for exclusive breastfeeding. Many breastfeeding difficulties can be resolved with proper hospital procedures, properly trained midwives, doctors and hospital staff and lactation consultants.

The hospital has been a particular focus of efforts to promote initiation of breastfeeding in the past decade.[9] Prenatal preparation for pregnant training about breastfeeding enhances their practical knowledge and skills about breastfeeding techniques, which prepare them when encountering the possible difficulties in future.

A randomized controlled trial conducted in a tertiary hospital in Singapore has revealed that antenatal breastfeeding education and postnatal lactation support, as single interventions based in hospital, both significantly improved rates of exclusive breastfeeding up to six months after delivery.[10] Evidence-based data suggest that exclusive breastfeeding rates are increased by support for mother infant pairs.[11] Most interventions aiming to support breastfeeding are time-intensive interventions that rely on specifically trained nurses or peer counsellors and that occur as adjuncts to routine preventive visits.[7] However, offering support in addition to routine preventive visits has a limited impact on breastfeeding outcomes in developed countries.[12–14]

The objectives of this study were to determine whether the mothers with antenatal counselling on breastfeeding would improve their exclusive breast feeding and compare this with that of the mothers without antenatal counselling.

MATERIAL AND METHODS

This was a comparative cross-sectional study, comparing mothers practicing breast feeding with antenatal counselling and those without antenatal counselling. It was conducted at Maternity Ward of Fauji Foundation Hospital, Rawalpindi from May to Nov 2009. Sample size was 100 divided into two groups each containing 50 subjects. Group A included 50 mothers practicing breastfeeding with antenatal counselling, and Group B included 50 mothers practicing breastfeeding without antenatal counselling. Sampling technique was consecutive non probability. Mothers who were transferred to an intensive care unit after delivery, or if their infant was admitted to a neonatal unit were excluded from the study.

Information was collected by direct interviewing method through a pre-coded structured questionnaire. Fifty mothers who came for their delivery and were practicing breastfeeding in their previous child after antenatal counselling in the maternity ward were asked to participate in the study. Another 50 mothers who were practicing breastfeeding without antenatal counselling in their previous child were recruited in the study as a control group. The mothers were interviewed in the language they understood. Data so collected was analysed using SPSS-15. Descriptive statistics were used to calculate means and standard deviations for numerical data. These were compared using Student's *t*-tests at a confidence level of 95%. Frequencies were calculated for categorical data. These were compared using Chi-square tests and $p<0.05$ was considered significant.

RESULTS

When the mean ages of the mothers in both the groups were compared, the counselled group was found to be older than the not counselled mothers i.e. (28.94 versus 28.26). However, the difference between the two groups was not statistically significant ($p<0.468$). However the minimum age for the counselled mothers was 21 years and maximum was 38 years, as against 20 and 46 years respectively for the not counselled mothers.

Table-1 shows the mothers in both the groups, who initiated breastfeeding immediately after birth. The number of the counselled mothers who initiated breastfeeding immediately after birth was 48 out of 50 and of not counselled mothers was 42 out of 50. The difference between the two groups was statistically significant ($p<0.046$).

Table-2 gives the mothers in both the groups who practiced exclusive breastfeeding for the first six months of life. More number of counselled mothers practiced exclusive breastfeeding for the first six months as compared to the not counselled mothers with a statistically very highly significant difference between the two groups ($p<0.001$).

Table-1: Comparison of the initiation of breastfeeding immediately after birth by the mothers in the counselled and not counselled group

Group	Yes	No	%
A, Mothers Counselled on Breastfeeding (n=50)	48	2	96
B, Mothers Not Counselled on Breastfeeding (n=50)	42	8	84
***p*-Value**	0.046*		

*Significant

Table-2: Comparison of the exclusive breastfeeding practiced for first six months by the mothers in the counselled and not counselled group

Group	Yes	No	%
A, Mothers counselled on breastfeeding (n=50)	34	16	68%
B, Mothers not counselled on breastfeeding (n=50)	8	42	16%
***p*-Value**	0.001*		

*Significant

DISCUSSION

The key to successful breastfeeding is likely to be Information, Education and Communication (IEC) strategies aimed at behaviour change.[15] It is evident that

counselling on breastfeeding is not given due importance as part of antenatal visits. Though a trail by Alexander *et al* suggested that routine breast examination during antenatal care does not increase the chances of successful breastfeeding[16], detection of retractile nipples in the antenatal period followed by appropriate manoeuvres to make nipples protracted may help in ensuring the success of breastfeeding in postnatal period[17]. However, further research on this issue is required.

The benefits of exclusive breastfeeding for infant health are documented in a vast scientific literature[18], and exclusive breastfeeding is also widely considered to be a strong predictor of longer breastfeeding duration.

Breastfeeding support provided by the primary care physician during routine preventive visits is likely to have limited impact, compared with the effects of various barriers that affect breastfeeding duration negatively, such as psychological factors, cultural factors, and return to work.[19] Studies have documented that infant feeding counselling is often of poor quality or unavailable for many women.[20,21]

In a study by Dhandapany *et al*[22] in Pondicherry, India most of the mothers who were antenataly counselled on breastfeeding initiated breastfeeding immediately after birth as compared to the not counselled mothers with a highly significant difference ($p<0.01$) between the two groups. The results of our study were also not very different from the above mentioned study as the number of mothers of the counselled group who initiated breastfeeding immediately after birth were more than those who were not counselled with a statistically significant difference ($p<0.046$) between the two groups.

Majority of the mothers in our study who were counselled practiced exclusive breastfeeding for 1st six months of their infant's life as against those who were not counselled with a statistically very highly significant difference ($p<0.001$) between the two groups. Our results are similar to the findings made by Dhandapany *et al*[22], who also showed a highly significant difference ($p<0.01$) between the counselled and not counselled mothers, with more counselled mothers practicing breastfeeding than the not counselled. Labarere *et al*[23] also found similar results with regard to practicing exclusive breastfeeding with a significant difference ($p<0.03$) between the intervention and control group in their study. However, they studied exclusive breastfeeding at 4 weeks instead of 1st six months of infant's life.

Our findings are in accordance with the results of prior observational studies showing that support provided by clinicians through specific advice and practices during routine preventive visits is associated with higher exclusive breastfeeding rates and increased breastfeeding duration.[24,25]

If appropriate measures are undertaken to strengthen training in breastfeeding counselling and the number of trained professional/peer counsellors at all levels is increased, exclusive breastfeeding might become a social norm. There is an urgent need to train all those involved in infant feeding counselling so they have both the knowledge and the skills to help women make appropriate choices, and so they can support women in their choice after delivery. Selection of motivated clinicians is likely to be an important factor contributing to the improvements in breastfeeding outcomes.

CONCLUSION

Antenatal counselling helps in motivating the mothers for initiation of breastfeeding immediately after birth and practicing exclusive breastfeeding for first six months of infant's life. All pregnant women should be informed about the benefits and management of breastfeeding on a priority basis during antenatal visits.

REFERENCES

1. Tripathy AK, Mishra L, Bakhshi S, Arya LS. Breast feeding and childhood hematological malignancy. Indian J Pediatr 2004;71:417–8.
2. Kramer MS, Kakuma R. Optimal duration of exclusive reastfeeding. Cochrane Database Syst Rev 2004;(3):CD003517
3. American Academy of Pediatrics, Work Group on Breastfeeding. Breastfeeding and the use of human milk. Pediatrics 1997;100:1035–9.
4. US Department of Health and Human Services. Developing Objectives for Healthy People 2010. Washington, DC: US Department of Health and Human Services, Office of Disease Prevention and Health Promotion; 1997.
5. Cunha AJ, Leite AM, Machado MM. Breastfeeding and pacifier use in Brazil. Indian J Pediatr 2005;72:209–12.
6. Ertem IO, Votto N, Leventhal JM. The timing and predictors of the early termination of breastfeeding. Pediatrics 2001;107:543–8.
7. Taveras EM, Capra AM, Braveman PA, Jensvold NG, Escobar GJ, Lieu TA. Clinician support and psychosocial risk factors associated with breastfeeding discontinuation. Pediatrics 2003;112:108–15.
8. Kuan LW, Britto M, Decolongon J, Schoettker PJ, Atherton HD, Kotagal UR. Health system factors contributing to breastfeeding success. Pediatrics 1999;104(3). Available at: www.pediatrics.org/cgi/content/full/104/3/e28
9. Philipp BL, Merewood A, Miller LW, Chawla N, Murphy-Smith MM, Gomes JS, *et al*. Baby-friendly hospital initiative improves breastfeeding initiation rates in a US hospital setting. Pediatrics 2001;108:677–81.
10. Su LL, Chong YS, Chan YH, Chan YS, Fok D, Tun KT, *et al*. Antenatal education and postnatal support strategies for improving rates of exclusive breast feeding: randomised controlled trial. Br Med J 2007;335:596–612.
11. Sikorski J, Renfrew MJ. Support for breastfeeding mothers. Cochrane Database Syst Rev 2004;(4):CD001141.
12. Gagnon AJ, Dougherty G, Jimenez V, Leduc N. Randomized trial of postpartum care after hospital discharge. Pediatrics 2002;109:1074–80.
13. Escobar GJ, Braveman PA, Ackerson L, Odouli R, Coleman-Phox K, Capra AM, *et al*. A randomized comparison of home

visits and hospital-based group follow-up visits after early postpartum discharge. Pediatrics 2001;108:719–27.
14. Graffy J, Taylor J, Williams A, Eldridge S. Randomised controlled trial of support from volunteer counsellors for mothers considering breast feeding. BMJ 2004;328:26.
15. IYCF Policy and Programme: Information support http://www.bpni.org/IYCF-information-support.html.
16. Alexander JM, Grant AM, Campbell MJ: Randomized controlled trial of breast shells and Hoffman's exercises for inverted and non-protractile nipples. Br Med J 1992;304:1030–2.
17. Singh D, Kumar A, Ravichander B. Breastfeeding and antenatal preparation: (Letter). Medical Journal Armed Forces India 2006;62:208.
18. Bhandari N, Bahl R, Mazumdar S, Martines J, Black RE, Bhan MK. Effect of community-based promotion of exclusive breastfeeding on diarrhoeal illness and growth: a cluster randomized controlled trial. Lancet 2003;361:1418–23.
19. Fein SB, Roe B. The effect of work status on initiation and duration of breastfeeding. Am J Public Health 1998;88:1042–6.
20. Chopra M, Piwoz E, Sengwana J, Schaay N, Dunnett L, Sanders D. Effect of a mother-to-child HIV prevention programme on infant feeding and caring practices in South Africa. S Afr Med J 2002;92:298–302.
21. Shankar AV, Sastry J, Erande A, Joshi A, Suryawanshi N, Phadke MA, *et al.* Making the choice: The translation of global HIV and infant feeding policy to local practice among mothers in Pine, India. J Nutr 2005;135:960–5.
22. Dhandapany G, Bethou A, Arunagirinathan A, Ananthakrishnan S. Antenatal counseling on breastfeeding —is it adequate? A descriptive study from Pondicherry, India. International Breastfeeding Journal 2008;3:3–5.
23. Labarere J, Gelbert-Baudino, Ayral A, Duc C, Berchotteau M, Bouchon N, *et al.* Efficacy of Breastfeeding Support by Trained Clinicians during an Early, Routine, Preventive Visit: A Prospective, Randomized, Open Trial 0f 226 Mother-Infant Pairs. Pediatrics 2005;115:139–46.
24. Taveras EM, Li R, Grummer-Strawn L. Opinions and practices of clinicians associated with continuation of exclusive breastfeeding. Pediatrics 2004;113(4). Available at: ww.pediatrics.org/cgi/content/full/113/4/e283.
25. Taveras EM, Li R, Grummer-Strawn L. Mothers' and clinicians' perspectives on breastfeeding counseling during routine preventive visits. Pediatrics 2004;113(5). Available at: www.pediatrics.org/cgi/content/full/113/5/e405

Address for Correspondence:

Dr. M. Owais Ahmad, Department of Physiology, Kabir Medical College Peshawar, Pakistan. **Cell:** +92-300-5172892
Email: drmowais@hotmail.com