

ORIGINAL ARTICLE

REASONS FOR FAILURE OF EXCLUSIVE BREASTFEEDING IN CHILDREN LESS THAN SIX MONTHS OF AGE

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Background: Human milk is the natural food for full term infants and is the most appropriate milk for the human infants. The objective of the study was to determine the frequency of common reasons of failure of exclusive breastfeeding in children less than six months of age. **Methods:** It was a cross-sectional study conducted at Rawal institute of health sciences (RIHS) from March to October 2013. Three hundred and ten infant-mother pairs not receiving exclusive breastfeeding were included. **Results:** The mean infants' age was 99.2 ± 57.9 days and 185 (59.7%) were male infants. The average number of children in the family was 2.74 ± 1.86 , the mean monthly income was 16542 ± 12761 rupees; 169 (54.5%) infants belonged to urban areas, 122 (39.3%) babies were low birth weight; 241 (77.7%) infants were born in the hospital; majority, i.e., 135 (43.5%) mothers were illiterate majority, i.e., 282 (91%) mothers were housewives. In only 2 (0.6%) babies the breast feeding was started within <1 hour after birth. Among the study group 246 (79.4%) were partially breastfed and 64 (20.6%) were completely bottle-fed, 90 (29%) were already started on complementary feeding and the mean age of starting complementary feeding was 4.54 ± 0.783 months. The commonest reason of failure of exclusive breastfeeding was insufficient milk production in 289 (93.2%), working mother in 13 (4.2%) mothers, illness of baby in 2 (0.65%), illness of mother in 6 (1.9%) cases. **Conclusion:** The commonest reason of failure of exclusive breastfeeding was insufficient milk production in over 90% cases and was followed by working mother, illness of baby and illness of mother in the remaining.

Keywords: breast feeding; exclusive breastfeeding; determinant

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INTRODUCTION

Breast feeding is the feeding of an infant or young child with breast milk (including milk expressed or from wet nurse)¹ Human milk is the natural food for full term infants and is the most appropriate milk for the human infants. It is uniquely adapted for infant's needs² It promotes health, helps to prevent diseases (greater immunity, fewer infections, less tendency to develop allergies, diabetes and obesity), and reduces health care and feeding costs and hospitalization rates.³ The long term impact of advantages of breastfeeding across the life course has its influence on childhood cognition and educational attainment. While emphasizing the value of breast feeding, the World Health Organization (WHO) infant feeding guidelines recommend that exclusive breastfeed of the infant should be continued for the first six months of life to achieve optimal growth, development and health and then supplemented breast feeding for at least one year and up to two years or more (World Health Organization, 2002). Numerous variables affect breastfeeding practices in complex combination that can be classified into five groups are Health care related; socio demographic; psychosocial; community and policy attribute.

According to demographic and health survey of Pakistan 2012-13 rate of exclusive breastfeeding is 38% and 67% for non-exclusively breastfed.⁴ Another study shows the most common reason of nonexclusive breastfeeding being inadequate milk production (71%),

among other reasons like maternal employment (11.2%), social taboos like baby not gaining weight (5.2%), loose stools or constipation (3.3%), maternal systemic illness (3.6%), and twins (1.5%).⁵

The main contributor to child deaths worldwide is an unhealthy and insecure atmosphere, and in resource poor settings, exclusive breast feeding is very effective.⁶ There are few exceptions to breast feeding such as when the mother is taking certain drugs (nicotine, alcohol, opioids, benzodiazepines, amphetamines, radioactive iodine, chemotherapy).⁷ According to WHO, breast feeding should be continued when mother has tuberculosis, hepatitis B and C.⁸

The aim of study was to identify the common reasons that can interfere with successful exclusive breast feeding.

METHODOLOGY

This cross-sectional study was conducted at Rawal Institute of Health sciences, Islamabad from March to October 2013 in Outpatient (OPD) and inpatient (IPD) department. 310 infant-mother pairs were included by Consecutive (non-probability) sampling.

All children less than six month of age including male and female, not receiving exclusive breastfeeding (on partial breastfeeding and bottle feeding) were included. Children with congenital defects like cleft lip and palate and Children having illness which interferes with successful breastfeeding

like neurodegenerative brain diseases and sever birth asphyxia (as available from records) were excluded.

Approval of the project was taken from the hospital ethical committee. An informed written consent was taken from the parents/caretakers.

Patient profile was recorded. Patients were included in the study on the basis of interviewing mothers about number, gender of children, maternal education, employment, breastfed children, complementary or partially breastfed children and bottle fed.

RESULTS

The infants' age ranged from 7 to 180 days with a mean age of 99.2±57.9 days. There were 185 (59.7%) male infants and 125 (40.3%) female infants. The number of children in the family ranged from 1 to 8 with a mean of 2.74±1.86.

The monthly income of the family ranged from 3000 to 80000 rupees with a mean of 16542±12761. Out of total, 169 (54.5%) belonged to urban areas and 141 (45.5%) came from rural areas.

The birth weight was <2500 gm in 122 (39.3%) babies and was >2500 gm in 188 (60.6%) babies. Out of these 241 (77.7%) babies were born in the hospital and 69 (22.3%) were born at home.

Majority of the mothers were illiterate, i.e., 135 (43.5%). Among the rest 94 (30.3%) were educated up to primary, 68 (21.9%) were educated up to secondary school and only 13 (4.2%) had completed graduation. 282 (91%) mothers were housewives and only 28 (9%) were working women.

In only 2 (0.6%) babies the breast feeding was started within <1 hour after birth, in 153 (49.4%) breastfeeding was started within 1–6 hours and in 155 (50%) the breast feeding was started 6 hours after birth Table-1.

All the children included in the study were those who were not exclusively breast fed. Among these 246 (79.4%) were partially breastfed and 64 (20.6%) were completely bottle-fed. The age of the children who were partially breast fed was 96.75±59.4 days and the completely bottle-fed infants were generally older with a mean age of 108.5±51 days; $p=0.148$. Ninety (29%) were already started on complementary feeding.

The commonest reason of failure of exclusive breastfeeding was insufficient milk production in 289 (93.2%), working mother in 13 (4.2%) mothers, illness of baby in 2 (0.65%), illness of mother in 6 (1.9%) cases Figure-3. None of the discontinuations were due to the fear of passing dangerous substances in breast milk or due to twin births (Table-2).

Tanle-1: Time of starting breast feeding in our study

Start of breast feeding	Number	Percentages
<1 hour of life	2	0.6
1–6 hours of life	153	49.4
>6hours of life	155	50.0

Table-2: Reasons of failure of exclusive breast feeding

Reasons	Number	Percentages
Insufficient milk production	289	93.2
Working mother	13	4.2
Mother ill/weak	6	1.90
Baby was ill	2	0.65
Did not want to pass dangerous substances	0	00
Twin	0	00

DISCUSSION

As infant mortality rate in Pakistan is very high, 50/1000 lives births; recognition of underlying factors and diseases leading to infant mortality becomes very important. Malnutrition and infections are one of the most important factors which contribute to increased mortality and morbidity. Mother's milk undoubtedly represents the best nourishment for the child during first months of life. There is a universal consensus about the fundamental importance of breast feeding for children's adequate growth and development and for their physical and mental health.⁹ Exclusive breastfeeding defined by World Health Organization (WHO) as practice of feeding only breast milk (including expressed breast milk) and allows the baby to receive vitamins, minerals or medicines and water, breast milk substitutes, other liquids and solid foods are excluded. World Health Assembly of WHO in 2001 made resolution that exclusive breastfeeding for the first six months is the most appropriate infant feeding practice.¹⁰ The Demographic and Health Survey (DHS) 2012–13 revealed that in Pakistan the rate of early initiation of breastfeeding was 54.7%, exclusive breastfeeding under 6 months 24.1%, child ever breastfed 98%, continued breast feeding at 1 year in 83%, continued breast feeding at 2 year in 56% and bottle feeding in 51.3%.⁴

In a local study Knechi, *et al*¹¹ exclusive breast-feeding prevalence was 30% with 25% at the age of 6 months. Afzal *et al*¹² showed that although majority of women knew general benefits of breast-feeding a number of beliefs were widely held and would tend to interfere with exclusive breast-feeding. Kulsoom *et al*¹³ showed that the mean age for exclusive breast-feeding was 1.08 (±1.109) months. Breast feeding was stopped earlier by mothers who were illiterate and poor and had female children. Working women reported problems in feeding their children exclusively on breast during early infancy. 31% mothers used advice of health professionals. Ibrahim *et al*¹⁴ showed that; the most common reason for not exclusive breast feeding was inadequate milk production as stated by 71% of mothers, followed by maternal employment. Aslam *et al*¹⁵ showed in a study from Gilgit Northern Area of Pakistan that breast feeding for complete 6 months is still not routinely practiced by most of mothers and first born are deprived of this right in majority lower socioeconomic group and illiterate mothers are more likely to breast feed, gender bias was also observed as a

significantly high percentage of male babies were observed to be breast fed as compared to females.

Agha *et al*¹⁶ conducted a study to identify the factors, causing the early termination of breast feeding, i.e., from birth to six months of age at Ziauddin Medical University, Karachi. Significant associations existed between the early termination of breast feeding and family income, family structure (nuclear vs. extended), mode of delivery, delayed in initiation of breast feeding early weaning and antenatal counseling with a *p*-value of <0.05.

In India, the prevalence rate of exclusive breastfeeding by 6 months was 54%, little higher than national level (46%) as reported by National Family Health Survey 3 (NFHS 3).¹⁷ Agampodi SB *et al*¹⁸ have reported influence of paternal education and maternal employment in their study, and no association was found for variables like, low birth weight, type of family and maternal education. In contrast, others have reported low birth weight and illiteracy.

Most common reason in our study for introducing bottle was the perception that breast milk quantity was insufficient. International study shows that perceived insufficient milk is a most common reason given for not exclusive breast feeding and was documented by 80% of mothers¹⁹, while local study has reported perceived insufficient breast milk in 71% mothers²⁰⁻¹⁴ which is significantly higher than our figures 24%. Present study found real insufficient milk in 7.5% of cases which is less than reported in previous study results of 15%.²⁰

Compared to international and local studies we found some new factors preventing mothers from exclusively breast feeding. First factor was seen in working mother, who started bottle feeding before they return to work after maternity leave. Second factor, parental pressure was observed in housewives who were being forced by their elders. A study²¹ have also declared nipple problems and maternal illness as a risk factor preventing mothers from exclusively breast feeding but only 1.9% of mother have given this factor in our study. Some also found next pregnancy as preventing mothers from exclusively breast feeding and it was not studied in our study but in the study by Duncan *et al*²² 9.3% had this reason.

CONCLUSION

Creation of favourable attitude is needed for working women to breast feed in place of work or they should be given lactation breaks. Mothers should be assured that they can produce enough breast milk to exclusively breast feed. Provision of adequate prenatal counselling,

early initiation, proper economical and environmental support, backup and encouragement are key factors associated with prolonged breast feeding among women.

REFERENCES

1. World Health Organization. Indicators for assessing infant and young child feeding practices. 2007. http://whqlibdoc.who.int/publications/2008/9789241596664_eng.pdf
2. Heird WC. The feeding of infants and children. In: Behrman RE, Kliegman RM, Jenson HB (Eds) Nelson Textbook of Pediatrics. 18th ed. Philadelphia: Saunders; 2008.p. 214–25
3. Senarath U, Dibley MJ, Agho KE. Breastfeeding practices and associated factors among children under 24 months of age in Timor-leste. *Eur J Clin Nutr* 2007;60:387–97.
4. National Institute of Population Studies (NIPS) Pakistan and Macro International Inc. Pakistan demographic and health survey 2012–2013, Islamabad, Pakistan. National Institute of Population studies and Macro international Inc. 2009. Available at: http://www.nips.org.pk/abstract_files/Priliminary%20Report%20Final.pdf
5. Ibrahim S, Ansari NS. Factors associated with failure of exclusive breast feeding. *J Surg Pak* 2006;11(1):24–6.
6. Engebrestsen IM, Wamani H, Karamagi C, Seiyaga N, Tumwine J, Tylleskar T. Low adherence to exclusive breast feeding in Eastern Uganda: A community based cross sectional study comparing dietary recall since birth with 24-hour recall. *BMC Pediatrics* 2007;7:10.
7. WHO, Acceptable medical reasons for use of breast milk substitutes 2009. Available at: http://whqlibdoc.who.int/hq/2009/WHO_FCH_CAH_09.01_eng.pdf
8. Rapid advice: Revised WHO principles & recommendations on infant feeding in the context of HIV 2009. Available At: http://www.who.int/hiv/pub/paediatric/rapid_advice_infant.pdf
9. Huttly SR, Morris SS, Pisani V. Prevention of diarrhea in young children in developing countries. *Bull World Health Organ* 1997;75:163–74.
10. World Health Organization. Infant and young child nutrition: global strategy on infant and young child feeding. Geneva; 2002 (Fifty fifth World Health Assembly).
11. Knechi GK, Channar MS, Worach E, Baiwa SN. Patterns of Breast Feeding in Children Under two Years of Age in Bahawalpur. *Pak J Med Sci* 2001;17(2):94–8.
12. Afzal MF, Saleemi MA, Aseghar MF, Manzoor M, Fatima M, Fazal M. A Study of Knowledge, Attitude and Practice of Mothers about Breast Feeding in Children. *Ann King Edward Med Uni* 2002;8:28–9.
13. Kulsoom U, Saeed A. Breast feeding practices and beliefs about weaning among mothers of infants aged 0-12 months. *J Pak Med Assoc* 1997;47:54–60.
14. Ibrahim S, Ansari NS. Factors associated with failure of exclusive breast feeding. *J Surg Pak* 2006;11:24–6.
15. Aslam S, Sultan M, FAKram F. Exclusive breast-feeding. *Professional Med J* 2010;17:286–90.
16. Agha F, Ali HS. Breast feeding; factors causing early termination. *Professional Med J*. 2011;18:485–8.
17. National Family Health Survey 3, Vol. I. Ministry of Health and Family Welfare; India: 2007.
18. Agampodi SB, Agampodi TC, Piyaseeli UK. Breastfeeding practices in a public health field practice area in Sri Lanka: a survival analysis. *Int Breastfeed J* 2007;2:13.
19. Oddv WH, Sly PD, de Klerk NH, Landau LI, Kendall GE, Holt PG, *et al*. Breastfeeding and respiratory morbidity in infancy; a birth cohort study. *Arch Dis Child* 2003;88:224–28.
20. Lucast A, Cole TJ. Breast milk and neonatal necrotizing enterocolitis. *Lancet*. 1990; 336:1519–23.
21. Blaymore Bire J, Oliver T, Ferguson A, Vohr BR. Human milk reduces outpatient upper respiratory symptoms in premature infants during their first year of life. *J Perinatol* 2002;22:354–9.
22. Duncan B, Ey, J, Holbarg CJ, Wright AL, Martinez FD, Taussig LM. Exclusive breastfeeding for at least four months protects against otitis media. *Pediatrics* 1993;91:867–72.

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