FACTORS CAUSING NON-BREASTFEEDING IN CHILDREN UNDER SIX MONTHS OF AGE IN DISTRICT NOWSHERA, PAKISTAN

Rab Nawaz, Shafiq ur Rehman*, Shah Nawaz, Taj Mohammad**

Department of Community Medicine, Bannu Medical College, Bannu, *Department of Physiology, Khyber Medical College, Peshawar, **Saidu Medical College, Swat, Pakistan

Background: In developing countries bottle feeding has emerged a big public health problem while in developed countries the trend is opposite. Prevalence of breast feeding in Pakistan is 90–98% but in some subgroups of population it is as low as 60-80%. The objectives of the study were to determine the causes of non breast feeding in children less than six months of age in district Nowshera, and assess practice of starting first breast feeding to the newborn. **Methods:** A cross sectional study was conducted in ten union councils of district Nowshera. A total of 305 children under six month age were selected by simple random method. Data was collected on pre-designed questionnaire and analysed by descriptive statistics. **Results:** The study included 198 children from rural and 107 from urban areas. Mothers/guardians of 71.8% children were uneducated. Causes of non breast feeding included perception of mothers of having insufficient milk (45.9%), working mothers (18.4%), mothers with chronic diseases (13.1%), children with congenital or acquired diseases (17%), mothers having next pregnancy (3.61%) whose mothers have been died (0.98 %) and twin babies (0.98%). On the other hand, 61% babies started breast feeding on first day, 19% on second, 10.8% on third and 3.9% after third day while 5.2% babies got no breast feeding at all. **Conclusion:** Main causes of non-breastfeeding in less than six month age are perception of having insufficient milk, working women and twin babies.

Keywords: Breast feeding; Bottle feeding, Public Health Problem, Prevalence

INTRODUCTION

There is no doubt and every body in the world agrees that the best possible food for a baby is its mother's milk. Nothing has yet been invented that provides a satisfactory substitute. The policy statement of American Academy of Pediatrics (AAP) 'Breast feeding and the use of human milk' recommends that all infants be exclusively breastfed for the first 4–6 months of life and continued to be breast fed for a year or more. WHO and UNICEF recommend continuation of breast feeding for two years or more.[1–3] The recommendations are also consistent with goals and objectives of 'Healthy People 2010'.[4] Factors associated with early termination of breastfeeding have been sought by several international workers. However, currently for optimal health and development of the young infant, exclusive breastfeeding is being propagated vigorously. There can be wide regional variations in the associated factors which have important operational implications for interventional purposes.[5,6] The practice of extensive supplementation beginning in early months of life is also common leading to high illness rate and malnutrition of infants.[7] Babies stop breastfeeding earlier if they get other foods.[8,9] Breast milk is almost all water (88%).[10] Babies in very hot and dry climates do not need other fluids if they breastfeed exclusively and on demand.[11,12] Studies show that babies who drink water or other liquids before 6 months drink less breast milk. This can cause malnutrition.[13]

In developing countries bottle feeding has emerged as a big public health problem. The death rate among artificially fed babies is much greater in developing countries than among breast fed babies. Factors in breast milk protect infants from a wide variety of illnesses.[14] Breast milk contains antibodies specific to illnesses encountered by each mother and baby.[15] Inappropriate baby bottle use is associated with tooth decay, anemia, and overweight, and it may adversely affect dietary patterns.[16]

In this study we are trying to look at the demographic variables, breast feeding and newborn feeding practices. Information regarding child under six month non-breastfeeding practices in the district will be useful for policy makers and interventional programs.

The objectives of the study were to determine the causes of non breast feeding in children under six months of age in district Nowshera, NWFP and assess practices of starting first breast feeding to the newborn.

MATERIAL AND METHODS

The operational definition for non breast feeding was a child not exclusively breast fed, i.e., artificially fed partially or totally till six months of age.

This was a cross-sectional study conducted at ten out of forty seven union councils of district Nowshera which continued from June I, 2008 to August 31, 2008. These ten union councils were selected by simple random sampling. Any child of or under six months of age who had been partially or

totally bottle fed and never exclusively breast fed since birth was included in the study. Any child either six or more than six months of age were excluded from the study.

A total of 305 children meeting the criteria were included in the study from ten union councils. The sampling technique was systematic random. Information regarding demography, causes of non-breastfeeding, pre-lacteal feed and time of starting of first breast feed were obtained from mothers/ guardians of the children on a pre-tested questionnaire.

The data so collected was analysed by applying the descriptive statistics using SPSS-14.

RESULTS

The study included 305 children of under six months of age. These included (198) from rural and (107) from urban areas of district Nowshera.

Uneducated mothers (below primary education) of <6 months children were 71.8%, and 28.2% mothers were educated/literate. Sixty-five percent families having less than six months age were having monthly income of less than Rs. 3,000 while 34% families having monthly income of Rs. 3,000 or more (Table-1).

Age and sex distribution of the children is given in (Table-2). Of the total, 138 (45.24%) were male and 167 (54.75%) were female. Causes and factors for non breast feeding in 305 children less than six months of age were determined by simple descriptive statistics.

The most common cause of non breast feeding was perception of insufficient milk in mothers which accounted for 45.9%. Other causes included 18.4% children of working mothers, 13.1% children whose mother had chronic diseases, 17% in children having either congenital or acquired diseases during initial six months, 3.6% in children whose mothers had another pregnancy, 0.9% children whose mother had died, and 0.9% in twin children (Table-3).

Supplementary bottle-fed children were 289 (94.8%) of children were given supplementary bottle feeding while 16 (5.2%) got only bottle feeding. Artificial milk as supplementary feeding was given to 59% of children. Children were given prelacteal feedings in the form of honey (8.9%), ghutti (11.5%), glucose saline (3.3%), glucose water (4.6%), water (9.2%) and *Arq-e-Gulab* (3.6%) as pre-lacteal feeding (Table-4).

The first milk (colostrums) was given to children (61%) on first day, on second day (19%), on third day (10.8%) and after third day (3.9%). Sixteen children (5.2%) were given no breastfeeding at all (Table-5).

Table-1: Factors involved in non-breastfeeding

Factors	Non-breastfed neonates (%)
Place of dwelling	
a. Rural	198 (64.91)
b. Urban	107 (35.08)
Education	
a. Uneducated	219 (71.80)
b. Educated	86 (28.19)
Per capita income per month	
a. < Rs 3000/month	201 (65.90)
b. > Rs. 3000/month	104 (34.09)

Table-2: Age (month) and sex distribution of children (n=305)

Age	Male (%)	Female (%)	Total (%)
0–1	16 (5.24)	19 (6.22)	35 (11.47)
1–2	25 (8.19)	18 (5.90)	43 (14.09)
2–3	28 (9.18)	34 (11.14)	62 (20.32)
3–4	21 (6.88)	36 (11.80)	57 (18.68)
4–5	20 (6.55)	29 (9.50)	49 (16.06)
5–6	28 (9.18)	31 (10.16)	59 (19.34)
TOTAL	138 (45.24)	167 (54.75)	305 (100)

Table-3: Factors of non-breastfeeding under six month age children (n=305)

Causes of non breast feeding	Number (%)
Perception of milk insufficiency	140 (45.90)
Working mothers	56 (18.36)
Mother sick	40 (13.11)
Congenital/acquired disease of child	52 (17.04)
Mother dead	3 (0.98)
Mother pregnant again	11 (3.61)
Twins	3 (0.98)

Table-4: Type of pre-lacteal feed

Type	Number (%)
Honey	27 (8.9)
Ghutti	35 (11.5)
Glucose saline	10 (3.3)
Glucose water	14 (4.6)
Water	28 (9.2)
Arq-e-Gulab	11 (3.6)

Table-5: **Percentage of Neonates and Time of starting Breast Feeding**

Feeding	Number (%)
Day 1	186 (61)
Day 2	58 (19)
Day 3	33 (10.8)
After Day 3	12 (4)
No beast feeding	16 (5.2)

DISCUSSION

During early infancy, the babies need exclusive breast feeding which is the natural food for them. Breast milk is available all the time fresh and free from contamination and there are remote chances of developing diseases transmitted through faeco-oral route in the exclusive breast fed babies.

Unfortunately most of the mothers do not know that breast milk has great benefits for children. more than 90% got breast feeding during first three days and less than 4% after third day and comparing

results of our study with that conducted at Lahore, in which 50% of the children and the remainder 50 % on the fourth day. Also comparing our results of our study with that conducted at Bahawalpur[17] in which 24.8% of infants started breast feeding on the very first day 13.4% on the second day and 11% on the third day. Comparing results of our study with that conducted in Bahawalpur, in 70% of the children the major determinant for early supplementary bottle feeding was insufficient breast milk and in our study it was 45.90%. Seventy-three percent infants were on predominant breastfeeding at 6 months of age.[18] According to another study at Lahore[19] 98% mothers started breast feeding within the first week and prelacteal feeds were given to 94% infants. In 34 infants (65.4%) colostrum was not given. Water was considered essential from the very first day in 55.4% cases. Forty-eight percent babies were put on supplemental bottle feeding during the first week and by 5 months of age 97% were bottle-fed. The most common reason for starting bottle feeding was perceived 'insufficiency' of breast milk (71%). Breastfeeding was stopped earlier by mothers who were illiterate and poor and had female children.

RECOMMENDATIONS

Health education interventions are needed to promote use of colostrum, exclusive breast feeding and appropriate complementary feeding practices. There is need for promoting exclusive breast feeding and awareness of the public regarding benefits of breast milk.

REFERENCES

1. Workgroup on Breast feeding. America Academy of Pediatrics: Breastfeeding and the Use of Human Milk. Pediatrics 1997;100:1035–9.
2. Workgroup on Breast feeding. American Academy of Pediatrics: Breastfeeding and the Use of Human Milk. Pediatrics 2005;115:496–506.
3. Slusser W, Powers NG. Breast feeding update 1: Immunology, Nutrition and advocacy. Pediatrics in Review 1997;18:111–9.
4. Korioth, Trisha. Surgeon General announces national breastfeeding initiative. AAP News 2000 17:239b–48b.
5. World Health Organization, Division of Family Health. The prevalence and duration of breastfeeding: critical review of available information. World Health State 1982;35:92–112.
6. Kramer MS, Kakuma R. The optimal duration of exclusive breastfeeding: a systematic review (WHO/NHD/01.08) Geneva, Switzerland: World Health Organization; 2002.
7. The United Nations Children's Fund. The State of World's Children. New York: UNICEF; 2001.
8. Hill PD, Humenick SS, Brennan ML. Woolley D. Does early supplementation affect long-term breastfeeding? Clin Pediatr 1997;36:345–50.
9. Enkin M, Keirse M, Neilson J, Crowther C, Duley L, Hodnett E, Hofmeyr J. A guide to effective care in pregnancy and childbirth. 3rd ed. Oxford: Oxford University Press; 2000.
10. Lawrence RA, Lawrence RM. In: Breast Feeding, a Guide for the Medical Profession. 6th edition. Philadelphia PA: Elsevier Mosby; 2005.
11. Linkages Project. Exclusive Breastfeeding: The Only Water Source Young Infants Need. Washington, DC: Academy for Educational Development; 2002.
12. Goldberg NM, Adams E. Supplementary water for breast-fed babies in a hot and dry climate-not really a necessity. Arch Dis Child 1983;58:73–4.
13. Glover J, Sandilands M. Supplementation of breastfeeding infants and weight loss in hospital. J Human Lact 1990;6:163-6.
14. Cunningham AS, Jellife DB, Jellife EEP. "Breastfeeding and Health in the 1980's" A Global Epidemiologic Review. J Pediatr 1991;118:656–66.
15. Fitzsimmons SP. Immunoglobulin A subclasses in infants' saliva and in saliva and milk from their mothers. J Pediatr 1994;124:566–73.
16. Kahn R, Bonuck K, Trombley M. Randomized controlled trial of bottle weaning intervention: a pilot study. Clin Pediatr (Phila) 2007; 46:163–74.
17. Knechi GQK, Channar MS, Woraich 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.
18. Shiva FF. Ghotbi F, Padyab M. Infant feeding and hospitalization during the first six months of life. J Pak Med Assoc 2007;57:599–603
19. 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.

Address for Correspondence:

Dr. Rab Nawaz, Assistant Professor, Department of Community Medicine, Bannu Medical College, Bannu, Pakistan.
Cell: +92-300-5932975