



Feeding pattern of children in Mosul city, Iraq

Khulood J Mahmood¹, Hajir H Al-Ridhwany², Ruqayah Y Hasani³

^{1,3} Family Physician, Nineveh Health Directorate, Iraq

² Senior doctor in Public Health and Preventive Medicine, Nineveh Health Directorate, Iraq

Abstract

Breast milk is beneficial for infant, mother and society. Health professionals recommend that breast feeding begin within the first hour of a baby's life. The current study was aiming for finding out feeding pattern of children during their first two years of life in Mosul city, Iraq. It was carried out in Al-Khansaa and Ibin-Sena Teaching Hospitals after obtaining the required administrative agreements. Case series design was adopted over five month's period (from 1st of November 2012 to 30th of March 2013). Two hundreds children between 1-24 months old who were admitted to the pediatric clinics and words were selected randomly. Breast feeding was reported among 46.5% of studied children. While, 46.0% were being mixed feeding. Breast feeding was most frequently reported among children younger than 6 month of age. It is recommended that health education program concerning benefits of breastfeeding is required to be expanded.

Keywords: breastfeeding, case series, Mosul, weaning

Introduction

Breast feeding, that is also known as nursing, is the feeding of babies with milk from women's breast ^[1]. Health professionals recommend that breast feeding begin within the first hour of a baby's life and continue as much as the baby want ^[2,3]. Human milk is considered as the ideal and uniquely superior food for infants during the first year of life and as the sole source of nutrition for the first six months ^[4,5].

Breastfeeding is beneficial for infant, mother and society ^[6]. Beside its nutritional benefits and protective action against infection and malignancy, it is considered as natural contraceptive method and decrease risk for postpartum hemorrhage ^[7,9]. In conclusion, it reduce infants and maternal mortality ^[4,9].

Behaviour of breast feeding is one of the women's roles in Middle Eastern societies. It was universally practiced until a few decades ago when it started to decline.

Weaning, introduction of food within child's feeding, should be done gradually. Semisolid foods are ideally introduced between the ages of 4-6 months, although it is often earlier as parents often consider that their infant is hungry. After 6 months of age, breast milk becomes increasingly nutritionally inadequate as a sole feed, leading to deficiencies in energy, vitamins and iron ^[10].

The current study was aiming for finding out feeding pattern of children during their first two years of life in Mosul city, Iraq.

Subjects and Method

Administrative agreement was obtained from Nineveh Health Directorate in Mosul to conduct the present study in Al-

Khansaa and Ibin-Sena Teaching Hospitals. These hospitals are located on the left and right banks of the city respectively; and they are deliver services to many areas in Mosul city.

In order to achieve the aim of the present study, case series design was adopted over five months period (from 1st of November 2012 to 30th of March 2013).

The studied sample was selected randomly and included children between 1-24 months old who were admitted to the pediatric clinics and words in the selected hospitals. Children with history of prematurity, congenital anomalies and malnutrition were excluded from the sample.

Result

During time of data collection, 200 children have been studied. Almost two thirds of them (61% and 64%) were 13-24 months old and male respectively. Table (1)

Table 1: Demographic characteristic of studied sample

Demographic Characteristics	No. (N=200)	%
Age		
1-6 months	21	10.5
7-12 months	57	28.5
13-18 months	63	31.5
19-24 months	59	29.5
Gender		
Male	128	64.0
Female	72	36.0

Breast feeding was reported among 46.5% of studied children. Almost same proportion of children (46.0%) were being mixed feeding. Figure 1

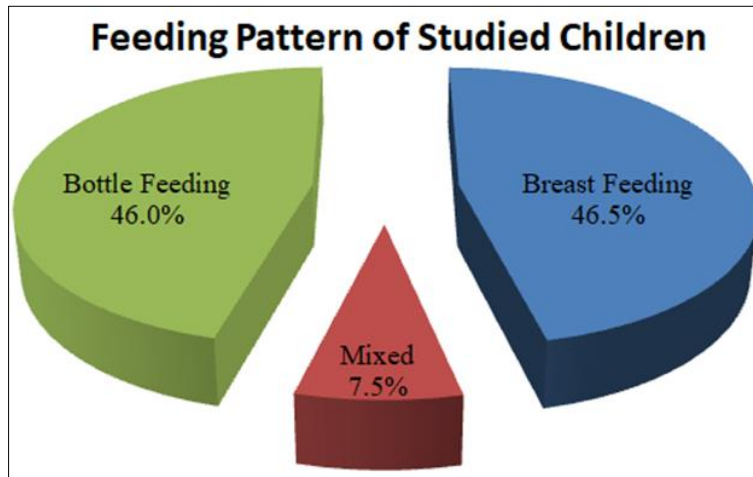


Fig 1: Feeding pattern of studied children

Distribution of breast feeding among studied children is shown in table 2. Almost fifth of studied children (19.0%) continued on exclusive breast feeding even after their 6th month of age. Breast feeding was most frequently reported among children younger than 6 month of age. The same table shows that 45.0% of studied children started weaning foods at 4-6 month of age.

Table 2: Distribution of breast feeding among studied children

Breastfeeding	No. (N=200)	%
Duration of exclusive breastfeeding (months)		
No exclusive breastfeeding	21	10.0
< 4	60	30.0
5-6	81	41.0
> 6	38	19.0
Continuation of breastfeeding (months)		
No breastfeeding	15	7.5
< 3	30	15.5
4-6	59	29.5
7-9	27	13.5
10-12	51	25.5
≥13	18	9.0
Time of introduction of weaning food (months)		
No weaning	14	7.0
< 4	37	18.5
4-6	90	45.0
> 6	59	29.5

Discussion

Feeding of young children is really a problem. Many infants and children, as stated by WHO, do not receive optimal feeding [11]. In spite of various health education Campaign that hold up by Iraqi Ministry of Health to display benefits of breast feeding, there is almost more than half of children in Mosul reported mixed feeding and / or no breastfeeding at all, as indicated by the current study. This proportion is almost approximating to that reported in Mosul, 2012 by Abdel-Ahad [12] when he stated that 55.7% of children received only breast milk at time of interview, 9.9% were solely formula fed and the rest 34.4% had mixed feeding. The later added that 37.4% of her children continue on breastfeeding after infancy.

However, exclusive breastfeeding during the first 4-6 months of child's age has been raised from 38.4% as found by Al-Kairi study [13] to 41% as reported by the current study. It also seems to be higher than that stated by WHO [14] that declared

that only about 36% of infants aged 0–6 months worldwide were exclusively breastfed over the period of 2007-2014. Furthermore, Al-Kairi study [13] reported that 26% of mothers introduce weaning food before completing four months of child' age. This fraction has been lowered to 18.5% as showed by the study under hand. In the present study 71% of mothers started supplementary food to their infants at age 6 months and less, this value is lower than the result of a national survey in Iraq at 2002 which showed that 88.5% of mothers started supplementary food to their infants at age 6 months and less [15].

In Italy the results of study carried in 2004 showed 34% of mothers reported weaning practice at 6 months age and less [16]. It is likely that cultural and economic factors and also maternal and infant cues are responsible for variation in practice between and within countries.

Conclusion

Bottle feeding was reported among more than half of children in Mosul city with or without breast feeding. Exclusive breast feeding was reported among seven out of ten children before completing their 6th moth of age.

Recommendation

The current study recommends that health education program concerning benefits of breastfeeding is required to be expanded. Further financial and mora encouragement should be provided for mothers to adopt breastfeeding.

Acknowledgement

Authors would like to acknowledge the study participants for their willingness to participate in this study.

Reference

1. US department of health and human services. Breastfeeding and breast milk: overview. National institutes of health, 2013. Available on line on URL: <https://www.nichd.nih.gov/health/topics/breastfeeding>
2. WHO. Infant and young child feeding. Fact sheet, 2018. Available on line on URL: <https://www.who.int/en/news-room/fact-sheets/detail/infant-and-young-child-feeding>
3. American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk. Pediatrics, March. 2012; 129(3):e827-41.

4. Karen J, Robert M, Hat B, Richard E. Nelson Essential of Pediatric. 6th ed. Elsevier: Philadelphia; 2010.
5. Birnkrant J, Anthony J, Pang D, Newson T, Budd Ch, Gardiner M, *et al.* Crash Course, Pediatrics Mosby, Inc., an affiliated of Elsevier Inc, 2007.
6. Al-Dabal BK. Breastfeeding: Knowledge and attitude of college girls. Saudi Medical Journal, 1998; 19:437.
7. WHO. A programme for controlling ARI in children: Memorandum from WHO meeting, 1984.
8. Lawrence RA, Lawrence RM. Breastfeeding, a guide for the medical profession. 5th ed., Mosby, Missouri, 1999.
9. William W, Hay Jr, Myron J, Levin Judith, Sondheime M, Robin R, *et al.* Deterring. Current Diagnosis and Treatment in Pediatrics. 20th ed. McGraw-Hill companies, 2011.
10. Lissauer T, Clayden G. Infant feeding, Respiratory infections. Illustrated Textbook of Paediatrics. 4th ed. Elsevier Ltd, 2012, 204-206. 278.
11. Arts-Rodas D, Benoit D. Feeding problems in infancy and early childhood: Identification and management. Paediatr Child Health. 1998; 3(1):21-27.
12. Abd Al-Ahad A. Assessment of nutritional indicators among under five children at Al-Hamdanyia district north of Iraq. A thesis approved for partial fulfillment for the requirements of the degree of fellowship of Master of Science in community medicine, 2012.
13. El-Kiari M, Kanoa B. Infant feeding in Gaza Strip mother knowledge, attitudes and practices. Annals of Alquds Medicine. 2007; 3:58-65.
14. WHO. Infant and young child feeding. WHO, 2020. a. Available on line on URL: <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding>
15. Abdl-Ameer AJ, Al-Hadi A-HM, Abdulla MM. Knowledge, attitudes and practices of Iraqi mothers and family child –caring women regarding breast-feeding. EMHJ. 2008; 14(5):1003-14.
16. Giovannini M, Riva E, Banderali G. Feeding practices of infants through the first year of life in Italy. Acta Paediatr. 2004; 93(7):492-7.