

LETTER TO THE EDITOR

(*J Bangladesh Coll Phys Surg 2014; 32: 112-113*)

To

The Editor-in-Chief

Journal of Bangladesh College of Physicians and Surgeons.

Dear Sir,

At the very outset, I would like to congratulate the editor for publishing this review article on "Breast Feeding versus Formula Feeding and Diarrheal Disease in Infants and Children-A Review". From a meticulous reading of the article, I have found the content is very informative and beneficial for the doctors in particular. Additionally, I would like to share some of my observations and comments.

Exclusive breastfeeding means that the infant receives only breast milk. No other liquids or solids are given, not even water with the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines. (WHO, 23 May 2014)

Appropriate feeding practices are essential for proper nutrition, growth, development and survival of infant and young children. These feeding practices which include both breast feeding and complementary feeding are collectively known as infant and young child feeding (IYCF).

It is estimated that sub-optimal breast feeding, especially non-exclusive breast feeding in the first 6 month of life, resulting in 1.4 million death and 10% of the disease burden in children younger than 5 years.^{1,2}

Author of this review, indeed, described very nicely about the composition of breast milk and its anti-infective role, current recommendation on breast-feeding, benefits of breast feeding and hazards of formula feeding. Working hard, the author enriched the article by referring national and international publications.

I read the article with much interest especially on discussion about comparison of bottle-fed and breastfed children and association of various type of gastroenteritis. Author gave more emphasis to explain scientifically how human milk provides anti-infective benefits. It is to be mentioned that the protection from diarrhea through breastfeeding is mediated in two ways: directly, through specific and non-specific immune mechanism, and indirectly, as no extra water is needed in a breast feed infant³ which may be

contaminated and become the media of infection, particularly in a developing country. Antibody to *Giardia lamblia* also found in breast milk⁴. The least acknowledged of all the advantages of breastfeeding are the ecological benefits. Artificial milk is non-renewable products that create ecological damage at every stage of their production, distribution and use⁵.

Despite evidences supporting the positive and cost-effective health impacts of exclusive breastfeeding on child survival, breast feeding practice in resource poor areas of the world is low. In Africa, Asia, Latin America and Caribbean, only 47%-57% of infants less than two months and 25%-31% of infants 2-5 months are exclusively breast fed⁶. This article cited a reference which shows less than 40% of infants below 6 months are currently exclusively breastfed worldwide⁷.

Apart from the information given in the article, I would like to supplement some more information:

- Breast fed infants achieve higher score in cognitive assessment than formula-fed⁸.
- Breast-feeding has protective effect against obesity in children⁹.
- The risk for presenting diarrhea is higher in formula fed (48.7%) and breast fed plus formula fed children (37.3%) when compared to exclusive breast feeding (32.5%)¹⁰. Because the acidic fraction of oligosaccharides of human milk prevents adhesion of pathogenic strains of enteropathogenic *Escherichia coli* serotype 0119, *Vibrio cholera* and *Salmonella* with the gut mucosa.
- A recent hospital based study reveals that prelacteal feed is given in 29.2%, colostrums is given in 79.2% and exclusive breast feeding up to six months is given in 24% babies¹¹.
- WHO recommends in 2010 for breastfeeding of babies by mothers known to be HIV- infected (and whose infants are HIV uninfected or of unknown HIV status) should exclusively breastfeed their infants for the first 6 months of life, introducing appropriate complementary foods thereafter, and continue breastfeeding for the first 12 months of life. Breastfeeding should then only stop once a nutritionally adequate and safe diet without breast milk can be provided¹².

- Bangladesh Government has re enacted and amended the Breast Milk Substitutes(Regulation of Marketing) Ordinance,1984 and passed The Breast milk Substitutes, Infant Foods manufactured commercially and the accessories related thereto (Regulation of Marketing) Act,2013 (Act XXXV of 2013) in the Parliament of Bangladesh on September,22,2013.
- Restricting breast milk substitute, infant foods etc. among other restrictions contained in the said act in particular section 2 clearly provides certain restriction mainly to give any financial or any other incentives to anybody related with health care in Bangladesh.

Finally, I thank the author again for highlighting such an important issue and writing the review article in details.

1. **Prof. Abid Hossain Mollah**
Professor of Paediatrics
Dhaka Medical College Hospital, Dhaka.
2. **Dr. Zohora Jameela Khan**
Assistant Professor
Paediatric Haematology – Oncology
Dhaka Medical College Hospital, Dhaka.

References:

1. Dadhch J P, Agarwal RK. Mainstreaming early and exclusive breast feeding for improving child survival, Indian Pediatrics 2009;48:11-17
2. Falar M, Jooste PL, Mqoqi NP, Benale AJ. Breast feeding and complementary feeding practices in Swaziland population. Arf J Health Sci 2000; 7:51-54.
3. Almoth S, Biding PD. No need for water supplementation for exclusively breastfed infants under hot and arid conditions. Transactions of the Royal Society of Tropical Medicine and Hygiene 1990; 84(4):602-604.
4. Waterspiel JN et al. Secretory anti-Giardia lamblia antibody in human milk: Protective effect against diarrhea. Pediatrics 1994; 93:28-31.
5. WABA, Breastfeeding Nature's way, World breastfeeding week Brochure (1997).
6. Lamberti LM, Walker CLF, Noiman A, Victoria C, Black RE. BMC Public Health 2011; (supp13):S15.
7. World Health Organization, World Breastfeeding week August 7, 2011, Retrieved August 8, 2011.
8. Anderson JW, Johnstone BM, Remley DT. Breastfeeding and cognitive development: a meta analysis. Am J Clin Nutr 1990; 70:525-35.
9. Arenz S, Ruckeri R, Koletzko B, Kries RV. Breast-feeding and Childhood obesity-a systematic review. International Journal of obesity 2004; 28:1247-1256.
10. Bener A, Ehlayel MS, Abdulrahman HM. Exclusive breast feeding and prevention of diarrheal disease. A study in Qatar. Rev. Bras. Saude Matern. Infant. Recife 2011, 11(1):83-87.
11. Begum T, Hoque SA, Islam MR, Khatoon S, Shah AR. Infant Feeding Practice of Mother attending Pediatric out Patients Department in A Tertiary Care Center. Bangladesh J Child Health 2013; Vol 37(3)138-141.
12. WHO Guidelines on HIV and infant feeding, 2010; recommendation 2.

Author's Reply

To

The Editor-in-Chief

Journal of Bangladesh College of Physicians and Surgeons.

Dear Sir,

At the very beginning I express my gratitude and heartiest thanks to the editor for publishing this review article on "Breast Feeding versus Formula Feeding and Diarrheal Disease in Infants and Children-A Review". It is my pleasure, and I feel proud that, the review article focusing such an important issue is published in a prestigious, popular and widely read academic journal of Bangladesh. I have tried to disseminate already published and studied information pertaining breast milk, formula milk, breastfeeding, and consequences of formula feeding in infants and children.

I thank all reader of *Journal of Bangladesh College of Physicians and Surgeons*, specially **Prof. Abid Hossain Mollah**, Professor of Paediatrics, Dhaka Medical College Hospital, who has gone through in depth of the article and expressed valuable comments and important new and additional information on the issue. Sir, thank you very much to enrich our knowledge.

I also thank **Dr. Zohora Jameela Khan**, Assistant Professor, Paediatric Haematology – Oncology, Dhaka Medical College Hospital for putting comments and enriching update on the issue.

I want to share another thing that, a study on the same issue is under way in the northern district of Bangladesh, of which data will be reached in my hand soon. I hope the gathered information of the forth coming study will give us lots of unknown findings and observations.

Finally, I again forward my regards and gratitude to BCPS journal authority and proficient readers of the journal, thank you all.

Dr. Most. Umme Habiba Begum

Assistant Prof.

Paediatric Dept.

Northern Private Medical College, Rangpur