

Letters to the Editor

Breast-feeding in sub-Saharan Africa: outlook for 2000

Sir,

A recent paper in *Public Health Nutrition* reviewed the breast-feeding situation in Africa¹. Although this review raised many important points, we disagree with its main message, that 'the outlook for breast-feeding in African mothers in general is one of gloom'.

The authors' opinion is that the rate and the duration of breast-feeding are declining in Africa, but their opinion is mostly based on small and not nationally representative surveys. A recent review of all available Demographic and Health Surveys from Africa, conducted by one of us, does not support this opinion². As a matter of fact, the median duration of breast-feeding increased in two thirds of fifteen African countries from all regions where data were available. Furthermore, the rate of exclusive breast-feeding, a practice which is not common in African countries, is also increasing in eleven of the fifteen countries³. Giving other liquids to infants in addition to breastmilk, as well as introducing solid foods before 4 months, are widespread practices, as the authors rightly point out, but they are traditional and do not threaten prolonged breast-feeding as it is currently practised in most sub-Saharan countries⁴.

The authors quote a review stating that 'considerable responsibility' in the early cessation of breast-feeding 'was attributed to the inadequacies of health services'. Although it is true that health professionals are overburdened and probably would need more training for the promotion of breast-feeding, there is evidence that the positive trends in breast-feeding are, at least in part, a result of their consistent promotion efforts. Although no large-scale evaluation of national promotion programmes is available, some indicators of breast-feeding practices are in favour of a significant impact of promotion. For instance, the rate of initiation of breast-feeding within the first day increased in eight of nine countries with recent data³. In some cases, increases were very substantial (30% in Cameroon and Madagascar). The fact that this positive trend in early initiation was larger in the urban sector, where mothers are more exposed to promotion efforts than in rural areas, further supports our point.

The title of the section 'Danger of breast-feeding beyond infancy' is misleading. We are aware that many cross-sectional studies from developing countries showed a relationship between prolonged breast-feeding and malnutrition, but this association was probably due to reverse causality, mothers of malnourished children choosing to wean their child later^{5–9}. Walker and Adam

fail to mention that the majority of prospective studies demonstrate that breast-feeding beyond infancy is associated with faster growth in weight and/or length^{10–13}. Besides, in this section, they report a study as having been conducted in Boston, USA, while it actually took place in Sudan (by researchers affiliated with the Harvard School of Public Health in Boston⁵).

We agree that the AIDS epidemic is a major challenge to breast-feeding, because of the risk of transmission of the virus through breastmilk. Although numerous studies document this risk, the study by Coutsooudis *et al.*¹⁴ is the only one that considers the risk associated with *exclusive breast-feeding*. In fact, the study showed that the risk was similar to that of not breast-feeding. Thus, the risk of transmission through breastmilk, when the infant is breastfed optimally, i.e. exclusively, is not yet known with certainty*. This is an important issue in terms of feeding strategies for infants of HIV-positive mothers because infants' risk of death from infectious diseases is high in the absence of breast-feeding¹⁵.

In most African countries, breast-feeding is still considered an important part of the traditional culture and is actively supported and promoted by community members⁹. This strong attachment to breast-feeding is further illustrated by the observation of Coutsooudis *et al.* that two-thirds of the HIV-positive mothers chose to breastfeed their newborn child even though they had been informed of the risk of transmission of HIV through breastmilk¹⁴. We do not deny that breast-feeding may be under pressure in the more economically privileged South Africa (although we are not aware of any nationally representative survey), but fortunately South Africa is not representative of sub-Saharan Africa as a whole.

In conclusion, breast-feeding is strongly rooted in all African cultures, and we are confident that the outlook for breast-feeding is not as bleak as Walker and Adam view it. Nevertheless, for the first time, trust in the benefits of breastmilk is being challenged because breast-feeding by HIV-positive mothers carries a health risk for infants. Research is urgently needed to determine the risk of transmission associated with exclusive breast-feeding and to find ways of preventing the transmission of HIV through breastmilk.

*Editor's note: In the Lancet on 26 May (357: 1651–5) the results from an RCT comparing mortality in infants of HIV positive mothers in Nairobi who were either breast or formula fed showed higher mortality in the children who had been breast fed.

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References

- 1 Walker ARP, Adam FI. Breast-feeding in sub-Saharan Africa: outlook for 2000. *Publ. Health Nutr.* 2000; **3**: 285–92.
- 2 Dop MC. Breastfeeding in Africa: positive trends challenged by the AIDS epidemic. *Cahiers Santé* (forthcoming). In French.
- 3 Demographic and Health Surveys. <http://www.measuredhs.com>.
- 4 Delpeuch F, Dop MC. A review of young child feeding practices in Africa and the Middle East: need for improvement. In: Dop MCBenbouzid DTrèche Sde Benoist BVerster ADelpeuch F, eds. *Complementary feeding of young children in Africa and the Middle East*. Geneva: World Health Organization, 1999: 27–42.
- 5 Fawzi WW, Herrera MG, Nestel P, El Amin A, Mohamed KA. A longitudinal study of prolonged breastfeeding in relation to child undernutrition. *Int. J. Epidemiol.* 1998; **27**: 255–60.
- 6 Mølbak K, Gottschau A, Aaby P, Højlyng N, Ingholt L, da Silva APJ. Prolonged breast feeding, diarrhoeal disease, and survival of children in Guinea-Bissau. *BMJ* 1994; **308**: 1403–6.
- 7 Marquis GS, Habicht J-P, Lanata CF, Black RE, Rasmussen KM. Association of breastfeeding and stunting in Peruvian toddlers: an example of reverse causality. *Int. J. Epidemiol.* 1997; **26**: 349–56.
- 8 Simondon KB, Simondon F. Mothers prolong breastfeeding of undernourished children in rural Senegal. *Int. J. Epidemiol.* 1998; **27**: 490–4.
- 9 Simondon KB, Costes R, Delaunay V, Diallo A, Simondon F. Children's height, health and appetite influence mothers' weaning decisions in rural Senegal. *Int. J. Epidemiol.* (in press).
- 10 Marquis GS, Habicht J-P, Lanata CF, Black RE, Rasmussen KM. Breast milk or animal-product foods improve linear growth of Peruvian toddlers consuming marginal diets. *Am. J. Clin. Nutr.* 1997; **66**: 1102–9.
- 11 Mølbak K, Jakobsen M, Sodemann M, Aaby P. Is malnutrition associated with prolonged breastfeeding? (Letter to the Editor). *Int. J. Epidemiol.* 1997; **26**: 458–9.
- 12 Onyango AW, Esrey SA, Kramer MS. Continued breastfeeding and child growth in the second year of life: a prospective study in western Kenya. *Lancet* 1999; **354**: 2041–5.
- 13 Simondon KB, Simondon F, Costes R, Delaunay V, Diallo A. Breastfeeding is associated with improved growth in length, but not weight, in rural Senegalese toddlers. *Am. J. Clin. Nutr.* (in press).
- 14 Coutsooudis A, Pillay K, Spooner E, Kuhn L, Coovadia HM, for the South African Vitamin A Study Group. Influence of infant-feeding patterns on early mother-to-child transmission of HIV-1 in Durban, South Africa. *Lancet* 1999; **354**: 471–6.
- 15 World Health Organization Collaborative Study Team on the role of breastfeeding on the prevention of infant mortality. Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. *Lancet* 2000; **355**: 451–5.

Sir,

It is always gratifying to evoke comments following the publication of a review¹, especially, as in the present

instance, from well-known workers, irrespective of whether their comments be supportive or in disagreement.

Dop and Simondon do not agree with our belief that 'the outlook for breast-feeding in African mothers in general is one of gloom.' They consider our view to be 'mostly based on small and not nationally representative surveys.'² They maintain, from their own collection of data stated to be derived from more representative surveys made in many countries, that the median duration of breast-feeding is actually increasing, also the rate of exclusive breast-feeding^{3,4}. However, neither of the two references given in support are available to us, the first concerning unpublished data, and the second a website for which no title was given. In contrast to their view, in sub-Saharan, according to the United Nations Children's Fund (UNICEF), the situation in 1990–1996, compared with that in 1995–2000, revealed barely significant changes. At these two periods, the percentages being exclusively breast-fed (0–3 months) were 32% and 34%; breast fed with complementary feeds (6–9 months), 61% and 60%; and still breast feeding (20–23 months) 42% and 52%, respectively^{5,6}.

Certainly, in Africa, representative data, obtained from rich and poor, in town and country, are highly desirable, but are largely unavailable. In South Africa, graded a middle class country, the situation is that 'unfortunately, adequate documentation of national trends in breast-feeding is unavailable'⁷. Hence, the question – to what extent can reliable trends be known in African countries, such as Nigeria, where 'the vast majority of the population has virtually no access to hospitals, clinics nor to health professionals'⁸? In South Africa, while breast-feeding initiation rates are believed to be generally high (national rate above 80%), 'there is a problem with the duration of breast feeding and with the early introduction of supplementary foods'⁷, a trend which has been noted in other African countries, in not only urban but rural areas as well. Thus, in such an area, in Ethiopia, it was noted that mothers who were literate were seen to bottle feed more than their illiterate counterparts. 'The practice of bottle-feeding is believed to be on the increase'⁹. It is our belief that this is happening widely and this has increased our misgivings as to the lessening of breast-feeding in the future.

The situation depicted is closely linked with the misgivings we expressed over the world wide pressure to use breast milk substitutes. In a recent editorial in *British Medical Journal* it was stated that the World Health Organization (WHO) code is being widely violated and needs monitoring and supporting¹⁰. It cited a large systematic and random survey of mothers and health professionals, which quantified the level of violations occurring in Bangladesh, Poland, Thailand, and South Africa¹¹. It transpired that one tenth of all mothers interviewed (range 0–26%), and a quarter of all facilities visited (8–50%), had received free samples of milk,

bottles or teats – none of them for research purposes. Violating information was received by 30% of health facilities (15–56%), and 11% of health workers surveyed had received gifts (2–18%), three quarters of which bore a company brand name. From 8% to 50% of health workers reported receiving free samples at the health facility. In South Africa, the proportion in this respect was 20%.

A further reason for our misgivings stems from the concern expressed by a group of international specialists in infant feeding that WHO's policy of establishing partnerships with private industry has gone too far, with the result that debate about the infant food industry's role in marketing breast milk substitutes is being stifled¹². The specialists' view was that 'the current WHO guidelines, which recommend the introduction of complementary feeding at age 4–6 months, leads to confusion and to babies being offered other things from the age of 3 months and sometimes even earlier... The literatures suggest that this leads to increased morbidity and mortality.' The specialists, who wanted WHO to recommend that babies should not be introduced to complementary feeding until about 6 months of age, claimed 'that at a recent joint meeting of WHO and UNICEF in Geneva on infant feeding, they were prevented from discussing the issue'¹².

Dop and Simondon state that 'positive trends in breast feeding are, at least in part, a result of their (health professionals) consistent promotion of efforts.' Certainly, encouragement can be highly rewarding. For example, in a Baby Friendly Hospital Initiative Study made in Ile-Ife, Nigeria, it was found that exclusive breast-feeding which was once considered to be less than 3%, had increased significantly to 61%¹³. But the needed encouragement, of course, entails spending time. A recent editorial in *British Medical Journal* on 'Breastfeeding: the baby friendly initiative', listed 'ten steps to successful breastfeeding'¹⁴. Crucially, in Africa, with still high birth rates, do the staff at hospitals, clinics and health centres have the requisite time for setting out these steps and encouraging breast-feeding? We doubt it.

In South Africa, according to the just published *South African Health Review 2000*¹⁵, in the chapter on hospital services, it was stated that there have been reductions in the number of beds in use, and that further reductions may be required. A third of hospital facilities need urgent replacement or repair. The retention of skilled staff, doctors and nurses, is a major challenge. A number of doctors from Cuba are helping in rural areas. Regarding nurses, the number leaving the country each year to work overseas appears to have increased seven fold over the last decade¹⁶. As to increases in numbers of patients, in recent times, free medical attention is being provided for pregnant women and for under-five children. Clearly, the huge work loads prevailing grossly limit the time needed to give public health advice, not only on the importance of breast-feeding in the health of the young, but on later

public health preventive measures concerning, for example, sanitation, dietary guidelines, restrictions on smoking and alcohol consumption. Since the foregoing is the situation in South Africa, much greater problems are being faced in the huge bulk of poorer countries to the north.

On the very important subject of breast-feeding practice with regard to HIV and AIDS infection, considered in some detail in our review¹, we agree with Dop and Simondon² that much further investigation is needed. This has been stressed in *Lancet*¹⁷ and the complexity of the situation has been emphasized^{18,19}. In sub-Saharan Africa, the need for clarification and advice could not be more urgent in view of a report from Botswana, adjacent to South Africa, indicating that half of all deaths of Africans are now HIV and AIDS related²⁰. While we hope, as Dop and Simondon maintain, that the outlook for breast feeding in Africa is less gloomy than we have depicted, we cannot help being anxious over many aspects of the situation, such as those described.

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References

- 1 Walker ARP, Adam FI. Breast-feeding in sub-Saharan Africa: outlook for 2000. *Publ. Health Nutr.* 2000; **3**: 285–92.
- 2 Dop MC, Simondon KB. Letter to the Editor. *Public Health Nutr.* 2001; **4**: 929–932.
- 3 Dop MC. Breastfeeding in Africa: positive trends challenged by the AIDS epidemic. *Cahiers Santé* (forthcoming). In French.
- 4 Demographic and Health Surveys. <http://www.measuredhs.com>.
- 5 Bellamy C, *The State of the World's Children 1998*. UNICEF, Oxford: Oxford University Press, 1998.
- 6 Bellamy C, *The State of the World's Children 2001*. UNICEF, New York: United Nations Publications, 2001.
- 7 Moodley J, Linley L, Saitowitz R, A review of the literature on breastfeeding – policy and research issues. *S. Afr. Med. Journ.* 1999; **89**: 681–7.
- 8 Kaufman JS, Asuzu MC, Rotimi CN, Johnson OO, Owoaje EE, Cooper RE. The absence of adult mortality data for sub-Saharan Africa: a practical solution. *Bull. World Health Organ.* 1997; **75**: 389–95.
- 9 Bekele A, Berhane Y. Magnitude and determinants of bottle feeding in rural communities. *East Afr. Med. Journ.* 1999; **76**: 516–9.
- 10 Costello A, Sachdev HS. Protecting breast feeding from breast milk substitutes. *BMJ* 1998; **316**: 1103–4.

- 11 Taylor A, Violations of the international code of marketing of breast milk substitutes: prevalence in four countries. *BMJ* 1998; **316**: 1117–22.
- 12 Ferriman A, WHO accused of stifling debate about infant feeding. *BMJ* 2000; **320**: 1362.
- 13 Ojofeitimi EO, Esimai OA, Owolabi OO, Oluwabusi A, Olaobaju OF, Olanuga TO. Breast feeding practices in urban and rural health centers: impact of baby friendly hospital initiative in Ile-Ife, Nigeria. *Nutr. Health* 2000; **14**: 119–25.
- 14 Maik ANJ, Cutting WAM, Breast feeding: the baby friendly initiative. *BMJ* 1998; **316**: 1518–9.
- 15 Boulle A, Bletcher M, Burn A, Hospital restructuring. *South African Health Review, 2000*. Durban: Health Systems Trust, 2000; Chapter 11, 231–50
- 16 Bateman C. Skills drain of SA nurses worsens. *S. Afr. Med. Journ.* 2000; **90**: 101.
- 17 Newell ML. Infant feeding and HIV-1 transmission. *Lancet* 1999; **354**: 442–3.
- 18 Latham MC, Preble EA. Appropriate feeding methods for infants of HIV infected mothers in sub-Saharan Africa. *BMJ* 2000; **320**: 1656–9.
- 19 Zwi K, Soderlund N. Commentary: The feeding debate is still unresolved and of secondary importance. *BMJ* 2000; **320**: 1659–60.
- 20 Izindaba. Half of Botswana's deaths from AIDS. *S. Afr. Med. Journ.* 2000; **90**: 1170–1.

Sir,

In the argumentation between Walker on one hand and Dop and Simondon on the other hand, you will find a discrepancy in interpreting the same data.

There is always a danger to generalise breast-feeding prevalence found in one country at one time within one

selected population to a region (almost a continent: 'Sub-Saharan Africa'). If we stick to the data on the prevalence of breast-feeding at different ages in the Sub-Saharan region from UNICEF cited by Walker, there is obviously no trend that can be seen between 1990–1996 and 1995–2000 except increase in the prevalence of breastfed babies aged 20–23 months. Walker interpreted this as 'the outlook for breast-feeding in African mothers in general is one of gloom'. Dop and Simondon evaluate the situation from their unpublished data and state that these data 'do not support this opinion'. When evaluating trends of breast-feeding prevalence, exclusive as well as partial, it is important to analyse the social context, the reliability and the validity.

There seems to be an agreement in the opinion of the role of different factors influencing breast-feeding among women, for example social and economic status, support from family and society, accessibility to health care and knowledge, attitude, working premises among health professionals, and marketing practices of breast-milk substitutes.

In order to promote breast-feeding in an efficient way it is important to monitor breast-feeding with sufficient and comparable methods.

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