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INFANT FEEDING PRACTICES

Readings in Infant Feeding Practices—3

Breast-Feeding versus Bottle-Feeding In Developing Countries : A Brief for Policy-makers

Recently there has been a surge of interest in the relative value of breast-feeding versus artificial feeding, i.e., bottle-feeding. Obviously, this subject is of concern to parents and health workers, but because of the possible implications for family planning, the employment of women, the use of foreign currency for imported formulas, and the development of dairy or infant-food industries, it is also of great concern to planners.

Why is breast-feeding better than bottle-feeding?

Bottle-fed babies, especially those from poor homes, have a higher incidence of infection, are more apt to become malnourished, and have a higher death rate than those who are breast-fed. For example, in a Peruvian study, bottle-fed infants were found to be 4½ times more likely to become undernourished. The reasons for this are:

- Breast milk has anti-infective properties that protect the baby in the early months; these are absent in formula feeds.
- In a poor environment with shortages of fuel, clean water, utensils, and storage facilities, it is extremely difficult to prepare a hygienic bottle feed. The bottle, nipple, water, milk, or hands may be contaminated, and germs quickly multiply in a prepared formula if it is not kept in a refrigerator.
- Bottle feeds are often too dilute because the mother makes the milk last as long as possible and often does not follow written instructions on the can.

Breast-feeding is much cheaper than artificial feeding even when the extra food required by the lactating mother is taken into account. In some contexts, the cost of adequate quantities of milk (excluding the cost of fuel and utensils) exceeds 50 per cent of a labourer's wage.

Mothers who breast-feed usually have longer periods of infertility after birth than do non-lactators. Although not a reliable contraceptive method for the individual, lactation has a greater impact on birth spacing in developing countries than conventional family planning programmes.

Breast-feeding requires no preparation, it encourages contraction of the womb after delivery (thus helping the mother to regain her figure), it carries no risk of inducing cow's milk allergies or obesity, and it promotes the vital psychological bonding between the mother and baby that is so important for the latter's development.

Thus, breast-milk can provide a complete and perfect food for the early months of life; and, when other foods are introduced at about four to six months, it continues to be an important and safe source of nutrients for as long as breast-feeding continues.

Why has there been a decline in breast-feeding in the third world?

In spite of the many advantages described above, both the proportion of breast-fed babies and the duration of breast-feeding have been declining in many developing countries. This has been most marked in urban and peri-urban areas.

This decline can largely be explained by the adverse effects of "modernization" on the two basic conditions necessary for successful lactation. These are:

- frequent suckling throughout the day and also at night; in traditional societies a baby is often in continuous contact with his mother and may suckle many times throughout the 24 hours;
- a mother who is consciously or subconsciously confident and proud of her ability to lactate and whose daily contacts have the same attitude.

More specifically, the important reasons for this trend toward bottle-feeding are as follows:

- the increased opportunities for women to be engaged outside the home in non-traditional activities;
- the need for many women to resume work away from home soon after delivery and the lack of facilities for child care that allow for breast-feeding at the work place;

Reprinted from "Food and Nutrition Bulletin", Vol. 3 No. 1

- a lack of information and support for the mother as a result of fragmentation of the extended family so that she often has no one to advise, encourage, and help her;
- inappropriate health practices, such as separation of the baby from the mother immediately after birth (when the bonding and suckling reflexes are strong, rigid feeding schedules based on the clock rather than on the baby, or supplementary feeding by health-care personnel;
- a health profession biased by a western-derived training towards artificial feeding, with health officials who know little of the management of breast-feeding;
- the example set by more affluent members of society who have adopted the fashion in developed countries of bottle-feeding but who have the facilities to do so safely;
- the adoption of western beliefs and attitudes such as that breast-feeding in public is unsophisticated, that breast-feeding is a messy business, and—this an erroneous belief—that a women will lose her figure as a result; there is also the attitude that a "modern" life-style does not allow or accept constant close contact between mother and baby;
- the wide availability and aggressive promotion of commercial breast-milk substitutes through free samples to mothers, extensive advertising, visits by company-employed "milk" nurses, gifts to hospitals and doctors, and so on.

The result of these influences is that the mother's confidence in the value of her own milk is undermined and bottle-feeding of formula comes to be seen as the best thing she can do for her child. Consequently, the most common reason given by mothers themselves for not starting or for discontinuing breast-feeding is, "I did not have enough milk." Yet it has been shown that virtually all mothers in societies not exposed to these adverse influences do successfully breast-feed, even when they themselves are under-nourished.

What can be done to encourage breast-feeding?

This subject should be the concern of all involved in the development process and not be thought of as mainly the concern of health and social workers. Indeed, in 1979 WHO and UNICEF held an international meeting that issued detailed recommendations, subsequently approved by the World Health Assembly. In fact, however, these recommendations will have little effect without the strong support of planners, policy-makers, and administrators at the national level. Among the actions that can be taken in different spheres are the following:

- Recognize the great economic value of breast-milk and include it in policy and planning decisions.
- Curb or eliminate the promotion of bottle-feeding. WHO and UNICEF, in consultation with governments, milk companies, and other agencies, are preparing an international code for the marketing of breast-milk substitutes. For this to be effective, planners will have to introduce, at country level, the necessary legislation, guidelines, and monitoring systems.
- Introduce changes in the working conditions of women that will facilitate breast-feeding. This will involve applying, where possible, the ILO conventions relating to paid maternity leave, job security after delivery, facilities for child care and breast-feeding at the work place, and provision of nursing breaks without loss of pay.
- Ensure that adequate attention is given, in the curricula of all educational institutions, to the value management of breast-feeding and to the hazards of bottle-feeding. This should start in the schools and be expanded in tertiary education for all those who will deal with the public, notably teachers and health and social workers, but not forgetting the planners.
- Utilize non-formal systems of education, such as the mass media, social groups (particularly women's organizations), literacy campaigns, etc., to carry the same message to the general public.
- Enhance the social status of women in the community by increasing their access to education and participation in planning and decision-making from the local to the national level.
- Examine the possible effect on breast-feeding of development plans, particularly when plans relate to changing roles and opportunities for women.
- Ensure that health planners and practitioners incorporate the following practices into maternity and clinic routines: advice on dietary needs during pregnancy and lactation; provision of pre-natal care and food supplements for malnourished pregnant mothers; guidance for mothers and their families on the value, management, and maintenance of lactation; avoidance of unnecessary drugs or surgery during delivery; commencement of breast-feeding soon after delivery; avoidance of separation by rooming the child with the mother; frequent on-demand breast-feeding; discouragement of bottle-feeding in health care institutions except on clear medical indication: use of contraceptive methods that do not interfere with breast-feeding; provision of as much post-natal support as possible through home visits, clinics, etc., appropriate advice for mothers; and, if necessary provision of nutritious foods for babies who are, for medical reasons, unable to breast-feed.

A significant increase in breast-feeding among low-income populations in developing countries is likely to lead directly to a reduction in infant morbidity and mortality. In several countries, relatively simple changes in legislation, health routines, and mass education have been shown to be effective. Breast-feeding is one of the few recommended nutritional measures that requires little additional expenditure at family or government level, and indeed provides savings for both. Thus, its promotion should receive high priority from both national and local planners.

Suggestions for further reading

Joint WHO/UNICEF Meeting on Infant and Young Child Feeding. Statement and Recommendations. WHO, Geneva, 1979. 30 pp.

WHO Maternal and Child Health Unit. *Breast-Feeding,* WHO, Geneva, 1979, 40 pp.

The Economic Value of Breast-Feeding. Food and Nutrition Paper No. 11. FAO, Rome, 1979. 89 pp.

D.B. Jelliffe and E.F.P. Jelliffe, *Human Milk in the Modern World, Oxford University Press,* London, 1979. 500 pp.