Breast-feeding practices in a Black community

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Summary

Our study was designed to obtain information about the prevalence of breast-feeding among rural and urban Blacks, to determine whether the number of women providing early supplementary feeding has increased over a 4-year period, and to discover groups at particular risk of failure to breast-feed optimally. Women attending child health clinics were interviewed. Over 95% had commenced breast-feeding, but only 50% were still doing so after 5 - 8 weeks. Women uncertain of whether or not to breast-feed and those unsuccessful on a previous occasion are as likely to commence breast-feeding as are other groups, but are more likely to introduce early supplementation. Improvements in hospital and clinic practice as regards a greater emphasis on health education, early suckling and the avoidance of supplementary feeding in neonates may have contributed to the slight improvement in breast-feeding practices seen over the 4-year period studied.

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The widespread acceptance of formula-feeding as an entirely satisfactory and safe alternative to breast-feeding has lead to a progressive increase in the number of women who provide formula-feeding for their infants.[1] Since this is now known to be a highly disadvantageous practice, particularly as regards infant survival in a socially underprivileged community,[2] it seemed important to determine the prevalence of formula-feeding in such a community, to assess whether the current trend is towards or away from an increase in formula-feeding, and to try to delineate groups at high risk of failure to breast-feed.

Subjects and methods

Surveys were conducted among four groups of Black women attending child welfare clinics within 24 weeks of confinement. Group A comprised 309 women attending a child welfare clinic with their infants in KwaMashu, a large urban Black township in the greater Durban area, in March - July 1977. All women attending on certain days during the period of study were interviewed by a research worker using a prepared questionnaire. Group B comprised 491 women attending the same child welfare clinic with their infants in March - July 1981. Women were selected and interviewed by one of us (N.C.K.) in a similar manner to those in group A. Group C comprised 706 women attending 9 different urban child welfare clinics scattered throughout Natal/Kwazulu. They were interviewed by the clinic sisters using a prepared questionnaire. Group D comprised 293 women attending 6 rural clinics scattered throughout Natal/Kwazulu. These women were also interviewed by the clinic sisters using a prepared questionnaire.

The mothers in each of the groups were asked for basic personal data (age, marital status, social status, educational status, consort's occupation), their current infant-feeding practices and the reason for the introduction of formula-feeding, if relevant. The age of the infant was available from the clinic record in most cases. More detailed sociological information and details of the menstrual history, contraceptive practice, feeding practices during the neonatal period and with previous infants, and details of antenatal health education were obtained from patients in groups A and B.

In order to try to check the validity of the mothers' responses the first 50 mothers interviewed in group B were visited at home within a week of the interview at the clinic.

Results

Fig. 1 shows the percentage of women breast-feeding at each age range of the infants for all four groups, and shows that almost all women interviewed suckled their infants in the immediate neonatal period. The percentage of women suckling remained consistently high (89% or above) for the first 8 weeks postnatally. By 13-24 weeks 98% of the rural women (group D) were still suckling their infants, but 17 - 25% of the urban women had totally discontinued breast-feeding. Fig. 2 indicates the percentage of women fully breast-feeding at each age range of the infants, and shows that the number of women doing so decreased very rapidly in all four groups, so that by 5 - 8 weeks less than 60% of the

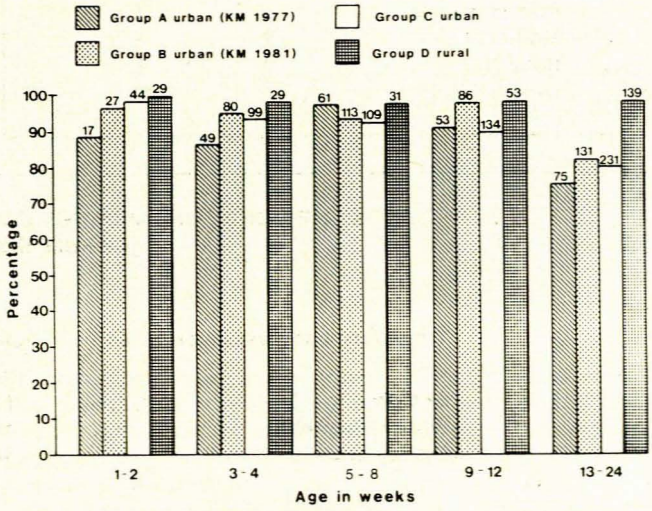

Fig. 1. The percentage of infants breast-fed at the stated ages at the time of the interview.

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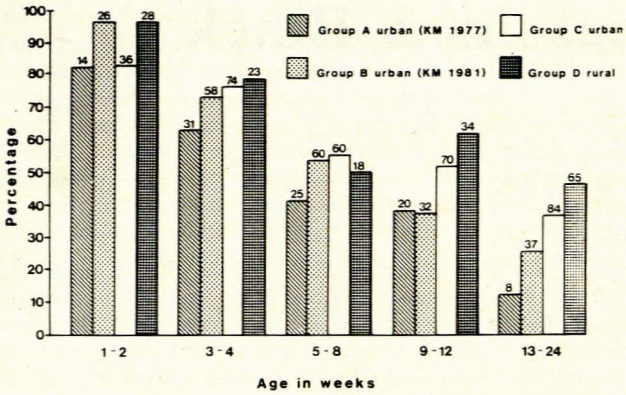

Fig. 2. The percentage of infants still fully breast-fed at the stated ages at the time of the interview.

women were fully breast-feeding their infants. The highest percentage of mothers not fully breast-feeding at 1 - 2 weeks was found in group A, and the most rapid decline in total breast-feeding was seen in this group, so that by 13 - 24 weeks only 11% of the infants were being fully breast-fed. The highest percentage of women fully breast-feeding at 1 - 2 weeks was seen in the rural mothers (group D), but even in this group there was a rapid increase in supplementary feeding. The women attending the KwaMashu clinic interviewed in 1981 (group B) were more likely to be fully breast-feeding at all age ranges than the women who attended the same clinic in 1977 (group A).

The reasons given by mothers in group B for introducing supplementary feeding are listed in Table I. Of the 491 mothers in group B, only 221 had introduced supplementary feeding at the time of the interview. Two of these did not indicate the reason for doing so. 'Not enough milk' or 'baby not satisfied' together accounted for half of the mothers introducing supplementation, while having to work or the possibility of returning to work was the reason given for supplementation in 22% of cases. Illness in the mother or baby or breast problems was a minor cause of failure to fully breast-feed. With the exception of the rural mothers (group D), less than 50% of the women interviewed were married, but neither marital or social standing, education or the partner's occupation had any significant bearing on breast-feeding status.

Comparisons between antenatal health education received by the mothers in groups A and B showed that in the former group only 64% remembered being given advice concerning breast-feeding (whether in hospital or at the clinic), whereas 99% in group B remembered being given advice during the antenatal care period. Further comparisons between groups A and B showed that 50% of the women in group A provided some form of supplementation in the immediate neonatal period (usually water or glucose and water), but only 37% in group B had given supplementation at this stage; in group A 49% reported delayed introduction to the nipple, whereas in group B 48% suckled their infants at birth and a total of 64% had suckled within 6 hours of birth. Similar figures were reported for both clinic and hospital deliveries. In group B babies delivered in hospital and breast-fed immediately were significantly more likely to be fully breast-fed for a longer period of time than hospital-delivered infants suckled later on the day of birth (Table II).

Further investigations in group B showed that 65% had decided during pregnancy that they would breast-feed; 34% had been uncertain and 1,4% had decided not to breast-feed. Of those who had decided to breast-feed, a considerably higher percentage (55%) were fully breast-feeding at the time of the interview; of those who were uncertain only 36% were fully breast-feeding. Women who had failed to maintain breast-feeding for previous infants were significantly more likely to introduce neonatal supplementation ($P < 0,05$) and early supplementary feeding than were those women who had breast-fed for at least 3 months on a previous occasion (Table III); however, there was no difference

TABLE I. REASONS GIVEN BY MOTHERS IN GROUP B FOR INTRODUCING SUPPLEMENTARY FEEDING

Reason	No.	%
Baby not satisfied	**69**	**32**
Not enough milk	**46**	**21**
Return to work	**48**	**22**
Baby old enough	**6**	**3**
Painful breasts	**2**	**1**
Mother ill	**2**	**1**
Baby ill	**2**	**1**
Other	**44**	**20**

TABLE III. AGE OF INTRODUCTION OF CURRENT SUPPLEMENTATION AND ITS RELATION TO PREVIOUS BREAST-FEEDING PRACTICE

Age of infant (wks) when supplementation begun	Breast-feeding of previous infants adequate			
	Yes		No	
	No.	%	No.	%
0 - 2	**8**	**12**	**7**	**21**
3 - 4	**16**	**24**	**10**	**42**
5 - 8	**22**	**33**	**6**	**21**
9+	**30**	**30**	**3**	**16**

$P<0,05$

TABLE II. INFLUENCE OF EARLY INTRODUCTION TO THE NIPPLE ON MAINTENANCE OF FULL BREAST-FEEDING

Time when baby was first suckled	Feeding practice at time of interview*			
	Fully breast-feeding		Supplementation given	
	No.	%	No.	%
At birth	**56**	**53**	**50**	**47**
Within 6 h of birth	**15**	**43**	**20**	**57**
On day of birth	**10**	**28**	**26**	**72**

$P < 0,05$

*The ages of the infants are similar in both groups.

in the percentage who attempted to breast-feed. Excluding the 37% of the mothers in group B using contraception, 16% of those interviewed at 9-12 weeks and 29% interviewed at 13 - 24 weeks had recommenced menstruating. Only 4% of these menstruating women were fully breast-feeding.

Discussion

In this study the percentage of infants initially breast-fed compares favourably with that found in 28 developing countries,[3] but the fact that supplemental feeding is introduced so early by many mothers removes any cause for complacency. Mortality and morbidity rates for partly bottle-fed infants more closely approximate those of fully bottle-fed infants than they do those of breast-fed infants.[4,5]

Partially breast-fed and bottle-fed infants have a greatly increased risk of a widespread range of infections, of which diarrhoeal disease is but one, albeit the most serious. The infants are also at risk of nutritional deprivation if the mother is unable to afford the recommended amounts of formula food.[5] In some instances the apparent economic advantage of an early return to work may be more than outweighed by the cost of formula-feeding, transport and a baby-sitter. Supplementation also leads to the early return of ovarian activity,[6] whereas unsupplemented breast-feeding suppresses ovulation. In our study 96% of the women who menstruated within 24 weeks of confinement were not fully breast-feeding. While breast-feeding may not be a sufficiently reliable contraceptive for the individual, since about 3 - 7% of nursing women are likely to become pregnant during lactation amenorrhoea, it can exert a profound effect on fertility rates.[7]

There appears to have been some improvement in breast-feeding practices among KwaMashu mothers between 1977 (group A) and 1981 (group B), rather than the deterioration we had expected to observe. This improvement may be a reflection of improved practices in clinics and hospitals, for compared with 1977, in 1981 a significantly higher percentage of mothers recalled being provided with advice concerning breast-feeding, fewer infants were given neonatal supplementation and more mothers reported suckling immediately after birth.

In searching for patients at high risk of failure to breast-feed or likely to introduce early supplementation, the groups at particular risk are those unsuccessful in previous pregnancies or ambivalent about the idea of breast-feeding.

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