

Lack of breast feeding and early weaning in infants of Asian immigrants to Wolverhampton

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Evans, N., Walpole, I. R., Qureshi, M. U., Memon, M. H., and Everley Jones, H. W. (1976). *Archives of Disease in Childhood*, **51**, 608. **Lack of breast feeding and early weaning in infants of Asian immigrants to Wolverhampton.** Fifty Asian immigrant mothers who would have expected to breast feed their infants had they remained in rural Asia were studied. There was a striking reduction in the incidence and duration of breast feeding on arrival in the United Kingdom, and a fall in the age of weaning. The availability of an alternative to human milk is the most important factor reducing the incidence of breast feeding. Only 2 (4%) of the 46 infants followed prospectively were breast fed. Reasons for not breast feeding were sought and the results indicated that the majority of mothers were frightened, misinformed, or apathetic about breast feeding. If breast feeding is to be promoted, antenatal education and encouragement is essential. The advantages of human milk need to be stressed. Potentially serious mistakes occurred in preparing bottle feeds, and vitamin supplements were often inadequate. Later weaning could be encouraged by the staff of well baby clinics.

During the last 30 years or so there has been a remarkable change in infant feeding patterns in Britain. The incidence and duration of breast feeding has relentlessly declined (Newson and Newson, 1962), solid food has been introduced earlier and earlier to the infant (Department of Health and Social Security, 1974). These practices have led to an increased incidence of undesirable consequences, including neonatal tetany (Oppé and Redstone, 1968), enamel hypoplasia of the teeth (Stimmler, Snodgrass, and Jaffe, 1973), hyperosmolarity (Taitz and Byers, 1972; Davies, 1973), gastroenteritis (Mata and Wyatt, 1971), and infantile and possibly later obesity (Shukla *et al.*, 1972; Asher, 1966; Eid, 1970). At present the majority of British infants are artificially fed and offered solids between 3 and 4 weeks of age (Oates, 1973) in spite of the reported complications. These changes have occurred gradually but are so well established that the reasons for them cannot be readily identified, especially when so few mothers have experienced breast feeding.

Many Asian immigrant mothers to Wolverhampton did not breast feed their babies and

practised early weaning. In contrast to their British counterparts these mothers have personal or first-hand experience of breast feeding and later weaning; if they had remained in the rural Punjab as many as 75% would have been breast feeding 20 months after delivery (Berg, 1973). We tried to document infant feeding practices among a group of Asian immigrant mothers and to determine why they abandoned breast feeding and later weaning so precipitately. We hoped that important lessons could be learnt, and perhaps applied to the general situation in Britain.

Subjects and methods

Fifty consecutive, Asian immigrant mothers who were delivered of normal, term infants (by dates and Dubowitz score, Dubowitz, Dubowitz, and Goldberg, 1970) and who agreed to take part in the survey, were interviewed in their own language in the early stages of labour or after delivery. Details of infant feeding of all previous children were obtained and mothers were asked how they intended to feed their new baby. Reasons for not breast feeding were sought. 46 mothers and their infants were followed prospectively on at least two occasions (at approximately 10 weeks, 6 months, and 14 months postpartum) to determine details of milk preparation and weaning.

TABLE I

Incidence and duration of breast feeding and age at weaning (weeks) of sibs born in Asia and the United Kingdom before the study

Place of birth	No. of mothers	No. of infants	No. breast fed	Mean duration (w)	Mean age of weaning (w)
Asia	16	48	44 (92%)	42	31
UK	33	79	24 (30%)	5	15

Thirty-nine of the 50 mothers (78%) came originally from the rural Punjab and the majority of the others from other rural areas of India; 9 (18%) were fluent in English but a total of 36% said they were able to read English; 12 were primiparous; the average time spent in the United Kingdom was 6 years (range 1.5–13.0 years); 78% of husbands were manual workers. Weaning was defined as the time when a food other than milk was first successfully introduced into the diet.

Results

Breast feeding and weaning of 127 sibs (Table I). 48 children were born to 16 of the mothers before arrival in the U.K. 44 (92%) of these infants were breast fed for a mean of 42 weeks (range 0.5–156 weeks), and were weaned at an average of 31 weeks (range 8–104). All survived. 79 children were born to 33 mothers after arrival in the U.K. Only 24 (30%) were breast fed for an average of 5 weeks (range 0.5–26 weeks). 3 children died before weaning. The 76 survivors were weaned on average at 15 weeks (range 13–104 weeks).

Feeding intentions for the 50 newborn infants. 8 mothers (16%) stated an intention to breast feed their newborn child, including 2 of the 12 primiparous mothers. 9 mothers (18%) had received professional advice regarding infant feeding during their pregnancy, which rarely amounted to a full discussion, and only 2 of these 9 intended to breast feed.

Reasons for not wishing to breast feed (Tables II and III). 42 mothers not intending to breast feed were asked for a single reason. Their answers are summarized in Table II. The commonest reason given was a physical cause. However, in only 4 of these 16 cases was there a possible, though unlikely, medical contraindication to breast feeding (e.g. essential hypertension, corrected mitral stenosis). The 5 stating that a doctor had advised against breast feeding in the past gave inconsequential reasons.

The same 42 mothers were then asked if any of the factors suggested by us and listed in Table III

TABLE II

Answers received when 42 mothers not intending to breast feed were asked to give a single reason

(a) Physical cause (assumed or present) preventing breast feeding		
Mothers' opinion	11	} 16 (38%)
Doctors' quoted opinion	5	
(b) Breast milk compared with artificial feeding		
Breast milk upsets babies	6	} 9 (21%)
Quantity of breast milk unknown	1	
Artificial feeding more convenient	2	
(c) Previous problems with breast feeding		
Insufficient milk	4	} 5 (12%)
Engorged breasts	1	
(d) Not the custom in Britain	1	(2%)
(e) No reason	11	(26%)

TABLE III

Answers received when 42 mothers not intending to breast feed were asked if any of the suggestions listed had influenced them

(a) Fear of insufficient milk	16 (38%)
(b) Previous failure of breast feeding	4 (10%)
(c) Embarrassed by breast feeding	10 (24%)
(d) Artificial milk superior to breast milk for babies	9 (21%)
(e) Breast feeding not fashionable in Britain	6 (14%)
(f) Intention of working	4 (10%)
(g) None of these	13 (31%)

applied to them. The 4 mothers who intended to work started work when their infants were 2, 3, 6, and 13 months of age. The 13 mothers who considered that none of the suggestions applied to them had all originally given a physical reason for not breast feeding.

Breast feeding and weaning of 46 prospectively followed infants (Tables IV and V). Of the 8 mothers intending to breast feed, 2 (4%) succeeded but for only 4 and 6 weeks, respectively. A third stopped on the third day because of lack of assistance. A fourth, not taught to express while

TABLE IV

Incidence and duration of breast feeding and age of weaning (weeks) of the 46 infants followed prospectively

Total no.	No. breast fed	Mean duration (w)	Mean age of weaning (w)
46	2 (4%)	5	11

her child was in the special care baby unit, failed to initiate lactation. A further 3, including the 2 primiparous mothers, changed their minds for no clear reason, and the eighth was lost to follow up (returned to Asia).

The infants were weaned at an average age of 11 weeks (range 6–29 weeks). In 74% of cases weaning was started after advice from the local well baby clinic or health visitor. Cereals or rusks were the usual first foods, often added directly to the milk feed.

Ten mothers had been delivered of at least 2 children in Asia and 2 in the U.K. Table V summarizes the incidence and duration of breast feeding and age of weaning of these infants. First and last infants born in Asia were breast fed for a mean of 49.4 and 50.2 weeks, respectively, compared to 3.9 weeks for the first child born in the United Kingdom ($P < 0.001$). The age of weaning appears to have decreased progressively though the most marked fall occurred after leaving Asia ($P > 0.002$).

Preparation of artificial feeds. The majority of the 46 infants received a proprietary, modified

cows' milk preparation, though by 6 months 39% were receiving bottled milk and by 14 months 96%. In 49% of households milk preparations were diluted according to recommendations, 14% being dangerously concentrated and 26% overdiluted. In a further 9% of cases, heaped scoops of dried milk were used, but the error was partly offset by the fact that one scoop less than the recommended number was used. In 43% of cases feeding utensils were not sterilized satisfactorily.

Five infants never had added vitamin preparations and at 31% of follow-up visits at 10 weeks and 6 months no separate vitamin preparation was being given.

Discussion

A dramatic reduction in the duration and incidence of breast feeding on arrival in the United Kingdom has been clearly documented for the Asian mothers in the survey. The process has continued in England so that only 4% of the mothers succeeded in breast feeding their last child. There was also a fall in the age of weaning on arrival in the U.K. and a progressive decline thereafter. As Asian mothers adopt a similar approach to infant feeding as their English contemporaries the factors responsible are likely to operate within both societies.

There was no difference in the incidence or duration of breast feeding for the first and last children born in Asia, so the majority of mothers who did not breast feed in Britain would have done so had they remained in the rural Punjab. The availability of artificial milks and the ability to pay for them must be major factors in reducing breast

TABLE V

Duration of breast feeding and age of weaning (weeks) of 40 sibs delivered to 10 mothers; comparison between first and last born infants in Asia and U.K.

Duration of breast feeding (w)				Age of weaning (w)			
Born in Asia		Born in UK		Born in Asia		Born in UK	
First	Last	First	Last	First	Last	First	Last
26	13	8	0	26	13	13	14
26	26	0	0	13	13	13	10
8	8	0	0	10	10	10	8
26	26	0	0	26	26	8	8
112	26	0	0	52	26	12	7
32	156	0	0	52	30	32	20
104	78	6	0	104	78	16	—
30	39	1	0	52	39	26	12
78	78	17	6	39	39	13	12
52	52	7	4	26	26	13	7
Mean 49.4	50.2	3.9	0	40.0	30.0	15.6	10.9

feeding in modern urban communities. A newly arrived Asian mother is confronted for the first time with a choice of infant foods: with little or no professional guidance she adopts the undesirable feeding patterns prevalent in the local consumer society. There is a need for positive information about the advantages of human milk to counteract the advertizing campaigns for the proprietary products.

Eight mothers had intended to breast feed but failed. Lactation could have been initiated if medical and nursing staff had been sufficiently aware of their intentions and able to give the help and encouragement required. None of the 12 primipara breast fed—an unfortunate finding for the future, as there is a greater chance of successful lactation if the mother was herself breast fed as an infant (Sloper, McKean, and Baum, 1975).

Nine (21%) of the 42 mothers not intending to breast feed firmly believed that modified cows' milk was superior to human breast milk for their babies; a serious misconception that doctors, midwives, and nurses had failed to correct during pregnancy. Only 18% of the sample received any antenatal, professional advice about infant feeding. A similar percentage (19%) was obtained in a study of 300 white British babies in a neighbouring borough (Shukla *et al.*, 1972), making it unlikely that language problems alone accounted for our low figure.

Eleven mothers (26%) were unable to give a reason for not breast feeding, though all agreed with one or more of our suggested factors. These mothers appear to have followed the established method of infant feeding in the local population without actively rejecting breast feeding. A more positive attitude towards lactation (Creery, 1973; Sloper *et al.*, 1975) might have encouraged some of them. 10 of the sample (24%) admitted to embarrassment about lactation. More mothers in the postnatal ward feeding their infants and greater privacy in hospital could help to alleviate these fears. A planned return to work was not an important reason for abandoning breast feeding.

A physical cause was the commonest reason given by 38% of mothers for not wishing to breast feed, though at least 12 of the 16 were medically fit. Ill health during earlier lactation did not account for these figures. Though only 4 volunteered the information spontaneously (because of previous experience) 16 mothers (38%) agreed that a fear of insufficient milk was important to them. Newson and Newson (1962) concluded from their study in Nottingham that 'not enough milk' was the public excuse for a private decision not to continue with breast feeding. Some of the mothers

we interviewed may have made such decisions which are perfectly legitimate, providing those making them are in possession of all the relevant facts. The answers we received, however, suggested that at least 38 of the 42 mothers reached parturition with such anxieties, misconceptions, or apathy about breast feeding as to preclude any rational decision about infant feeding. Antenatal counselling, preferably on two or more occasions by a doctor, midwife, nurse, or experienced mother could have corrected this situation. The majority of mothers (74%) look to the health visitor or local clinic for advice about weaning. Once the doctors and nurses manning these clinics are convinced of the benefits of such a policy, it should be possible to achieve later weaning.

With only 36% of the survey mothers able to read English it is not surprising that potentially serious mistakes occurred in preparing bottle feeds. In 23% of households over concentrated feeds were prepared, while the sterilization technique was inadequate or nonexistent in 43%. In view of the high incidence of rickets in Asian infant children (Holmes *et al.*, 1973) it was salutary to learn that many infants were not receiving added vitamins. Nurses and medical staff attending well baby clinics should be specifically on the alert for these potential problems; a return to breast feeding would prevent many of them.

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