

Breast Feeding and Some Reasons for Electing to Wean the Infant: A Report From the Dunedin Multidisciplinary Child Development Study

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SUMMARY

Data are presented on the prevalence of breast feeding among 1037 Dunedin mothers who gave birth to infants between April 1972 and March 1973 and their reasons for weaning. Although breast feeding was becoming more common at that time, more than two-thirds of the mothers weaned their babies as a result of the difficulties they encountered. One of the most significant factors in lactation failure is the mismanagement of breast feeding by health professionals.

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INTRODUCTION

Immediately after 1945 there was a marked decline in the prevalence of breast feeding in New Zealand. This decline was arrested towards the end of the 1960s and breast feeding has increased steadily since. Between 1969 and 1975 the percentage of mothers breast feeding at the first visit of the Plunket nurse rose from 47 percent to 64 percent (Plunket Society Annual Reports 1945-75).

This study was carried out to examine the prevalence of breast feeding among Dunedin mothers who gave birth to infants between April 1972 and March 1973 and to find out the reasons why mothers stopped breast feeding. An understanding of the reasons for weaning from the breast has value for educational programmes aimed at helping mothers to breast feed for as long as they choose.

METHOD

The sample consisted of 1037 three-year-old children and their mothers. This sample was fully described earlier (Silva and others, 1978). Compared with the country as a whole, the Dunedin sample was predominantly socio-economically advantaged and under-representative of non-Europeans.

When each child was within a month of his third birthday, the mother and her child attended the assessment centre. During the interview the mother was asked whether or not she had breast fed the child and how old the child was when she weaned it. Those who did breast feed were then asked why they stopped.

A search of the Dunedin records of La Leche League identified those mothers in the sample (N = 35) who sought advice from that source.

RESULTS

Duration of Breast Feeding. Of the 1037 children, 574 (55 percent) were breast fed for a week or more. The percentage of infants breast fed for various periods is set out in Table 1.

The Table shows that the modal period for weaning was between 5 and 12 weeks, with just over a quarter of the sample feeding beyond this period. Only 15 percent breast fed beyond 25 weeks. A small group (2.9 percent) breast fed beyond a year. One child was still being nursed at age three years.

Reasons for Weaning. Of the 574 who breast fed, 517 (90 percent) were able to give a reason for weaning the baby. Those who could give a reason were classified as (a) weaned voluntarily, baby's or mother's choice (N = 151, 29.2 percent) or (b) weaned as a result of problems encountered (N = 366 70.8 percent).

The reasons for weaning by duration of breast feeding is set out in Table 2 and discussed below.

Voluntary Weaning

Eighty-nine mothers (17.2 percent of those who could give a reason for weaning) were able to feed as long as they wished. A further 62. (12 percent) breast fed until the babies weaned themselves.

Table 1.—Percentage of infants breast fed for varying lengths of time

Duration of Breast Feeding (weeks)	N	Percentage	Percentage Still Breast
			Feeding
Not breast fed	463	44.6	—
1-4	98	9.4	55.4
5-12	205	19.8	46.0
13-24	116	11.2	26.2
25-36	84	8.1	15.0
37-51	41	4.0	6.9
52 or more	30	2.9	2.9

Table 2 shows that the mothers most commonly weaned between 25 and 36 weeks (N=30), whereas the modal time for the baby to wean itself was 37 to 51 weeks (N = 19). Almost the same number of babies (N = 18) weaned themselves after a year.

Individual answers to the questions indicated that some mothers who chose to wean the infant prior to 12 weeks did so because they were separated from their infants because of work commitments (N = 5) or because of a holiday break (N = 3). Only two mothers weaned their babies after 12 weeks for these reasons.

It was interesting to note that only 11 infants weaned themselves before 25 weeks, whereas 35 mothers elected to wean before this time. Table 2 suggests that if the choice is left to the infant (and given no difficulties being encountered) it would prefer to carry on breast feeding longer.

Weaning as a Result of Problems Encountered

More than two-thirds of the mothers weaned their babies as a result of the difficulties they encountered. This usually took place between 5 and 12 weeks. The difficulties were classified as: problems related to the mother (61.1 percent) (including concern about milk supply, maternal stress, maternal illness, nipple problems, other breast problems) and problems related to the infant (9.7 percent). Most breast feeding problems related to the mother rather than to the infant.

Problems Related to the Mother. Concern about milk supply was the greatest single cause of weaning with 41 percent

giving this as the reason for weaning. A few mothers indicated that their babies had apparently gained little weight or even lost weight but for the majority a poor milk supply was inferred as a result of their baby's "fussiness." This problem occurred most commonly between 5 and 12 weeks and was the major cause of weaning up to 24 weeks. The contraceptive pill was cited by 11 mothers as the reason for their loss of milk and four mothers thought that their milk quality was "unsatisfactory."

The second most common reason for weaning was "maternal stress." 9.5 percent of the mothers reported some form of stress and this most often related to difficulties in coping with the new baby and/or rest of the family. These mothers did not report lactation difficulties. Problems related to maternal stress were most common between 13 and 24 weeks.

Maternal illnesses resulted in 4.4 percent stopping breast feeding. Included in the list was influenza (four cases), post partum haemorrhage (three cases), deep vein thrombosis (two cases), and one case each of asthma, glandular fever, chicken pox, and cholecystectomy. In the remaining 10 cases, which included two hospitalisations, the illness was not specified. Maternal illness was a problem in the early weeks, being most common before three months.

Nipple problems (including soreness and abnormal nipple shape) resulted in 3.5 percent of mothers stopping breast feeding, particularly in the early weeks.

Other breast problems (including pain, engorgement and mastitis) resulted in 2.7 percent of mothers weaning. Most breast problems occurred before 12 weeks; only two were reported after 24 weeks.

Problems Related to the Baby. Problems experienced by the infant resulted in 6.4 percent being weaned. Illness, colic, or poor sucking ability were the most common infant problems. Most of these occurred in the first 12 weeks of life.

Finally, the appearance of teeth resulted in 3.3 percent being weaned. Teeth resulted in weaning most often between 13 and 36 weeks, and rarely later than this. In only eight cases were bitten nipples given as the reason for weaning. Some regarded the appearance of teeth as a developmental index indicating weaning time.

BREAST FEEDING AND LA LECHE LEAGUE CONTACT

Of the 576 mothers who breast fed, 35 (6.1 percent) had sought advice from La Leche League. Mothers who had contact with La Leche League breast fed longer than those who did not. While 72.7 percent of the total breast fed group had weaned their babies by 24 weeks, only one La Leche League mother had weaned by this time. Altogether, 68 percent of La Leche League contact group breast fed for at least 36 weeks compared with 9.1 percent for all mothers who breast fed.

Table 2.—Reasons for weaning

Reason for Weaning	1-4 wks	5-12 wks	13-24 wks	25-36 wks	37-51 wks	52 + wks	Total
VOLUNTARY:							
Mother's choice	3	18	14	30	19	5	89
Baby's choice	1	3	7	14	19	18	62
RESULT OF PROBLEMS:							
Concern about							
milk supply	50	102	45	13	—	2	212
Maternal stress	3	13	21	10	—	2	49
Maternal illness	7	12	2	1	—	1	23
Nipple problems	9	7	2	—	—	—	18
Other breast problems	4	6	2	2	—	—	14
Problems with infant	11	17	4	—	1	—	33
Teeth	—	2	7	6	1	1	17
Not known	10	25	12	8	1	1	57
TOTAL	98	205	116	84	41	30	574

Whereas only 29.2 percent of the breast feeding mothers weaned by their choice or the infant's choice, 68.6 percent of the La Leche League contact group were able to continue for as long as the mother or baby wanted. The main reason for weaning given by the La Leche League contact group was that the baby weaned itself. (57.1 percent for La Leche League compared with 12 percent for the total group). Markedly fewer of the La Leche League contact group had problems related to the mother compared with the total breast feeding group (17.1 percent La Leche League compared with 61.1 percent for the total group). Problems with the infant were similar for La Leche League contact mothers (10.6 percent) and the total group (9.7 percent).

DISCUSSION

Professional opinion in this country supports breast feeding (Smith, 1976; Taylor, 1977; Paediatric Society, 1977) and the prevalence of this form of infant feeding is now increasing. This study showed that despite the increased prevalence of breast feeding, only 29.2 percent were able to feed as long as the mother or baby chose. 70.8 percent weaned the baby because of problems encountered.

Four factors have been implicated in premature weaning: mother's motivation, physical inadequacy, social pressures, and management of lactation (Aplebaum, 1970; Breen, 1975; Illingworth, Stone, 1952; McGeorge, 1960; Newton, Newton, 1962; Paediatric Society, 1977).

Mothers who express ambivalence about breast feeding during pregnancy are more likely to wean their babies within a few weeks because of poor milk supply or other lactation difficulties. Their attitude to breast feeding is thought to have its foundation in their own childhood experience and is relatively unaffected by persuasion antenatally or after childbirth (Breen, 1975). The percentage of mothers in this category is likely to be fairly constant from year to year, possibly being related to childbearing patterns of 20 to 30 years previously.

A survey of breast feeding during 1952-54 at Dunedin's Queen Mary Hospital (Deem, McGeorge, 1958) suggested that about 80 percent of mothers were at least initially well motivated towards breast feeding. Similar recent findings have come from other studies (Keenan, 1975; Miller, 1973). Because only 55 percent of the mothers in the present study breast fed for a week or more, one is left wondering whether the low figure truly represents lack of interest or was due to other reasons.

Deem, McGeorge (1958) found that nearly 5 percent of mothers produced negligible amounts of milk. This finding was attributed to inadequate development of glandular tissue in the breast during pregnancy.

It is now known that a stressful childbirth experience may result in the "switching off" of the endocrine mechanism involved in the establishment of lactation so that little or no milk is found to come in as is normally expected at around the third day post partum (Whittlestone, 1977). A high level of suckling may overcome this effect and induce adequate lactation when post partum recovery takes place in a tranquil atmosphere (Devereux, Personal Communication).

Another recent finding has been that prior development of mammary tissue during pregnancy is not an essential precondition to successful lactation. High levels of suckling, even when no pregnancy or birth has taken place, have been shown to cause a substantial increase in the growth and development of the mammary

gland (Whittlestone, 1972). A number of New Zealand mothers have breast fed adopted babies several years after their last pregnancy (Devereux, Personal Communication).

The routine at Queen Mary Hospital from 1952 until recently was to restrict suckling on the first day to three or four feeds at four hourly intervals, allowing one minute suckling at each breast per feed. On the second and subsequent days, the routine allowed five feeds and the suckling at each is increased by one minute per day (Quennell, Personal Communication). This routine provides an inadequate level of breast stimulation (Illingworth, Stone, 1952).

In the Deem, McGeorge (1958) study, the mothers were instructed to empty their breasts by manual expression after each feed during the first week. This breast stimulation would have helped to increase the initial production but because many mothers found this procedure time consuming and unpleasant, it did not become standard practice at Queen Mary Hospital.

The factors of stress and inadequate post partum stimulation are very likely to account for a substantial proportion of mothers who produce a negligible amount of milk.

It is not suggested, however, that all well motivated mothers, even given proper management, can breast feed. Problems like cleft palate or badly inverted nipples can make suckling impossible and in many difficult situations, particularly those involving illness or prematurity, the mother may understandably decide that for her the advantages of breast feeding are outweighed by the problems entailed.

The emancipation of women was cited by McGeorge (1960) as one reason for the decline in breast feeding but the present trend towards breast feeding occurring at a time when the feminist movement continues to gain momentum tends to discount this possibility. Only about 1 percent of mothers in the present study stopped breast feeding in order to return to work.

La Leche League counsellors have found that a great deal of social pressure against breast feeding comes from mothers who have had unhappy breast feeding experiences (Devereux, Personal Communication).

Other social pressure which may lead to premature weaning are related to the way that the breast and breast feeding are symbolised in our society. The sexual symbolism of the breast means that some mothers tend to be inhibited about feeding in front of others.

The way that breast feeding is seen as epitomising the baby's dependence on the mother may bring a deep satisfaction to some mothers but may be threatening to others. Breast feeding may act as a focal point for a woman's doubts about her ability as a mother.

Other major sources of stress were the problems of adjustment to a new baby. If the mother's own nutrition is inadequate, a depleted nutritional state may add to her "run down" feeling.

The primary cause of the post war decline in breast feeding in New Zealand is considered to have been the mismanagement of lactation by health professionals. Taylor (1977) emphasised that four hourly feeding schedules, restricted suckling times, separation of mother and baby at birth and between feeds, complementary bottle feeds, prevention of breast feeding during the night, and test weighing may all contribute to breast feeding failure. All of these practices were

routine at Queen Mary Hospital at the time of the Deem, McGeorge (1958) study (during 1952-54) and some are still followed to this day in many maternity hospitals. Many Plunket nurses and medical practitioners reflected the same philosophy of management when the mother returned home.

In recent years, problems related to breast feeding mis-management have been compounded by the widespread use of hormonal contraception, despite the well documented effects of suppressing lactation (Hood, Personal Communication).

About 97 percent of mothers in the Dunedin Multidisciplinary Child Development Study were visited by a Plunket nurse at least once and 80 percent were followed regularly up to the age of three years. This means that the majority were visited weekly for the first few weeks at home and seen regularly at Plunket clinics thereafter. This regular professional contact apparently did little to prevent the many problems reported in this study.

The first year that an increase in breast feeding was recorded in New Zealand coincided with the start of the first New Zealand group of La Leche League, an organisation formed with the purpose of offering encouragement, information, and support to those mothers who wish to breast feed their babies. In 1971, the eighth New Zealand La Leche League group was formed in Dunedin and in that year the trend away from breast feeding was reversed in this city.

There has also been an increase in the duration of feeding since the establishment of La Leche League. A survey taken in 1976 by the Dunedin Plunket nurses (Jones, Personal Communication) found that of the mothers who breast fed, 72 percent were still breast feeding at 12 weeks. This is in marked contrast to the comparable figures of 51 percent for the Deem, McGeorge (1958) study (during 1952-54) and 47 percent for the Dunedin Multidisciplinary Child Development Study (1972-73).

THE FUTURE OF BREAST FEEDING

In the years since the Deem, McGeorge (1958) survey, a number of changes have taken place in the post natal routine at Queen Mary Hospital. Rooming in by day was introduced in 1961 and by night as well for a short period up to 1965. Test weighing was stopped in 1972. Until 1974, mother and baby were separated straight after delivery for at least 24 hours (except for feed times). From 1974 the newly delivered baby has been left with his parents for about an hour before the routine separation. Four hourly schedules, restricted suckling times, formula complements, and no night feeds are still the norm but the routines are becoming

flexible enough to allow any mother to room in with her baby from birth and to allow the baby to regulate his own schedule, while still have the support and encouragement of most of the staff.

As the post war decline in breast feeding gained momentum, it became convenient to lay the blame on the inadequacies of modern mothers. Both doctors and nurses should look instead at their own attitudes and practices, educate themselves about breast feeding management, and encourage breast feeding where this is the mother's wish. Health professionals and La Leche League can work together to enable mothers who want to breast feed to do so as long as they or the baby wish.

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