THE INCIDENCE OF BREAST-FEEDING IN A SMALL MINING TOWN

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This is a study of the incidence and duration of breast-feeding in Newbiggin-on-Sea, a small town on the coast of Northumberland, with a population of just over 9,000. The data have been obtained by interrogation of the mothers attending the infant welfare clinic. Since its establishment the clinic has been characterized by an absence of "class feeling," which may well be found even in a town of this type; and the friendly relations existing among the health visitors, midwives, and doctors of the town have resulted in an attendance in 1940 of 95.7% of the babies born there in that year, and living for at least six months.

Views concerning the Incidence of Lactation

A particularly interesting paper giving her own experiences of lactation and its difficulties is that of Dr. Lucy Naish (1913). In this she states that "weaning at or shortly after birth is very common among the well-to-do classes, and there are signs that it is spreading gradually to the less well-to-do." Spence (1938) quotes recent studies on the incidence of breast-feeding in Edinburgh, Newcastle, and other places, and reports a definite decline. Some of the findings quoted in his paper are included here, with the results of the present investigation. Robinson (1939) has studied the incidence of breast-feeding in Liverpool, using welfare clinic records over the period 1918-37. She, unlike Spence, came to the conclusion that there was no real decline in breast-feeding, but that there was a shortening of the period of lactation. Blessing (1937) has investigated the incidence of breast-feeding in a suburban metropolitan area in the U.S.A., all his patients being delivered in hospital. Only 38% of mothers breast-fed entirely to 1 month; all disliked "mixed feeding." He attributes the poor result to a system of divided control, in which the obstetrician took no responsibility for the child's feeding.

Present Investigation

The babies here studied are those born in 1940 of Newbiggin parents and continuing to live there till at least 6 months old. (This excludes 5 babies who died before the age of 6 months, the evacuee babies born elsewhere, and 12 babies whose mothers came to Newbiggin for the birth and moved away shortly afterwards.) The babies thus defined number 112—apart from these, 5 babies did not attend the clinic. The total is a small one, and does not justify generalities; any interest in this work lies in the fact that it is on 112 out of 117 possible attenders—i.e., 95.7% of the baby population of 1940; it is not considered "representative" of anything except this town in this year.

The population is mostly concerned with mining. An analysis of the fathers' occupation is as follows: Mining, 65; H.M. Forces, 12; traders, 9; fishermen, 8; labourers, 8; schoolmasters, 3; bus-drivers, 3; unemployed, 2; policeman, 1; professional footballer, 1; not known (illegitimate), 1. In this first full year of war wages approximated among the mining community to £3 a week; there was no real poverty, and no shortage of food. The Government scheme for cheap milk came into operation in August, 1940.

Most of the deliveries were by midwives. The figures are as follows: Doctors' cases, 13 (11.6%); hospital or nursing home, 13 (11.6%); midwives' cases, 86 (76.8%). Naturally the greatest number of babies were first children; the numbers of children related to their position in the family were: first children, 45; second, 35; third, 15; fourth, 8; fifth to eleventh, 9.

Data were obtained of the age at which weaning occurred; if it was preceded by a period of partial breast-feeding this was noted. Note was also made of the position of the child in the family and of how many previous children had been breast-fed, this term being used here to indicate "fed wholly

on the breast to at least 3 months." (This figure was adopted to fall into line with Winternitz, quoted by Robinson.) Those mothers who weaned very early were asked whether they knew of any reason for this, and an analysis of their replies is given further on.

Results

The numbers were considered not to justify a very detailed analysis. The duration of breast-feeding is summarized in Table I.

TABLE I.—Duration of Breast-feeding (112 Babies)

Time	Complete Breast-feeding	Partial Breast-feeding	Weaned
Up to 2 weeks ..	67%	2%	31%
1 month ..	55%	2%	43%
3 months ..	32%	10%	57%
6 " ..	19%	9%	72%

This shows a very high percentage of early weanings. Spence (1938) states that in Newcastle (using figures derived from Princess Mary Maternity Hospital and from a middle-class nursing home) "satisfactory breast-feeding in the neonatal period is maintained only by three-quarters of the mothers"; but the Newbiggin figure is even lower.

In Table II is given a summary of some of the figures quoted by Spence (1938), together with some from Robinson, for comparison with the present work.

TABLE II.—Percentage of Babies Wholly Breast-fed—Recent Investigations

	Finlay (Edinb.), quoted by Spence (1938). 3,000 Cases (Home Visits)	Brewis, quoted by Spence (1938). Newcastle Municipal Welfare (1,326 Cases)	Robinson. Liverpool Welfare, 1937 (439 Cases)	This Work (112 Cases)
10th-14th day ..	87%	—	—	—
At 2 weeks ..	—	—	86%	67%
At 3rd mth. ..	—	58%	48%	32%
3rd-6th mth. ..	55%	—	—	—
At 6th mth. ..	—	34.7%	29%	19%
After 6th mth. ..	38.5%	—	—	—

Reasons given for Weaning before 2 Weeks

The proportion weaned (31%) was so high that the reasons for weaning were studied in some detail. Five of these 35 children were never put to the breast, on account of the mothers' serious illness. Two babies were very small twins, and breast-feeding was not attempted. One baby was weaned at 3 days because of the mother's sore nipple (hospital case). Six babies were either never put to the breast or no serious attempt was made to establish breast-feeding and they were "taken off" the breast when 1 to 4 days old; the usual explanation given was that "there was no milk." In two cases "breast abscess" and in one case "engorged breast" was given as a reason; and two at least of these three babies were stated to be "sleepy" or lazy feeders. In one case the mother had "too much milk," and had experienced such pain and trouble with a previous child that she made no attempt to breast-feed. She was a poor type of mother mentally, and was nervy and worried. Her husband was in a mental hospital, soon to be discharged, and she was upset about this.

In the remaining 17 cases the reason given was either that the baby was not gaining (and most mothers are very averse to giving, or are not encouraged to give, complementary feeds) or that, with getting up and about, the milk failed. Usually these two reasons were combined.

Feeding of Previous Children

Of the 35 babies weaned within two weeks, 18 were first children. It is interesting to know how the other (experienced) mothers had succeeded with previous children. In all, these 17 mothers with more than one child had reared between them 28 previous children. Only 6 of these had been breast-fed to at least 3 months: 22 had failed before this. (Of the 6 successfully breast-fed, 5 belonged to one large family of 11 children, the youngest of which was one of the 1940 babies.) Of the 1940 babies breast-fed to 3 months or more, 11 were first children and 26 were children of experienced mothers. These mothers had reared between them 44 previous children:

36 had been breast-fed to 3 months, 4 had failed, and of 4 no information was obtained.

The numbers are of course far too small for conclusions to be drawn, but they certainly tend to support one's ordinary observation that where a mother has managed to nurse one child she is likely to do so again. Thus breast-feeding of the first baby becomes even more important, in giving the mother experience and confidence.

Complementary Feeding

This is usually regarded as a step to be avoided if at all possible, as predisposing to rapid weaning. I have wondered, however, whether instruction in it may not help an anxious mother over a period of temporary shortage of breast milk. The knowledge that she can do this while her own supply is being improved may be very helpful, as, otherwise, a hungry crying baby may make her despair of feeding and lead to her weaning it immediately. I have therefore examined the clinic records to discover what evidence they afford of the value of complementary feeding in prolonging the total time of breast-feeding. The figures below refer to babies starting complementary bottle-feeding before the age of 6 months. The supplement advised was usually, to begin with, about 1/2 to 1 oz. of dried milk mixture, to be given at the end of some or all breast feeds. Breast-feeding was prolonged for *only 2 weeks* or less in 7 cases. It was prolonged for more than 2 weeks in 24 cases, 8 of whom were first babies. These 24 cases are analysed in Table III.

TABLE III

Case	Started Complementing at	Finally off Breast	Time Complemented	
			2 months	3 weeks
1	1 week	3 months		
2	1 "	1 "	3	
3	2 weeks	2 "	1	2
4	2 "	5 "	3	"
5	3 "	6 "	5	1
6	1 month	10 "	9	"
7	1 "	6 1/2 "	5	2
8	1 "	2 "	1	"
9	5 weeks	4 "	2	3
10	6 " (pyloric stenosis operation)	9 "	7	2
11	2 months	4 "	2	"
12	2 "	5 "	3	"
13	2 1/2 "	10 "	7	2
14	3 "	4 "	1	"
15	3 "	5 "	2	"
16	3 "	4 "	1	"
17	3 "	7 "	4	"
18	3 "	4 "	1	"
19	3 "	10 "	7	"
20	3 1/2 "	10 "	6	2
21	3 "	4 "	1	"
22	4 "	6 "	2	"
23	4 "	6 "	2	"
24	5 "	7 "	2	"

Thus 8 babies were 1 week to 1 month old when supplements were started, and breast-feeding was prolonged for periods of from 3 weeks to 9 months; 4 babies from 5 weeks to 2 months old were enabled to continue for periods of from 2 to 7 months; 8 babies from 2 to 3 months old continued for periods of from 1 to 7 months.

On the whole, therefore, the results are encouraging, as in many of these cases (particularly those which continued for several months) the feeding was very largely on the breast, in some instances being practically re-established, the mother supplementing only when she realized that her own supply was inadequate. I have looked for the baby who "prefers the bottle to the breast," but found him only when the breast-milk supply was very poor or the mother inexperienced or unwilling.

Discussion

It is interesting to compare the results obtained by Pooler (1930), working in North Derbyshire with a population also largely concerned with coal-mining. From a detailed analysis of 100 cases of early weaning he finds that in 63% the primary cause of weaning is the return to domestic duties. In about half of these there are additional predisposing conditions—e.g., too frequent feeding, depressed nipples, etc. Spence (1938) says: "Probably the most important cause of failure to breast-feed among those who desire to do so is the temporary inhibition of lactation which occurs shortly after

the lying-in period when the mother returns to her household duties."

Most of the Newbiggin mothers get up at the tenth day, and although the midwives continue to visit up to the fourteenth day many of the mothers have to plunge at once into full housework. Some of the fisherwomen, in addition, work at mending and setting the nets. It is too costly for many to arrange for extra help in the house after the two weeks; but, in any case, the importance of returning gradually to their normal duties is not sufficiently recognized by many mothers, one of whom, when urged to do so, said that "that would be behaving like an invalid."

Full details have been given of the 35 mothers who weaned in the first two weeks, as they formed nearly a third of the whole. For babies to be weaned at or before two weeks surely implies (except in the case of the mother's illness) either a very feeble will to nurse, or mismanagement, and sometimes results from the influence of friends and relatives, ignorance as to the value of small complementary feeds, or proper requirements of rest on getting up.

The midwife is often blamed for not seeing that breast-feeding is established; but, unlike the monthly nurse of the better-off classes, she is not in constant attendance on the mother. This ever-available support and advice is given by the grandmother or other female relative. (Sometimes the grandmother is anxious about some previous illness of her daughter's which she feels may recur with the strain of breast-feeding.) Most midwives are as keen as anyone to establish breast-feeding, but their one visit a day (after the third day) cannot replace the home atmosphere. Is enough care taken, one wonders, in educating the grandmother as well as the mother in the importance of breast-feeding, and of meeting the grandmother's doubts as to her daughter's fitness for this? The opinion of the senior midwife in the town was that many of the young mothers wanted to go to dances with their husbands, and so were not keen to establish breast-feeding.

Another point is that a young mother, especially with her first baby, becomes extremely anxious when it cries, and she is apt to attribute this to her own deficiency—"Not enough milk" or "Milk not doing any good"—an opinion that is often supported by her own mother. It is not easy to persuade her to persevere under these conditions, and, especially if the baby is not obviously gaining, she will turn with relief to a bottle and a box of food for which she feels she is not (psychologically) responsible.

Most of these mothers also firmly believe that it upsets the baby to complement, and that the two milks will not mix well at the same feed. Regurgitation of curdled milk is interpreted as a serious symptom: I have not met one mother who realized that "souring of the milk" was a natural and proper process. Education on this point might avoid many anxieties. It is probably this belief that leads often to the rapid weaning of a baby on complementary feeds; but the figures already given suggest that, with encouragement and advice, complementary feeding may be very valuable in prolonging lactation.

Summary

In a small mining town in Northumberland 31% of 112 babies born in 1940 were weaned before the age of 2 weeks; 57% were weaned by 3 months.

Reasons for early weaning are discussed. It is suggested that early return to domestic duties played an important part.

The anxieties both of the mother and of her home attendants need more attention and understanding in order to create a favourable environment for breast-feeding; this is specially important with the first child.

Complementary feeding has enabled lactation to be carried on for several months in some cases, and might be tried with more confidence in the neonatal period.

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