COMPLEMENTARY FEEDS—BY SPOON OR BOTTLE?

BY

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It has often been stated that if complementary feeds are given during the period when lactation is established they should only be given by spoon (Naish, 1948, 1952, 1953).

Naish wrote:

'Once a baby is introduced to the bottle, there is a very great danger that it will either refuse the breast entirely, or work the breast insufficiently, so that the milk supply is inadequately stimulated. This happens because the action required to get milk from the rubber teat is quite different and decidedly easier. . . . To maintain breast feeding, it is absolutely essential that all complement should be given with a spoon.'

Evans and Mac Keith (1951) wrote:

'Extra feeds may be given by spoon or bottle. The former is preferred, as sometimes infants who have had a bottle refuse to take the breast.'

It takes much longer to give complementary feeds by spoon, and it was therefore thought worth while to conduct a simple controlled experiment in order to determine whether this method of giving complementary feeds is really necessary.

Method of Study

At the Jessop Hospital for Women at Sheffield complementary feeds are only given on the instruction of the Paediatric Registrar. When it was thought necessary to give complementary feeds, the random sampling method, with the usual packets of sealed envelopes, was used to determine whether the complementary feeds should be given by spoon or bottle. Only full-term babies were used for the experiment, and none of these were excluded. After discharge from hospital, on approximately the ninth day in most cases, all babies who still needed complementary feeds were given them by bottle. The aim was simply to determine whether the use of a bottle for giving complementary feeds had an adverse effect on the establishment of lactation.

The following records were kept on proformas: the weight at birth, the weight on alternate days while in hospital, the type of feeding on discharge and at 1 month (fully breast fed, complementary feeds, artificially fed), the weight at 1 month and the speed of weight gain between the time of discharge and the follow-up visit at 1 month, with reasons for giving complementary feeds, the quantity of complementary feeds given and the days on which they were given, the parity of the mother and the feeding history in previous pregnancies. In all, 100 babies were studied, 50 being given their complementary feeds by spoon and 50 by bottle.

Results

Comparability of the Two Groups. Thirty-six mothers in each group were primiparae. The average birth weight in group A (complementary feeds given by bottle) was 6 lb. 7 oz., and in group B (complementary feeds given by spoon) 6 lb. 6 oz. The range was as follows:

<table>
<thead>
<tr>
<th>Birth Weight</th>
<th>Group A (Number of Cases)</th>
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<tbody>
<tr>
<td>5 lb. 8 oz. to 6 lb. 15 oz.</td>
<td>20 15</td>
</tr>
<tr>
<td>7 lb. 0 oz. to 8 lb. 7 oz.</td>
<td>20 30</td>
</tr>
<tr>
<td>8 lb. 8 oz. or more</td>
<td>10 5</td>
</tr>
</tbody>
</table>

There was no difference between the two groups with regard to the quantity of food given as complement or the number of days after birth before complementary feeds were given.

<p>| TABLE 1 |
| TYPE OF FEEDING IN RELATION TO METHOD OF GIVING COMPLEMENTARY FEEDS |</p>
<table>
<thead>
<tr>
<th>Type of Feeding</th>
<th>On Discharge (%)</th>
<th>At 1 Month (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A* (Bottle)</td>
<td>B (Spoon)</td>
<td>A</td>
</tr>
<tr>
<td>Fully breast-fed</td>
<td>56</td>
<td>62</td>
</tr>
<tr>
<td>Complementary feeds</td>
<td>30</td>
<td>62</td>
</tr>
<tr>
<td>Entirely artificially fed</td>
<td>14</td>
<td>18</td>
</tr>
</tbody>
</table>

* 50 babies in each group.
The average weekly weight gain in that period for the 25 babies in group A was 8 oz. as compared with 6.4 oz. for the 24 babies in Group B.

None of these differences is statistically significant.

Discussion

It will be seen that this simple controlled investigation showed that the giving of complementary feeds by spoon instead of by bottle presented no advantage in relation to the incidence of breast feeding and the effect on the mother's breast milk production. The very slight differences in the two groups, though not of statistical significance, were in favour of the bottle-fed group.

It has been argued that a good reason for advocating that all complementary feeds should be given by spoon instead of by bottle lies in the fact that it takes longer to give them by spoon, and this deters nurses from giving complementary feeds unnecessarily. It seems that the unnecessary use of complementary feeds could be better prevented by proper teaching and supervision of nurses than by a method which merely wastes their time.

Summary

A controlled investigation was carried out in order to compare the effect on the establishment of lactation of giving complementary feeds, where indicated, by spoon and by bottle. There were 50 babies in each group, chosen by random sampling. The experiment failed to reveal any advantage in using the more time-consuming method of giving the feeds by spoon.

Our thanks are due to the Matron of the Jessop Hospital, Miss J. W. Taylor, and to all the sisters and nurses who so willingly cooperated in this investigation. We also wish to thank Dr. T. Colver, for allowing us to include his patients in the series.

References