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A Survey on Breast Feeding Practices  
at Dr Pirngadi Hospital Medan

by

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Abstracts

From August up to December 1978 a survey had been carried out on breast milk feeding in children of 0-2 years treated in the Department of Child Health, Medical School, University of North Sumatera, Medan. The method applied was by filling questionnaires.

The results were as follows: from 65 children investigated, 28 (43.1%) drank breast milk, 14 (21.5%) breast milk + artificial milk, 20 (30.8%) artificial milk and 3 (4.6%) did not get any milk.

The time of starting artificial milk as additional milk feeding was found highest (33.3%) at the age 3-6 months. The older the child the less the percentage of breast milk.

### Introduction

Breast milk is an emulsion of lipid in a fluid medium containing protein, lactose and organic salts secreted by both mammary glands. The composition is not always constant depending upon the stage of lactation, race, diet and nutritional state (Setio, 1977).

Much is known about the superiority of breast milk and many investigators/authors have stated that breast milk is the most important diet for babies due to the following reasons:

1. Having a high nutritional value with an ideal proportion,
2. Having secretion containing enzymes and hormones which actively protects the baby,
3. Containing immunity substances such as lactoferrin, immunoglobulin and antibodies which protects the baby from bacteria, virus, fungi etc. (Sunoto, 1977).

There are many more advantages of breast feeding like:

1. Creating a warm relationship between the mother and baby,
2. Effective in prolonging the period of postpartal amenorrhea and thus serves as a method of contraception because breast feeding prevents ovulation (Ariawan Soejono, 1977).
3. Protecting the mother from breast cancer.

Nowadays the habit of breast feeding has tended to decrease in many dev-

loping countries especially in the urban areas.

The period of breast feeding also has shortened while the quantity of solid food is insufficient, thus lowering the nutritional state of many children.

The factors which tend to decrease breast feeding are:

1. The change in socioculture, the increase in number of working mothers.
2. The tendency to imitate friends, neighbours and distinguished people who have succeeded in raising their children on artificial milk,
3. The easy availability of artificial milk as a substitute for breast milk,
4. The large promotion of artificial food and milk,
5. The mother's busy social life.

The objective of this study is to have an overview of the breast feeding practice in children admitted at the Department of Child Health, Medical School, University of North Sumatera, Medan.

### Material and Methods.

The investigation was done from August 1978 till December 1978 by prospective study on 65 patients admitted at the Department of Child Health, Medical School, University of North Sumatera, Medan; in the age group of 6 days — 2 years.

A questionnaire was given to the mothers, containing inquiries about:

— When was breast feeding started,

- How long was breast feeding given and what was the reason for stopping breast feeding,
- When was artificial milk started and for how long,
- What was the type of artificial milk given,
- What was the kinds of fluid given for the first 48 hours after birth,
- What solid food was given for the first time,
- What was mother's education and occupation.

The nutritional state of the child was not evaluated because the study was about the mother's view and knowledge on the practice of giving breast feeding and solid food in relation to the mother's education and occupation.

Abbreviations used :

- S Solid food (nasi tim = rice porridge),
- F Fruits in the form of banana, tomato, papaya or orange juice,
- AM Artificial milk
- BM/BF Breast milk/breast feeding.

### Results

1. From the 65 children, only 28 children (43.08%) received BM, 14 children (21.54%) received BM and AM, 20 children (30.77%) received AM only

and 3 children (4.61%) did not receive either BM or AM (Table 1).

The number of children receiving BM only was highest at the age of 4-6 months (66.67%) compared to the children of over 6 months. The percentage of children starting to receive AM as an additional source of nutrition was also highest at the age of 6 months.

In cases where the children only received AM, it was found that the percentage was highest at the age of 1-3 months (40%) and 7-12 months (40%). Twelve percent of the children who did not receive either BM or AM were over 1 year old.

2. From 28 children who received BM only, it was found that 2 children, 11 and 9 months old, had ever received AM from birth till the age of 2 months.

3. From 14 children who received BM and AM, it was found that on 7 (50%) children AM was given at the age of less than 1 month (Table 2).

4. From 20 children who received AM only, percentage in which AM was first given was at the age of less than 1 month (30%) and over 1 year (30%). (Table 3).

5. The three children (12%) who did not receive either BM or AM were 1-2 years old. (Table 1).

TABLE 1: Feeding practice according to age

Age	BF	BF + AM	AM	No BF + No AM	Total
< 1 month	7 (63.64%)	2 (18.18%)	2 (18.18%)	—	11
1-3 months	2 (40%)	1 (20%)	2 (40%)	—	5
4-6 months	6 (66.67%)	3 (33.33%)	—	—	9
7 — 12 months	6 (40%)	3 (20%)	6 (40%)	—	15
13 mos - 2 years	7 (28%)	5 (20%)	10 (40%)	3 (12%)	25
Total	28 (43.08%)	14 (21.54%)	20 (30.77%)	3 (4.61%)	65

TABLE 2: Onset of starting artificial milk feeding according to age

A g e	< 1 months	1-2 monhs	3-4 months	4-5 months	6-7 months	7-8 months	Total
< 1 month	2	—	—	—	—	—	2
1-3 months	—	1	—	—	—	—	1
3-6 months	3	—	—	—	—	—	3
6 mo-1	1	—	1	—	1	—	3
1-2 years	1	1	—	1	1	1	5
T o t a l	7 (50%)	2 (14.28%)	1 (7.14%)	1 (7.14%)	2 (14.28%)	1 (7.14%)	14

TABLE 3: Onset of starting milk on children receiving artificial milk feeding only

A g e	< 1 mo	1-2 mos	2-3 mos	3-4 mos	4-5 mos	9-10 mos	10-12 mos	> 12 mos	Total
< 1 months	2	—	—	—	—	—	—	—	
1-3	2	—	—	—	—	—	—	—	months
3-6 months	—	—	—	—	—	—	—	—	
6mo-1 years	2	—	1	—	2	—	1	—	
1-2 years	—	2	—	1	—	1	—	6	
Total	6 (30%)	2 (10%)	1 (5%)	1 (5%)	2 (10%)	1 (5%)	1 (5%)	6 (30%)	20

6. The type of AM given	— Second day	: 30 cases
— SGM	: 11 cases	— Third day : 11 cases
— Frisian Flag condensed sweetened fullcream milk	: 5 cases	— Fourth day : 8 cases
— Dancow/Frisian Flag pow- dered whole milk	: 4 cases	— Fifth day : 4 cases
— S 26	: 4 cases	On the average, BM was given after 36 hours.
— Eledon	: 2 cases	8. From the 65 mothers, it came out that 28 (43%) gave breast feeding their children and from this 28 another 14 (50%) had primary school education.
— Lactogen	: 1 case	Eight (40%) of the mothers whose children get AM only had primary school education (Table 4).
— Lactogen + SGM	: 1 case	
— S 26 + Frisian Flag powdered whole milk	: 1 case	
7. BM given on the		
— First day	: 12 cases	

TABLE 4: Relationship between mother's education and feeding practice

Mother's education	BF	BF + AM	AM	No BF + No AM	Total
No education	2 (7.14%)	—	1 (5%)	—	3
Primary school	14 (50%)	6 (42.86%)	8 (40%)	—	28
Secondary school	4 (14.28%)	4 (28.57%)	4 (20%)	1 (33.33%)	13
High school	8 (28.57%)	3 (30%)	6 (30%)	2 (66.66%)	19
University/ college	—	1 (7.14%)	1 (5%)	—	2
T o t a l	28	14	20	3	65

9. From the 28 children who received BM, 89.29% of their mothers were not working.

From the 14 children who received BM + AM, 71.43% of their mothers

were not working.

From the children who received AM only, 90% of the mothers were not working (Table 5).

TABLE 5: Relation between feeding practice and the mother's occupation

Mothers	BM	BM + AM	AM	No BM + No AM	Total
Non working	25 (89.29%)	10 (71.43%)	18 (90%)	2 (66.67%)	55
Working	3 (10.71%)	4 (28.57%)	2 (10%)	1 (33.33%)	10
T o t a l	28	14	20	3	65

10. From the 65 children it was found that 23 did never receive breast milk because they were weaned from birth. (Table 1).

The reasons for stopping breast milk or weaning are:

- Breast milk was insufficient or very little in quantity : 10 cases
- Mothers became pregnant : 3 cases
- Child vomited and had diarrhea : 3 cases
- Mother's own wish because the child was old enough : 1 case
- Child vomited everytime he was breast fed : 1 case
- Child had been admitted in a hospital for 3 weeks : 1 case
- Mother was too busy : 1 case

- Child did not want to be breast fed : 1 case
- Mother had been using contraceptive pills : 1 case
- Child : 1 case

11. Solid food (S) was given for the first time at the age of:

- 0 — 1 months : 11 cases
- 1 — 3 months : 27 cases
- 4 — 5 months : 5 cases
- 6 — 9 months : 5 cases
- over 1 year : 4 cases

Fruits (F) were given for the first time at the age of:

- 0 — 1 months : 4 cases
- 1 — 3 months : 22 cases
- 4 — 5 months : 1 case
- 6 — 9 months : 8 cases
- over 1 year : 3 cases

12. Fluid given for the first 48 hours after birth was water or glucose solution.

### Discussion

After the child was 6 months old, it was found that the percentage of mothers who breast fed their children became less. This was especially true in the urban areas where the percentage of mothers who breastfed their children were even less compared to the percentage in the rural areas where the children still received BM at the age of more than 1 year (Tumbelaka, 1977).

Kudori (1977) found that 38.5% received BM. 8.5% received BM and AM, 45.5% received AM, and 7.5% did not receive any milk.

From the 65 children investigated, it was found that 28 children (43.08%) received BM, 14 children (21.54%) received BM and AM, 20 children (30.77%) received AM and 3 children (4.61%) did not receive any milk.

The percentage of AM used as an additional source of nutrition besides BM at the age of 3-6 months is high (33.33%). This was in accordance with the investigations done before by Kudori (1977).

From the 2 cases who still received BM, it was found that they ever had received AM from birth till the age of 2 months (Case I, 11 months) and 6 months (Case II, 9 months). This was due to the fact that the mother had a low standard of education and had lit-

tle knowledge about the practice of breast feeding.

From 14 children receiving BM and AM, 50% received additional AM before the age of 1 month due to insufficient BM.

While from the 20 children receiving AM, 30% received AM before the age of 1 month, 4 had received AM as the only source of nutrition, 3 children because breast milk was insufficient and 1 child because he was adopted. Two children received BM and AM because BM was insufficient so that the children were weaned and AM was continued as the only source of nutrition.

According to this investigation — as seen from Table 2 and 3 — AM was given as the only or additional source of nutrition if BM was insufficient or very little in quantity. After the age of 1 year 30% of the children received AM because it was time for these children to be weaned. Three children did not receive BM or AM at the age of 1-2 years because they were already weaned and no more additional milk was given.

In this study 23 children did not receive BM any more (20 AM and 3 without milk) since BM was insufficient (43%). Gambiro (1976) reported a percentage of 38%.

From 28 children who received BM, 50% of their mothers had primary school education.

If mothers' education was higher, then the tendency to breastfeed their children became less. This with the investigation done by Moham-

med Effendy (1977) who stated that the percentage of mothers who breastfed their children was higher than those who had a low education and highest in those who had no education at all.

The percentage of non-working mothers who breastfed their children was higher (89.39%) compared to the working mothers (10.71%). This was because the working mothers were too busy to breastfeed their children.

Solid food was given for the first time at the age of 1-3 months (40.15%). Manoeroeng (1978) reported a percentage of 64.5%.

### Conclusion

A survey was conducted on the practice of breast feeding in 65 children at the age of 0-2 years, who were admitted to the Department of Child Health,

Medical School, University of North Sumatera, Medan to find out mother's view and knowledge about the practices of BF, and the factors which caused mothers to stop BF when AM and solid food was given for the first time.

We found that :

- As the child became older, the percentage of mothers who breastfed their children became less,
- AM was given for the first time at the age of 3 months,
- For children who received AM only, it was given before they were 1 month old or after they were 1 year old,
- Mother's education and mother's occupation were important factors in determining the practice of breast feeding.

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