

## **Pattern of infant feeding and common diseases in Mukalla maternity child hospital / Mukalla city**

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### **Abstract**

Infant feeding is very important for growth & development. Spite the only natural way of feeding infant is the breast feeding so the diseases that is common in this period is due to error in the patterns of feeding. This cross sectional descriptive observational study was carried out in out-patient clinic Maternity and Child Hospital (MCH) in Mukalla city. One Hundred eighty mothers were interviewed for the patterns of infant feeding and its relation with common disease in infants less than two years I age. The most common type of infant feeding is mixed feeding (87.22), while e pure breast feeding constitutes (8.33%) & artificial feeding (4.45%). The majority of mothers start breast feeding at the 1St day after birth (76.16%) & others in the 2n day (12.21%) & in 3rdd day (11.053%). All mothers start artificial feeding before 2ndmonths of life. (60%) of breast fed infants are vaccinated, while (7 %) vaccinated in artificial. Breast feeding is common in rural areas (80%), while artificial feeding is common in urban (100%). Infection was found in all patterns of infant feeding, especially gastroenteritis & bronchial pneumonia. As a conclusion; the patterns of feeding especially breast feeding needs re-evaluation, efficiency & explanation of it is importance to mothers and their babies.

**Key Word:** infant seeding, Mukalla, common diseases

### **Introduction**

Proper nutrition plays a central role in promoting the normal growth and development of infant (1). A happy growing infant is the aim of infant feeding (2). The natural and the ideal food for babies is the breast milk which is the recommended method for feeding normal infant during the first 6 months of life. Unfortunately this is not always available and foreign milk should be given. (3)

The fact that breast feeding protect against several types of infections has been described in several studies. Furthermore, breast milk is the valuable natural source helps to prevent infants diseases and save considerable health costs.(4')

Breast feed or bottle feed for infants is decision of mother before delivery, so development of appropriate feeding skills and practices are learned to mothers by specialists. (4)

In developing countries, bottle feeding has emerged as a big public health problem & common way for feeding. (5). Awareness and knowledge of possible nursing problems that arise shortly failure (6).

The aim of our study is to recognize the pattern of infant feed in Mukalla city & its surroundings & identify the relationship of this pattern and the common diseases also we tried to identify the factors which influence this pattern as well as the causes that interfere with successful breast feeding.

### **Patients and Methods**

Cross sectional observational study was conducted during the period (February- April 2005), to see the patterns of infant feeding & common infectious diseases in out- patient clinic at Maternity and Child Hospital (MCH) In Mukalla city. One hundred eighty mothers of infants below two years of age (males & females) attending

pediatric out- patient clinic in Mukalla hospital, were interviewed with help of pre-made questionnaire designed for infants feeding & mothers health. This study was carried out by convenience sampling. The professional diagnosis of illnesses was made by pediatrician. Presentation & expression of results were done by computer, while frequency distribution, simple paragraph & pie charts are exploiting to express the study results.

## **Results**

One hundred eighty mothers were interviewed to detect patterns of infant feeding the following results were obtained. Fig. 1 shows the pattern of infant feeding in MCH /Mukalla city

Breast feeding was started on the first day of life in 76.16% of infants, 12.2% on the second day, while 1.6% of cases breast feeding was started after the third day it was noted that 90.1 % of mothers keep their infants on their lap during those mothers who breast feed their babies 66.86% are cleaning their breast before each feed while (33.14%) do not clean the breast at all. It was found that 40% of infants were still on breast feeding while 60% were weaned and the majority 25% of them weaned at 4-6 months, 18.3% was weaned before 4th month of age while 16.6% were after 6th month of age. The pattern of weaning was started gradually in 65.7% of infants while 34.26% the weaning was sudden.

All cases of artificial feeding were started at less than two months after delivery .unsuitable infant formula feeding was noted in 34.5% of cases.

As shown in table 2: 50% of artificially fed infant had gastroenteritis in comparison to 46.6% and 31.2% in those of breast and mixed feeding respectively.33.3% of Breast feeding infant had bronchopneumonia in comparison to 22.9% and12.5% among those on Artificial and mixed feeding respectively.

As shown in table 3: All infants of of Artificial feeding, 20% of Breast feeding infants as well as 77% of Mixed feeders were from rural areas. All mothers of Breast fed infants, 87.5% of mothers of mothers of bottle feeding infants and 87% of mothers of infants, 87% of mothers of mixed feeder were non employers, 30.3% of mothers of Breast fed infants, while 62.5% of Bottle feeding infants, and 60% of the mothers of Mexed feeders were illerate.

## **Discussion**

Unfortunately the availability of commercial formulae of infant feeding and easy access to them without consultation make it a substitute for breast feeding when the mother cant nurse her baby this will enhance the practice of bottle feeding in this study 8.33% has breast feeding 87.22% have mixed feeding and 4.45% were bottle feeding especially in urban mothers in other studies done in Yemen showed that it represents 28%,32%,40% for mixed breast &artificial feeding respectively (5,6). The difference may be attributed to different sampling technique or the sample size.

The prevalence of breast feeding in urban mothers represent 20% as compared to 80% in rural mothers probably due to the following reason rural mother is usually housewife i.e. not employed the advertisement usually affect the urban mothers more than the rural ones also the cosmetic effects on the body of the urban mothers, other false belief that breast milk is poisonous & injurious to their babies (1, 5).

Initiation of breast feeding early at first day after birth has significant value for baby & strengthen bonding some mothers think that this milk is not enough for the baby which is considered as a factor leading to lactation failure in Pakistani study (4) the initiation of breast feeding on day one of delivery was noted in 23.8% fortunately in this study it is

76.1% which is encouraging. The frequency of breast feeding was less in educated mothers as compared to illiterate one in previous study in Yemen (5) there were 83% of educated mother had failed to breast feed their babies these differences are statistically significant where breast milk is available all the time .Significant number of exclusively breast feeding mothers do not aware of the recommended duration of nursing also the technique & practice of breast feeding and hygienic maneuver so also the usage & cleanliness of both breasts alternatively or not when lactate (2).

The frequency of infants who are not weaned yet are still under the age of weaning which is either due to poor family income or suffering medical illness Early introduction of complementary feeds(before 4th months of life) is observed in 18.33% while in Yemen study which introduced early in 43% of cases ,this has detrimental effect on the babies and liable to cause disease infection allergy ,as well as decrease milk production similarly late weaning ( after 6th month of age ) noted in 16.67% in this study, probably related to some medical illnesses or traditional habits (2,5).

Although 25% of mothers continue breast feed their babies up to 4-6 months of infant age the frequency of common diseases which are contracted by the babies is more in this group of babies this may reflect the poor personal hygiene., poor family income, failure of vaccination and maternal diseases(1)

In comparison to the study in Yemen the obstacles to breast feeding are infant death,(479%)while breast problems & refuse of breast feeding are the least causes( 5%) (3%) respectively (5).

As a conclusion;

1-The most common type of infant feeding is mixed feeding and the least is artificial feeding.

2.Breast feeding is common in rural areas while artificial feeding is common in urban areas.

3-Breast feeding is more common in housewife , illiterate mother.

4-The vaccinated infants in artificial feeding are more than those with breast fed babies.

5-Infection is found in all patterns of feeding & the most common are gastroenteritis & bronchopneumonia

Recommendations:

1-The nutritional , immunological and psychological advantages of breast feeding mg

should be discussed and explained the pregnant women.

2-Breast feeding should be initiated as early as possible usually 6-12 hours after birth and given according to infant need.

3-Breast feeding technique usually advisable to practice as clean and safe maneuver as possible.

4-Frequent suckling by the infant is essential for the maintenance of milk flow and use of both breasts in each time feed is recommended.

5-Breast feeding until 4-6 month of age should be exclusive.

6-Too early introduction of complementary food has its own hazards and recommended.

7-The whole process of weaning should be gradually completed by 9 month - one year of age.

8-Vaccination is recommended for all infants to prevent interlock between infectious diseases and pattern of infant feeding.

9-Adequate attention to maternal nutrition, personal hygiene and treatment of any breast problem is essential antenatally.

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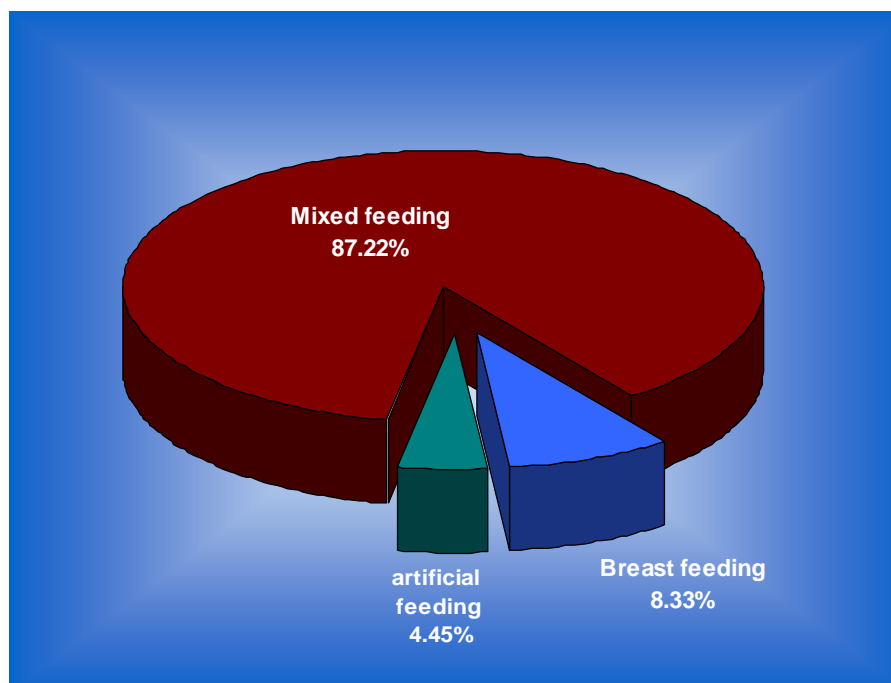


Figure (1) Type of Feeding among infants studied.

Table (1) Frequency of Breast Feeding.

| Frequency of Breast feeding\day | Percentage (%) |
|---------------------------------|----------------|
| <5 feeds                        | 36             |
| 5-10 feeds                      | 60             |
| >10 feeds                       | 4              |

**Table (2)** shows the commonest diseases associated with each pattern of infant feeding.

| Common disease    | Breast feeding |             | Artificial feeding |             | Mixed feeding |        |
|-------------------|----------------|-------------|--------------------|-------------|---------------|--------|
|                   | No,            | frequency % | No.                | frequency % | frequency %   |        |
| gastroenteritis   | 7              | 46.6%       | 4                  | 50%         | 49            | 31.20% |
| Asthma            | 1              | 6.67%       | 1                  | 12.5%       | 13            | 8.3%   |
| bronchopneumonia  |                | 33.3%       | 1                  | 12.5%       | 36            | 22.9%  |
| Lobar pneumonia   |                | -           | -                  | -           | 5             | 3.2%   |
| Bronchiolitis     |                |             | 1                  | 12.5%       | 13            | 8.3%   |
| Otitis media      | 1              | 6.67%       | -                  |             | -             | -      |
| Pharyngitis       | 1              | 6.67%       | 1                  | 12.5%       | 6             | 3.8%   |
| Allergic reaction | -              | -           | -                  | -           | 5             | 3.2%   |
| Colic             |                |             |                    |             | 3             | 1.9%   |
| Meningitis        |                |             |                    |             | 4             | 2.5%   |
| Others            |                |             |                    |             | 123           | 14.6 % |

**Table (3)** Relation of socioeconomic factors with pattern of infant feeding

| Socio-economic factors          |            | Breast feeding |        | Artificial feeding |       | Mixed Feeding | Per % |
|---------------------------------|------------|----------------|--------|--------------------|-------|---------------|-------|
|                                 |            | frequency      | %      | frequency          | %     | Frequency     |       |
| <b>Residence</b>                | Urban      | 3              | 20%    | 8                  | 100%  | 121           | 77%   |
|                                 | Rural      | 12             | 80%    | -                  | -     | 36            | 23%   |
|                                 | total      | 15             | 100%   | 8                  | 100%  | 157           | 100%  |
| <b>Mother occupation</b>        | Employed   | -              | -      | 1                  | 12.5% | 12            | 8%    |
|                                 | Housewife  | 15             | 100%   | 7                  | 87.5% | 136           | 87%   |
|                                 | Total      | 15             | 100%   | 8                  | 100%  | 157           | 100%  |
| <b>Mother educational level</b> | Illiterate | 13             | 86.6%  | 2                  | 25%   | 32            | 20%   |
|                                 | primary    | 2              | 13.33% | 5                  | 62.5% | 93            | 60%   |
|                                 | Secondary  | -              | -      | -                  | -     | 32            | 20%   |
|                                 | Total      | 15             | 100%   | 8                  | 100%  | 157           | 100%  |
|                                 |            |                |        | 1                  |       |               |       |
| <b>Infant vaccination</b>       | Vaccinated | 9              | 60%    | 75%                |       |               |       |
|                                 | Not        | 6              | 40%    | 2                  |       |               |       |
|                                 | Total      | 15             | 100%   | 25%                |       |               |       |
|                                 |            |                | 100%   | 8                  |       |               |       |
|                                 |            |                |        | 100%               |       |               |       |