

Infant Feeding in Bahrain

Faisal Abdul Latif Al Nasir *

ABSTRACT

This project was carried out in Bahrain where 173 infants born during a 3-month period who were registered with a Health Centre were studied over a period of 20 months. The aim was to describe the pattern of infant feeding and to see whether there was any relationship between the choice of infant feeding and various social factors as well as infant growth or morbidity experience.

It was found that 124 infants were given mixed feeding (bottle and breast), 33 infants were being breast fed only and 16 infants were on bottle feeding alone.

The average duration of breast feeding was six months and mothers tended to be older with more than one infant. Babies who were bottle fed were mostly first infants. Their mothers tended to be younger and the babies had a significantly greater increase in body weight over an 18 to 20 months period than those on mixed feeding or breast feeding alone. No significant relationship was found between morbidity experience as reflected by health centre consultations, nationality, occupation or the education of the parents and the way they decided to feed their babies.

Bahrain is a small island in the Arabian Gulf with a population of 350,000 people. It is one of the Arabian Countries which has multiple cultures because of the large number of foreigners who live there or who move in and out of it regularly. The reason for this is the strategic situation of Bahrain in the Arabian Gulf connecting the east and west and becoming a reputable trading and financial centre.

One of the cultural habits which might be influenced by the development of Bahrain is the trend in infant feeding, and this study was undertaken to

look at such changes. In the old days every woman had to depend on breast feeding as the main source of infant feeding, and which continued till the second year of the infant's age. With modernisation and due to economic pressures of life, women have had to become employed in order to share with their husbands the expenses of life.

There is a vast publicity and advertising campaign organised by the Ministry of Health promoting breast feeding and restriction are enforced on the advertisement of artificial feeding.

METHODS

The study was carried out in one of the large health centres in the capital of Bahrain serving approximately 35,000 people. All babies born in a three-month period, July-August 1981 and registered at that health centre were included in the study.

The total number of babies was 173. They were seen with their mother on their first visit to the health centre at the age of six weeks when they were due for their first immunization, and followed up later at a period of between 18 and 20 months.

A questionnaire was designed which included all the required data to be collected at each visit the mother was interviewed and the questionnaire was completed. The baby's body weight at birth and at 20 months of age was recorded in the questionnaire. All the data were analysed by using an SPSS computer programme (statistical package for social sciences).

RESULTS

173 babies were included in the study, they were born during June, July and August 1981. 89 were males and 84 were females (Fig 1).

124 babies (72%) were given mixed feeding (bottle and breast), 33 babies (19%) were given breast feeding only and 16 babies (9%) were given bottle feeding only (Fig 2).

* Assistant Professor
College of Medicine and Medical Sciences
Arabian Gulf University
State of Bahrain

FIGURE 1
BABY SEX

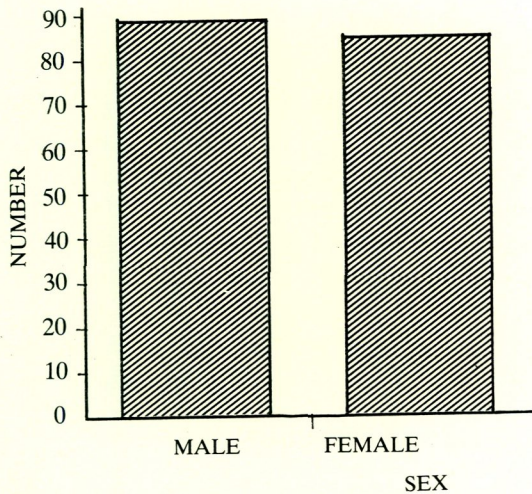


FIGURE 2
FEEDING TYPE

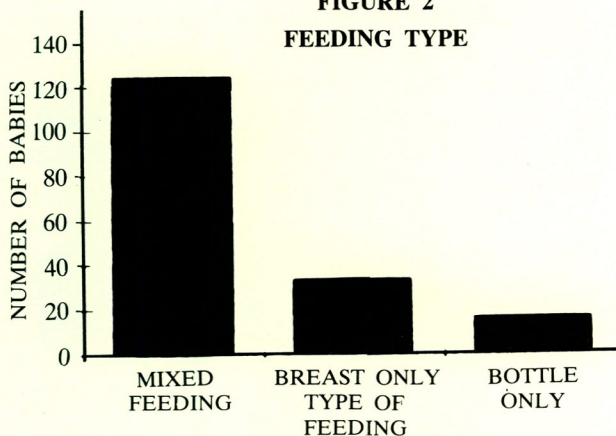


FIGURE 3
NATIONALITY

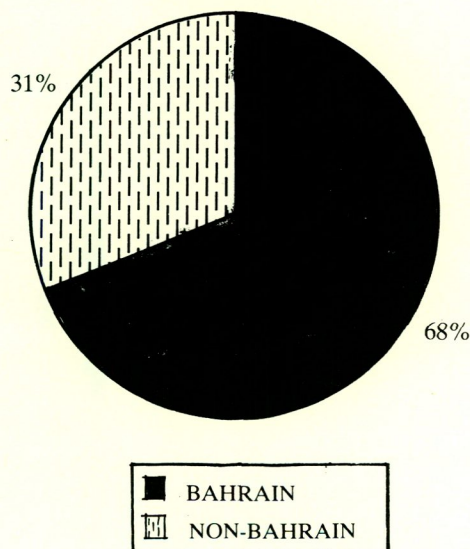
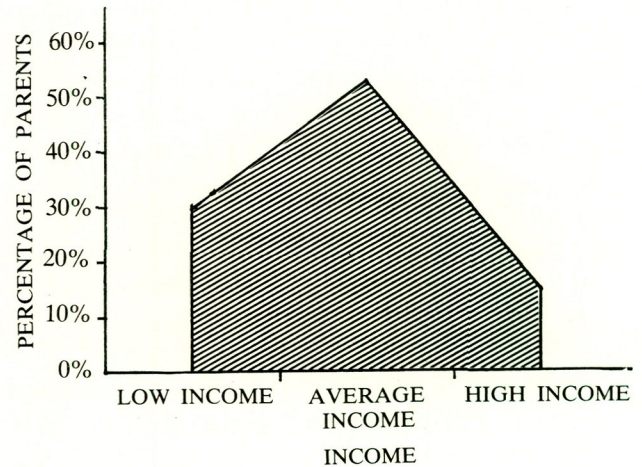


FIGURE 4
FAMILY INCOME



119 babies were of Bahrain Nationality and 54 were of other nationalities (Fig 3).

30% of the parents belonged to low income families, 53% were of average income and 15% belonged to high income families (Fig 4).

133 mothers were not working while 36 were working mothers. Most of the working mothers gave mixed feeding to their babies.

There were only 10 abnormal deliveries which include 4 caesarean section and 4 forceps deliveries.

The average age of starting solid feeding was found to be five months in all the three types of feeding. The most popular artificial milk given was 'Similac' (it was given to 75 babies (54%)).

The average duration of breast feeding was six months and the main reasons for stopping breast feeding were either because the baby refused to suck or because there was no flow of milk.

Bottle feeding was started either at birth or during the first three months of life.

The following independent variables have a significant relationship with the dependent variable for type of feeding given to the babies.

1. Sibling Order : (Sig. $P < 0.045$)

The bottle fed babies were mostly the first baby in the family.

The mixed fed babies were the second baby in the family. The breast fed babies were the third baby in the family.

2. Maternal Age : (Sig. $P < 0.020$)

The age of the bottle feeding mothers ranged from 18 to 21 years while those who breast fed and gave mixed feeding range in age from 22 to 25 years (Fig 5).

FIGURE 5
TYPE OF FEEDING TO THE
MOTHER'S AGE

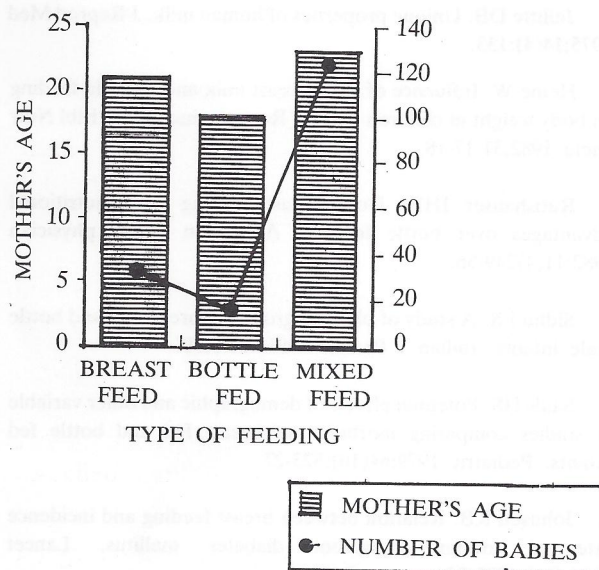
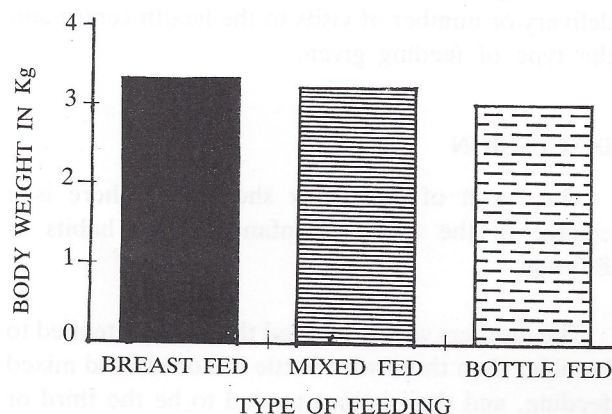


FIGURE 6

BODY WEIGHT AT BIRTH



3. The Baby's Birth Weight : (Sig. $P < 0.020$)

The average body weight of breast fed babies at birth was 3.3 kg (Fig 6).

The average body weight of mixed fed babies at birth was 3.2 kg.

The average body weight of bottle fed babies at birth was 3 kg.

(The average body weight of all the babies at birth was 3.2 kg).

4. Percentage increase of Babies body weight over 20 months : (Sig. $P < 0.001$)

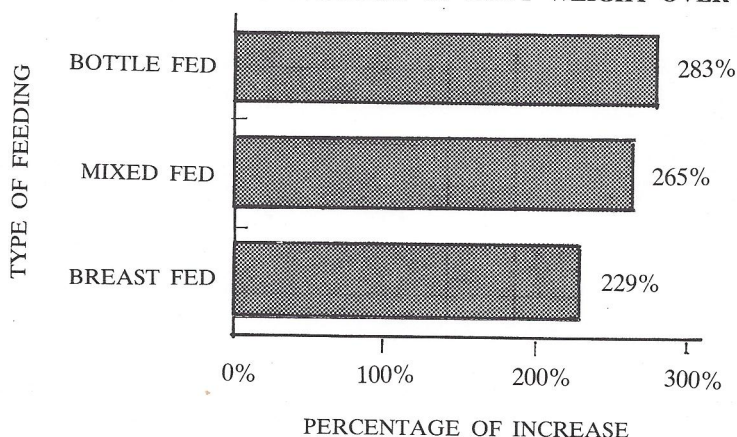
The percentage increase of body weight of bottle fed babies was 283%.

The percentage increase of body weight of mixed fed babies was 265%.

The percentage increase of body weight of breast fed babies was 229% (Fig 7).

FIGURE 7

PERCENTAGE INCREASE OF BODY WEIGHT OVER 20 MONTHS



There was no significant relationship between the father's age, mother's education, occupation, type of delivery or number of visits to the health centre and the type of feeding given.

DISCUSSION

The result of this study shows that there is a change in the trend of infant feeding habits in Bahrain.

The mothers who breast fed their babies tended to be older than those who bottle fed or offered mixed feeding, and their babies tended to be the third or more child. The bottle fed babies were usually the first baby in the family and had younger mothers. Also the study showed that there were significant greater increases in body weight in babies who were bottle fed and mixed fed than in babies who were breast fed. This finding is confirmed by other studies.^{1, 2, 3, 4, 5, 6}

It may be that bottle fed babies are at higher risk of being obese in later life and therefore might suffer the complications of obesity.²

One explanation for the significant increase may be that the greater body weight is due to the tendency of the mothers to force their babies to finish their bottle feeds. Although this study has not shown any relationship between the type of feeding and the mother's level of education other studies have shown that mothers of higher education and higher social class tend to breast feed babies rather than use bottle feeds.⁷

These results did not show any relationship between the type of feeding given and morbidity as measured by the number of visits of the babies to the health centre while other studies done elsewhere have indicated that there is an association.²

CONCLUSION

One of the reasons for the change of infant feeding habits in Bahrain may be the false belief by mothers that bottle feeding is a more modernised way of infant feeding while breast feeding is an old habit which should be discontinued.

REFERENCES

1. Addy DP. Infant feeding: a current view. *Br Med J* 1976;1:1268-71.
2. Cunningham AS. Morbidity in breast fed and artificially fed infants. *J Pediatr* 1979;95(11):685-89.
3. Jelliffe DB. Unique properties of human milk. *J Reprod Med* 1975;14(4):133.
4. Heine W. Influence of early breast milk and formula feeding on body weight in children born in Roslock since 1945. *Bibl Nutr Dieta* 1982;31:17-18.
5. Rutishauser IHE. Does breast feeding have nutritional advantages over bottle feeding. *Australian family physician* 1982;11(4):249-56.
6. Sidhu LS. A study of physical growth in breast fed and bottle male infants. *Indian J Pediatr* 1981;48:75-79.
7. Sauls HS. Potential effects of demographic and other variable in studies comparing morbidity of breast fed and bottle fed infants. *Pediatric* 1979;64(10):523-27.
8. Johnsen KB. Relation between breast feeding and incidence rate of insulin dependent diabetes mellitus. *Lancet* 1984;(11):1083-86.