

# Feeding patterns in the first two years of life in Basra, Iraq

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## أنماط التغذية في الستين الأولى والثانية من العمر في البصرة، العراق

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خلاصة: تمت دراسة أنماط تغذية 694 طفلاً تتراوح أعمارهم بين 12 و24 شهراً. ووجد أن ما يقرب من 91% منهم كانوا يتغذون بالرضاعة من الثدي وحدها عند سن أسبوع واحد، إلى جانب 4% آخرين كانوا يتناولون أغذية تكميلية في هذه السن. ولما أتوا السنة الأولى من عمرهم، وجد أن 52% منهم يتناولون حليب الثدي كمصدر وحيد للحليب، بينما كان 13% يتناولون تركيبات أغذية الرضع بالإضافة إلى حليب الثدي. وكان عدم كفاية حليب الثدي هو أهم سبب ذكرته الأمهات لتوقفهن عن الإرضاع. ومن بين الأطفال الذين يتلقون تركيبات الرضع كان 42.9% يتناولون تركيبات مخففة. وبدأت 70.9% من الأمهات في إعطاء الأطفال أغذية صلبة عند سن 4-6 أشهر في حين أن 5.8% لم يقدمن لأطفالهن أغذية صلبة حتى تجاوزوا الشهر الثامن من عمرهم.

**ABSTRACT** The feeding patterns of 694 children ranging from 12 to 24 months of age were studied. Approximately 91% were exclusively breast-fed at 1 week of age with a further 4% receiving supplementary foods at this stage. At 1 year of age, 52% were receiving breast milk as the only source of milk and 13% were receiving infant formula in addition to breast milk. Inadequate breast milk was the most common reason reported by mothers for discontinuing breast-feeding. Of children receiving formula, 42.9% were receiving diluted formula. 70.9% of mothers introduced solid foods at 4 to 6 months of age while 5.8% did not introduce solid foods until after the age of 8 months.

### Modes d'alimentation durant les deux premières années de la vie à Basra (Iraq)

**RESUME** Le mode d'alimentation de 694 enfants âgés de 12 à 24 mois a fait l'objet d'une étude. Environ 91% de ces enfants étaient nourris exclusivement au sein à l'âge d'une semaine, et 4% d'autres recevaient à cette période des aliments de complément. A l'âge d'un an, 52% des enfants étaient nourris au sein comme seule source de lait et 13% étaient alimentés avec des préparations pour nourrissons en complément du lait de leur mère. L'insuffisance du lait maternel était la raison la plus courante de l'arrêt de l'allaitement au sein signalée par les mères. Parmi les enfants auxquels l'on donnait une préparation pour nourrissons, 42,9% prenaient une forme diluée; 70,9% des mères avaient introduit l'alimentation solide à l'âge de 4-6 mois tandis que 5,8% ne l'avaient introduite qu'après l'âge de 8 mois.

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## Introduction

The well-being of the infant depends primarily on the quality and the quantity of food intake. Breast milk is the ideal food to promote growth and to protect against infection in young infants.

Following the decline of breast-feeding in industrialized societies, and its rapid spread to developing countries [1-3], the need to intensify and promote the return to breast-feeding has been stated repeatedly and supported by the World Health Organization (WHO). Since 1978, the WHO and the United Nations Children's Fund (UNICEF) have taken a number of measures of far-reaching importance to promote, protect and support breast-feeding [4].

Today, international and national efforts are designed to enable every mother at any age and any socioeconomic level to breast-feed her baby exclusively for the initial 4 to 6 months of life. Thereafter, mothers are expected to continue breast-feeding as long as possible, preferably for 2 years, supplementing the child's diet with complementary foods [4]. The purposes of this study were:

- to provide information about the prevalence and duration of breast-feeding;
- to provide information about weaning practices in Basra and to assess the intentions and thoughts of mothers about weaning practices; and
- to compare the recent and previous states of infant feeding patterns in Basra.

## Materials and methods

The study was conducted in 1994 over a period of 2 months (April and May) in two

health centres in Basra. The sample studied included 694 mothers who had children between 1 and 2 years of age and who were visiting the health centres for routine vaccinations.

The data were collected using a standard questionnaire designed for the study. It asked the name, age, sex, address and birth order of the child, type of feeding, concentration of milk formula, reasons for discontinuation of breast-feeding, mother's opinion of the most suitable age to start weaning and introduce solid foods, age at introduction of solid food, type of food first given and differences in the feeding practices between oldest and youngest child.

## Results and discussion

The study included 694 children (392 males and 302 females) ranging from 12 to 24 months of age. At the time of interview, 352 children (50.7%) were still receiving breast milk as their only source of milk and 100 children (14.4%) were receiving infant formula in addition to breast milk. In a 1977 study in Baghdad, Abdulli found that only 58.7% of women used strict breast-feeding during the first 6 months of life and an additional 37.6% used formula feeding in addition to breast-feeding [5].

This study also showed that approximately 91% of babies were exclusively breast-fed at 1 week of age, with a further 4% receiving supplementary feedings at this time. At 1 year of age, 52% received breast milk exclusively and 13% received formula in addition to breast milk (Figure 1). Mahmood and Feachen (1987) found that 91% of infants were breast-fed in the first week of life in Basra and that there was a sharp decline in the rate of exclusive breast-feeding in the first 6 months of life [5]. This increase in the prevalence and du-

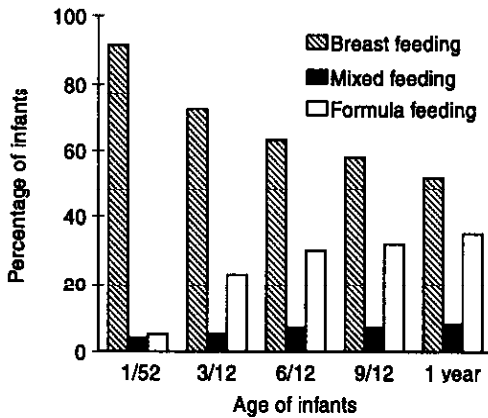


Figure 1 Infant feeding patterns during the first year

ration of breast-feeding may be due to the national programme for the promotion and protection of breast-feeding or due to embargo or both.

Interviews of mothers who had used formula feedings for their infants (342 total) revealed that 147 (about 43.0%) of them used diluted formula. This may be due to misunderstandings about formula preparation or due to sanctions imposed on Iraq.

Inadequate breast milk was the most common reason, reported by 88 mothers, for discontinuing breast-feeding or for formula feedings in addition to breast-feeding (25.7%); mother's illness was the second common reason (22.5%) (Table 1). Similar results were obtained in previous studies in Iraq [5,6].

About 80% of mothers had the intention to stop breast-feeding at or after 18 months of age. The same results were obtained in Baghdad more than 40 years ago [2]. In addition, 86.3% of mothers thought that the most suitable age for introduction of solid food was 4 to 6 months (Table 2) and about 70.9% introduced solid foods to their children at between 4 and 6 months (Table 3). Table 3 also shows that the earliest age for

Table 1 Reasons for discontinuing breast-feeding

Reason	Mothers (n = 342)	
	No.	%
Inadequate breast milk supply	88	25.7
Sickness of the mother	77	22.5
Subsequent pregnancy	43	12.6
Baby dislikes breast milk	35	10.2
Doctor's advice	31	9.1
Correct time to discontinue	12	3.5
Sickness of the baby	21	6.1
Other	35	10.2

Table 2 Mother's opinions about the most suitable age for introduction of solid food

Age (months)	Mothers	
	No.	%
2	28	4.0
3	32	4.6
4	317	45.7
5	196	28.2
6	86	12.4
7	18	2.6
8	16	2.3
> 8	1	0.1
Total	694	99.9

Table 3 Age at which solid foods were introduced

Age (months)	No.	%
3	64	9.2
4	259	37.3
5	116	16.7
6	117	16.9
7	63	9.1
8	35	5.0
> 8	40	5.8
Total	694	100

introducing solid food was 3 months and that about 5.8% of mothers did not introduce solid food until after the age of 8 months.

Biscuits, vegetable soup and rice were the three main types of solid food given as first foods, compared with a 1951 study in which yoghurt, bread and tea were found to be the most common weaning foods [2].

Mothers were asked if they had changed their feeding practices between their oldest children who were born either before 1980 or between 1980 and 1990 and their last child. It was found that while the prevalence of breast-feeding was high in all periods, it increased after 1992. In addition, duration of breast-feeding also increased (Figure 2).

It may be concluded that there is a high prevalence of breast-feeding and an increase in the duration of breast-feeding in comparison with previous studies in Iraq. We hope that the percentage of mothers who fail to breast-feed initially and of those who wean their children early can be minimized or reduced further through public

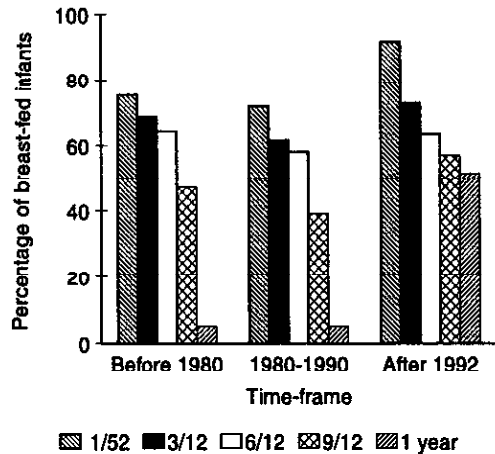


Figure 2 Change in feeding patterns between infants born before 1980, 1980-1990 and after 1992

education, social support and a greater awareness on the part of health care workers through the national programme to protect, promote and support breast-feeding and the implementation of baby-friendly hospital initiatives.

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