

INFANT HEALTH CARE PRACTICES — A STUDY IN THREE COMMUNITIES

PRABHA JOGINDER SINGH

CHEW GUAT EE

REBECCA JOHN

SUMMARY

A cohort of 90 infants born in March 1979 in Kedah, Pahang and Malacca were followed up to find out the feeding practices, preventive health care and medical care practices during infancy. A high proportion of infants were breastfed compared to the urban population. However, early introduction of solids was very common. Parents were well aware of the immunisation schedule and attended government clinics for immunisation. However, attendance for health appraisal was not made according to schedule. Cough and cold, fever, diarrhoea, measles and skin conditions were the common ailments. Medical care for cough and cold, fever and diarrhoea was sought from general practitioners, clinics, and hospitals. Practice of buying analgesics and penicillin cream for self treatment for fever and sores was a common practice. Help was sought from traditional healers for measles. Fever and diarrhoea were thought to be signs of health by some and nothing was done. Mothers were well educated on the importance of breast feeding but were not aware that introduction of early solids is not satisfactory.

Education with regards to introduction of solids by health staff was not done timely. Health staff were mentioned as influentials for feeding practices and immunisation, but were not mentioned for medical care. Some recommendations for infant care are also mentioned in the paper.

Prabha Joginder Singh, M.B.B.S. (Bombay), D.P.H. (London), M.P.H. (Michigan), F.R.S.H. (London)
Head, Maternal and Child Health Division,
Public Health Institute.

Chew Guat Ee, B.Sc. (Alberta), M.P.H. (Hawaii) R.N.SCM., H.V.
Public Health Tutor and Acting Health Education Officer,
Public Health Institute.

Rebecca John, R.N.SCM., H.V.
Public Health Sister,
Public Health Institute.

INTRODUCTION

Infant morbidity and mortality is still one of the major health concerns in Malaysia, although infant mortality has declined over the years. Among the medically certified and inspected infant deaths in 1977 (Malaysia 1979) 26 percent were due to pneumonia, diarrhoeal diseases, infective and parasitic diseases. Many of these deaths can be prevented through proper health care. The Ministry of Health has an extensive network of rural health services through which preventive and curative services are made available to the people. Whether these services are utilised to help reduce these preventable diseases, requires some evaluation. Thus it is important to determine the practices of the community with regard to infant care. To this end, a cohort study was undertaken to find out the infant health care practices in three rural communities in Kedah, Pahang and Malacca.

MATERIALS AND METHODS

As a prospective study three groups of newborn babies in the district of Kota Star in Kedah, Mukim of Bersera in Pahang and Mukim of Air Molek in Malacca were followed up since March 1979. The first thirty infants born after 15th March 1979 in each area were included in the study. These cases lived within two miles' radius of the nearest health facility (mostly midwife clinics) and within ten miles from the main health centre. The mothers of the cohort totalling 90 were interviewed by six interviewers (two for each area) every month to obtain information on their socio-economic status, infant feeding, and health practices. Standardised interview schedules were used by the interviewers who made observations on home environment and the infants during every home visit. Data was also obtained by interview of health staff from the study areas and analysis of child health cards of the 90 infants. Three infants from Kedah and one infant from Kuantan moved out of their areas during the study. Findings of the remaining 86 infants are presented in this paper.

The ethnic composition of the infants was, 88.3 per

cent Malay, 9.3 percent Chinese and 2.3 percent Indian. Majority of the heads of the families (72 percent) were labourers, farmers, with odd jobs, rubber tappers and lorry drivers in that order of frequency. Others included government servants and tradesmen. Most of the mothers were housewives. Fifty two percent of the families had average monthly income of less than \$200, 40 percent had been \$200-\$400 and 8 percent had more than \$500.

RESULTS

Feeding Practices

At birth 88 percent of the infants were breast fed and 12 percent were bottle fed. The duration of breast feeding varied from a few days to over a year. Fifty percent of the infants were breast fed at the age of 7 months and 36 percent were still being breast fed at the age of 12 months. Fig. 1 shows the cumulative percentage of infants according to the duration of breast feeding. While they were breast fed many infants were introduced to bottle feeds and solid foods. Thus, those who were breast fed wholly without bottle feeds but with or without solids reduced from 41 percent at the age of 1 month to 28 percent at the age of 3 months. The main reasons given for stopping breast feeding were insufficient lactation and work.

Solid foods were introduced at a very early age and in some cases as early as the third day of life and 80 percent of the infants were given solid foods by the age of 5 months as shown in Table I. The types of solid foods introduced were precooked cereals, rice flour, corn-flour, bananas, biscuits and bread. In all three areas the

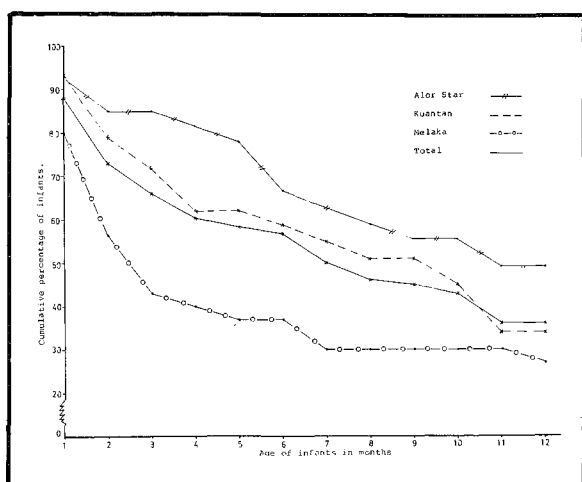


Fig. 1 Cumulative percentage of infants by duration of breast feeding.

TABLE I
PERCENTAGE DISTRIBUTION OF INFANTS
RECEIVING SOLID FOODS AT VARIOUS AGES

Age	No. of infant = 86	% of infants 100%
1 Week	20	23
1 Month	31	36
2 Months	53	62
5 Months	69	80

commercially prepared precooked cereal (Nestum) was very commonly given to the infants. The main reason given for early introduction of solid was that the babies were hungry and were satisfied after receiving the solids.

From the interviews it was gathered that by the age of 6 months 95 percent of the babies received the expected three food groups, namely carbohydrates, proteins and minerals and vitamins. The remaining 5 percent received them by the age of 7 months. It was difficult to determine the amount of the various foods given. In all the three places, a variety of sources influenced the feeding practices of the respondents. Most frequently mentioned were the nurses, midwives, elders in the family and their own previous experience. Husbands, neighbours, friends and mother-craft nurses were also quoted by a few respondents. A few were influenced by doctors. Only two of the total were influenced by T.V. advertisements and one each by magazine 'Wanita', Kemas teacher, and a shopkeeper.

Child health clinic attendance

In Malacca and Pahang it was found that almost all the infants attended the clinics according to the immunisation schedule of Ministry of Health (Ministry of Health, 1979). However, after completion of the immunisation programme, the expected number of clinic visits for health appraisal was not made by the majority of the infants, in spite of repeated home visits by the health staff to remind several of them. The child health clinic visits by the infants in Kedah was found to be much lower than that in Malacca and Kuantan as shown in Table II. Those who visited the clinics more than the expected number of visits did so on account of some minor complaints or illness.

Immunisation

Table III shows the immunisation status of children by

TABLE II
CLINIC VISITS OF INFANTS DURING FIRST YEAR OF LIFE
IN THE STUDY AREAS

Area	Range of visits for each infant	Average no. of visits for each infant	Expected no. of visit
Alor Star	0—9	4.4	8
Malacca	5—10	7.2	8
Kuantan	3—7	5.3	8

one year of age. The coverage for immunisation in Pahang and Malacca was almost complete for BCG., Triple Antigen and Oral Polio. In Kedah, however, 26 percent of the infants did not take the BCG., 41 percent did not start Triple Antigen and 33 percent did not start oral Polio. Of those who started Triple Antigen and Oral Polio, more than 90 percent completed all the three doses. All the infants went to government health clinics for immunisation except for one in Pahang who went to a general practitioner.

Medical care

Common illness in infants were cough and cold, fever, diarrhoea, measles, skin rash, sores and scabies.

Treatment was sought from various sources as shown in Table IV and reflected the peoples' beliefs in causation and treatment of diseases.

Cough and cold

Cough and cold was the most common illness found. Parents were not unduly worried about the illness. Most of them believed that it was caused by change of weather and that it was quite common among infants. When there was mild cold and cough no treatment was given. When they felt medication was needed most of them resorted to modern treatment as shown in Table IV.

Fever

Fever without other symptoms like cough and cold was thought to be normal by some (9 percent). They believed that when a child develops in his milestones like from sitting to crawling, the child gets fever and they did not give any treatment. Some (15 percent) believed that fever was caused by evil spirits (kena hantu) and they sought help from Pawangs and Bomohs. Majority of those who went to Pawangs and Bomohs also gave analgesics bought from shops. The commonly bought analgesic was 'Cortal'.

TABLE III
CUMULATIVE FREQUENCY AND PERCENTAGE DISTRIBUTION OF INFANTS BY
TYPE OF IMMUNISATION AND AGE WHEN IMMUNISED

(N = 86)

Immunization Age in mth.	BCG		Triple antigen			Oral Polio		
	(N)	%	1st dose (N)	2nd dose (N)	3rd dose (N)	1st dose (N)	2nd dose (N)	3rd dose (N)
1	(35)	40						
2	(68)	79	(18)			(22)		
3	(77)	89	(50)	(15)		(57)	(17)	
4			(60)	(38)	(11)	(65)	(40)	(13)
5			(69)	(48)	(21)	(72)	(51)	(23)
6	(79)	92	(71)	(64)	(37)	(75)	(65)	(40)
7			(72)	(67)	(51)		(69)	(54)
8			(74)	(70)	(58)	(76)	(72)	(62)
9			(75)	(71)	(64)	(77)	(73)	(65)
10				(72)	(66)		(74)	(66)
11					(68)			(68)
12								
Total	(79)	92	(75)	(72)	(68)	(77)	(74)	(68)

TABLE IV
PERCENTAGE DISTRIBUTION OF EPISODES OF
ILLNESS TREATED AT VARIOUS FACILITIES

Facility	NO. OF EPISODES OF:				
	Cough & Cold = 160	Fever = 42	Diarrhoea = 62	Skin rash = 34	Sores = 38
Hospitals and Health Centres	37%	33%	28%	18%	18%
General practitioners	27%	5%	34%	32%	13%
Bomohs/Pawangs	—	15%	—	7%	5%
Self treatment with medicines bought from shops	21%	35%	8%	29%	47%
More than one facility	11%	12%	21%	7%	8%
No treatment	4%	10%	9%	7%	9%
Total	100%	100%	100%	100%	100%

Diarrhoea

In Kedah, an infant passing loose stools was considered by some to be a sign of health and they did not give any treatment. Several others felt that diarrhoea was caused by either unsuitability of milk or introduction of solids. They often changed the brand of milk and stopped giving solids and gave no other treatment. External application on the abdomen of a variety of substances like camphor oil, banana shoot with mud, was a common practice. However, very rarely internal medication of traditional type was given.

Skin rash

Skin rash was mostly managed at home by dusting baby powder and dressing the infant with light clothing. Other forms of treatment included bathing infant with rice water, applying tapioca powder and applying coconut oil with ground spices like pepper and serai. Application of creams and ointments bought from shops was also a common practice. Most commonly bought cream was penicillin cream. Food taboos for skin rash included avoidance of seafood except ikan tenggiri, and vegetables except sawi and kangkong.

Sores

Majority of the cases of sores were treated at home by applying penicillin cream bought from shops. Food taboos were the same as those for skin rash and some (12

percent) avoided meat.

Scabies

Scabies was more common in Kedah and 30 percent of infants suffered from scabies in that area. Some infants became infected when they were as young as two months of age. Most of them sought modern treatment from general practitioners, clinics or hospitals. They changed treatment from one facility to another when there was no improvement. Many of them were still not cured by 12 months of age. Food taboos were the same as those for skin rash.

Measles

Twelve percent of the children suffered from measles. In all cases help was sought from Bomohs and Pawangs. It was believed that modern treatment does not work for measles and in fact it worsens the condition. Folk practices included abstaining from bathing the infant for 4 days and instead the infant's hair was wet (Jelum) with water every morning and evening. Water (Air Jampi/Air Penawar) given by the Bomohs/Pawangs was given to infants to drink 3 to 4 times a day. Incense (Kemunian) was burnt in the house every evening. Food taboos included avoidance of chillies (hot) food by breast feeding mothers and infants. In fact, no 'hot' food was cooked in some of the houses.

Who influenced medical care?

In the majority of the cases the respondents who were mainly mothers decided on the medical care. When there was no improvement, usually fathers were consulted and they made the decisions for further action. For some conditions usually for diarrhoea, relatives, friends and neighbours were consulted. Unlike for feeding practices, very rarely health staff were mentioned as influentials for medical care.

DISCUSSION

It is encouraging to note that a high proportion of the infants studied continued to be breastfed until six months. Compared with the urban population (Chen, 1978; Pathmanathan 1978), the incidence of breast feeding in the rural areas was higher and the duration of breast feeding was longer. However, those who gave only breast milk at the age of 3 months (28 percent) were considerably fewer than those reported in a rural study in 1975 (Pathmanathan, 1975).

On the other hand what is disturbing was the practice of early introduction of solids which was similar to that practiced by urban mothers (Chen, 1978). In fact more

mothers in this study started solids early. Mothers were well informed of the advantages of breast feeding, but they were not aware that early introduction of solids along with breast feeding was not necessary. Education with regards to the introduction of solids need to be reviewed. Information and instruction of introduction of solids was given to mothers when their infants were five months old; by then most of the mothers had already started on solids on their own. Therefore along with education on breast feeding during antenatal period, mothers need to be made aware of delaying introduction of solids. This education needs to be reinforced during postnatal home nursing and when mothers make their first visit to the clinics.

Mothers would bring their infants to the health clinics when they perceived the need for it. For example, the majority of them returned to the clinic the following week after the smallpox vaccination for the purpose of having the vaccination read and getting it recorded in the birth certificates. Once the immunisation was completed and despite frequent home visits to several of the defaulters to ask them to bring their babies for regular health appraisal, the majority of the mothers did not turn up. These findings are similar to those in the Kuala Pilah study. (Joginder, 1980). Mothers did not appreciate the regular health appraisal of the infants provided in health centres. Perhaps if the health appraisal findings are made known to them they might be encouraged to learn about the health status/progress of their children. Parents were well aware of the immunisation schedule and they brought their infants to clinics according to schedule. However, they were reminded of the schedule by health staff in clinics and during home visits. The majority of them utilised government clinics for immunisation. The factors contributing to the wide coverage were probably belief in the efficacy of the immunisation and the fact that prompt services were offered. The people were aware of the immunisation schedule at the clinics and they were sure that when they came to clinics on those days they would receive immunisation. In this study it was found that there were still some in Kedah who did not believe in immunisation. However majority of those who started on immunisation, completed the schedule. This indicates the need for health workers to pay more attention to those who do not start the immunisation at all.

Medical care is influenced by peoples' beliefs in the causation and efficacy of treatment. More people sought modern treatment for cough and cold, diarrhoea and scabies. It is encouraging to note that very rarely traditional treatment which was harmful was practiced. It could be that the parents in this study were younger and were more exposed to modern influences. However, the

belief that modern treatment worsens the measles condition needs to be corrected. Complications of measles such as bronchopneumonia and others if not treated would endanger life should be made known. Education is also needed for those who believe that fever is caused by evil spirits and help is sought from Bomohs. Perhaps this may be one of the reasons why there are many deaths due to 'fever'. In 1977 of a total of 4,670 uncertified infant deaths, 51 percent were grouped under the cause 'fever'. Another condition for which education needs to be strengthened is that for diarrhoea, which was thought by some to be a sign of health and nothing was done. Although treatment for scabies was sought from hospitals, clinics, and general practitioners, many of the scabies cases were not cured. Perhaps, application of emulsions was not done properly. Clear, specific instructions and demonstration of application of Gamma Benzene Hexachloride needs to be explored. Among all the ailments, sores were most commonly treated at home. People need to be educated on the seriousness of the ailment and they need to be encouraged to seek treatment from clinics and hospitals. Many parents were in the habit of buying medicines from the shops particularly analgesics (Cortal) and penicillin cream. Such practice needs to be controlled, either by education of the people or by controlling the sale of drugs.

ACKNOWLEDGEMENT

The writers wish to thank Dr. Haji Talib bin Latif, Acting Director General of Ministry of Health for permission to publish the paper; the trainers of the regional family training centres for collection of data; State Directors of Medical and Health Services of Kedah, Malacca and Pahang and their staff for their assistance and cooperation in the study; the families of the study group for their willingness to participate in the study; and June Koren for typing the manuscript.

REFERENCES

- Chen, S.T. (1978) Infant Feeding Practices in Malaysia, *Med. J. Malaysia*, 33, 120-124.
- Joginder Singh, P. (1980) Low Attendance of Preschool Children in Government Clinics in a Rural Community, *Med. J. Malaysia*, 34, 199-204.
- Malaysia (1979) Vital Statistics Peninsular Malaysia 1977, Dept. of Statistics, Malaysia, Kuala Lumpur, 191 and 194.
- Pathmanathan I (1975) A study of current Infant Feeding Practices in Rural North Malaysia As a Basis For Determining Needs In Nutrition Education, *South East Asian J. Trop. Med. Pub. Hlth.*, 6, 402-406
- Pathmanathan I (1978) Breast Feeding — A study of 8750 Malaysian Infants, *Med. J. Malaysia*, 33, 113-119.