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FOOD BELIEFS OF RURAL MALAY WOMEN OF TRENGGANU

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INTRODUCTION

MALNUTRITION is the product of a wide variety of dietary as well as non-dietary factors. In the developing world, defective dietary intake is perhaps the principal cause of malnutrition. Defective intake itself may be due to a series of factors of which poverty and traditional food habits are the most important.

In this paper, the authors report a study carried out in several rural Malay communities in Trengganu before the Applied Food and Nutrition Programme was launched in these communities and examine their observations regarding the traditional food beliefs of this sample of 216 rural Malay women.

METHOD

216 women from villages in the Applied Food and Nutrition Programme area in Trengganu were asked in mid-1975 for their responses to a list of different foods. These were classified according to whether they were perceived to be (A) highly beneficial (B) beneficial (C) neutral or of uncertain value (D) taboo (food to be avoided), for (1) toddlers, 1-4 years old (2) expectant mothers (3) postnatal mothers. The findings are discussed in this paper.

STUDY POPULATION

General Socioeconomic Characteristics

Out of the 216 households surveyed, 44% were engaged in agriculture for a living. 54% of the study population were self-employed, 38% were employed by others, 5.6% by the government, 0.5% were employers and 1.9% were unemployed. 45% of the study population did not own land, 71.8% owned their own houses, 50.9% had radios while 8.3% had television sets. 195 or 40.3% earned less than $300 per month, while the average monthly income per household was $144. This is very much lower than the national average monthly income in 1970 of $275. More than ¾ of the population had 6 years of education or less, however a third had had no education at all.

General Characteristics of the Respondents

31 out of the 216 women were pregnant at the time the study was made, 84 had children below 1 year of age and nearly 90% (88.4%) had 1 or 2 children below the age of 5. This area is well served by government services as the majority of the women make use of the *bidan kerajaan* (government midwife) or a *bidan kampung terlatih* (a trained traditional midwife).

The attitude towards breastfeeding is positive on the whole. Of those who are pregnant, all except two, prefer to breastfeed, most of them for 11-12 months or more. Furthermore, 77 or 91.7% of the women with infants less than a year old breastfed them; 14 (16.7%) for less than a month, 29 (34.5%) for 11-12 months, and 21 (25%) for more than a year.

OBSERVATIONS

It is obvious from this study that different food values were assigned to different foods by this rural community in Trengganu. These varied according to whether the group were toddlers, pregnant women, or postnatal women. Thus it was noted that, what was thought to be good for a pregnant woman might be considered taboo for a woman after delivery.

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Toddlers

From Tables I-III, it will be seen that more than 5% of those questioned would have toddlers avoid rabbit, catfish, eel, dogfish and *petai*. Fermented rice, fish fry, sting ray, tuna, cockle, salted fish, fish paste, prawn paste, cucumber, fresh buffalo's milk, cashew nut shoots, bamboo shoots, bitter gourds, brinjal and guava were all considered taboo for toddlers by 1% to 4.9% of the respondents. All the other foods were generally considered to be highly beneficial or beneficial for toddlers. In fact, rice, the cultural superfood, was considered by 88.9% to be highly beneficial and the remaining 11% to be beneficial for toddlers.

Table I

Per cent distribution of responses of 216 Malay women according to their perceived value of carbohydrate foods in relation to toddlers.

Food Item	Per cent responses according to perceived value of food [A-D] in relation to toddlers [1-4 years]				
Carbohydrate Foods	A	B	C	D	Total
Rice	88.9	11.0	0.0	0.0	100
Glutinous rice	5.6	87.5	6.5	0.5	100
Fermented rice	3.2	70.8	21.8	4.2	100
Bread	37.0	61.1	1.4	0.5	100
Noodles	32.9	66.7	0.5	0.0	100
Corn	12.0	76.9	0.8	0.9	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo and to be avoided

Expectant Women

Most of the foods considered taboo for toddlers were also considered to be taboo for expectant women (Tables IV to VI). Thus, between 1% to 4.9% of the respondents considered fermented rice, fish fry, sting ray, tuna, cockle, salted fish, fish paste, prawn paste and cucumber to be harmful for the expectant woman and more than 5% of them considered rabbit, catfish, eel and dogfish to be taboo for the expectant woman.

Table II

Per cent distribution of responses of 216 Malay women according to their perceived value of protein foods in relation to toddlers.

Food Item	Per cent responses according to perceived value of food [A-D] in relation to toddlers [1-4 years]				
Protein Foods	A	B	C	D	Total
Milk powder	48.6	45.4	6.0	0.0	100
Fresh cow's milk	35.2	56.5	8.3	0.0	100
Sweetened condensed milk	18.5	78.2	3.2	0.0	100
Fesh buffalo's milk	19.4	69.4	9.7	1.4	100
Beef	43.5	56.5	0.0	0.0	100
Mutton	38.4	61.1	0.5	0.0	100
Poultry	40.3	59.3	0.5	0.0	100
Rabbit	6.9	39.4	38.9	14.8	100
Eggs	35.2	63.0	0.9	0.9	100
Turtle's eggs	8.8	89.8	0.9	0.5	100
Fish roe	5.1	94.0	0.9	0.0	100
Fish fry	8.3	85.6	3.2	2.8	100
Anchovy	39.8	60.2	0.0	0.0	100
One-finlet scad	34.3	65.3	0.5	0.0	100
Chubb mackerel	33.8	65.7	0.5	0.0	100
Round scad	34.7	62.0	3.2	0.0	100
Stingray	3.7	58.8	30.6	6.9	100
Catfish, eel	0.0	53.2	38.4	8.3	100
Tuna	4.2	88.0	5.6	2.3	100
Dogfish	1.9	50.5	30.6	17.1	100
Prawn	21.8	78.2	0.0	0.0	100
Squid	21.8	76.9	1.4	0.0	100
Cockle	16.2	71.3	9.3	3.2	100
Salted fish	2.8	78.7	9.7	8.8	100
Fish paste	1.4	75.5	15.3	9.9	100
Prawn paste	1.9	77.8	13.4	6.9	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo or to be avoided

However, expectant women would not have to avoid fresh buffalo's milk, cashew nut shoots, bamboo shoots, bitter gourds, brinjal, guava and *petai* - food items that are avoided by toddlers. In other words, expectant women had fewer taboos than toddlers and most of the taboo foods were the relatively "exotic" foods.

Postnatal Women

Postnatal women were expected to be much

Table III

Per cent distribution of responses of 216 Malay women according to their perceived value of vitamin foods in relation to toddlers

Food Item	Per cent responses according to perceived value of food [A-D] in relation to toddlers [1-4 years]				
Foods which provide vitamins and minerals	**A**	**B**	**C**	**D**	**Total**
Spinach	41.7	57.9	0.0	0.5	100
Cekor manis	35.2	63.4	1.4	0.0	100
Kangkong	32.4	67.6	0	0.0	100
Cabbage	24.1	72.2	3.2	0.5	100
Daun turi	6.0	68.1	25.0	0.9	100
Tapioca shoots	10.2	83.3	6.5	0.0	100
Sweet potato tops	11.1	84.7	4.2	0.0	100
Fern shoots	10.2	86.1	3.7	0.0	100
Pucuk/daun peraga	1.4	75.5	22.7	0.5	100
Cashew nut shoots	1.4	72.7	22.7	3.2	100
Bamboo shoots	1.4	87.5	8.8	2.3	100
Sawi	28.7	70.8	0.5	0.0	100
Ladies fingers	25.9	70.4	3.7	0.0	100
Gourds	14.4	83.8	1.4	0.5	100
Soya beans	23.1	59.7	17.1	0.0	100
French beans	24.5	69.9	5.6	0.0	100
Long beans	28.7	71.3	0.0	0.0	100
Bitter gourds	6.9	72.7	18.1	2.3	100
Petai/jering	2.8	74.1	17.1	6.0	100
Bean sprouts	16.7	82.4	0.5	0.5	100
Cucumber	10.2	87.0	0.0	2.8	100
Brinjal	7.4	89.4	1.9	1.4	100
Pineapple	13.0	85.2	1.4	0.5	100
Banana	24.5	75.0	0.5	0.0	100
Papaya	22.7	76.9	0.5	0.0	100
Lime	18.1	81.5	0.5	0.0	100
Ciku	12.0	87.0	0.5	0.5	100
Jackfruit	8.3	90.7	0.5	0.5	100
Guava	5.6	92.6	0.5	1.4	100
Belimbing	1.9	93.5	3.7	0.9	100
Watermelon	8.3	91.2	0.5	0.0	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo or to be avoided

Table IV

Per cent distribution of responses of 216 Malay women according to their perceived value of carbohydrate foods in relation to expectant mothers

Food Item	Per cent responses according to perceived value of food [A-D] in relation to expectant mothers				
Carbohydrate foods	**A**	**B**	**C**	**D**	**Total**
Rice	92.6	7.4	0.0	0.0	100
Glutinous rice	6.5	86.6	6.5	0.5	100
Fermented rice	5.6	78.7	12.5	3.2	100
Bread	35.2	63.0	1.4	0.5	100
Noodles	77.8	68.1	0.5	0.0	100
Corn	8.8	80.1	10.6	0.5	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo or to be avoided

more restricted in their food intake than either expectant women or toddlers (Tables VII to IX). Between 1% to 4.9% of the respondents believed that women after delivery should avoid all leafy vegetables, vegetables and fruits that are listed. All meat, eggs and fish on the list, except for ordinary hen's eggs, anchovy, one-finlet scad, chubb mackerel and round scad were also taboo foods for postnatal women. In addition, they were also expected to avoid glutinous rice, fermented rice, corn and fresh buffalo's milk.

In addition, more than 5% of the respondents believed that postnatal women should avoid all the foods that toddlers and expectant women were expected to avoid. Furthermore they were expected to avoid squid and most vegetables and fruits. In fact, more than 20% of those questioned believe that gourds, pineapple and *belimbing* should be avoided by postnatal women, indicating that "cold" foods particularly fruits and vegetables were considered to be very much taboo.

Table V

Per cent distribution of responses of 216 Malay women according to their perceived value of protein foods in relation to expectant mothers

Food Item	Per cent responses according to perceived value of food [A-D] in relation to expectant mothers				
Protein foods	**A**	**B**	**C**	**D**	**Total**
Milk powder	48.1	44.9	6.9	0.0	100
Fresh cow's milk	34.7	56.5	8.3	0.5	100
Sweetened cond. milk	19.0	78.7	2.3	0.0	100
Fresh buffalo's milk	18.5	70.8	9.7	0.9	100
Beef	44.0	56.0	0.0	0.0	100
Mutton	38.9	60.6	0.5	0.0	100
Poultry	41.2	58.8	0.0	0.0	100
Rabbit	6.5	40.7	38.0	14.8	100
Eggs	33.8	64.4	0.9	0.9	100
Turtle's eggs	10.6	88.4	0.5	0.5	100
Fish roe	7.4	92.1	0.5	0.0	100
Fish fry	8.8	88.9	0.9	1.4	100
Anchovy	39.8	60.2	0.0	0.0	100
One-finlet scad	34.3	65.7	0.0	0.0	100
Chubb mackerel	34.7	64.8	0.5	0.0	100
Round scad	33.8	63.9	2.3	0.0	100
Stingray	2.8	65.3	27.8	4.2	100
Catfish, eel	0.5	57.4	35.6	6.5	100
Tuna	4.2	91.7	2.3	1.9	100
Dogfish	1.4	49.5	32.9	16.2	100
Prawn	21.3	78.7	0.0	0.0	100
Squid	22.7	76.9	0.5	0.0	100
Cockle	17.6	71.3	9.3	1.9	100
Salted fish	3.7	88.9	2.8	4.6	100
Fish paste	3.7	92.1	1.9	2.3	100
Prawn paste	3.7	92.6	1.4	2.3	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo or to be avoided

Table V I

Per cent distribution of responses of 216 Malay women according to their perceived value of vitamin and mineral rich foods in relation to expectant mothers

Food Item	Per cent responses according to perceived value of food [A-D] in relation to expectant mothers				
	A	**B**	**C**	**D**	**Total**
Spinach	40.7	59.3	0.0	0.0	100
Cekor manis	32.4	66.7	0.9	0.0	100
Kangkong	30.1	69.9	0.0	0.0	100
Cabbage	24.1	73.1	2.3	0.5	100
Daun turi	6.5	71.3	21.3	0.9	100
Tapioca shoots	11.1	87.5	0.9	0.5	100
Sweet potato tops	11.6	88.4	0.0	0.0	100
Fern shoots	11.6	87.5	0.9	0.0	100
Pucuk/daun peraga	4.6	87.0	7.9	0.0	100
Cashew nut shoots	3.7	88.9	7.4	0.0	100
Bamboo shoots	3.7	9.2	1.9	0.0	100
Mustard leaves	29.2	70.8	0.0	0.0	100
Ladies fingers	26.4	70.8	2.8	0.0	100
Gourds	13.4	85.2	1.4	0.0	100
Soya beans	24.5	58.8	16.7	0.0	100
French beans	24.5	69.9	5.6	0.0	100
Long beans	31.9	68.1	0.0	0.0	100
Bitter gourds	9.7	79.2	10.6	0.5	100
Petai/jering	7.4	88.4	3.7	0.5	100
Bean sprouts	16.2	82.4	0.9	0.5	100
Cucumber	11.6	83.3	0.9	4.2	100
Brinjal	10.2	88.0	1.9	0.0	100
Pineapple	14.4	84.7	0.9	0.0	100
Banana	24.1	75.0	0.9	0.0	100
papaya	22.7	76.9	0.5	0.0	100
Lime	18.5	81.0	0.5	0.0	100
Ciku	12.5	87.0	0.5	0.0	100
Jackfruit	8.3	91.2	0.5	0.0	100
Guava	6.0	92.6	0.5	0.9	100
Belimbing	3.2	94.9	1.9	0.0	100
Watermelon	8.3	90.7	0.9	0.0	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo or to be avoided

Table VII

Per cent distribution of responses of 216 Malay women according to their perceived value of carbohydrate foods in relation to postnatal mothers

Food Item	Per cent responses according to perceived value of food [A-D] in relation to postnatal mother				
	A	B	C	D	Total
Rice	88.0	12.0	0.0	0.0	100
Glutinous rice	5.6	74.5	15.7	4.2	100
Fermented rice	6.9	67.6	22.2	3.2	100
Bread	34.3	63.0	1.9	0.5	100
Noodles	31.5	68.1	8.8	0.9	100
Corn	9.3	80.1	10.6	1.9	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo or to be avoided

Table VIII

Percent distribution of responses of 216 Malay women according to their perceived value of protein foods in relation to postnatal mothers

Food Item	Per cent responses according to perceived value of food [A-D] in relation to postnatal mothers				
	A	B	C	D	Total
Milk powder	47.2	46.3	6.5	0.0	100
Fresh cow's milk	35.2	54.6	9.7	0.5	100
Sweetened cond. milk	17.6	77.8	4.6	0.0	100
Fresh buffalo's milk	19.0	69.0	10.6	1.4	100
Beef	42.6	51.4	4.6	1.4	100
Mutton	38.0	56.5	4.2	1.4	100
Poultry	40.7	53.7	4.2	1.4	100
Rabbit	6.0	38.4	40.7	14.8	100
Eggs	33.8	61.6	4.2	0.5	100
Turtle's eggs	9.3	81.0	7.4	2.3	100
Fish roe	6.9	87.0	4.6	1.4	100
Fish fry	7.9	88.0	2.3	1.9	100
Anchovy	39.4	57.4	2.3	0.9	100
One-finlet scad	33.8	65.3	0.9	0.0	100
Chubb mackerel	33.8	66.2	0.0	0.0	100
Round scad	31.9	63.9	3.2	0.9	100
Stingray	2.3	48.1	41.7	7.9	100
Catfish, eel	0.0	45.8	48.1	6.0	100
Tuna	3.2	70.8	20.4	5.6	100
Dogfish	0.0	34.3	47.2	18.5	100
Prawn	17.6	58.3	17.6	6.5	100
Squid	17.6	58.8	16.7	6.9	100
Cockle	15.3	53.7	24.1	6.9	100
Salted fish	3.2	80.1	5.6	11.1	100
Fish paste	2.3	31.0	47.7	19.0	100
Prawn paste	1.9	33.8	45.4	19.0	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo or to be avoided

DISCUSSION

General Attitudes towards Foods

In general, there is less avoidance of food among pregnant women compared with postnatal women. Out of the 31 pregnant women, only 4 (12.9%) avoided one or more foods, whereas 49 out of 84 (58.3%) women avoided various foods after delivery. There is some avoidance of food among young children, especially toddlers of 1-4 years old. For this group, there is a greater avoidance of some kind of vegetables or fruits as well as hot foods [*makanan pedas*] rather than bread or cereal type of food.

A large proportion of the infants who were weaned (65.3%) started on "nestum" a pre-cooked cereal food that is a relatively expensive food product. Undoubtedly, nutrition education can play a constructive role in promoting the use of cheap and fresh local substitutes. Among the study population of 216 households, fresh milk is consumed in only 30 (13.9%) households. The attitude towards growing their own food is positive: most of them (69%) when asked said that they would grow soya beans for home consumption and every household responded favourably to growing vegetables. However, only 17.1% of the respondents said that they would rear rabbits for food whereas 30.1% would rear pigeons for a similar purpose. This is due to the cultural belief that a rabbit is a pet similar to a cat and should not be eaten, while pigeons are akin to the small birds that are ocassionally hunted as a food supplement.

Table IX

Per cent distribution of responses of 216 Malay women according to their perceived value of vitamin and mineral rich foods in relation to postnatal mothers

Food Item	Per cent responses according to perceived value of food [A-D] in relation to postnatal mothers				
	A	B	C	D	Total
Spinach	28.2	36.6	29.6	5.6	100
Cekor manis	24.1	51.4	20.8	3.7	100
Kangkong	23.6	47.2	25.0	4.2	100
Cabbage	19.9	58.8	18.5	2.8	100
Daun turi	4.2	55.1	37.5	3.2	100
Tapioca shoots	7.9	62.0	26.4	3.7	100
Sweet potato tops	7.4	61.6	26.4	4.6	100
Fern shoots	8.3	52.8	32.4	6.5	100
Pucuk/daun peraga	3.7	67.6	24.1	4.6	100
Cashew nut shoots	2.3	66.2	26.9	4.6	100
Bamboo shoots	2.3	53.2	31.5	13.0	100
Sawi	27.8	48.1	17.6	6.5	100
Ladies fingers	23.1	4.5	25.9	4.6	100
Gourds	4.6	19.9	54.6	20.8	100
Soya beans	19.4	45.4	33.3	1.9	100
French beans	22.7	54.2	19.0	4.2	100
Long beans	29.6	53.7	13.9	2.8	100
Bitter gourds	8.8	63.0	25.5	2.8	100
Petai	6.5	48.1	38.0	7.4	100
Bean sprouts	14.8	53.2	24.1	7.9	100
Cucumber	9.3	33.3	40.7	16.7	100
Brinjal	7.9	32.4	47.2	12.5	100
Pineapple	6.5	13.4	58.3	21.8	100
Banana	21.3	64.4	10.2	4.2	100
Papaya	16.7	39.4	30.6	13.4	100
Lime	15.7	46.3	24.5	13.4	100
Ciku	8.8	46.8	29.2	15.3	100
Jackfruit	6.0	32.4	44.4	17.1	100
Guava	4.6	39.8	39.4	16.2	100
Belimbing	0.9	20.8	57.4	20.8	100
Watermelon	4.6	28.2	47.2	19.9	100

A - perceived to be highly beneficial

B - perceived to be beneficial

C - perceived to be neutral or uncertain

D - perceived to be taboo or to be avoided

Taboo Foods

There are probably many varied reasons for avoiding different foods. Thus, some foods are avoided because they are believed to be cooling while some are believed to be heaty (Chen, 1977) and perhaps some are avoided because of practical problems associated with it (for instance, guava - the only fruit that are believed by more than 1% of the respondents to be harmful to toddlers - may be avoided because it is too hard for the child). Catfish, eel and dogfish resembles snakes and are culturally avoided as snakes are considered evil.

In general, it can be concluded from this study that the foods avoided by toddlers are also avoided by expectant women. However, more foods are taboo for toddlers than for expectant women. Nevertheless postnatal women, on the whole, appear to be the most constrained among the three groups in terms of food taboos. Thus, it appears that postnatal women are recognised to be the most vulnerable of all three. Ironically, it is precisely because they are more vulnerable that food avoidance would do them the most harm. Since most of the taboo foods for this group of women are fruits, vegetables, fish, meat and eggs, they would be deprived of vital sources of vitamins, minerals and proteins. This has been noted to be associated with low serum levels for folic-acid, carotene and iron (Wilson *et al.*, 1970).

How does the practice of avoiding foods affect the nutrition of the people concerned? For toddlers and expectant women, food avoidance is relatively limited in extent and probably not the main cause of malnutrition with the exception of very poor families who are avoiding an extremely cheap and rich source of protein or vitamins. In many instances alternatives can usually be found. Thus, salted fish, fish paste and prawn paste are good sources of protein and minerals. However, not much can be taken at any one sitting and hence they are not good sources for protein and would not be missed as a protein source even if avoided. In fact rice, the cultural superfood is the principal source of protein in most rural diets even though rice only contains 7.1% of protein. Cucumber, the only vegetable that is avoided by all 3 groups, is also not that important as it can be replaced by other and often better, sources of vitamins. Stingray, catfish, eel, dogfish, tuna and

fish fry can also be replaced by alternate sources of protein. However the need for health education to ensure the replacement by non-taboo foods must receive proper attention if malnutrition is to be avoided. Fermented rice is probably not too great a loss either, especially since rice itself is considered a cultural superfood. On the other hand, deliberate avoidance of fresh buffalo's milk would be a loss if the family possesses a buffalo.

The foregoing is only true for the relatively uncommon exotic foods avoided by toddlers and expectant women. However, the large number of taboos of postnatal women, and the fact that they are in a particularly vulnerable condition means that food avoidance among postnatal women usually have more serious consequences and greater care must be exercised.

Beneficial Foods

Rice ranks high above all other foods as the so-called cultural superfood, considered by nearly 90% of the respondents to be highly beneficial for all the 3 groups - toddlers, expectant and postnatal women. Interestingly enough, milk powder is considered more beneficial by a larger percentage of the respondents than fresh cow's milk whilst buffalo's milk is taboo for toddlers and postnatal women and most consider sweetened condensed milk to be beneficial but not highly so. The high standing of powdered milk is probably due to the associated high status value given to the milk by commercial advertisements.

Beef, mutton, poultry and anchovy, all excellent protein sources, are rightly considered highly beneficial by well over a third of the respondents. Spinach, a good source of iron, is also considered highly for toddlers and expectant women by more than 40% of those questioned although it is generally an avoided food item for postnatal women. The one-finlet scad and chubb mackerel are two fishes considered beneficial for postnatal women by nearly all the respondents which is good since these are relatively small and cheaper fishes. Bread and eggs are also considered beneficial foods.

All the foods considered beneficial are also good nutrient sources. Of special significance is rice, which is considered by more than 85% of the respondents to be highly beneficial for all 3 groups. This is important because rice is the staple food in Malaysia and is the principal source of protein in most rural diets. Beef and poultry are generally considered beneficial even for postnatal women although 1.4% of the respondents would still believe that it should be avoided by them. Thus, most of the foods classified as beneficial are nutritious foods although not all nutritious foods are classified as beneficial.

CONCLUSION

Findings from studies such as this have implications for the socio-economic development of Malaysia. Programmes such as the Applied Food and Nutrition Programme will have to take local customs and taboo practices into consideration in order to achieve its targets. Thus, if it is part of a programme to introduce a new food into the community, then one has to first assess the community's attitudes towards that new food. Harmful practices such as avoidance of some crucial foods by a highly vulnerable population group will be the concern of nutrition educators. A widespread belief in this country is that foreign or manufactured products are superior to local ones. In some poor families, this may lead to parents spending their limited income on these products while cheaper substitutes will do just as well or may even be better. For example, many families in this study area wean their children on "nestum". The nutritional qualities of "nestum" notwithstanding, nevertheless it is still an expensive food item which can be satisfactorily substituted for by a rice and fish broth (Chen, 1974; Chen 1978).

However, it should be borne in mind that food taboos *per se* are not the sole cause of malnutrition, but that malnutrition is caused by a complex series of multiple factors including socio-economic, educational, agricultural and other factors. It should also be noted that even with postnatal women, for any of the foods listed, only up to 21% felt that it was taboo. Nevertheless the study indicates that the need for nutrition education is present and should be pursued along with concerted efforts in all other related areas.

SUMMARY

216 women from rural villages in the Applied Food and Nutrition Programme area in Trengganu were asked to classify various foods accord-

ing to whether these were perceived to be highly beneficial, beneficial, neutral or uncertain and taboo, for toddlers aged 1-4 years of age, expectant mothers and postnatal mothers. It was found that several foods were perceived to be taboo. However more foods were perceived to be taboo for toddlers than for expectant women but that the most constrained among the three groups were the postnatal women. Since most of the foods were fruits, vegetables, fish, meat and eggs it was noted that this was associated with low serum levels for folic-acid, carotene and iron among the postnatal women.

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