

# HEALTH LITERACY AND FOOD BELIEFS AMONG IBANS, SARAWAK

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## SUMMARY

*A morbidity survey was carried out on a sample of eight longhouses in the Entabai area of the Sixth Division, Sarawak. Of the 645 respondents interviewed, only 148 (22.9%) had experienced at least one spell of illness during the one month prior to the survey. A total of 161 spells of illness was reported, giving a rate of three spells per person per year for the community. Most of the complaints were mild in nature, with fever and aches being the commonest reported. About two thirds of the illnesses were seen by the village aide or at the klinik desa, while the remaining preferred to be treated by the manang.*

*A sub-sample of 49 heads of household were interviewed on their views of the causation, prevention and spread of five common conditions. About 14–43% of the respondents had no knowledge of the causes of fever, cough, diarrhoea or worms. Among those who mentioned some causative factors, only a portion had correct concepts of the various aspects of diseases. Food*

*taboos associated with the five conditions were not too numerous or extensive enough to affect dietary intakes. However, this is not so during the post-partum period where the mother is not allowed to eat many vegetables and meat which are common items in their everyday diets.*

## INTRODUCTION

Health and disease are measures of the effectiveness with which human groups, combining biological and cultural resources, adapt to their environment. In examining the interrelationship between health and disease in a community besides the direct indicators of health, one should also study the various aspects of health culture,<sup>1</sup> including cultural perception of health problems, their cultural meaning and also the cultural response to these problems. A lack of understanding of these factors have led to the failure of many a health programme.<sup>2</sup>

Another important component of culture indirectly linked to health are the beliefs surrounding food and their roles in the causation of disease. These beliefs affect health by undermining the nutritional status of certain vulnerable groups such as toddlers and women during pregnancy as well as the post-partum period. Many studies have been conducted into the food beliefs prevalent among the various communities of Malaysia.<sup>3,4,5</sup> In communities dependant on subsistence agriculture, the observance of such food restrictions deprive

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the mothers and young children of many valuable sources of nutrients.

## METHOD

The study was conducted in the Entabai area of the Sixth Division, Sarawak. The study area consists of 48 longhouses along the Entabai River, with a population of about 5,000. Most of the people are Ibans who practise subsistence farming, growing hill padi and some cash crops.

A random sample of eight longhouses was selected for a morbidity survey. The numbers, types, severity and duration of illnesses experienced by the residents during the period of one month prior to the survey was documented. Their response to the illness in terms of the types of treatment sought, was also recorded. In this study, "illness" was defined as "any departure from wellbeing felt by the person himself" in the case of older children and adults. In the case of young children, the presence of "illness" was determined by mothers on the basis of various behavioural changes such as irritability and refusal to eat or to play.

The criterion used for the definition of "illness" in this study is rather subjective but it is the most practical one under the circumstances. The period of recall is also rather short and as such any conclusions with regard to prevailing disease pattern in the community, should be made with caution. However, the shortness of the period is more conducive to maximal recall.

For the second half of the study, a sub-sample of 49 households (about one third of the households included in the morbidity survey) was selected. The heads of household were interviewed with regards to their beliefs and attitudes towards the causation, spread and prevention of five conditions, four of which are communicable, including cough, diarrhoea, fever and worms. Goitre was also included in the list because of its high prevalence in the community. Food restrictions for toddlers, pregnant women and post-partum mothers

were noted, together with restrictions to be observed in the event of illness.

## RESULTS

### Morbidity Survey

Of the 645 respondents interviewed, only 148 (22.9%) had experienced at least one spell of illness during the period of one month prior to the study.

A total of 161 spells of illness was reported, giving a rate of 1.1 spells per sick person. There was no obvious sexual preponderance in the distribution of sick persons. The most common complaints encountered were fever with or without other symptoms, accounting for 34.2% of the spells (Table I). This is followed by headache or bodyaches (18.6%). Toothache accounted for 8.1% of the symptoms, followed by cough, diarrhoea, epigastric pain and skin diseases.

TABLE I  
COMMON COMPLAINTS REPORTED BY SICK  
PERSONS DURING THE ONE MONTH PRIOR  
TO SURVEY

Complaints	No. of spells	(%)
Fever with or without other symptoms	55	34.2
Body aches, headaches	30	18.6
Toothache	13	8.1
Cough	10	6.2
Epigastric pain	10	6.2
Diarrhoea	7	4.3
Skin diseases	6	3.7
Other complaints	30	18.6
Total	161	99.9

The severity of the illness was assessed using "limitations in activity" as a criterion. Only 6.2% of the spells were severe enough to confine the person to bed, while only one of the spells of illness warranted hospitalisation. 40% of the spells were mild, having no effect on daily activities. For the remaining 53.5% of the spells, there were varying degrees of limitation in activity

The spells of illness lasted from one day to two months, with a median duration of eight days. In about 15% of the illnesses, no treatment was sought. Of the remaining 85%, about 40% were treated at least twice. The *klinik desa* (rural clinic) was the most common source of treatment for more than 50% of the illnesses treated, followed by the village aide (primary health care worker) with 17.4%. Only 10% of the illnesses was seen by the *manang* or the Iban traditional medicine man. The people turned to him for help when their illness failed to respond to modern medical treatment.

8% of the sick persons resorted to self-medication, using Chinese proprietary medicines which are available in the local shops, one of the most popular being a pain-killer with a very high content of phenacetin. The *manang* used rituals such as rubbing of the patient's body with medicine or the oil from *belian* (a type of hardwood) or *puchau*, in 45% and 40% of the cases, respectively. During the latter ritual, the medicine man blows water from his mouth onto the patient's body.

## Health Literacy

49 household heads were interviewed regarding their knowledge of five common conditions. Many of the respondents gave more than one factor for the various aspects asked. As a result, the total responses may add up to more than 100%.

## Disease causation

With regard to the four communicable conditions, more of the respondents (42.9% and 30.6%, respectively) did not know what caused cough or fever. Only one-fifth of the respondents

said that they did not know the cause of diarrhoea, while 14.3% professed ignorance regarding worms.

About one-quarter of the respondents said that cough was usually associated with other conditions such as asthma, tuberculosis or flu. Other factors mentioned by the respondents included smoking (20.4%), and dust, pollen or other agents in the air (18.4%). Another 18.4% of the respondents associated cough with the consumption of certain foods such as sweet foods and foods which are 'itchy' or *tajam* (e.g. bamboo shoots and fern shoots).

Fever, on the other hand, was believed to be caused by inclement weather conditions such as heavy rains or extreme heat (30.6%). More than a quarter of the respondents said that it was due to the consumption of food or water which had been contaminated by house flies or other agents. Another 24.5% associated it with malaria and mosquito bites. Only a fifth of the respondents believed that fever was caused by "evil spirits".

About 43% of the respondents associated diarrhoea with the drinking of unboiled water. However, many of the other respondents linked it with the consumption of certain foods such as sour fruits (24.5%), 'fatty' food (20.4%) or uncooked food (14.3%). 26.5% felt that diarrhoea was due to eating food which had been contaminated (e.g. by flies).

As in the case of diarrhoea, many of the respondents attributed worms to the consumption of foods which are raw or uncooked (46.9%) such as rice, tapioca and sweet potatoes. 32.7% of the respondents felt that worms were caused by eating unripe fruits such as bananas and guava, while the shoots of wild plants were also implicated (22.4%). A few of the respondents (6.1%) said that worms could be acquired by walking around barefooted.

Most of the respondents believed that goitres were due to certain actions which involved swallowing or hyperextension of the neck, such as walking and eating at the same time (12.2%), eating in the farm (12.2%), or by looking at the

roof and eating at the same time (6.1%). 18.4% felt that it was due to drinking dirty water while 14.3% linked it with lack of iodised salt.

In the case of the four communicable conditions, most of the respondents believed that these could spread to other people (62.5 – 95.6%), with the exception of worms, where only one-third said that it could spread to others. Conversely in the case of goitre, more than two-thirds of the respondents believed that it could spread.

### Choice of treatment

The four communicable conditions showed similar patterns with regards to the choice of treatment as indicated by the respondents. About 22 – 29% of the respondents said that they would obtain medicine from the village aide for these conditions. Most of them (73 – 80%) indicated that they would rather go to the *klinik desa*, although they might try traditional medicine first (14.3 – 36.7%) as a trip to the clinic would be rather costly.

In the case of goitre, most of the respondents (34.7%) would try traditional medicine first. About one-quarter would go to the *klinik desa* while another one-fifth would prefer the district hospital. 14.3% felt that surgery was necessary. Most of the respondents appear to regard goitre as a more serious condition as none would go to the village aide for treatment.

### Preventive measures

With regards to preventive measures, 51% of the respondents said that they did not know how to prevent fever or diarrhoea. About one-third of the respondents had no knowledge of preventive measures for cough or goitre. Only about one-fifth of the respondents did not know how to prevent worms.

More than half of the respondents said that they would not use the utensils of a person with cough or have close contacts with such persons. 16.3% indicated that strict adherence to food beliefs would prevent cough.

In the case of fever, about a third of the respondents said that cleanliness of the longhouse and the protection of food from contamination could prevent the occurrence of fever. Another preventive measure reported was the boiling of water for drinking (14.3%). The last two measures regarding food and water were also advocated for the prevention of diarrhoea by 30.6% and 20.4% of the respondents, respectively.

Most of the respondents said that raw or uncooked food (42.9%) and unripe fruits (32.7%) should be avoided for the prevention of worms. Other measures mentioned include the consumption of clean food and water (10.2%) and the wearing of shoes (6.1%). In the case of goitre, 28.6% of the respondents said that iodised salt could prevent the condition. Another 28.6% said that they would not use the utensils of goitrous individuals while 14.3% suggested the avoidance of the various actions implicated in its aetiology.

### Food taboos

Most of the respondents believed that 'itchy' or *tajam* foods should be avoided when a person develops a cough. Examples of such foods include bamboo shoots, cucumber leaves, ferns and yam. Another category of food to be avoided are sweet foods (16.3%). The 'itchy' and sweet foods were believed to cause further irritation of the throat and aggravating the cough.

For the two intestinal conditions, i.e., diarrhoea and worms, the food taboos include sour fruits (44.9%) in the case of the former, and raw foods (40.8%) together with unripe fruits (38.8%) for worms. Such foods were not considered suitable for an 'upset stomach'. In the case of fever, 20.4% of the respondents suggested that roasted foods should be avoided. Another important group included animals from the river (18.4%) such as fish, snails and crabs.

Food restrictions for goitre consisted mainly of foods which are round or oval in shape, e.g. eggs (28.6%), eggplant (18.4%) and areca nuts (4.1%). Fruits which were still growing were also avoided in the belief that eating such fruits would

cause further enlargement of the goitre, a view held by 53.1% of the respondents.

Mothers were questioned with regards to taboos for toddlers, pregnant women and post-partum mothers. Of the three groups, the latter appeared to be one which was associated with the most taboos, with all the mothers naming at least one item. Of the 16 respondents, 56.3% said that some wild plants such as bamboo shoots and ferns, should be avoided after delivery. Other vegetables such as cucumber leaves and *cekur manis* were considered taboos by 37.5% of the respondents. Another 37.5% named certain fruits such as papaya and bananas. Protein foods such as fish (43.8%), snails (31.3%), prawns (31.3%) and some wild animals (31.3%) were also included.

In the case of pregnancy, 31% of the respondents said that they were not aware of any food taboos, while one-quarter were not sure. For the remaining respondents (43.8%), the meat of some wild animals was the only taboo to be observed during pregnancy.

37.5% of the respondents knew of no food restrictions for toddlers. Only two groups of food were considered taboo, including aquatic food such as snails and crabs (25.0%) and sour fruits (12.5%).

## DISCUSSION

The morbidity survey showed that a total of 161 spells were experienced by the study sample during the period of one month, giving a rate of 0.25 spells per person per month or three spells per person per year.

The main complaints reported were fever and aches, conditions which required only symptomatic treatment most of the time. Cough, epigastric pain and diarrhoea accounted for only a small proportion of the illnesses reported. Furthermore, most of the illnesses were mild with minimal limitations in activity.

Most illnesses were treated by the village aide

or the hospital assistant in the *klinik desa*. However, clinic treatment can be rather costly as it involves travelling by boat, an affair which may cost M\$14 to \$70 for petrol, depending on the distance. In view of this, the utilisation of the village aide should be encouraged. These workers cover a cluster of three to four longhouses and are therefore more easily accessible. Furthermore, many of the illnesses were mild, requiring only symptomatic treatment, and can be handled by the village aide. He should be taught to recognise conditions which are serious and therefore requiring referral.

A considerable proportion of the respondents seemed to favour self-medication, using preparations which could be potentially dangerous, such as the pain-killer mentioned. In view of this, health inspectors from the clinic should visit the shops in the locality and warn the shopkeepers of the dangers of such medication.

The interviews on health literacy indicated that a considerable proportion of the respondents (14 – 43%) were not able to answer the questions on disease causation. Furthermore, even among those with positive answers, only some of the answers were correct, especially with regards to cough, fever and goitre. 60 – 70% of the respondents were able to associate diarrhoea and worms with the ingestion of contaminated food or water.

Knowledge regarding the spread and prevention of these conditions were also lacking. About 20–50% of the respondents were able to suggest preventive measures such as protection of food, boiling of water and environmental cleanliness, in the case of fever and diarrhoea. There was also some notion that cough could spread *via* the utensils of patients. Less than 30% of the respondents were aware of the role of iodised salt in the prevention of goitre.

The four communicable conditions were linked with more taboos, some of which, e.g. raw or uncooked food and unripe fruits, are sensible. 'Itchy' foods include bamboo shoots, ferns and

cucumber leaves, which are common items in their diets but their absence would not greatly influence intake as there are other vegetables to replace them.

Surprisingly, 'evil spirits' was only reported as a cause of illness by a small number of respondents. The Ibans shared similar concepts of disease causation with the Malays who attribute disease to the supernatural.<sup>6</sup> This finding probably reflects a trend of growing away from traditional concepts of disease causation, towards the acceptance of the modern medical system. This is likely to be linked with the lesser utilisation of the *manang* who is consulted only for conditions attributed to the spirits.

The food taboos for the three vulnerable groups also followed patterns similar to those found in other studies. The post-partum period appears to be the only one subjected to restrictions which are numerous and varied enough to affect dietary intake. This is not surprising in view of their rather monotonous diets, a finding which was reported in an earlier dietary study of the community. Studies elsewhere have also identified this period as one most vulnerable to malnutrition. Among the Malays in the East Coast of the peninsula,<sup>7</sup> adherence to such taboos resulted in diets which were deficient in vitamins and minerals. Bolton<sup>8</sup> also reported that Semai women were not allowed to eat meat from large animals during this period, depriving them of a vital source of protein. On the other hand, the Muruts of Sabah<sup>9</sup> were able to offset the effects of such taboos because of the greater abundance and variety in their food supplies.

In conclusion, the study population experienced a moderate prevalence of morbidity, the bulk of which were mild conditions easily treated by primary health care workers. This will help to defray the cost of medical treatment by cutting down travelling expenses. The interviews on health literacy also showed large gaps in the knowledge of the respondents with regards to the causation, spread and prevention of diseases. Another important finding which stemmed from the study was

the possible deleterious effects of food taboos on the diets of women during the post-partum period.

The answer to some of these problems lie in the training of more primary health care workers, to extend the coverage for the population. In their training, emphasis should be placed on the symptomatic treatment of minor ailments and the ability to recognise conditions which warranted referral. Another important aspect which should be stressed is health education, particularly with regard to disease causation, its spread and prevention. The importance of adequate dietary intakes during pregnancy and the post-partum period should be emphasised and suitable alternatives should be suggested.

The primary health care workers can play an important role in the promotion of health education in the longhouse. Firstly, they are usually members of the same longhouse or at least of a neighbouring house, a factor which enhances the acceptance of their message because of their similarity to the audience. Furthermore, they also have the benefit of longer contact periods with the people, in which to reinforce their message.

Finally the health inspector has an important role to play in investigating potentially dangerous medicines sold in the local shops, with a view to informing the shopkeepers of the dangers involved, to prevent their sale and to offer safe alternatives.

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