

BREAST FEEDING BEHAVIOR AND SUPPLEMENTARY FOOD PATTERN OF VILLAGERS IN UDON THANI PROVINCE, NORTHEAST THAILAND

Sastri Saowakontha¹, Vitasana Chantraphosri², Porntip Kampor², Kingkaew Ketkowitz², Benya Panomratanak², Prasert Thaworndunstit², and Kanchana Nathapindhu²

Department of Medicine, Faculty of Medicine¹; Department of Health Administration, Faculty of Public Health², Khon Kaen University, Khon Kaen, Thailand

Abstract. Breast feeding and supplementary food patterns were studied in 3 villages, of Udon Thani Province in Northeast Thailand. All children of 58 mothers were breast fed. Moreover, 42 mothers (72.4%), advised by health workers, fed their children with colostrum. Those who did not give colostrum believed that colostrum may cause diarrhea.

Fifty-one (87.9%) children were fed Kaw Yam, northeast native food made out of baked chewed banana and sticky rice, within 1-7 days after birth. The mothers believed that the food will fill the child's stomach, and consequently, her baby will stop to cry. Powder milk was also given to the child as supplementary food. A powder milk had a high social value for the mother and also health worker advised them to feed the children with it. Rice porridge was additionally supplemented at the age of 6-8 months until weaning or, at the time when the child had two front teeth. Child's weaning was forced by applying the nipples with local bitter tasting herb.

This study indicates that any health education within a community should be aware of traditional belief and customs of the population. The promotion of proper breast feeding, and the introduction of supplementary food to children should consider traditional beliefs and combine it with health educational means, which will result in a better adoptability of the villagers to the promotion of adequate infant feeding.

INTRODUCTION

The rapid socio-economic changes in the Thai society have affected people's livelihood in both urban and rural areas. In the rural areas almost every village now is linked to the road network and electricity is available, which has resulted in the widespread use of consumer goods formerly only found in the city. In addition the information transmitted by radio and television from the city has changed rural communities from being closed societies into an open society. Urban people are now regarded as peers whom the rural people try to copy. Rural people also now adopt a new set of values which is more self-oriented and competitive, in contrast to the former "traditional" values which emphasized helping each other and had been concerned with the community spirit.

Despite the changes of the society, migration plays an important role in transforming the livelihood of rural communities. The people of north-eastern Thailand are amongst the poorest in the

country. Because of the different workload in the agricultural sector due to the different seasons of the year in this region, a number of men and women migrate from their villages to the big cities during the first half of each year in search of labor and then come back to their village during the planting and harvesting seasons. These people have access to urban life patterns and have adopted to some extent the urban life style even when back in their villages.

Infant feeding patterns are affected by the changing livelihood. However, there is not sufficient information about the changes and factors related to the alteration in infant feeding practices. Therefore, this study aims to describe infant feeding pattern including breast feeding behavior, use of supplementary foods and the sustainability of the traditional infant feeding patterns.

METHODOLOGY

Three villages of three districts of Udon Thani, province of northeastern Thailand were selected

on the basis of two criterias: 1) Long history of socio-cultural development and 2) Ethnically homogeneous, Lao. Both qualitative and quantitative methods were used for data collecting, including participant observation, unstructured and structured interviews.

The investigators were divided into three groups, each groups consisting of 2 scientists. They spent four days a month in the study village for twelve months, beginning in 1988 up to 1989. Participant observation was done by participating in community and family activities as well as observing self-care behavior, breast feeding practices and giving supplementary food. Key informants included village headmen, traditional healers, elderly villagers, monks and group leaders, they were asked about the village history, village customs, and pattern of infant feeding at present and in the past. All pregnant women and those postpartum were asked about breast feeding, weaning, practices and about the provision of supplementary food to their children.

RESULTS

Geography

Table 1 gives important geographic data of the study villages.

Social status and development

People of Bou Gneon have a better economic status than those of the other two villages. Veing Kam village has the lowest income. Bou Gneon village produces more rice than the others. Villagers also have additional income from silk products which they produce throughout the year. The villagers of Vieng Kam gain their income from growing sugar cane and they have additional income from wage in sugar cane plantations in other areas. Despite the fact that the yield from rice production is low in the area, a number of villagers of Tai Sa Wan even have no land for growing rice, and have to rent it. Members of one-third of the households (30) migrate to sugar cane farms in search of labor in the dry season every year.

Culture and beliefs

As villagers elsewhere in the northeastern region, those of Bou Gneon, Tai Sa Wan, and Veing Kam regard the northeastern cycle of monthly ceremonies associated with Buddhist belief and practices (eg Thai new year, entering the Buddhist lent, end of Buddhist lent and Kathin ceremony) as most important. They perform festivals and ceremonies by making merit for happiness and a better life at rebirth.

Villagers of Bou Gneon and Vieng Kam have stronger beliefs in a supernatural powers than

Table 1
Geographic data of the study villages.

Geography	Village 1 Bou Gneon	Village 2 Tai Sa Wan	Village 3 Veing Kam
Distance from district center (km)	12	10	7
Distance from a village health center (km)	5	10	3
Total households	154	92	90
Population (person) :			
Total	996	464	510
Female	460	241	264
Male	546	223	226

villagers of Tai Sa Wan. Almost all villagers of Tai Sa Wan prefer seeking help when their child is sick from the whole spectrum of health delivery systems available, that is from western-medical practitioner up to traditional healers.

Infant feeding behavior

Fifty eight mothers of children aged 0-2 years participated in this study. Eleven mothers (29.0%) lived in Bou Gneon, nineteen (32.8%) in Tai Sa Wan and twenty-eight (48.2%) in Vieng Kam. Child feeding practices were as follows:

(1) All children were breastfed. The mothers believe that breast feeding is a custom that mother have to perform. They also believe that breast milk is of good quality so that there is no need to substitute with powder milk which also is expensive.

(2) Forty-two mothers (72.4%) fed their child with their colostrum while sixteen mothers (27.6%) did not. Mothers who gave colostrum to the children did so because they were told by health workers that colostrum has vitamins to enhance infant's health. In contrast mothers who discarded colostrum were told by their mothers or grandmothers that colostrum will cause diarrhea.

Mothers of Bou Gneon who fed colostrum obtained the information about the usefulness of colostrum while receiving prenatal care at the village health center where as mothers of Tai Sa Wan and Vieng Kam obtained these informations in connection with the delivery of their child at the hospital.

Giving supplementary food

In addition to breast milk, fifty-one (87.9%) children were fed Kaw Yam which is baked chewed banana and sticky rice when they were 1-7 days old. Five (8.6%) children were fed Kaw Yam when they were 20-60 days old and two (3.4%) were fed when they were 3 months old.

All mothers who fed Kaw Yam to their children at the age of 1-7 days believed that their babies cried and they thought that breast milk alone does not meet the needs of the baby. While the babies were given Kaw Yam or milk powder, they slept well and did not cry often. Kaw Yam feeding is strongly encouraged by the elderly to young mothers with

the same reasons *ie* that the babies will not cry because they are full.

Women who supplemented Kaw Yam to their 20-60 days old children said that they tried to give Kaw Yam to their child when they were 4-5 days old but the children did not take it. When their child grew up they tried again.

One woman who gave supplementary milk to her 45 days old child gave the reason that when she delivered to her fourth child, a doctor suggested that she should give her child Kaw Yam or other foods only when the baby is 3 months old because giving Kaw Yam before this age will cause constipation and a 'bad' intestine. She believed the doctor because he is educated. Her first three children were given Kaw Yam when they were 2-3 days old, but the fourth child was given Kaw Yam later. However, before her fourth child was 3 months old (45 days) she started to feed the child with supplementary powder milk (bottle milk) which she regarded to be more convenient to prepare than Kaw Yam. She said that without giving powdered milk her child may be hungry and that she could not tolerate.

Two women of Tai Sa Wan and Vieng Kam believed in doctors' suggestion to give their children Kaw Yam when they were 3 months old.

Types of supplementary food

There are differences in the types of supplementary food and reasons why giving supplementary food among the study villages as follows:

Bou Gneon village

Mothers of nine children gave Kaw Yam and others supplementary food (powder milk) and two mothers gave one supplementary food. The factors which influenced the mother's decision on the choice of supplementary foods had been as follows:

Social value: Powder milk was introduced to this village 3-4 years ago by village health workers. Wealthy families first used it, and other villagers followed because they observed that children who were fed bottle milk, were healthy. Therefore bottle milk had been accepted and is now widely used as a popular supplementary food for all children.

Preparation: To prepare bottle milk is regarded to be very convenient and save time, while preparing Kaw Yam is time consuming and causes the mother to be exhausted. Therefore, bottle milk is now more popular than Kaw Yam. Since powder milk is not available at the village store and because it is quite expensive, in case of financial constraint or unavailability of powder milk the mothers will feed Kaw Yam to their children until they can obtain powder milk again. A number of children have both bottle milk and Kaw Yam as supplementary food.

Two women (18.2%) who gave only bottle milk as a supplementary food gave the reasons that they had decayed teeth and they are afraid that their children would be infected by eating Kaw Yam prepared by them. They also appreciated the convenience of preparing bottle milk.

Tai Sa Wan and Veing Kam villages

All children of Tai Sa Wan and also 93% of children of Veing Kam were fed Kaw Yam. The others were fed Kaw Yam and other supplementary foods. All mothers of these two villages believed that Kaw Yam is a traditional food for infant of good quality. Therefore, they do not need any other supplementary food which is expensive.

Foods for children aged 6-8 months up to weaning age: Information indicates that coming of the appearance of the first two teeth is taken by the mothers as an indicator that they have to change the foods given to their children. At that time the child's foods is changed from Kaw Yam to porridge which mix with a sticky rice, minced pork, vegetables, egg and fish source or salt. Porridge was introduced by village health workers. However, the ingredients used for the preparation of porridge is flexible. It depends upon the available of the ingredients and the economic status of the family.

The reasons for changing children's foods at this age are that the mothers have of the opinion that their children need more food. Breast milk, bottle milk, and Kaw Yam are considered not to be enough any longer. Therefore the children need different supplementary food of greater nutritional value. This is recorded as traditional way that mothers should follow suit.

Generally children aged 6 to 8 months have breast milk and two meals, in the morning and

evening. This pattern continues until weaning. There is no specific weaning age. Some children were weaned at the age of one and a half years, while other children were weaned later. It depends on the children's condition. The weaning method starts with decreasing the frequency of breast feeding and/or bottle feeding. If the children comply in that they do not cry and ask for milk, they will no longer receive breast or bottle milk. If the children have a number of teeth already but still cry for milk, they are forced to wean because the mother is afraid that the children's teeth will hurt her nipples. A mother applies a kind of bitter tasting herb at her nipples during feeding. This is causing the child to reject sucking and he/she can wean.

DISCUSSION

Factors of feeding behavior

Learning experiences from the outsiders: Informations given by health workers and urban life pattern has an influence on infant feeding behavior. For example, now a number of women recognize the important of giving colostrum to their baby. Their beliefs about colostrum have changed because they believe in western medical knowledge that is transferred to them by health workers. Seventy-two percent of mothers, who participated in this study, gave colostrum to their children. However, there are still mothers who follow 'traditional' practices, especially in giving Kaw Yam as a supplementary food to children in an early age (1-7 days), and is not giving colostrum to their children as in the case of 28% of mothers.

Economic status

Since powder milk is regarded as a modern and convenient preparation, bottle feeding is popularly used as a supplementary food. However, because of the high cost of powder milk not all families can afford to feed it to the child constantly.

This also applies to the preparation of porridge. If the family has enough money, the mixture of porridge would include pork, vegetable, egg and fish source or salt. In contrast, the mixture of porridge contains only rice and fish source or salt in times money is lacking.

Influence of kinship

According to the northeastern and Thai culture, in general, seniority is highly respected. This especially applies to elderly relatives such as grandmothers, and grandfathers. The transmission of knowledge and practices toward infant feedings such as discarding colostrum, giving Kaw Yam and weaning by using a bitter herb, has been continued for generations. It is expected that the young mothers follow those traditional ways of child raising.

CONCLUSION

It is obvious that infant feeding behavior of the three villages of northeastern Thailand surveyed, is changing. Both the 'traditional' culture and the 'modern' knowledge are combined. The beliefs of the effectiveness of Kaw Yam and the uselessness of colostrum that are belonging up to the 'traditional' culture still remain but also modern practices such as bottle feeding and giving nutritive porridge are accepted by villagers. Therefore, the majority of children in the studied villages were fed in both the traditional and modern way.

It can be argued that the remaining of 'traditional' beliefs in relation to infant feeding is influenced by the high value given to seniority and moral integrity. Accepting a new way of infant feeding is the result of the efforts of maternal and child health services and a social value, which considers that 'modern' is better than 'tradition'. However, the economic status also influence the choice of infant feeding. Powder milk and nutritive porridge are expensive, contrary to making Kaw Yam. Even though a mother believes that giving Kaw Yam in a traditional way is inappropriate and nutritive porridge is a better food, she cannot afford to feed her child with the porridge and bottle milk if she is poor.

The information provided by this study will give health workers a better understanding of infant feeding behavior in the village. It will help in providing health education services in that traditional beliefs and customs are also considered. Health workers should observe the traditional value of seniority and moral integrity as an important issue to encourage changes in infant feeding

behavior. The introduction of supplementary foods such as powder milk and porridge must be linked to the villagers economic status and the availability of local products. The right way of bottle milk preparation and application for making nutritive porridge must be introduced.

Health workers should adopt a positive attitude toward 'traditional' customs. Not all of the traditional knowledge and practices are harmful or out-of-date. Breast feeding and giving Kaw Yam are good examples for traditional feeding practices. It is proved that breast milk is best for young children. It serves both the biological and the psychological needs. Kaw Yam itself is not harmful as long as it is baked and cooked but it should not be given at a very young age. It is a challenge for health workers to encourage breast feeding and to change villagers' practice on giving Kaw Yam at an appropriate time.

ACKNOWLEDGEMENTS

We are very grateful to the Canadian International Development Agency (CIDA) and the Research and Development Institute of Khon Kaen University for funding and academic support of this study. We are grateful to Dr Youngyout Kachondham and Dr Komart Chuengsathinsap for their kindly advice and fruitful suggestions. We also thank Mr Sanchaisuriya, Faculty of Public Health, and Dr Siriporn Chirawatkul, Faculty of Nursing, Khon Kaen University for their criticism and the preparation of the manuscript. We are thankful to Professor Frank P Schelp who read and helped in correction of the manuscript.

REFERENCES

- Chandraphosri V, Saowakontha S, *et al.* Self-care behaviors related to pregnant and lactating women in rural community, northeast, Thailand. In: Sringeriyueng L, and Hongvivat T, ed. Strategy for Self-Health Care Bangkok : Faculty of Social Sciences and Humanities, Mahidol University, 1990; 234-59. (Thai). (Monograph Series 8).
- Hutanuwatr K, Prabnasak B, *et al.* Model for Improving Food Habits of Villagers in the Upper Northeast of Thailand. *J Nutr Assoc Thai* 1990; 24 : 22-37 (Thai).
- Hutanuwatr K, Saowakontha S, *et al.* Food habits of upper Northeast villagers *J Nutr Assoc Thai* 1988; 22 : 235-78 (Thai).