

PUBLIC HEALTH SIGNIFICANCE OF CHILD FEEDING PRACTICES OBSERVED IN A GUATEMALAN VILLAGE

by

NANCIE L. SOLIEN, M.A.,* AND NEVIN S. SCRIMSHAW, PH.D., M.D.

(Institute of Nutrition of Central American and Panama (INCAP), † Guatemala, Central America).

It is now recognized that protein malnutrition is a major cause of the high death rate among children of pre-school age in under-developed areas. Many efforts are therefore being made to change traditional practices in the feeding of young children. These usually consist of educational efforts to promote the use of suitable foods already available in the community or the attempted introduction of new food products. In either case it is important to understand the beliefs which underlie the inadequate feeding practices, and the attitudes which are unlikely to develop toward the proposed changes. These are frequently totally unexpected and may appear irrational to the health worker. Nevertheless, failure to take them into account may, and frequently does, result in the failure of efforts to bring about the desired changes in dietary practices.

Field studies conducted by INCAP in rural Indian communities in the Guatemalan highlands have disclosed similar difficulties in the introduction of scientific medical practices (ADAMS, 1952). They have also furnished examples of the specific problems encountered in nutrition education in this area, the patterns of prejudice regarding foods for infants and attitudes toward attempted changes. In this presentation findings from field studies in Santa María Cauqué, a Cakchiquel Indian (Mayan) village in the Guatemalan highlands, are discussed to illustrate these patterns of prejudice.

SANTA MARIA CAUQUE AND ITS FEEDING PRACTICES

The village is located at an altitude of 6,000 feet and a distance of 50 kilometers by paved road from Guatemala City, and has a population of approximately 750. Most of its families have small plots of land on which they grow corn and some vegetables. The latter are largely sold in the market in Guatemala City. It is a poor village with a relatively high morbidity and mortality from protein malnutrition in its severest form, kwashiorkor. The village is the site of an experimental distribution of milk to pregnant women, lactating mothers, infants and pre-school children.

* Fellow in Anthropology, University of Michigan.

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People in Santa María feed their children well not to make them healthy, but because they are healthy. A good appetite is associated with health ; however, a child is not forced to eat a food he resists since his likes and dislikes are respected. Almost any degree of sickness, however, results in the withdrawal of part of the food from his diet. Unfortunately for the child this is most often the part of his diet furnishing protein of good quality and may include nearly all of his protein of any sort. Thus, a child who has been receiving meat and milk along with beans and tortillas, will, if he develops diarrhoea, have these withdrawn from his diet, and be given instead an *atole*, or gruel, consisting almost entirely of carbohydrate. In Santa María Cauqué this may either be made from corn starch or simply consist of the cooking water from corn or beans.

Protein-rich foods are also likely to be eliminated from the diet of a child who develops any of the signs and symptoms which the mother attributes to the presence of worms. These include not only diarrhoea but also vomiting, irritability and anorexia. Meat and milk are regarded as particularly dangerous because of their effect in stimulating the worms, or "causing them to rise." Repeatedly, informants speak of foods to be *avoided* when certain symptoms are present, but the concept of some foods being especially good for children seems largely to be lacking.

Nevertheless, most cooked foods are assumed to be digestible unless specific circumstances indicate otherwise. Food is not considered a direct cause of either sickness or health ; rather there are varying degrees of tolerance of different foods. The variables involved may include age of the child, time of year, time of day, and personal idiosyncrasy as well as the state of health. Even during pregnancy and the post-partum period, foods are selected carefully not because of their positive health-giving qualities, but because they will not "hurt" the mother or the child (through the mother's milk). Thus, "harmful" foods are excluded, "harmless" ones permitted.

In time of sickness, the body must be protected from possible harm by excluding foods for which the patient is believed to have an intolerance. To the health officer, there appears to be no scientifically rational basis for determining these foods. Indeed, the mother may withhold those very foods which would bring about the most rapid recovery of her child. It has been noted time and again that the child with kwashiorkor may be deliberately deprived of meat, milk or eggs and instead given foods containing almost no protein. Under these circumstances, death is inevitable except in the rare case when the child is hospitalized in time and given the necessary protein-containing foods. The problem is further complicated by folk concepts of medical treatment. Purgatives are a popular remedy for any type of diarrhoea ; they are apt to be administered to the child with acute kwashiorkor because the parents believe this to be the correct treatment for his diarrhoea. Since kwashiorkor may be precipitated by the added protein loss from diarrhoea of infectious origin, it is particularly tragic that such a child is not only deprived of animal protein but also frequently given strong purgatives which accentuate the diarrhoea and the consequent protein loss.

A new food for infant feeding, whether it be dried skim milk or a vegetable protein mixture, will win acceptance for well children if it is liked by them and if its use is not associated with any consequences which the parents regard as unfavourable. If, on the other hand, the child does not like it, or if vomiting, diarrhoea, or pains of any sort coincide with its introduction, the new food will no longer be given. Interestingly enough, however, if these experiences are rare, there is little tendency to generalize. The mother may simply conclude that it is not good for one of her children and still continue giving it

to the others. Similarly, the fact that it is supposed to have made a neighbour's child sick, will not necessarily prevent her from giving it to her own child.

While such an attitude may have some advantages for the health workers, it has led to certain difficulties in establishing a demonstration programme of milk distribution in Santa María Cauqué. Favourable experience in other countries or even in other Guatemalan communities was not accepted as proof that the milk would be good for the children of this village. It should be noted, however, that the educational efforts to teach the value of milk have not been systematic. Although at the present time the milk is fairly well accepted, there still are many who refuse it. There are entire families who consider that milk is not good for them, and sometimes the parents have decided that the milk is not good for one particular child in a family.

In Santa María Cauqué, thus far, the effort to persuade people that milk should be given to children because it improves and maintains health has been a failure. Nevertheless, the milk is accepted for other reasons. Most of those who are taking it are doing so because they like the milk and because it agrees with them, and not because of any conviction that it is good for their health or will prevent them from getting sick. In addition to a liking for the milk, the desire to co-operate with personnel responsible for its distribution, the social aspects of coming together to receive it, and the fear that treatment in the medical clinic will be denied to those refusing milk have all contributed to its acceptance.

An alternate method of introducing milk, vegetable protein mixtures or other new foods would be their promotion as medicine. The food could be recommended as good for the signs of kwashiorkor, for the symptoms attributed to worms and even for diarrhoea. We feel, however, that this would be unwise because it would limit the initial distribution to more or less ill persons and thus fail in the primary objective of prophylaxis. Furthermore, it would probably be withdrawn when the symptoms had disappeared without accomplishing the desired changes in feeding practices.

DISCUSSION

There is ample reason to believe that the attitudes and practices noted here are by no means restricted to the village of Santa María Cauqué. FLORES (1956) in dietary surveys in other Guatemalan villages, has noted the way in which certain items, often of good nutritive value, are withheld from some children and not from others for reasons which are inapparent or seemingly insufficient. FREEDMAN (1955) emphasized the tendency in both a coastal farm and a highland village of Guatemala to eliminate solid foods from the diet of the child with diarrhoea. She also noted the strong prejudice against meat, milk, eggs and sometimes fruit when the presence of worms is suspected. ADAMS (1952) has pointed out similar attitudes in the nearby community of Magdalena Milpas Altas, where the taking of food is associated with health and the use of herbs with sickness. WELLIN (1953) states that to the people of the Ica Valley in Peru, the most important considerations in determining whether a food item can have or has had deleterious effects include the "combination of foods, sequence in which eaten, quantities of the items consumed, time of day, age of the eater, and specific body-state enjoyed at the moment by the eater." In Santa María Cauqué as in Magdalena and the Valley of Ica, the acceptability of foods depends more on the individual and his condition at the time, rather than on general rules as to foods which are good or bad for health.

KELLY (1953, 1954) has indicated in her conclusions from studies in several villages in the area of La Laguna in the north of Mexico, that relatively little attention is paid to the differences among various foods when the person is healthy, but that these become very important when the person is sick. HUENEMANN (1954a, 1954b ; 1955) reports the belief in Peru that the child's stomach is not fully formed during the first year, and thus cannot handle certain foods. Nevertheless, the appropriateness of various foods and the time at which they are first offered vary greatly with each individual. Most mothers studied by her had no clear concept of those foods which were good and those which were bad for children in general, but rather seemed to depend on individual experiences. Neither was there a concept of special needs for the young child ; normally he was offered the same foods as the rest of the family after about one year.

As FOSTER (1952) has suggested, the patterns of belief in Latin America appear to have a common historical background, so it is dangerous to generalize these specific observations to other populations with a high incidence of malnutrition outside this area. We feel, however, that in addition to this historical background, many of the general attitudes here described may be functionally related to the slight degree of Westernization* involved, and thus may also be found in other parts of the world. Our results in Central America indicate that health workers cannot assume that their assessment and explanations of the value of a food will necessarily be accepted by the people. This is well illustrated for non-Latin American areas by JELLIFFE (1955) in his monograph on infant nutrition in the sub-tropics and tropics when he states :

“ Nor is it much use reasoning from what European children do or even producing visual proof of their healthiness ‘ because they eat this or that ’. European children are European children and ‘ entirely different ’ from Ganda, Tamil, or Malay children. ‘ *Dia anak Melayu, miste ada chaching* ’ (‘ She is a Malay child, she must have worms ’) — it cannot possibly have anything to do with what one does or does not do, it is just part of being a Malay. The fact that a European child eats fish and eggs, and yet does not have worms is not at all comparable.”

Most people react favourably to the demonstration that a medicine or a food given as a medicine will cure an illness by readily accepting its use for this purpose. It is far more difficult, however, to introduce the concept of *food* for the prevention of illness, and exceedingly difficult to prove to the satisfaction of a primitive or peasant community, that a food or foods will actually help to maintain health. In many cases, a plan to introduce a new food about which there are no prejudices can be far more successful than a programme stressing the value of meat, milk and eggs. These latter foods are not only expensive, but are surrounded by a complex of ideas and attitudes which are difficult, if not impossible, to change in a short period of time. It is not that these attitudes will never change, but they are more likely to change slowly as a part of a general trend toward Westernization than by a direct attack on deeply rooted beliefs. This applies, of course, not only to the acceptance of food, but to the introduction of therapeutic and prophylactic techniques in general. CAUDILL (1953) summarizes a large

* The terms “ Western ” and “ Westernization,” as used here refer to that type of civilization which, though having its roots in ancient Greece and Rome, developed in Western Europe during the 16th, 17th, and 18th centuries, and from there has gradually spread in its general features, to many parts of the world. It is not meant to refer to any particular country or region, but rather to a group of general cultural characteristics.

number of studies by concluding 'that new methods of treatment will probably meet with more success than attempts to influence ideas concerning the cause of disease.'

Although this suggestion is contrary to accepted nutrition education practices, it would seem easier and more effective in many cases to emphasize that there is nothing *harmful* in a new food rather than to depend on assertions of its positive value to ensure its use. Certainly, it is not always necessary for the people to understand the educator's basis for promoting a procedure which will be effective in improving their health. Vaccination against small-pox and iodization of salt for the preventive of goitre are examples of public health measures which are effective, even though they are frequently not understood by the people benefitted.

When the changing of existing attitudes toward the use of foods is sought, however, the real nature of these beliefs and attitudes should be understood by the health or nutrition educator. He must not assume that the people know nothing about foods and that it is his job to fill this void with knowledge. Actually, all cultures have a complex of positive beliefs regarding food, and failure to recognize their existence and their strength is likely to result in the failure of the project. It has been strongly recommended that a world-wide attack on the problem of protein malnutrition and other nutritional diseases be made (FAO/WHO, 1955 ; PRINCETON CONFERENCE, 1955). As part of this effort further studies of the beliefs and attitudes underlying food practices in under-developed areas should have great practical value.

SUMMARY

The beliefs and practices regarding child feeding in a small rural Guatemalan Indian village contribute to the inadequacy of the diet. The concept of special food needs for the health of young children is almost non-existent. There is a strong tendency to avoid giving them foods of animal origin because these are thought to stimulate worms, and to withdraw protein-containing foods almost entirely when diarrhoea develops for any reason. For short-term results it may be easier to introduce a new cereal product for the supplementary and mixed feeding of infants and young children than to overcome the prejudices surrounding milk, eggs, meat and similar foods. "Food" and "medicine" are completely distinct concepts in the culture studies, thus making it difficult to encourage the use of food to regain or promote health.

Similar beliefs should be looked for in communities of comparable socio-economic development in other parts of the world. Where such attitudes are apparent, it is suggested that attempts to introduce a new food will be more effective if they stress its "harmlessness" rather than its benefits. Palatability, availability and cost will then become the primary criteria for initial acceptance. It is particularly important that the health or nutrition educator attempting to change food habits understand the real nature of the beliefs underlying current feeding practices, and not assume that the people have no previous concepts regarding foods.

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