Dietary habits and obstetrical service utilization by pregnant and lactating Tai Dam women in central Iowa

by

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INTRODUCTION

All over the world, pregnancy and lactation are considered to be periods of vulnerability to the well-being of both mother and child. These are times when women in many cultures often are thought to possess supernatural powers, or be influenced by them. In most cultures food is equated with health, and although there is an enormous range of diversity, dietary precautions are commonly followed in order to promote a healthy pregnancy and insure successful lactation.

Cross-culturally the physiological, metabolic and psychological requirements of childbirth are met differently. In the United States, for example, the emphasis on nutrition cautions against the use of alcohol and certain medications, while encouraging the consumption of milk, protein-rich foods and vitamins. In other cultures, dietary restrictions may be influenced by the belief that certain common foods cause specific maladies. For example, Tamilnad women of South India believe ingestion of fish will produce fits in the child (Ferro-Luzzi 1973). In other cultures, precautions are based on the belief that a balance of foods containing "hot" and "cold" qualities is essential. In rural Latin America, pregnant women avoid many foods with "hot"

qualities. Similarly, traditional Chinese women demonstrate this principle by avoiding the overuse of hot spices in their diet (Wheeler and Tan 1983).

Regardless of the cultural reasoning behind dietary alterations, nutrition during pregnancy affects the health of both mother and child. For health officials who wish to provide traditional ethnic women with pre- and post-natal care, familiarity with the cultural differences between physician and patient can ease communication and provide more successful health care.

The purpose of this study is to investigate the nutritional and medical worldview of Tai Dam refugee women living in central Iowa, and obtain previously unavailable information on their traditional belief system. Specifically, it focuses on perceptions of pregnancy and lactation, dietary beliefs which affect the foods consumed during these stages of the female lifecycle, and provides an assessment of the health implications to Tai Dam women. Attitudes toward breast versus bottle feeding in the Tai Dam community also will be investigated. Physician/patient communication will be addressed, particularly in terms of how cultural traditions might inhibit the utilization of available health care during pregnancy. Finally, this paper will consider the roles of social change and

assimilation, as they affect the traditional health practices discussed in this study, and suggest implications for future generations of Tai Dam Americans.

THE REFUGEE SITUATION

Since the fall of Saigon in April 1975, close to 700,000 Southeast Asian refugees have entered the United States (Iowa Refugee Service Center, IRSC 1984; Tomasi 1984). These refugees belong to many ethnic subgroups including Chinese, Hmong, Black Thais, Nung, Lowland Lao and Tai Dam (Dinh 1979; IRSC 1984). Upon arrival in the United States, the majority of these people settled along the west coast, particularly in California and Washington where they first landed, and where there was already a significant Asian population and favorable climate (Andrews and Stopp 1979; Chuong 1981; Tran 1976). While these states continue to have the largest numbers of Asian refugee families in America, the state of Iowa is unique in that it has over 90% of the Tai Dam people living in the United States (Chuong 1981; IRSC 1984).

The Tai Dam people originally inhabited an area in Northwest Tonkin (in northern Vietnam), called the Tai Federation, or Sip Song Chou Tai. Although they resided within the geo-political borders of Vietnam, like a number of other distinct ethnic groups they lived apart from other Vietnamese citizens, maintaining their own language and culture. Although never recognized as such by the colonial

powers, between 1947 and 1954 the Tai Federation actually was established as an autonomous country (Bac Cam, 1975).

With the beginning of the Vietnamese nationalist struggles in the early 1950s, and because of unrest in the countryside, many Tai Dam left Sip Song Chou Tai to relocated in Hanoi. Because the Tai Dam fought against the Vietmin alongside the French (IRSC 1984), with the surrender of Dien Bien Phu and the establishment of the Democratic Republic of Vietnam in 1954, the Tai Dam felt compelled to request sanctuary in Laos. There, they congregated in Xieng Khouang province, many eventually moving to the capital, Vientienne (Bac Cam 1975; Crisfield n.d.).

In early 1975 with the fall of Saigon and then Vientienne, the Tai Dam again were forced to flee their homes in Laos and seek assylum in Thailand. Because of their active opposition to the communists, the Tai Dam could not foresee receiving fair treatment under the new regime. In addition, the Tai Dam had never been granted Laotian citizenship, and there were expectations of oppression and political reprisals from the new government in power (Bac Cam 1975; IRSC 1984).

Many Tai Dam families fled across the Mekong River into Nong Khai, Thailand, where they settled in refugee camps operated by the Thai government. However, the

continuation of political hostilities in that area of the world forced the Tai Dam to seek shelter elsewhere. They appealed to all nations of the free world for acceptance into their countries. The first to respond to their plea was the state of Iowa, under recommendation of then governor Robert D. Ray (Crisfield n.d.; IRSC 1982, 1984).

In September 1975, the Governor's task force for Indochinese resettlement was created. The Iowa Refugee Service Center, as it was later called, in cooperation with the U.S. Department of State, resettled approximately 1,200 Tai Dam refugees in the state over a period of two years. By 1979 an additional 2,000 Indochinese refugees arrived in Iowa, several hundred of whom were Tai Dam who had relatives already living in the state (IRSC 1982).

Today there are approximately 2,500 Tai Dam living in Iowa, many of whom have congregated in the larger cities of Des Moines and Marshalltown. Despite the harsh and unfamiliar winters, most Tai Dam have chosen to remain here because of close family and community ties. In fact, at present there are only 500 or so Tai Dam located in any other part of the country (Baccam, 1984).

STATEMENT OF THE PROBLEM

Since their arrival in the United States, the Tai Dam, like other Southeast Asian refugees, have adjusted to a variety of new cultural traditions, many of which are quite different from previously familiar ones. While language barriers represent an obvious obstacle to the adjustment process, the Tai Dam have dealt with many other changes as well. One area of social change has involved the need to reconcile their perception of a medical worldview that often is at variance with the belief system of the dominant culture. At times this has led to much misunderstanding, and frequent acrimony, as physicians and refugee patients attempt to solve health problems.

Often, western trained physicians and other health officials who assist the Asian refugees, are not familiar with Indochinese curing systems, just as many Indochinese have had little or no exposure to western medical practices. Mutual concerns for adequate health care may be impeded on both sides by this lack of exposure. An Indochinese patient unfamiliar with allopathic medicine may view the physician's actions and suggestions as suspicious, confusing or even offensive (Smith 1982). Obstetrical encounters may increase misunderstanding on both sides. Since Indochinese do not regard pregnancy as an illness, a

physician's medical exam often is perceived as violating the woman's privacy and endangering the health of the fetus (Baldwin 1981). The likelihood of a return visit is lessened by such unsettling interactions. Further, as Bell (1984) points out, many refugees simply are not used to the whole concept of preventative medical care, never having been part of the western medical system before coming to the United States. This situation underscores the importance of efforts to understand the way in which Inochinese do or do not interface effectively with the American health care system.

In the area of nutrition, one important component of the overall health picture, there appears to be a need for increased awareness of Indochinese dietary habits by health practitioners. The average Indochinese adult consumes less than two-thirds the calories of an average Euro-American. Thier diet in Southeast Asia was, for the most part, qualitatively adequate, but quantitatively deficient (Tong 1981). Many of the refugees spent up to four or five years in refugee camps and a number suffered from malnutrition prior to their arrival in the U.S. (Haines 1983; Hurlich 1981). In mid-1977 a nutritional study done for the Center for Disease Control, concluded that low-stature-for-age children were prevalent among the Indochinese (Tong 1981). Specifically, problems such as anemia, protien-energy

deficiency and stunted growth were observed in the Asian refugees when they first arrived in America, particularly in the women and children (Erickson and Hoang 1980; Haines 1983; Tong 1981).

While the health status of the incoming refugees did require the attention of medical professionals, in spite of the difficulties disscussed above, most refugees were in generally good health. Considering the diversity of social background and the traumas of war and the refugee camp experience, it is noteworthy that there did not surface any untreatable public health problems (Ellis 1980; Haines 1983; VanArsdale and Pisarowitz 1980). Serious health and nutrition problems tended to be individual rather than group related. These included problems of malnutrition, anemia and dental decay (Erickson and Hoang 1980; Tepper 1980).

Follow-up nutritional assesments have been made on selected groups of Indochinese refugees, and the findings indicate that, for the majority, dietary intake in America is adequate (Hurlich 1981, Kohn 1981, Tong 1981). In accordance with traditional Asian food preferences, the Indochinese consume much rice, chiken or pork and fruits and vegetables. On the average there is less fat, sugar and alcohol consumed in their diet than for a typical Euro-American (Kohn 1981).

Focus of the study

This study focuses specifically on Tai Dam women, and on the concern for medical therapies which are culturally relevant and functional. The concern for traditions is relevant especially for Tai Dam women who, based on data from our study, tend to be less well educated, less likely to work outside the home, less proficient in English and less assimilated in general into Euro-American culture than the other members of their family. Misunderstandings about medicines and nutrition can have a great impact on the health of these women. This is particularly true during pregnancy and lactation, as these are times of increased nutritional needs and vulnerability to the health of both mother and child. For Tai Dam women, perceived inflexibilities and impersonal attitudes of the medical community can constitute real obstacles to successful pre- and post-natal care. Knowledge about traditional Tai Dam beliefs concerning maternal health and food habits, potentially can assist health care officials in promoting nutritonal education which will be more readily utilized by the Tai Dam, and counseling these women in linguistic and cultural terms they will understand.

LITERATURE REVIEW

To understand the traditional medical worldview of Tai Dam women, and to assess the likelihood of their successful integration with medical facilities available to them in the United States, it is necessary to be aware of the health philosophies and beliefs which are prevalent in their homeland. Very little literature is available which addresses this topic in relation to the Tai Dam specifically. However, by reviewing the literature which comes from the larger geographical area of circum-Southeast Asia (China to Malaysia, India to Vietnam and Korea), a general pattern emerges. Accessibility between these countries through history has resulted in the integration of many similar over-all health philosophies. Specifics vary between countries and ethnic groups, but underlying beliefs such as humoral balance are widespread. The Tai Dam come out of this same Asian tradition, so that certain patterns found in the literature for this area of the world appear applicable, relevant and germane to their ethnic group.

Hot/cold humoral balance

Perhaps the single most all-encompassing medical tenet of traditional cultures is the belief, to some degree, in the prevalence of humoral pathology. This worldview, whose exact historical roots are somewhat unclear, is found in much of the Old World, from insular Southeast Asia to Mediterranean Europe. In Asia it appears this worldview has grown out of the 4,000 year old Chinese philosophy of yin and yang, opposites of male and female, light and dark, hot and cold (Leslie 1976; Tepper 1980; Tripp-Reimer and Theiman 1981; Tung 1980). A true precursor of holistic medicine, the qualities of yin and yang inhabit all manner of physical objects, including people and the foods they eat. To maintain health and a harmonious relation to the environment, these body humors should be in balance within any given individual. The importance of this hot/cold balance is integral not only to perceptions of illness, but to other physiological states as well, such as pregnancy, parturition and lactation. The classification of foods as hot, cold, windy, tonic or neutral is based on their physical effects on the body as well as the intrinsic nature of the foods (Manderson and Mathews 1981b). This system of hot and cold equilibrium revolves primarily around naturalistic health problems believed to be relieved

through special diets and herbal medicines, but is often intertwined with personalistic and animistic concepts of disease causation and curation (Foster 1976; Leslie 1976; Tung 1980).

Since pregnancy and lactation are vulnerable states associated with uncertainty and potential danger, the stress on the woman, both emotionally and physically, is interpreted as a condition in which her humors are out of balance. To restore her body's equilibrium, elaborate food taboos and prescriptions are encouraged, as well as proper, socially mandated behavior. Even people with similar backgrounds often hold divergent views with regard to appropriate pregnancy behavior. Thus, there may be variations concerning the exact types of diets and rituals to which an expectant mother should adhere (Hart et al. 1965). Despite the individual discrepancies concerning food identification as hot or cold, in general, "cold" foods fall in the vegetable and fruit category while "hot" foods tend to be high protein meats, fats, sugars and high carbohydrate foods (Hart et al. 1965; Manderson and Mathews 1981b; Muecke 1983; Tong 1981).

Maternal and infant health beliefs

Throughout Chinese-influenced areas of the world, Korea and China down through Malaysia, there is generally more concern with the health and balance of the mother during pregnancy than there is with the well-being of the fetus (Hart et al. 1965; Manderson and Mathews 1981a; Sich 1981). Although there is a relationship between the mother's health and that of the baby's, traditional Chinese philosophy dictates that much of what happens to a child during pregnancy is determined by the stars, the cosmos and former lives. Thus, fetal development and how a pregnancy progresses, traditionally is felt to be out of the realm of human control (Leslie 1976; Sich 1981; Tan and Wheeler 1983; Muecke 1976). Because of this, many Asian women alter their lives very little during pregnancy. For these women, it is important to note that perhaps the factors involved here have as much or more to do with socio-economic status than ethnic affiliation and medical worldview. As Arroyave (1975) reports for Central America, food taboos and prescriptions for pregnancy, or for that matter any alteration in the diet, are less likely to be seen in women who are very poor and cannot invest the time and resources in attention to special diets.

Nevertheless, concurrent and seemingly opposing beliefs held by many women regard the role of the mother as an active determinant of her child's destiny (Hart et al. 1965; Manderson and Mathews 1981a, 1981b). The exhibition of good moral behavior by the pregnant woman is believed to positively affect the health and temperament of her unborn child. Special prayers and offerings made to potentially harmful ancestor spirits also will help to insure a productive and healthful future for her offspring (Ellis 1982; Hart et al. 1965). Specific food taboos also may be enacted to avoid unhappy consequences for the fetus. In rural Vietnam, for example, mollusks should be avoided lest the child grow into someone who is continually ill; dog meat cannot be consumed or the child will be mute (Hart et al. 1965). Eating rabbit will produce a cleft palate in the child, while too much coffee will cause dark skin (Manderson and Mathews 1981a). Adherence to and belief in these taboos varies between individuals, but knowledge of them is widespread (Hart et al. 1965).

Stages of pregnancy and appropriate diet

There is a general belief throughout most of traditional Asia that during the beginning or first trimester of pregnancy, the woman is in a "weak" or "cold"

state. As the pregnancy progresses, her state becomes hotter, perhaps passing through a neutral phase in the second trimester. By the end of the pregnancy she is in an extremely hot state which is dissipated after birth when again she enters into a tremendously cold and vulnerable state (Manderson and Mathews 1981b; Pillsbury 1978; Sich 1981).

During this hot to cold to hot progression accompanying pregnancy, the woman should consume certain foods to offset the body's imbalance and maintain her health. Hot foods consumed during the early cold stage of pregnancy include items such as meats, coffee, alcohol, fat and sometimes vitamins (Manderson and Mathews 1981b; Pillsbury 1978; Tung 1980; Wheeler and Tan 1983). In Vietnam, some of these hot food items are labeled as "tonic" food and considered as medicines to give the baby food energy, to increase blood volume, and to maintain the mother's health (Hart et al. 1965; Manderson and Mathews 1981a, 1981b). Thus, tonic foods are taken through the entire course of the pregnancy, but taper off during the last trimester since it is a hot state for the woman and too much ingestion of this fetal food energy could produce a large child and result in a difficult delivery (Hart et al. 1965; Manderson and Mathews 1981b; Tong 1981; Tung 1980).

During the hot stage of late pregnancy, cold foods such as fruits and vegetables should be consumed in large quantities, as well as neutral foods such as rice, chicken and some fish (Ferro-Luzzi 1973; Manderson and Mathews 1981b; Wilson 1973). Some "wind" foods such as seafood and buffalo may be avoided because of associations with convulsions and allergenic reactions (Manderson and Mathews 1981a). Despite these general rules, there is always individual variation in adherence to any traditional belief about proper and improper foods for pregnancy. In fact, most women do not achieve the ideal, observing only a few taboos on an almost arbitrary, personal basis, usually limiting improper foods rather than eliminating them, or combining hot and cold foods to render them neutral or less harmful (Ferro-Luzzi 1974; Manderson and Mathews 1981b; Messer 1981; Tan and Wheeler 1983). The fact that the foods permitted during pregnancy far outnumber those which are restricted, indicates that nutritional needs can be met within the confines of these special pregnancy diets (Manderson and Mathews 1981b).

Parturition practices

In traditional Asia, there is often a concern that the fetus will grow too large in the womb and cause a difficult

delivery (Ferro-Luzzi 1973; Manderson and Mathews 1981b; Sich 1981; Thomas and Tumminia 1982; Tong 1981). Much folk wisdom has evolved, describing how to avoid this situation. Even for women who believe that pregnancy is primarily in the control of supernatural forces, this is an area where the woman can exert some direct intervention through hard physical labor, as in the case for women in rural Korea (Sich 1981), or avoidance of certain foods like eggs for Tamilnad women (Ferro-Luzzi 1973). In Vietnam, ingestion of hot, tonic foods, usually high in protein and calories, is believed to increase the infant birth weight and thus should be avoided towards the end of pregnancy (Manderson and Mathews 1981b; Thomas and Tumminia 1982; Tong 1981).

Midwives or other female relatives are the preferred birthing participants in Southeast Asia (Ellis 1982; Hart et al. 1965; Mathews and Manderson 1981; Muecke 1976), particularly for rural and less educated women. During delivery the woman should not cry out or express any signs of distress. Calm demeanor is believed to contribute to an easy delivery (Ellis 1982; Hart et al. 1965; Manderson and Mathews 1981b). Stoic behavior of this nature is exhibited through most of the pregnancy and results in many seemingly "sudden" deliveries as the pregnant woman continues her activities through much of the labor process and discusses her condition with no one (Ellis 1982; Hart et al. 1965).

Traditional remedies to ease the stress of delivery often include the use of special herbs or teas, and a squatting position for the mother. The presence of family members is also common (Hart et al. 1965; Muecke 1976, 1983).

Post-partum diet and behavior

After the birth of a child, rural or traditional Asian women are considered to have lost vital breath, blood and heat. To re-establish lost heat, heavy clothing and blankets are worn and small fires are often built under the woman's sleeping platform (Ellis 1982; Hart et al. 1965). Since women are by nature cold (yin), they become highly susceptible to cold diseases and "the wind" which can get into the joints and produce arthritis and rheumatism in old age (Mathews and Manderson 1981; Pillsbury 1978; Sich 1981). Because of these conditions, the new mother must avoid chilling drafts and in some cases regular bathing is forbidden or restricted for an extended period of time (Ellis 1982; Hart et al. 1965; Manderson and Mathews 1981b).

Throughout much of traditional Asia, there is a period of confinement and convalescence after birth which is accompanied by dietary prescriptions and taboos. The post-partum period is an unhealthy time for a new mother and requires that she regulate food intake to insure that she

will regain strength and health. Rural Korean women are covered with blankets and kept warm for at least one week after parturition. They eat primarily seaweed soup and rice which is believed to be the only food a new mother can tolerate (Sich 1981). In Malaysia, there is a 40 day confinement period and an avoidance of cold foods such as fruits and vegetables. The woman may rest on a "roasting" bed, a platform with a fire below, to keep her warm and dry up the blood from delivery. Rice, fish and coffee are the primary foods consumed (Wilson 1973). Chinese women are encouraged to eat hot foods such as chicken, liver, kidney and eggs (Pillsbury 1978). In Vietnam, a small charcoal fire may be placed under the new mother's bed while she observes a period of rest ranging from one week to three months (Hart et al. 1965; Mathews and Manderson 1981; VanDeusen 1980). Consumption of hot and tonic foods will be encouraged while cold foods, including many fruits and vegetables, may be prohibited from the nursing mother's diet (Hart et al. 1965; Manderson and Mathews 1981a; Mathews and Manderson 1980, 1981). Among Lao Hmong, women are traditionally restricted to rice soup and hot water for one month (Tong 1981). Many such post-partum diets increase the risk of malnutrition and disease to both mother and child.

Infant feeding practices

Rural Asian women traditionally breast feed their infants from one to two years, and sometimes for as long as three or four (Hart et al. 1965; Mathews and Manderson 1981). Supplemental foods are started around six months and usually consist of rice gruel (Marshall and Marshall 1979; Mathews and Manderson 1981; Tong 1981). As is happening all over the world, there is an increasing trend away from breast feeding and towards the use of infant formula (Marshall and Marshall 1979; Mathews and Manderson 1980). For traditional Chinese women, formula is a real convenience since newborns are considered to be in a hot state and breast milk is hot as well. Since the woman is in a cold state, it requires a great deal of dietary juggling to produce the appropriate breast milk. Traditionally, breast milk has been neutralized in this way, but formula can also be prepared and administered in a manner which renders it neutral (Wheeler and Tan 1983). Vietnamese women also require sufficient quantities of cold foods to facilitate lactation. The use of infant formula is thus perceived as less complicated than maternal dietary restrictions (Manderson and Mathews 1981a; Mathews and Manderson 1981).

Since every food or medicine is considered either hot, cold or neutral, its designation will determine the Indochinese preference for its use at any given time. For example, the refusal of a glass of ice water by a woman who has just given birth may seem absurd until one understands that the ice is considered to be a substance which drains vital heat from the body, and hence is most inappropriate for an already cold state of the body (Ellis 1982; Hollingsworth et al. 1980).

The hot/cold belief system lays the groundwork upon which the diet is molded. While Indochinese food preferences consist primarily of rice, vegetables, fruits and meats such as pork, chicken and fish, the choice of which of these foods are consumed, and in what quantities, will be affected by the individual's sense of physical and emotional balance.

METHODOLOGY

During the summer of 1982, this project commenced under the direction of professor Michael Whiteford. General interviews were conducted by Sue Bell (1984), Susana Scott (1985), and Martha Stewart, graduate students in Anthropology. These initial interviews were conducted with Tai Dam in Story City, Polk City, Des Moines and Ames, and with representatives from the Iowa Refugee Service Center in Des Moines. These interviews helped to formulate questions for the development of a structured interview schedule. The English-language interview schedule consisted of 137 questions which solicited information on such things as social change and adaptation to American culture, medical beliefs and practices, and traditional attitudes towards health and nutrition of pregnant and lactating mothers. In addition, it contained demographic questions on family size, income and family histories. The interview schedule combined both closed and open-ended questions. As women were the focus of this study, the schedule focused on the special health needs surrounding pregnancy, and the potential for assessing areas of health care needs for Tai Dam women living today in Iowa.

Library research supplemented the knowledge of traditional Asian medical and nutritional systems.

Unfortunately, the specific literature available on the Tai Dam was extremely limited, although this was not the case for other Southeast Asian ethnic groups.

A list of approximately 350 Tai Dam families living in Des Moines and Marshalltown was obtained from a member of the Tai Dam community. Fifty-two of the women in these households were ultimately interviewed. The selection process was based primarily on convenience - who was home and willing to talk. Individual interviews were conducted at the respondent's home, in English. When necessary, other family members served as interpreters. Each interview session averaged between sixty and ninety minutes.

The interviews were conducted from February 1983 through December 1983. Each interview response was coded for computer analysis. Cross-tabulations were run comparing some questions to age, education and length of residence in the United States. The ranges for each of these comparison headings were divided into three sections in order to determine any relationship to the extremes of either end, or the middle range. For example, the age group 21-35 represents the lower end of the age scale and those most likely to become pregnant. The section of 36-45 represents those who have probably already formed their families and are less likely to become pregnant. Those

46-67 are primarily post-menopausal and presumably the most traditional.

In addition, field notes were recorded by the interviewer after each session. These data consisted of information which went beyond the scope of the interview schedule and supplemented knowledge of the Tai Dam. The field notes included elaborations on festivals, funeral rituals, ancestor worship and other folk traditions. Observations were also recorded describing the home, furnishings, clothing, the interview situation - who was present, where they sat, perceptions of the woman's feelings about being interviewed, and some discussion of any problems encountered during the interview process. Finally, follow-up, open-ended interviews were used as another method to focus on subjects of particular interest to the interviewer.

DATA RESULTS

This study assesses health beliefs and practices of pregnant and lactating Tai Dam women, and focuses on areas which may require special attention by health practitioners who deal with refugee women. In order to achieve these goals, several sections of both closed and open-ended questions were designed for the formal interview. The first set of questions was designed to obtain information about education level, employment and language use. This information then provided a backdrop for more specific questions on pregnancy and dietary habits.

The sample

The study sample was comprised of 52 women, ranging in age from 21 to 67, the median age being 40. Educational background ranged from no formal education at all up to twelve years or the equivalent of high school. No college education was reported, and by far the most common response to the question (30%) was that of having had no formal schooling whatsoever.

All but two of the women currently are married, and slightly more than half (58%) work outside the home. Of those holding jobs, the occupations include factory workers

(19%), seamstresses (15%), nurse's aids and janitors (both 4%), and house cleaners (2%). An additional 10% are currently unemployed but looking for work, or have been recently laid off.

As previously mentioned, the Tai Dam first began arriving in Iowa in 1975, with the average woman having lived here seven years. Because of the lack of English proficiency among adults and the elderly, and cultural preference among people of these ages, Tai Dam is still the principle language spoken in most homes. Only one woman said that they did not speak Tai Dam in her house. The next most common language is English, used by 94% of the Tai Dam families. After these two primary languages comes Lao, used in 88% of the households, Vietnamese, spoken in 38% of Tai Dam homes, and finally Chinese, used occasionally in 8% of the homes. While the French language was not included as a response in the questionnaire, several women mentioned that their husbands spoke some French as a result of their participation in the French-backed military of the 1950s. Despite the wide use of Tai Dam in the homes, it was apparent during the interviews that Tai Dam children are fluent in English. For those young enough to have been born and raised in America, English is spoken with as much ease as Tai Dam.

Contraceptives and pregnancy diets

The majority of Tai Dam women (65%) have never used any form of birth control. This is not especially surprising, considering the emphasis in their culture on having children and the disapproval of contraceptive use (Hart et al. 1965). In Vietnam, the expression or greeting "joyful tidings", contains an unspoken reference to a successful pregnancy and birth. Frequent pregnancies are assumed and expected; one traditional wish for the expectant mother is to have "a boy at the beginning of the year, and a girl at the end." Infertility is considered a misfortune and endless folk cures and explanations are offered to sterile couples (Hart et al. 1965). One Tai Dam woman observed that by American standards, five children qualify as a large family, but in Laos, a family would have to have ten or twelve children to be considered large. The Tai Dam women (35%) who did utilize some form of birth control relied mainly on tubal ligations (66%). This surgery was often performed soon after their arrival in the United States, and probably reflects the economic necessity of smaller families in the U.S. General disapproval of birth control in the Tai Dam community results in family sizes that range up to 11 children. Some of the women we spoke with have no children yet, but the average family in our

sample has five children. This also turns out to be the most common size, or the mode.

In Hopkins and Clarke's 1983 study which looked at fertility rates of Indochinese refugees in Oregon, the authors observed that during the peak childbearing years, early and late 20s, the refugee birth rate was almost half again as large as that for general U.S. birth rates. The decline in birth rates after age 29 did not drop off as markedly for the Indochinese as for the general populace. Many traditional Vietnamese believe that the normal period of childbearing lies between the ages of 20 and 50 (Hart et al. 1965). Correspondingly, the refugee birth rate shot up to nearly 14 times the U.S. rate for women in the 40-44 age range (Hopkins and Clarke 1983). These statistics reflect both the lack of contraceptive information available for most Indochinese women, as well as the traditional expectation of large families.

A cross tabulation done between the use of birth control and the age of women (see Table 1), showed that 79% under age 36 did not use any birth control. The group of 45 and older demonstrated a similarly low use of birth control, about 73%, although this information would be skewed by post-menopausal women. By far the highest incidence of birth control use was found in the age group 36-45. Over 50% of these women responded positively when

Table 1. Use of birth control by Tai Dam women in relation to age group

Count / Row Pct / Col Pct / Tot Pct	AGE GROUP BY YEAR 21 - 35	36 - 45	46 - 67	Row Total
NO USE OF BIRTH CONTROL	11 36.7 78.6 22.9	11 36.7 47.8 22.9	8 26.7 72.7 16.7	30 62.5%
USE OF BIRTH CONTROL	3 16.7 21.4 6.3	12 66.7 52.2 25.0	3 16.7 27.3 6.3	18 37.5%
Column Total	14 29.2%	23 47.9%	11 22.9%	48 100.0%

questioned about the use of contraceptives. This finding may indicate that women in the 36-45 age range who use birth control, do so because they have already raised their families.

Questions about dietary precautions during pregnancy elicited varied responses, and matched well with expectations gained from the literature. Responses supported the traditional Indochinese attitude that pregnancy is a time to regulate food consumption. Seventy-five percent of the Tai Dam women indicated that a change in food patterns was necessary or at least advisable. One of the most common pieces of advice, mentioned by seven of the women, was to increase consumption of all foods. Several more specific prescriptions were offered, the most frequent including an increase in meat consumption, especially pork and chicken, as well as an elevated intake of fruits and vegetables. Prescriptions for the diet during pregnancy centered around the reduced consumption or dietary absence of alcohol and hot spices.

The Tai Dam belief in increasing certain types of food consumption during pregnancy, especially meats, parallels the Vietnamese prescription of healthful, "tonic" foods which give energy. Alcohol is listed as a tonic food (Hart et al. 1965; Manderson and Mathews 1981b; Mathews and

Manderson 1981), but was mentioned by the Tai Dam as a substance to be avoided in the diet. This supports the assertion that, in general, Indochinese do not look upon alcohol as a particularly desirable substance, and for women especially, its use is not encouraged (Ellis 1980). The reduced intake of hot spices was also mentioned as advisable during pregnancy, relating to the woman's increasingly hot state towards the end of her term. Several Tai Dam commented that women should eat less food during pregnancy, echoing the idea of reduced food intake in order to ease the strain of delivery (Hart et al. 1965; Manderson and Mathews 1981b; Thomas and Tumminia 1982; Tong 1981). Several mentioned that the reduction in hot spices specifically, and all foods in general, prevented nausea and diarrhea.

In summary, women responded to this open-ended question concerning proper and improper foods for pregnancy, with 36 different answers (see Table 2). These variations on a personal level illuminate the number of possible solutions which can meet perceived food balance for optimum health during pregnancy. Responses given were fairly evenly split between substances that should be encouraged in the diet, and those to be discouraged or completely avoided. However, sixty-five percent of the women cited the necessity of increasing food quantity in

Table 2. Responses to the question of altered diet during pregnancy

SUGGESTIONS	NUMBER OF RESPONSES
Eat only chicken for meat source	1
Eat more pork	7
Eat more red meat	6
Eat more fish	2
Eat more vegetables/special vegetables	13
Eat more rice	2
Eat more eggs	2
Drink milk	3
Take vitamins	1
Eat less spicy food	5
Eat less pork	1
Eat less/no salty food	3
Eat no spicy food	6
Eat no sour food	3
Eat more salt	3
Eat no vegetables	1
Eat no chili peppers	4
Do not drink alcohol	5
Eat no sweets	1
Do not eat any differently	1
Eat generally more food	7
Do not eat with family	1
Eat more fruit	8
Drink coffee	1
Eat chicken noodle soup	1
Eat no foods with lots of seeds	1
Eat less oil in food	1
Eat less food in general	5
Eat more chicken	4
Eat no fish	1
Eat more nutritious foods	1
Take more vitamins	1
Eat less red meat	1
Eat to satisfy cravings	2
Eat more sweets	1
Eat more of all meats	1

the diet, while decreases accounted for only 35% of the responses. Of that 35%, over half of the responses dealt with reducing alcohol and spice consumption, two commodities whose absence in the diet would not adversely affect the course of pregnancy. It is clear then, that most Tai Dam women are more aware of the importance of increased food intake during pregnancy, rather than focusing on foods to be eliminated.

When asked about the reasons for a change in the diet, about half the women cited advantages to the health of both the mother and child. The other half was split between believing it would benefit solely the child, or solely the mother. However, when asked more directly whether the foods consumed during pregnancy affected the child, half the respondents answered negatively, and an additional 10% said they simply did not know.

In considering the reasons given for a change in pregnancy diet, the only strong relationship was found in comparison to education level (see Table 3). Sixty-three percent of the women who had completed at least seven years of school believed that the necessity for dietary adjustments during pregnancy benefited the health of both the mother and her child. Many Tai Dam women with an elementary education (46%), also attributed healthful benefits to both mother and fetus, but 36% in this category

Table 3. Beliefs about dietary health benefits during pregnancy in relation to education level

Count / Row Pct / Col Pct / Tot Pct	EDUCATION LEVEL IN YEARS COMPLETED 0 - 1	2 - 6	7 - 12	Row Total
BENEFITS HEALTH OF MOTHER	4 40.0 40.0 10.0	4 40.0 36.4 10.0	2 20.0 10.5 5.0	10 25.0%
BENEFITS HEALTH OF CHILD	2 33.3 20.0 5.0	1 16.7 9.1 2.5	3 50.0 15.8 7.5	6 15.0%
BENEFITS HEALTH OF BOTH	3 15.0 30.0 7.5	5 25.0 45.5 12.5	12 60.0 63.2 30.0	20 50.0%
BENEFITS NEITHER	0 0.0 0.0 0.0	1 100.0 9.1 2.5	0 0.0 0.0 0.0	1 2.5%
DO NOT KNOW	1 33.3 10.0 2.5	0 0.0 0.0 0.0	2 66.7 10.5 5.0	3 7.5%
Column Total	10 25.0%	11 27.5%	19 47.5%	40 100.0%

were only aware of the role food plays in the health of the pregnant woman. Forty percent of those with no formal schooling subscribed to the belief that the woman was the sole beneficiary of healthful food consumption. Only 30% felt it would be helpful to the fetus as well.

A similar question was asked as to whether the food a pregnant woman consumes can affect the child in any way, either detrimentally or beneficially. Again, there was a correlation to education (see Table 4). The majority of women with the greatest amount of formal schooling answered affirmatively (53%). However, the remainder in this category was split between denying that the foods consumed could have an effect on the child (37%), and those who simply did not know (10%). Moving down the scale of education, these statistics reverse themselves so that the majority of uneducated Tai Dam do not seem to recognize the correlation between food consumption and health of the fetus (60%). The rest at this level are split, half not knowing if foods can affect the unborn child, and half believing that there is a connection.

The responses to this particular question also find a positive relationship between the age of the Tai Dam women and beliefs about the effects of food on the fetus (see Table 5). Rather than the older and presumably more traditional group, it is the younger women who most often

Table 4. Tai Dam education level in relation to the question of whether foods consumed during pregnancy have any effect on the fetus

Count / Row Pct / Col Pct / Tot Pct	EDUCATION LEVEL IN YEARS COMPLETED 0 - 1	2 - 6	7 - 12	Row Total
FOODS HAVE NO EFFECT	6 31.6 60.0 15.4	6 31.6 60.0 15.4	7 36.8 36.8 17.9	19 48.7%
FOODS HAVE AN EFFECT	2 12.5 20.0 5.1	4 25.0 40.0 10.3	10 62.5 52.6 25.6	16 41.0%
DO NOT KNOW	2 50.0 20.0 5.1	0 0.0 0.0 0.0	2 50.0 10.5 5.1	4 10.3%
Column Total	10 25.6%	10 25.6%	19 48.7%	39 100.0%

Table 5. Tai Dam age groups in relation to the question of whether foods consumed during pregnancy have any effect on the fetus

Count / Row Pct / Col Pct / Tot Pct	AGE GROUP BY YEAR 21 - 35	36 - 45	46 - 67	Row Total
FOODS HAVE NO EFFECT	7 36.8 50.0 17.9	8 42.1 50.0 20.5	4 21.1 44.4 10.3	19 48.7%
FOODS HAVE AN EFFECT	7 43.8 50.0 17.9	4 25.0 25.0 10.3	5 31.3 55.6 12.8	16 41.0%
DO NOT KNOW	0 0.0 0.0 0.0	4 100.0 25.0 10.3	0 0.0 0.0 0.0	4 10.3
Column Total	14 35.9%	16 41.0%	9 23.1%	39 100.0%

indicated that the foods eaten would not affect a fetus. Of the 39 who answered this question, fully 50% of both age categories, under 36 and 36-45, responded in this manner. An additional 25% in the 36-45 range did not have an opinion one way or the other.

These statistics are significant because they reflect the attitudes and knowledge of many Tai Dam women of childbearing age. They indicate that it is those women most likely to become pregnant who have the least information about the cause and effect relation of food on the health of the unborn baby. Also important is the observation that those individuals with the most educational exposure are more often aware of nutrition and the health consequences to both mother and child.

Physician use and other pregnancy consultation

Some hypothetical questions asked who a prospective mother should consult for advice about pregnancy. In traditional Southeast Asia, these people would consist of herbalists, midwives and spiritualists (Hart et al. 1965; Leslie 1976). Western trained physicians are rarely utilized, and then only for those who can afford them, or who believe in their healing powers (Hart et al. 1965; Muecke 1983; Silverman 1979). One older Tai Dam woman

illustrated this point by commenting that she did not need to see a doctor when she became pregnant; doctors were for rich people - she knew when she was pregnant. However, in this study the numbers indicate that the majority (78%) used the services of an obstetrician at least once during their most recent pregnancy (see Table 6). Tai Dam women, 46 and older, reported a 58% rate of doctor consultation during pregnancy, while those women under 36 and those 36-45, reported 81% and 87%, respectively. Education apparently had no measurable effect on physician utilization (see Table 7). Those women with both the most and the least schooling reported seeing a doctor at the same rate of 80%.

These results probably reflect the fact that many of the youngest Tai Dam children were born in America. Bell (1984) has observed that those Tai Dam who have medical insurance are more likely to utilize available medical services. In addition, certainly they are aware that allopathic western medicine is the most socially acceptable form of health care in the dominant society. Several Tai Dam mentioned the scarcity of traditional herbal remedies in Des Moines. Thus, being removed from readily available sources of traditional medicines and healers, seeing a physician may be the only practical health care choice.

Table 6. Tai Dam age groups in relation to obstetrical services utilization during most recent pregnancy

Count / Row Pct / Col Pct / Tot Pct	AGE GROUP BY YEAR 21 - 35	36 - 45	46 - 67	Row Total
DID NOT SEE PHYSICIAN	3 27.3 18.8 5.9	3 27.3 13.0 5.9	5 45.5 41.7 9.8	11 21.6%
DID SEE PHYSICIAN	13 32.5 81.3 25.5	20 50.0 87.0 39.2	7 17.5 58.3 13.7	40 78.4%
Column Total	16 31.4%	23 45.1%	12 23.5%	51 100.0%

Table 7. Tai Dam education level in relation to obstetrical services utilization during most recent pregnancy

Count / Row Pct / Col Pct / Tot Pct	EDUCATION LEVEL IN YEARS COMPLETED 0 - 1	2 - 6	7 - 12	Row Total
DID NOT SEE PHYSICIAN	2 18.2 20.0 3.9	3 27.3 27.3 5.9	6 54.5 20.0 11.8	11 21.6%
DID SEE PHYSICIAN	8 20.0 80.0 15.7	8 20.0 72.7 15.7	24 60.0 80.0 47.1	40 78.4%
Column Total	10 19.6%	11 21.6%	30 58.8%	51 100.0%

When these Tai Dam women do enter a doctor's office, language difficulties are the most obvious barrier to communication. Approximately 50% of the women said they had difficulty understanding the doctor's instructions and medical prescriptions. When this question was cross-tabulated with the length of time each woman had lived in the United States, there was no apparent increase in comprehension associated with a greater length of residence. The figures remained essentially split in half between those who had difficulty understanding medical instructions and those who did not. This problem may be alleviated in part by the fact that most Tai Dam women see a physician in the presence of another family member, usually the husband, or sometimes an elder child for the older women. This situation offers both the comfort of a familiar person's presence, as well as the opportunity for both individuals to assist in comprehending the physician's questions and instructions. This familial support is common for all Indochinese refugees (Muecke 1983), and was witnessed during the interview process where husbands, children, relatives or friends were inevitably present.

Soliciting advice from individuals other than a trained physician is common; many Tai Dam women said they would choose to talk with a knowledgeable relative or sometimes a close friend. The least favored individual for advice was

a midwife, with only 4% saying they would seek out such assistance. It appears incongruous that so few women would wish for a traditional birth attendant during their pregnancy. However, the emphasis in Euro-American society is on hospital births and physician intervention. Although permitted in a number of states, midwifery is not commonly accepted by the dominant culture, so access to such services may be unavailable or severely limited. In addition, it is likely that the sponsor family or organization would insist on medical attention for any pregnant Tai Dam woman. Of the 21 women who had their youngest child in the United States, only 19%, (N=4), had home births.

Eighty percent of the 52 women indicated they did see a doctor at some point during their last pregnancy. The range for first visits extended through the entire nine months, but most visited the doctor for the first time during the second, third or fourth month, the most preferred time being the fourth month. After the initial check-up, women most commonly went back monthly (45%). The next most common strategy was to return to the physician only for the birth itself (30%), while 15% never did go back for any subsequent visits.

Delivery and post-partum diet

Only one woman mentioned having any trouble with delivery. Thirty-six percent of the women said there was nothing anyone could do to make delivery any easier, but 64% mentioned several methods of easing the stress during birth. Most commonly mentioned was following the physician's orders, but other strongly endorsed methods included the use of herbs, ingesting certain foods, positioning and having a relative present. These mirror similar suggestions found in the literature (Hart et al. 1965; Muecke 1976).

For the period after parturition, Tai Dam women mentioned some form of dietary change. These responses suggest a set period of dietary observances and restrictions, with an emphasis on tea and hot water to be consumed for one month after birth. One woman discussed a month-long period after giving birth when she did not leave the house and ate only boiled foods. This resembles the pervasive "month of convalescence" in Southeast Asia, where hot soups and teas are essential in restoring the body's vital heat (Ellis 1982; Hart et al. 1965; Mathews and Manderson 1980, 1981). Tai Dam women also advocated an increase in chicken, pork and vegetable consumption to restore the mother's strength, in contrast to some of the

stricter traditional diets of rural Koreans or the Lao Hmong (Sich 1981; Tong 1981). Mathews and Manderson (1980, 1981), report that alcohol is considered a tonic food by the Vietnamese, and hence an appropriate food for the new mother. Again, several Tai Dam mentioned alcohol as a substance to be avoided during the post-partum period. Hot spices, which presumably would be helpful to a new mother in a cold state, were also named as undesirable by the Tai Dam. Several women said that hot spices and alcohol caused diarrhea after delivery and were better left out of the diet.

Breast-feeding and weaning

In traditional Indochina, it is not uncommon for children to be breast-fed for two years and occasionally up to three and four years (Hart et al. 1965; Mathews and Manderson 1981). However, at least since moving to the United States, this trend is changing and the Indochinese refugees are increasingly turning to bottled formula as a supplement or a substitute (Baldwin 1981; Mathews and Manderson 1980). Reasons for this shift are many. Specifically, the Tai Dam mentioned factors such as doctor's advice, husband's disapproval and having no milk available. However, a busy work schedule was cited most

frequently as a reason not to breast-feed. Another factor is certainly the perception that bottle feeding is modern and the method of choice for the dominant culture. Feeling some pressure to conform, as well as a desire to be "modern" and "progressive", are additional stimuli in favor of bottle feeding (Baldwin 1981; Manderson and Mathews 1981a; Marshall and Marshall 1979; Mathews and Manderson 1981). A good illustration of this trend was seen in one Tai Dam woman's home where she was breast-feeding her youngest child, attired in a traditional costume, while her blue-jeaned daughter sat next to her, feeding her own child out of a bottle.

Nevertheless, the majority of Tai Dam women (75%) did breast-feed their last child. However, 75% also admitted to occasional or exclusive use of a bottle. This information indicates that most of the youngest Tai Dam children were breast-fed, but many of these same children were not breast-fed exclusively. The strongest relationship with the use of bottle feeding seems to be education level (see Table 8). Fifty-six percent of those women with the lowest level of schooling used a bottle at some time. Elementary school graduates jumped to 73%, and on up to 79% for those with a high school education.

The average age at which these same children were offered food supplemental to the breast or bottle was

Table 8. Use of infant formula feeding in relation to the education level of the mother

Count Row Pct Col Pct Tot Pct	EDUCATION LEVEL IN YEARS COMPLETED 0 - 1	2 - 6	7 - 12	Row Total
DID NOT USE BOTTLE	4 30.8 44.4 8.2	3 23.1 27.3 6.1	6 42.2 20.7 12.2	13 26.5%
DID USE BOTTLE	5 13.9 55.6 10.2	8 22.2 72.7 16.3	23 63.9 79.3 46.9	36 73.5%
Column Total	9 18.4%	11 22.4%	29 59.2%	49 100.0%

between seven and eight months, with a range extending from four to fifteen months. Traditionally, this supplement has consisted of rice gruel or soup (Ellis 1980; Hart et al. 1965). Weaning occurred most frequently at one year, but ranged anywhere from 4 months to 2 years.

Several questions in the interview dealt with general diet and satisfaction with American foods. The women were also asked about any nutritional instruction they had received since their arrival in the United States.

Food satisfaction and nutritional education

Food preferences for Tai Dam women still emphasize a traditional Asian diet. Within a Tai Dam family, it is usually the children who consume the largest portion of American style food. The adults admitted longing for some traditional foodstuffs unavailable in Iowa such as special regional fruits and vegetables and water buffalo meat. Essentially all other ingredients they require can be purchased from oriental food stores in Des Moines, although canned commodities must often be substituted for fresh.

When asked if anyone had ever instructed them on nutrition, how to cook American food, or even how to identify unfamiliar American foods, only 20% of the women said they had been given any information in this area. The

sponsor family was identified as their sole source of information. Of the 20% who did receive instruction, such assistance involved learning how to bake cakes and cookies. No mention was made of any specific nutrition education programs for refugees.

DISCUSSION AND SUMMARY

This study discusses many traditional customs related to food beliefs among the Tai Dam living in Iowa. Clearly the influence of the dominant Euro-American culture is eroding the traditional belief system; the increased use of bottle feeding is one example. Assimilation in the Tai Dam community can be seen in the fact that many of the youngest children have American names. Mothers more often than not wear the traditional costume of sarong-type wrap skirt and Chinese style tunic, while their youngsters wear Levis and tennis shoes. Several Tai Dam remarked that their cultural traditions will soon be forgotten, and daughters of these same women admitted they probably would not teach Tai Dam traditions to their own children. Subsequent generations of Tai Dam Americans who are raised in the public school system and are exposed to health and science classes can be expected to acquire as much knowledge of westernized medicine and nutrition as any other citizen. However, for those Tai Dam who entered the U.S. as young adults, exposure to these ideas is not through formal education, but rather through their own interactions with physicians and other health officials. These individuals are often women with limited command of English and little educational background. Because of their restricted exposure to

western ideas of health and nutrition, these women in particular need to be targeted in preparing and disseminating health information. Physicians and other medical practitioners must make special efforts to circumvent the problems of communicating their unfamiliar worldview to Indochinese patients.

Barriers to health care utilization and effectiveness

In instances where language differences are not a major consideration, misinterpretation may still prevail. Female patients often will interpret the doctor's "orders" as advice and follow or dismiss it accordingly, based on her own feelings and knowledge. Asian social traditions teach that authority figures are not to be challenged or opposed publicly, but may be privately disobeyed (Muecke 1983). There is also a relation of power domination between the doctor and patient which prevents many women, especially lower class or less well-educated women, from asking for more information or more detailed explanations (Danziger 1981; Shapiro 1983). This relationship is especially true with Indochinese patients who are taught to be always passive and respectful in the presence of someone of higher social standing. Indochinese women in particular are likely to take a passive, subordinate role in situations of

uncertainty. While they may appear to be comprehending and responding affirmatively, often they are merely politely acknowledging the fact that the physician is speaking (Thomas and Tumminia 1982).

The ideal stoic disposition of many Indochinese women may also preclude any open discussion of ailments. Fainting spells or vomiting are often perceived as natural consequences of pregnancy and hence, not worthy of being brought to the physician's attention (Ellis 1982; Thomas and Tumminia 1982). Admission of such uncomfortable symptoms may be considered complaining, behavior which is not acceptable according to Asian custom. Precipitous labors and deliveries are frequently reported for Indochinese women because of their reluctance to call attention to their condition (Ellis 1982; Hart et al. 1965). This phenomenon of passivity was witnessed even in the interviewing process where, despite varying degrees of English proficiency, most Tai Dam women chose to sit quietly and respond to questions through their husband or children, often deferring to them.

Indochinese still rely to a great extent on traditional communication networks for health care information. Even in the United States, self-help and self-medication is the usual response to illness, rather than a visit to the clinic (Baldwin 1981; Bell 1984; Muecke

1983; Silverman 1979). One Tai Dam woman remarked that there are some ailments that western doctors cannot seem to cure. She believed that following traditional health practices in addition to a physician's instructions, was good insurance against illness. As the practices of western physicians often are perceived to be impersonal and inappropriate, it is not surprising to find low rates of clinic utilization (Baldwin 1981; Silverman 1979). This aversion to health care use is important for both the physician and patient to recognize before knowledge can be exchanged effectively between the two.

Post partum behavior

Incidence of home births in the Tai Dam community, however small in number, plus sporadic clinic visits by many women, indicate that this may be an important area of health care education. Economic considerations are often involved in some decisions not to see an obstetrician, or use hospital services for delivery (Bell 1984), but lack of information and trust is also a factor. Post-partum behavior of traditional Indochinese women varies, but in general it is considered a time to rest and recuperate, wanting to avoid undue stress which may swing the woman's humoral balance into a dangerous condition. In western

hospitals, it is customary to bathe the new mother and have her up and walking as soon as possible. This is in direct contrast to Asian traditions which dictate rest, and which warn against bathing for fear of contracting "wind" diseases. Air temperature and inappropriate foods may also contribute to the fear many women experience as their attempts to maintain health through humoral balance and the restoration of body heat are seen as being thwarted by the hospital staff. Many studies have found that as soon as the new mother returns home, she will perform the appropriate rituals and behavior that her beliefs dictate. Her stay in the hospital becomes only a temporary delay before she can continue her personal regime of restricted diet and behavior (Ellis 1982; Manderson and Mathews 1981a; Mathews and Manderson 1981). This delay however, can cause great emotional distress, and a fear of subsequent health problems as a consequence.

The Tai Dam in our study were not questioned about their perceptions of a hospital delivery, or if there were offensive or inappropriate conditions in the hospital environment. However, studies indicate this is an area of need (Manderson and Mathews 1981a; Mathews and Manderson 1981), and an important area for further study since the comfort a woman feels in a hospital environment will determine her inclination to utilize similar services

again, as well as the probability of her trusting and following the directions and advice of her doctor. Home births are often successful, but lack of a medical history during pregnancy may create complications which threaten the health of both mother and child. Knowing the Tai Dam predilection to minimal obstetrical care, practitioners can ease the lines of communication by allowing women to pursue any non-health threatening, culturally mandated behaviors. Efforts made in this direction can encourage physician utilization by easing cross-cultural stresses.

Nutrition and food issues

In the area of diet, the observation has been made that the variety of foods offered in the Asian diet insures adequate nutritional content (Davis 1982; Manderson and Mathews 1981b; Mathews and Manderson 1980; Tong 1981). The real concern lies with the amount of food consumed, particularly for such women as the Tai Dam who advocate a reduced food intake during pregnancy, and those who do not recognize any relation between nutrition and fetal health. Because of this, effort is needed in emphasizing to Tai Dam women the importance of nutrition duing fetal growth.

The trend towards bottle feeding for infants is not necessarily a danger as long as formula is properly

prepared. However, there is some indication that Indochinese refugees in America often improperly handle and store infant formula (Baldwin 1981). Infant illness is a frequent result of this poor sanitation. Health care officials hopefully can prevent formula-induced infant illness by educating mothers in the proper methods of preparation. Awareness of this potential problem may assist physicians in diagnosis as well.

Summary

This study has found evidence of the connection between traditional Asian philosophy of yin and yang, hot and cold, and the dietary habits and behaviors of Tai Dam women residing today in central Iowa. Many Tai Dam women advocated increasing use of tonic foods such as chicken and pork during pregnancy. Hot foods, especially teas, were also encouraged after birth to restore the body's heat. The use of food as a humoral equalizer during pregnancy and lactation is an important aspect of traditional Tai Dam health practices. Many women of this community seek medical and obstetrical care infrequently because of these health beliefs. Since they share in the traditional Asian values which encourage large families and frown upon the use of contraceptives, Tai Dam women tend to have large

families by Euro-American standards. Tai Dam families average five children, and the medical beliefs these women hold can affect the health of their children, as well as their own health and well-being. This study makes several important observations:

1. For Tai Dam women who are born and raised in America, health concerns surrounding pregnancy will be individual rather than group related. Those women exposed to western medicine throughout childhood, and who speak English well, likely will not have to deal with cultural conflicts to the degree that their mothers have. However, for women of child-bearing age who are not proficient in English, and who are uncomfortable with the concepts of western medicine, there is cause for concern on the part of health practitioners who wish to provide adequate care. This concern will continue to be justified as long as refugee families enter the United States.

2. Physicians and health practitioners in Iowa can provide less threatening services to Tai Dam women, as well as their families, by being aware of the medical worldview of Indochinese refugees. During pregnancy and afterwards, a traditional Tai Dam woman can be encouraged to participate in medical service opportunities if she perceives that an effort is being made to accommodate her own culturally mandated behaviors.

3. Home births and minimal obstetrical care do not in themselves guarantee an unhealthy mother or child. However, better obstetrical health care can be provided when a pregnancy history is available. This is another reason to encourage Tai Dam women to utilize medical services, through acknowledgement and acceptance of their own medical worldview.

4. The Southeast Asian diet, and its concern for humoral balance through restrictions and prescriptions, still allows for a nutritionally adequate diet during pregnancy and lactation. Yet, physicians cannot assume that each woman does maintain and will continue to maintain, a healthy base-line diet throughout her term. Many Tai Dam in the sample were not aware of any relation between the foods consumed and fetal and maternal health. Physicians who are aware of this fact will be better able to educate their patients on the importance of a nutritionally sound diet during and after pregnancy.

5. Specific nutritional education for Tai Dam women has been minimal. Evidence suggests that, since coming to the United States, the Tai Dam have not suffered from any serious malnutrition, however, availability of nutrition information can enable women to take even more responsibility for their own health, and to a great extent, the health of their families.

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