INFANT FEEDING PRACTICES OF VIETNAMESE IMMIGRANTS TO THE NORTHWEST UNITED STATES

by

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CHAPTER I

INTRODUCTION

Women vary in their choice of methods of infant feeding. During the past forty years, in developed or industrialized countries, there has been a steady decline in the extent of breast feeding as a method of infant feeding. For example, in the United States breast feeding declined from 70% of the first born infants in the 1930's to 29.1% in the 1970's (Hirschman & Hendershot, 1979). This decline in breast feeding started among women of the higher socioeconomic classes and gradually filtered down to the middle and lower classes, with the result that currently women in developed nations generally bottle feed their babies. This same pattern is becoming evident in underdeveloped countries where women are changing their infant feeding methods from breast to bottle (Jelliffe & Jelliffe, 1978). Also, when women immigrate from underdeveloped to developed countries they tend to substitute bottle for breast feeding (Mathews & Manderson, 1980).

Recently there has been a concerted effort to reverse this pattern in developed countries. Advances in food technology have brought about bacteriologically safe and nutritionally satisfactory substitutes for human milk.

However, immunological properties have not been duplicated in infant formula and this factor alone has provided a reason for promoting breast feeding (Guthrie & Kan, 1977). Indeed, the American Academy of Pediatrics (1976) has sponsored a campaign to promote the practice of breast feeding.

Women in the higher socioeconomic classes who were the first to abandon breast feeding are now returning to breast feeding. Only the future will tell whether this tendency will continue and strengthen among the more affluent segments of the population and spread to the less affluent. Also, it remains to be seen if it will reverse the historical tendency of immigrants to give up breast feeding.

Although in general the higher socioeconomic classes set the trend in infant feeding, many factors other than imitation of the affluent are presumed to affect a woman's choice of method of infant feeding. Included among these factors are the woman's place of residence with its customs and degree of urbanization; demographic characteristics such as ethnicity, education, economic condition; family norms; attitudes and behaviors of health professionals; commercial influences; and the availability of an alternative to human milk.

The purpose of this study was to describe the infant feeding practices of women immigrants to the Pacific

Northwest from Vietnam. An effort was made to specify changes in the method of infant feeding following migration from Vietnam to the Pacific Northwest, and to identify factors that contribute to these changes.

Review of the Literature

In the review of the literature to follow, several factors that influence the method of infant feeding will be explored. The effects of immigration on the method of infant feeding patterns will then be examined and, finally, the current infant feeding patterns in Vietnam and the United States will be described and compared.

Factors Influencing Infant Feeding Patterns

Physiologically there are very few women who would be unable to breast feed their infants. Thus it would be reasonable to postulate that the reason for not breast feeding is other than physiological (Simopoulos & Grave, 1984).

Numerous factors that contribute to the choice of the method of infant feeding have been identified in the literature. The factors which are examined here are regional or geographic influence, degree of urbanization, ethnicity, socioeconomic status, social support, and other demographic factors.

Regional factors. The customary practice of a geographic region is one factor that has been identified as influencing a woman's choice of the method of infant feeding. In 1975, Wray reported that 95% of his sample of infants in China were breast fed and the majority of these infants were not weaned until they were one year old. Supplemental feedings of cereal porridges were started at six months and pureed vegetables, fruit, eggs, and bean curd were added in the following months. This finding may reflect ethnicity; however, Chinese living in other countries do not have a higher incidence of breast feeding than the general population in the area. House and Goel (1980) studied 99 Chinese children in Glasgow and found only one of the children born in Glasgow was breast fed whereas 38 (82%) of their siblings born in China had been breast fed. In contrast, however, the Chinese mothers' attitudes and practices regarding supplemental feeding were essentially the same in Glasgow as in China.

Huffman, Chowdhury, Chakrabort, and Simpson (1980) studied 2500 women in Bangladesh and found that 98% of all women with live infants were still breast feeding at one year of age and 91% were still breast feeding their toddlers at two years of age. The population studied resided in rural sectors. No data were available on urban women. However, inasmuch as 90% of the Bangladeshi population resides in rural sectors, Huffman et al. believed that this breast feeding pattern probably was typical of most Bangladeshi women.

In the United States, Hirschman and Sweet (1974) analyzed data from the 1965 National Fertility Survey, that indicated that the percentages of women breast feeding their infants in the South and West were 6 and 8 points respectively, above the national mean. In the Midwest, the percentage was below the national mean, and in the Northeast substantially lower than in the rest of the country. The authors could not explain these differences, but stated that the effect of geographic regions was real and statistically significant, and not an artifact of religious differences or of the degree of urbanization of the various geographic regions.

More recently Hirschman and Hendershot (1979) concluded from an analysis of the 1973 National Survey of Family Growth that the American West was relatively unaffected by the national secular decline in breast feeding. In fact, an upward trend in breast feeding was evident in the West, with over 50% of women living in this region breast feeding their first infant. This was twice as high a proportion as in other regions of the United States.

Degree of urbanization. Hirschman and Sweet (1974) claimed that geographic differences in method of infant feeding in the United states could not be explained by rural-urban differences, but rather by farm-nonfarm differences in lifestyle. Their data showed that women who grew up on a farm were 6.7% more likely to breast feed their first infants than women from urban regions. In contrast, Hirschman and Hendershot (1979), in their analysis of data from the National Fertility Survey, noted that a lower proportion of women of farm origin breast fed than of women with nonfarm backgrounds. Martinez and Nalezienski (1979) obtained similar findings in their ongoing survey conducted from 1955 to 1971. Their sample included 11,610 women, of whom 50% responded.

In these studies the authors did not give a reason for the change in infant feeding methods in the United States over time. However, Khanjanasthiti and Dhanamitta (1978) found a decline in breast feeding in Thailand was related to the change in the community, industrialization in the semi-rural areas and urbanization in the marginal areas of the large cities, like Bangkok. They attributed this change both to the influence of advertisements and to the fact that breast feeding in the rural community, although traditional behavior, was not based on a strong belief of its value. Meldrum and DiDomenico (1982), Manderson (1984) and Guthrie, Guthrie, Fernandez, and Estrera (1985) arrived at similar conclusions from their respective studies in Nigeria, Malaysia, and the Philippines.

Ethnicity. Ethnicity is another factor identified as influencing the choice of infant feeding methods. Chen (1978) interviewed 100 mothers in the pediatric unit of the

University Hospital in Malaysia and found that 49% of the mothers breast fed their babies wholly or partially. Breast feeding was highest among Malays (78%) followed by Indians (55%) and the Chinese (35%).

Mansbach, Palti, Pevsner, Pridan and Palti (1984) claimed that in Israel ethnicity was strongly associated with breast feeding practices.

> Women from Western societies, such as Europe and America, breast fed more and longer than those of Asian and North African origin . . . . Women of American and European origin participate in the social movements that intend a return to natural ways of life . . . whereas among Asian and North African populations, those groups that are on the threshold of modernization want to emulate that "advanced" and "easy" way of rearing children and get away from "primitive" practices (p. 160).

In the United States, Hirschman and Hendershot (1979) used information collected in the 1973 National Survey of Family Growth and in the 1965 National Fertility Study to compare three ethnic groups: White, Black, and Hispanic. They found an overall downward trend in breast feeding in all groups from the 1950's to the 1970's, particularly pronounced for Blacks and Hispanics. In the 1950's, 33.5% of the Hispanic women breast fed their infants for three months or more. By the 1970's only 4.3% breast fed for the same period of time. Breast feeding among White women declined from 15.9% to 7.8%, and for Black women from 26.1% to 1.6%.

The greater prevalence of breast feeding by White Anglo American mothers than by Blacks or Hispanics was similarly documented by Rassin et al. (cited in Baranowski, Bee, Rassin, Richardson, Brown, Guenther, & Nader, 1983) and by Andrews, Clancy, and Katz (1980). Rassin et al. reported 9% of Black mothers in their sample, 23% of Mexican-American mothers, and 44% of Anglo-American mothers were breast feeding their infants at discharge from the hospital. Andrews et al. (1980) interviewed 270 women in greater New York, of whom 41% were White, 30% Black, and 19% Hispanic. They found 26% of White mothers, 26% of Black mothers, and 18% of Hispanic mothers breast fed initially, but _all_ had stopped breast feeding by the time their babies were three months old.

Socioeconomic factors. Parents' education and income are significantly and positively related to the decision of breast feeding. In the study of Andrews et al. (1980) the lowest incidence of breast feeding in all three ethnic groups was found in mothers with less than a high school education, followed by mothers with more than a high school education. With respect to family income, for both Whites and Blacks, the lower and higher income groups were less likely to breast feed than the middle income groups. For Hispanics, the highest incidence of breast feeding was in the lower income groups and the percentage declined as the income rose.

These findings of Andrews et al. suggest a different relation between education and breast feeding than do the earlier findings of Hirschman and Sweet (1974) derived from the 1965 National Fertility Study. Both sets of authors reported a curvilinear relationship between education and incidence of breast feeding. However, in contrast to Andrews et al., Hirschman and Sweet found that women with six years or less of education were most likely to breast feed their first infant. The incidence of breast feeding declined for high school graduates and then rose for those with a college education.

Other studies conducted at the same time as that of Andrews et al. produced different results. The information collected by Hirschman and Hendershot (1979) from the National Survey of Family Growth showed that in recent years mothers with higher education and income are more likely to breast feed than other mothers; however, this is not because of an increase in breast feeding among higher status mothers, but rather because of a sharp decrease in breast feeding among mothers with less education and lower income.

Martinez and Nalezienski (1979), conducted a series of surveys to determine the incidence and duration of breast feeding by 11,610 mothers. A response rate of 56% was obtained. They reported that from 1971 through 1978 there has been a sharp increase, both in the incidence of breast feeding and in the duration of breast feeding, among mothers of all ages and demographic characteristics. In contrast to Hirschman and Hendershot (1979) they found the increased incidence of breast feeding among the lower income and less educated mothers was as great as, if not greater than, the increase among the higher income and better educated mothers.

Again in contrast, Sauls (1979), who derived his data from studies comparing morbidity of breast fed and bottle fed infants, found that the women most likely to choose to breast feed their infant had an educational level beyond high school and that they were socioeconomically advantaged. Women most likely to choose bottle feeding had less education and a lower socioeconomic status. Among the latter, there were higher proportions of young mothers, single women, and women receiving government financial support.

Hofvander and Sjolin (1979), on the basis of data from studies of the National Board of Health and Welfare in Sweden, showed that the women who breast fed for the longest period were over 25, well educated, married, and living under good social conditions. They did not indicate that the incidence of breast feeding was higher in the educated women, but only that they breast fed for the longest period.

In contrast to these findings for industrialized countries, Huffman et al. (1980) found that although most women in a sample of 15,000 rural Bangladeshi breast fed their infants, women of high wealth or with some education did not breast feed for as long a period as the poor and uneducated women. Meldrum and DiDomenico (1982) obtained similar results from Nigeria, as did Manderson (1984) for Malaysia, and Guthrie, Guthrie, Fernandez, and Estrera (1985) for the Philippines.

Return or entry into the work force is widely cited as a major reason for the decline in incidence and duration of breast feeding. However, research results are often contradictory. Martinez & Dodd (1983), in their research in the United States found that maternal employment had a negative effect on breast feeding. They obtained their data from mail and telephone surveys in 1981. Questionnaires were mailed to a probability sample of 51,537 new mothers, and a 55% response rate was obtained. Also, 7,190 bimonthly phone calls were completed. Information regarding feeding patterns and demographic characteristics for the first 12 months was obtained. Maternal employment was shown to reduce the incidence of breast feeding but duration of breast feeding was more negatively affected. Of the mothers breast feeding in the hospital, 45.1% were employed whereas

53.4% were not employed. For every 100 mothers employed full time, only 19.8% were still breast feeding their infants at 6 months of age whereas among mothers not employed, 50.1% were still breast feeding at 6 months of age. Also 65.4% of working mothers used a supplemental bottle compared to 23.2% of women not employed.

Seger, Gibbs, and Young (1979) interviewed 150 Mexican-American primagravidas in a hospital in Texas and found that maternal employment was given as a reason for not breast feeding by 15 (27%) of the 55 women who planned to bottle feed.

Khanjanasthiti and Dhanamitta (1978) also found that maternal employment had a negative effect on breast feeding. In the rural areas of Thailand, 95% of the women breast fed and this percentage remained constant for the first 6 months. By the seventh month it declined to 81% and by 13 months to 45%. In urban areas, where 50% of the women are employed outside the home, 74% breast fed their newborn infants. However, there was a rapid decline so that at one month of age only 46% were still breast fed. By the time the infants reached 6 months and 13 months of age, 34% and 12%, respectively, were breast fed.

Meldrum and DiDomenico (1982) have argued that the effect of employment on breast feeding depends on how well women can combine the roles of worker and mother. In

Nigeria, where cultural tradition dictated entrepreneurial roles for women, mothers took their infants to the marketplace and nursed them during the day. For women working in modern work environments, this resolution is less possible, and babies were not welcomed. Hence women in white collar and professional occupations tended to limit breast feeding to three months, and to combine bottle with breast feeding from the start.

In contrast to the foregoing studies, Evans, Walpole, Qureshi, Memon, and Everley-Jones (1976) reported that only 5 (10%) of 50 Asian immigrant women to England gave intention to work as the reason for not breast feeding. Also in England, Brimblecombe and Cullen (1977) found an even smaller percentage of women (1% of 539 women) citing work commitment as the reason for not breast feeding. Finally, Dusdieker, Booth, Seals, and Ekwo (1985) reported that employment status did not appear to account for bottle feeding in their sample of 157 Iowa mothers.

Esterik & Greiner (1981) summarized findings from the international literature regarding breast feeding and women's work. They found that work was seldom cited as the reason for not initiating breast feeding, for choosing bottle feeding, or for weaning. They stated that a careful examination of existing literature suggests that employment outside the home as a cause of the decline in breast feeding has been exaggerated.

Social support and influence. Social support and influence is another factor that has been identified in the literature as a variable that affects a woman's choice of the method of infant feeding. Family, friends, health professionals, and community support are presumed to play an important role in determining the method of infant feeding a mother chooses, and in the case of breast feeding can even determine the success of this method.

Cole (1977) conducted a survey of infant feeding methods in relation to personal-social factors using a sample from the Boston suburbs. She found that early introduction of solids, recommended by their pediatricians when mothers reported difficulties with breast feeding, and early weaning from the breast were significantly associated with each other. This author implied that if the pediatricians' response to breast feeding difficulties had been to encourage the women to build up their supply through more frequent nursing and greater intake of fluid rather than to introduce solids or supplemental formula or weaning, the outcome would have been successful maintenance of lactation.

Furman (1979) conducted a survey in South Africa to determine the role that doctors played in influencing mothers' decisions as to the method of infant feeding. All 79 mothers were delivered by obstetricians and the infants were examined at birth by pediatricians. One third of the mothers claimed that their obstetricians had not discussed breast feeding with them and only 58% of those who did discuss breast feeding were considered encouraging. One third of the mothers felt that their pediatricians were indifferent toward breast feeding. The mothers expressed a need for more encouragement and better instruction from all doctors.

Chin, Galea and Goel (1981) interviewed 170 pregnant women in Glasgow in regard to their choice of method of feeding their babies. These mothers were again interviewed when their babies were six months of age. This survey showed an increase in incidence and duration of breast feeding when the practice of early introduction of solids had been eliminated. They explained this change on the basis of wider publicity in the national and medical press, the availability of parentcraft classes and forums, and proper advice and support by doctors, hospital, and community personnel. They found that 69% of the mothers had made their choice of method prior to or during pregnancy.

Although early education of potential mothers can be a contributing factor which would influence a woman's choice of the method of infant feeding, a study by Bryant (1982) in Florida indicated that without the support of family and friends a mother is less likely to succeed in or follow the method of infant feeding advocated by health care professionals. Bryant's data were derived from a sample of 76 families enrolled in a Maternal and Infant Child Care program. Of these, 28 were Puerto Rican, 28 were Cuban, and 20 were Anglo. It was found that the impact of family, friends, and neighbors varied significantly among Cuban, Puerto Rican, and Anglo women.

In the Puerto Rican and Cuban families, although the husband was the dominant member of the nuclear unit, the wife was in charge of feeding and caring for the children and usually made decisions pertaining to feeding practices without consulting her husband. Consequently, extended family members were important sources of advice and assistance and the maternal grandmother was the key member of the extended family consulted in infant feeding matters.

In contrast, the maternal grandmother had very little impact on the Anglo families' infant feeding patterns. In fact none of the Anglo women interviewed considered their mothers a primary source of advice on infant feeding. The husband's role varied greatly in the infant feeding practices in the Anglo nuclear family. His role ranged from equal participation with the wife in making decisions regarding infant feeding practices, through giving advice but recognizing the wife as the final authority, to giving little or no input on feeding practices.

The impact of friends and neighbors differed among the three ethnic groups. Anglo friends were important sources of information and help on infant feeding practices, and although Anglos may have discussed feeding practices with neighbors, they seldom took their advice. In contrast, the Puerto Rican and cuban women usually did not respect the advice of either friends or neighbors unless it reinforced a decision the mother had made which was being questioned by others.

It is significant that in this study the majority of the Cuban and Puerto Rican women and one-third of the Anglo women interviewed reported a greater reliance on family, friends, and neighbors than on health care professionals for advice on infant feeding practices. The women in the study who were influenced by health care professionals did not live near close relatives and friends.

Sauls's (1979) findings, based on studies in the United States comparing morbidity of breast fed and bottle fed infants, found that women most likely to choose to breast feed received support from their husbands and health care personnel, had been breast fed as infants, and had friends that breast fed.

Seger, Gibbs, and Young (1979) interviewed 150 Hispanic primigravidas in San Antonio with regard to social support and influence in the decision to breast feed. The presence of a nursing model in the family was a decided influence to breast feed. Fifty-six percent of those who had been breast fed planned to breast feed their babies, but only 23% of those who had been bottle fed planned to breast feed their babies. Attitudes of husbands were also an influencing factor. Sixty-nine percent of those women whose husbands approved of breast feeding were planning to breast feed. However, if the husband did not approve, or there was no husband, the woman was less likely to breast feed.

In another study, Brimblecombe and Cullen (1979) conducted two surveys in England by interviewing women in the hospital, post delivery. The first survey included 500 mothers and the second survey included a similar group of 539 mothers. Their data showed that mothers were more likely to breast feed their infants if they themselves had been breast fed. Other strong influences were husband, own mother, and midwife. However, the most influential factor was the woman's own conviction that breast feeding was healthiest for the baby. The researchers also found that the media (national publicity) are more likely to be effective than the efforts of individual professional advisers.

Baranowski et al. (1983) conducted a triethnic study of 358 mothers who were interviewed regarding social support and influence. These interviews were conducted in the hospital, post delivery. The researchers found support and influence varied among the three ethnic groups and also differed for married and single women. Among nonmarried women, the woman's mother exerted the most influence, regardless of ethnicity. Among married women, the support figure considered most important varied by ethnic group. Support of the male partner assumed most importance for the decision to breast feed for Anglo-Americans, while for Mexican-Americans, the woman's mother was most influential, and for Black-Americans, the best friend. Previous experience with breast feeding was a factor in the decision for Anglo-Americans, but not for the other groups. Only one of the 192 Blacks and Mexican-Americans in the sample listed such previous experience as significantly affecting their current decision.

Other demographic factors. Breast feeding patterns are often linked with age. Sauls (1979) compared 10,811 breast feeding mothers to 13,845 bottle feeding mothers in the United States and found that a higher incidence of young mothers bottle fed. Dusdieker et al. (1985) noted that Iowa mothers who breast fed infants tended to be older than those who bottle fed. Manderson (1984) likewise reported that the Malaysian women most likely to bottle feed were younger, and primiparas. Contrariwise, Brimblecombe and Cullen (1977) concluded from two surveys in England of 500 and 539 mothers that age was not a significant factor. Brown and Adelson (1969) studied 249 low and middle income mothers in Honolulu and found that age was not a significant determinant of the method of infant feeding. Finally, Baranowski et al. (1983), in their study of 358 mothers in Texas, reported reported age was statistically independent of the intention to breast feed.

The birth order of the child and the number of other children in the family are cited as factors that contribute to the decision to breast or bottle feed. Hirschman and Hendershot (1979) stated that second born babies were considerably less likely to be breast fed than first born babies. They based this conclusion on data from the 1973 National Survey of Family Growth and the 1965 National Fertility Study. A similar conclusion was reached by Martinez and Nalezienski (1979). Those authors mailed questionnaires to a sample of 11,610 mothers selected from a sampling frame which included 70% of all births nationwide, and which reflected accurately the distribution of births by counties. A response rate of 56% was obtained. The data showed that 51.3% of the primparous mothers breast fed and 42.6% of the multiparous mothers.

Martinez and Dodd (1983) mailed questionnaires to 51,537 new mothers with a 55% response rate. They reported that 62.4% of the primiparous mothers 53% of the multiparous mothers breast fed. Finally Simopoulos and Grave (1984), in analyzing factors associated with the choice and duration of infant feeding practices, found that a significantly higher proportion of first infants compared to subsequent babies were breast fed.

Effect of Immigration on Infant Feeding Methods

Several investigators have considered the effect of immigration from an underdeveloped country to a developed country on infant feeding patterns. In England, Evans et al. (1976) documented the infant feeding practices at 14 months post-partum of 46 mothers from the rural Punjab and India. Sixteen of these mothers had borne 48 children before arrival in England, and 44 (92%) of these infants had been breast fed, for an average of 31 weeks. Thirty-three mothers had borne 79 children after arrival in England, only 24 (30%) of whom were breast fed, for an average of 5 weeks. The most frequent reason given for not breast feeding was physical inability to nurse. However, the authors believed the major factors in reducing the incidence of breast feeding in England were the availability of cow's milk or artificial milk and the means to pay for it. The study also showed that immigrants, especially those who could not read English, made potentially serious mistakes in preparing bottle feedings. In 49% of the study households, milk preparations were not diluted according to recommendations in 14% of the instances.

In a second study, conducted in Sydney, Australia, Mathews and Manderson (1980), with the aid of interpreters, interviewed 40 multiparous Vietnamese immigrant women. Both closed and open-ended questions were employed. All the women had given birth to at least one child in Vietnam and one in Australia, thus enabling a comparison of their infant feeding patterns in the two settings. Of the 40 women interviewed, 50% had breast fed exclusively the last child born in Vietnam, 25% had combined breast with bottle feeding, and 25% had bottle fed exclusively. In the case of their Australian born infants, only 5% had been breast fed exclusively, 35% had been breast fed initially and then switched to formula, whereas 60% had not been breast fed. The average length of time for breast feeding was 9 months for babies born in Vietnam, and 3.3 months for babies born in Australia. The major reason given for not breast feeding was need to return to work, whether the babies were born in Vietnam or in Australia. All the women had themselves been breast fed as infants, and all believed that breast milk was nutritionally superior for infants.

In Vietnam, sweetened condensed milk was used for 50% of the infants fed exclusively or partially by bottle. In Australia, a formula based on cow's milk was used in all cases where the babies were bottle fed. Solid foods were introduced earlier in Australia than in Vietnam. In Australia, the mothers continued to use the traditional rice gruel or porridge for weaning infants, but canned food replaced the gruel as the first solid food in 40% of the cases. Only one woman had ever used canned baby food in Vietnam.

In a third study, House and Goel (1980) noted a rapid decline in the incidence of breast feeding in Scotland among Chinese immigrant women from mainland China and Hong Kong. Only one of the 48 children born in Scotland had been breast fed, whereas 38 of the 51 children born in the mother's country of origin had been breast fed. Inconvenience was the reason given by the majority of mothers (70%) for not breast feeding. In contrast to the Vietnamese immigrants to Australia studied by Mathews and Manderson, these Chinese mothers had not changed their attitudes regarding the introduction of solid foods. Solids were not introduced into the infant's diet until the child was at least one year of age, and then in the form of the traditional porridge mixed with vegetables, meat, and fish.

Finally, Mansbach et al. (1984) found that immigrants to Israel from Asia and Africa turned to bottle feeding their infants, because they believed that was the advanced way of feeding infants, whereas breast feeding was considered backward and primitive.

Current Infant Feeding Patterns in the United States

From 1955 to 1981, Martinez and Dodd (1983) mailed questionnaires to a nationally representative sample of mothers inquiring into infant feeding patterns for the first six months of life. They also obtained data on infants 8 to

12 months of age for 1980 and 1981 by a bimonthly telephone survey. Data from these surveys demonstrated that the incidence of breast feeding from 1955 to 1970 declined from 29.2% to 24.9%, but from 1971 to 1981 incidence and duration of breast feeding increased uninterruptedly among all demographic groups surveyed. The percentage of mothers who breast fed on discharge from the hospital gradually increased from 24.7% in 1971 to 57.6% in 1981. The 1981 total, however, included mothers who supplemented breast feeding with bottle feeding and multiple milk usage. In 1981, 26.8% of the infants 5 to 6 months of age and 9% of the infants 12 months of age were still being breast fed. The greatest average annual rate of gain in breast feeding was reported by mothers who had less than a college education, and among infants cared for by general practitioners. However the highest incidence of breast feeding occurred among well educated, affluent, and primiparous mothers. Duration of breast feeding was highest among well educated mothers and those not employed outside the home. Commercially prepared milk based formulas were fed to 63.7% of the infants and cow's milk or evaporated milk to 17% at 5 to 6 months of age. By 10 months the majority of the infants (67.8%) were being fed cow's milk or evaporated milk.

Andrews, Clancy, and Katz (1980) interviewed 270 mothers belonging to a prepaid group practice health care plan of greater New York. Of these mothers, 41% were White, 30% Black, 19% Hispanic, and 5% belonged to various other ethnic groups. One third of all infants in the first month of life were breast fed, including 26% of White and Black infants and 18% of Hispanic infants. With increasing age, the percentage of breast fed infants decreased and by 3 to 4 months of age virtually none of the infants were breast fed. Commercially prepared milk based formulas were fed to approximately 65% of infants until 3 months of age. Then the percentage being fed cow's whole milk started to increase and by 6 months few infants received commercially prepared formulas. Hispanic infants were introduced to cow's whole milk earlier than Black or White infants. Black infants were more likely to be fed commercially prepared formula through the first year. These trends were observed among Black and Hispanic infants of all socioeconomic groups.

Smith, Chisale, Warren, Rochal and Huffman (1982) compared the infant feeding patterns of 345 Anglos and 689 Hispanics living on the United States-Mexican border. They analyzed the incidence of breast feeding for the period of 1971 to 1979. The Hispanics were all of Mexican origin or descent. The results indicated that the Anglos showed an increase in breast feeding in accord with the national trend, whereas the Hispanics showed a decrease. For the period 1971 to 1975, 31.1% of Anglo mothers breast fed and for the period 1976 to 1979, 47.1%. For the same period, Hispanic breast feeding dropped from 25.7% to 21.1%. Incidence rates for each ethnic group were standardized by age, parity, and years of schooling. The duration in months of breast feeding for Hispanics was 5.17 for the period 1971 to 1975, and 3.37 for the period 1976 to 1979. Corresponding figures for Anglos were 5.91 and 5.22 months.

The age at which solid foods are offered to infants in the United States has declined from the 1920s, when they were seldom offered before one year of age, to the 1960s, when they were frequently offered in the first week of life. Recent concern that early introduction of solid food predisposes infants to obesity and allergic reactions has led health care professionals to reexamine this practice. Currently, the American Academy of Pediatrics (1979) and the American Pediatric Association (Bryant, 1982) recommend that an infant less than four months of age should not be given solid food. However, this recommendation is not always followed. In Bryant's study of 76 Anglo, Cuban, and Puerto Rican families enrolled in the Maternal and Infant Child Care (MIC) program in Florida, almost all the mothers, regardless of ethnicity, started feeding cereals to their babies before they were one month of age. Fruit was introduced before the infants were five weeks old, and vegetables and meats were frequently offered in the third month. By the time the babies were three or four months of age they were eating a complete range of solid foods. Physicians, nutritionists, and nurses at the MIC program encouraged this early introduction of solids, and because members of the mothers' families and friends agreed, the mothers complied totally.

In the Pacific Northwest, the WIC program and most health care professionals recommend that the introduction of solid food be delayed until the infant is from 4 to 6 months of age. Cereals may be started at this time, followed at 6 to 8 months by fruit, vegetables, and meats, and by table foods at 9 to 12 months. Despite this recommendation, many parents continue to offer solid food in the first month of life (Pipes, 1981).

Current Infant Feeding Patterns In Vietnam

There is a paucity of literature available on the current infant feeding practices in Vietnam. The literature from the U. S. Department of Agriculture Food and Nutrition Service (1980) included one reference to infant feeding practices, which stated that in Southeast Asia, the majority of infants are breast fed for a least one year. Infants who are not breast fed may be given sweetened condensed milk. There was no reference regarding the introduction of solid food into an infant's diet.

However, results of a study by Mathews and Manderson (1980) comparing dietary practices of 40 Vietnamese immigrants with regard to one child born in Vietnam and one child born in Australia did not concur with the information from the Department of Agriculture. Mathews and Manderson found that only 50% of the women had breast fed exclusively the last child born in Vietnam, 25% had combined breast and bottle feeding, and the remaining 25% had bottle fed exclusively. The average length of breast feeding was 9 months. Of the women who exclusively or partially bottle fed, 50% used sweetened condensed milk, the other 50% used a cow's milk based formula. The authors stated that solid foods were introduced earlier in Australia than in Vietnam but did not give any data pertaining to age of infants when solids were introduced. However, in another study by Manderson (1984) data are given on the age of introduction of solid foods to infants in Malaysia. The data were based on 278 completed questionnaires. By 3 months of age, 51% of the infants were eating solid food, and by 7 months 90% had had some solid food introduced into their diet. A variety of foods were included in the diet and usually consisted of both manufactured foods such as Nestum and rolled oats and traditional food such as rice flour porridge, softened bread and biscuits, vegetables, and fish.

Conceptual Framework

In essence, this study concerns the acculturation process by which members of one group adopt cultural traits from another group with which it is in contact. Acculturation is more likely to proceed with respect to some components of culture, under some circumstances, and for some segments of a society rather than for others. Thus, material and technological aspects of another culture (such as tools, for which usefulness or superiority is readily demonstrable) are more likely to be adopted than are values, basic ideologies, or forms of social organization. Cultural changes tend to occur under circumstances of prolonged, intimate contact, under circumstances of political, military, and economic domination, and in times of great upheaval as war, revolution, famine, migration, rapid industrialization, and urbanization. Finally, certain segments of the population are more likely to shed traditional practices and assume new habits and ways of life. These are the more urbanized, more geographically mobile, the younger, more powerful, and the marginal segments.

The example of acculturation being examined in the present study is the adoption of European or Western infant feeding practices by Vietnamese mothers. Vietnam's long history of domination by Western nations has ensured Vietnamese awareness of many European cultural traits. Thus, women in even the most remote and rural regions of Vietnam know of bottle feeding, and of the existence of commercially prepared baby foods. It is true that the vast majority of Vietnam mothers have continued to this day to breast feed their infants; but this persistence appears to result less from a deep commitment to that method of infant feeding than from reasons of expediency and economy. Portions of the Vietnamese urban elite, the more affluent and prestigious classes, have bottle fed their infants; and the practice generally is viewed as an acceptable and legitimate alternative to breast feeding (Mathews & Manderson, 1980).

For those Vietnamese women who were uprooted from their country, and who immigrated to Western nations, it might be anticipated that the barriers to the adoption of Western infant feeding patterns would quickly break down. The ready availability and affordability of infant formula and baby foods make bottle feeding and the use of Western infant foods viable alternatives to breast feeding, particularly in the absence of strong values for breast feeding and against bottle feeding. The immigrants' desire to behave in ways considered appropriate by Westerners might facilitate the adoption of nontraditional methods of infant feeding, as might views of breast feeding as backward, old-fashioned, vulgar, and immodest.

Although the stage is set in this country for abandonment of traditional ways and acceptance of Western ways, clearly some Vietnamese women might be expected to acculturate more rapidly than others. The literature which has been reviewed suggests that certain factors facilitate or inhibit acculturation, including demographic factors, cultural conditions, socioeconomic situation, and social support. The demographic factors identified were the age of the mother, the number of children in the family, and the birth order of the child. However, as noted earlier, the evidence of relationships between these variables and choice of breast feeding or bottle feeding is contradictory. Some investigators (e.g., Brimblecombe & Cullen, 1977; Brown & Adelson, 1969) found no relation between age and breast feeding. Sauls (1979), however, reported a higher incidence of bottle feeding among young mothers.

The effects of family size and baby's birth order are also uncertain. It has been claimed that women are more inclined to breast feed a first child than later born children (Hirschman & Hendershot, 1979; Martinez & Dodd, 1983; Martinez & Nalezienski, 1979), and that mothers who breast feed a first child will more likely breast feed subsequent children (Simopoulos & Grave, 1984). Finally, Manderson (1984) claimed that women with five or more children almost always have used the bottle for one or more children.

With regard to cultural factors, it is generally agreed that the custom of the region where the woman resides, and the practices of her friends and acquaintances strongly influence her behavior (Bryant, 1982). Some have claimed that rural women, at least in developing nations, are more likely to breast feed than urban women (Hirschman & Sweet, 1974; Huffman et al., 1980; Khanjanasthiti & Dhanamitta, 1978). Finally, some researchers conclude that women whose mothers had breast fed them are more likely to breast feed their own infants than are women whose mothers had bottle fed them (Brimblecombe & Cullen, 1979; Sauls, 1979; Seger et al., 1979).

Insofar as socioeconomic factors are concerned, the existing evidence appears to favor the view that outside employment may incline a woman to bottle feed (Khanjanasthiti & Dhanamitta, 1978; Martinez & Dodd, 1983; Meldrum & DiDomenico, 1982; Seger et al., 1979). The effects of education and income differ by time and extent of modernization. Until quite recently in industrialized countries, and still today in developing nations, the more affluent, better educated women turned to bottle feeding more than the less affluent and less educated women. Since the early 70's however, in Western nations, the more affluent and educated women appear to manifest a higher incidence of breast feeding than their less educated, less affluent counterparts (Hirschman & Hendershot, 1979; Hofvander & Sjolin, 1979; Sauls, 1979). Other researchers claim breast feeding has increased equally in all classes (Andrews et al, 1980; Huffman et al., 1980). Hence, in this study, no hypotheses are advanced regarding the relations of socioeconomic factors to method of infant feeding.

Social support factors are no doubt important in a mother's decision to breast or bottle feed her infant, and also in how long to breast feed before weaning. Indirect indications of social support and of the influence of other persons are provided by size and composition of family household. It might be presumed that larger households imply more support for a woman, and that the views and opinions of those other household members will exert pressure on the mother (Brimblecombe & Cullen, 1979; Sauls, 1979; Seger et al., 1979). It is presumed that the presence of members of the older generation in the household, as for example the woman's own mother or mother-in-law, may reinforce more traditional behavior on the part of the woman (Bryant, 1982). It is also presumed that the husband's views of whether or not his child should be breast fed will be important, as will be the advice of friends and family. If the child is born in a hospital, the views of health professionals will also be considered (Baranowski et al., 1983; Brimblecombe & Cullen, 1979; Sauls, 1979; Seger et al., 1979).

The present study will, then, examine the acculturation process as manifested in the extent to which Vietnamese mothers in the Pacific Northwest have retained or relinquished traditional ways of infant feeding, and adopted or rejected American patterns. Both the changes in the behavior of the Vietnamese women will be described, and an attempt made to determine the extent to which selected demographic, cultural, socioeconomic, and social support variables have influenced these changes.

Statement of the Problem

The general purpose of this research is to explore the effect that our Western environment has on the infant feeding practices of Vietnamese immigrants.

A rapid decline in the incidence and duration of breast feeding and earlier introduction of solid food among immigrants has been observed in other countries. The present investigator was interested in determining if Vietnamese immigrants to the United States changed their infant feeding practices, and if so, to identify the nature of these changes and the factors which influenced these changes.

This study compares the infant feeding practices of the last born child in Vietnam and the last born child in the United States. The data gathered also provide information regarding the extent of the changes, the factors which influenced the mother's infant feeding practices in Vietnam, and the factors which influenced the mother's infant feeding practices in the United States.

CHAPTER II

METHODS

Subjects and Settings

The subjects for this study were immigrant women from Vietnam who resided in an urban setting of the Pacific Northwest United States. Names and addresses of the women were provided by the Vancouver Washington Health Department, which served 2,067 Indo-Chinese patients in 1984, and by the Vietnamese Retreat Association of Portland whose services are available to 80 Vietnamese families. The subjects were enrolled in the Women, Infant, and Children (WIC) program for at least 6 months. The WIC program, established to assist low income families, provides food for pregnant and lactating mothers and for children from birth to five years of age. It also promotes breast feeding and provides nutritional counseling. The WIC program is directed not only to low income families, but also to women and children with problems such as anemia, inadequate diet, or weight below the 10th or above the 90th percentile.

The criteria for inclusion in the current study were as follows: multigravidas who have given birth to at least one child in Vietnam and one child in the United States; both children must have been normal term infants, delivered vaginally; and the infant born in the United States must have been 12 to 18 months of age at the time of the interview. Twenty women who met these criteria comprised the sample for this investigation. The first requirement permits a comparison of infant feeding practices in the two countries. The second criterion eliminates the possibility of infant prematurity or the condition of the mother's health which rendered breast feeding unacceptable. The third requirement permits determination of duration of breast feeding and the time of introduction of solids into infant diets.

Design and Procedure

The present study was exploratory and descriptive. The aim of the research was to explore the effect that our Western environment has on traditional infant feeding practices of Vietnamese immigrants by identifying the changes, and the factors which influenced these changes.

A pilot study to evaluate the questionnaire was conducted in the home of five Vietnamese women who met the criteria set for inclusion. The investigator and a bilingual Vietnamese interpreter conducted the interviews in the home. The relevance and understandability of the questions were established by analysis of the replies and reactions of the mothers. Questions were eliminated, or revised, as appropriate. Following revision, scheduled interviews were conducted in the homes of the subjects, again using the assistance of the Vietnamese interpreter. The women were informed that their participation or failure to participate in the study would in no way affect their participation in the WIC program, or their relationship with the Vancouver Health Department or Vietnamese Retreat Association. Participation was entirely voluntary.

Data and Data-Gathering Instrument

The structured interview schedule was developed by the investigator and consists of four sections, each dealing with a different topic. The first section collected data on the social and cultural background of the respondent. The five items of the second section inquired into the woman's perception of customary feeding practices in Vietnam and the United States. The third section gathered information about the last child born in Vietnam, namely the manner in which the child was fed, and about the factors which might have influenced that method of feeding. The fourth section focused on the last child born to the woman in the United States, and inquired into the manner in which that child was fed, and why.

These data fell into two broad categories: data describing the particulars of the infant feeding practices; and data concerning the factors which influenced method of infant feeding.

Infant Feeding Patterns

Data were gathered describing the manner in which the mother fed her last baby born in Vietnam, and her last baby born in the United States. From a comparison of these data, it is possible to note changes in infant feeding practices since immigration to this country. The data included: method of feeding--whether by breast only, by bottle only, or by a combination of breast and bottle feeding; the time at which breast feeding was commenced, and whether or not the baby was fed before breast feeding was initiated; the length of time until weaning; for bottle fed babies, the type of feeding used--whether synthetic formula, whole milk, sweetened condensed milk, or evaporated milk; and for both bottle and breast fed babies, the times at which various solids were introduced into the baby's diet. A listing of the particular interview items relating to infant feeding practices is presented in Table 1.

Factors Influencing Infant Feeding Patterns

Information was sought regarding the following sets of factors identified in the literature review as potential elements influencing infant feeding patterns: demographic factors, cultural factors, socioeconomic factors, and social support factors.

Demographic factors included the age of the woman, the number of other children in the family, and the birth order of the infants. Although the research evidence is far from unanimous, it is anticipated that older women may be more inclined to follow traditional patterns of infant

Table 1

Interview Items Relating to Infant Feeding Practices

Feeding Characteristic	Interview Items #
Method of Feeding	31, 84
Breast feeding	
When started	51, 105
Baby fed before breast feeding initiated	53, 54, 106, 107
Duration	59, 112
Bottle feeding	
Type of feeding (synthetic, milk)	42, 95
Duration	46, 99
Combination	
When breast feeding started	67, 68, 120, 121
How long before weaning	72, 74, 126, 127
Solids introduced into diet	51, 65, 78, 104, 118, 131

feeding. It is also possible that women may be more inclined to breast feed first children than later born children. The effect of size of family on infant feeding method is uncertain. In the existing literature, it has been argued that larger families imply a more traditional family. It has also been claimed that the more children a woman has, the less likely she is to breast feed the last child.

<u>Cultural factors</u> are tapped to some degree by questions regarding place of residence in Vietnam, by questions regarding the woman's perception of what the customary practices are, and by the question of whether or not the woman's own mother breast fed or bottle fed her children. The bulk of the literature reviewed suggests that women who lived on farms or in villages in underdeveloped lands were more traditional in feeding practices than women who resided in cities. It is also believed that women who reported breast feeding as customary among their friends and acquaintances in Vietnam or in this country would be more likely to breast feed their own infants, than women who did not report breast feeding as customary. Finally, it is also claimed that women who reported that their own mothers breast fed their infants would be more likely to breast feed their babies, both in Vietnam and in the United States, than

women who reported that their own mothers bottle fed their infants.

Socioeconomic factors of income, education, and employment status are all presumed to affect a mother's method of infant feeding. If the woman has outside employment, this may interfere with breast feeding and incline her to resort to bottle feeding. As indicated in the review of the literature, the effects of education and income are ambiguous. It might be argued with equal validity that the more affluent and better educated would be more aware of contemporary pressures to breast feed infants; or that the more affluent and better educated are more likely to desire the relatively greater personal freedom permitted the woman who bottle feeds.

Social support factors are no doubt important in the mother's decision to breast feed or bottle feed her infant, and in the mother's perseverance in breast feeding. Some indication of the extent of social support and of the influence of other persons on the mother is provided by questions regarding size and composition of family household, the mother's perception of the views regarding proper infant feeding held by her husband, family and friends, health professionals, and the media. It is presumed that larger family households imply more support for the woman, and that the views and opinions of those other members of the household will exert social pressure on the woman, thus affecting her decisions regarding infant feeding. Research studies are inconsistent in their findings regarding whether the presence of members of the older generation in the family household as, for instance, the woman's own mother or mother-in-law, may make for more traditional behavior on the part of the woman. It is also presumed that the husband's views of whether or not the mother should breast feed may be more important to Anglo-Americans than to other Americans. The amount of influence exerted by family and friends or by health professionals is controversial. Hence, no hypotheses are advanced regarding these matters.

The items on the interview schedule which collect data on these factors affecting infant feeding patterns are listed in Table 2.

Table 2

Interview Items Relating to Factors Influencing Mother's Infant Feeding Practices

Factors Affecting Feeding Practices	Interview Items #
Demographic	
Age	16
Number of children	17
Birth order	18, 19, 20
Cultural	
Residence	1, 2, 3
Customs of area	21, 22, 23
Mother's mother breast fed	48, 62, 75, 101, 115
Years in United States	4
Socioeconomic	
Income	11, 12, 13
Education	7, 8
Working status	9, 10, 38, 91
Social Support	
Size of household	14
Composition of household	15
Influence of husband, friends, etc.	33, 34, 35, 36, 37, 49, 50, 63, 64, 76, 77, 86, 87, 88, 89, 90, 102, 103, 116, 117

CHAPTER III

RESULTS AND DISCUSSION

Description of the Sample

Data were collected from Vietnamese immigrant women who met the criteria for inclusion in the study. As may be seen from Table 3, the final sample included 20 multigravida mothers between the ages of 19 and 41 years, with a mean age of 27.9 years. All mothers had given birth to at least one child in Vietnam and one child in the United States. All were born in Vietnam, as were their husbands. The majority of the sample (15) had resided in urban areas in Vietnam, four had lived in villages and one on a farm. The husbands' occupations in Vietnam were varied. Seven were in the army, five either owned or worked in a family business, and others had occupations such as carpenter, tailor, and mechanic. The majority (16) reported average incomes. Two had high incomes, and two had low incomes. Only four mothers were employed in Vietnam.

The educational level of the mothers ranged from 2 to 17 years, with a mean of 7.5 years. The educational level of their spouses ranged from 3 to 15 years with a mean of 9.1 years. Two women and 3 spouses were college educated, 7 women and 11 spouses had attended high school, and 11 women and 7 spouses had received only primary education.

Table 3

Socio-Demographic Characteristics of Sample of Vietnamese Women (N = 20)

Characteristic	Value
Present Age (years)	
M	27.9
SD	6.2
Range	18 - 41
Number of Children	
M	3.7
SD	1.6
Range	2 - 7
Residence in Vietnam	
Urban	15
Village	4
Farm	1
Lived in Relocation Camp	
Yes	19
No	1
Months in United States	
M	44.1
SD	16.2
Range	16 - 96
Income in Vietnam	
High	2
Average	16
Low	2
Income in United States	
High	4
Average	1
Low	15 (9 on welfare)
Woman Employed in Vietnam	
Yes	4
No	16

Table 3 (continued)

Characteristic	Value
Woman Employed in United States	
Yes	7
No	13
Education of Woman (years)	
M	7.5
SD	3.7
Range	2 - 17
Education of Spouse (years)	
M	9.1
SD	3.5
Range	3 - 15
Size of Household in Vietnam	
M	7.8
SD	3.2
Range	3 - 15
Size of Household in United States	
M	5.8
SD	1.6
Range	4 - 9
Family Composition in Vietnam	
Nuclear	6
Extended across generations	3
Extended collaterally	0
Extended both collaterally and across generations	11
Family Composition in United States	
Nuclear	17
Extended across generations	1
Extended collaterally	2

The size of the household in Vietnam ranged from 3 to 15 people, with a mean of 7.8 people. The family composition for 6 of the subjects was nuclear, for 3 the household extended across generations, and for 11 the households extended both collaterally and across generations. In all the households which extended both collaterally and across generations, the women resided with their husbands' parents, brothers, and sisters.

Prior to coming to the United States, 19 of the subjects had lived in relocation camps. Date of entrance into the United States ranged from 1977 to 1983, with a mean of 44.1 months residency in this country.

In the United States, the majority (15) had low incomes, with 9 on welfare because of lack of employment of the husband. However, all judged their standard of living was better in the United States than in Vietnam. Some husbands were employed as mechanics, two families had small businesses, others were employed at Tektronics Incorporated as engineers and technicians. Seven women were employed.

The number of children in these women's families ranged from 2 to 7, with a mean of 3.7. The size of their households ranged from 4 to 9 people, with a mean of 5.8 people. The family composition was nuclear for 17 households. Two families extended collaterally and in both cases it was the wife's brother who lived with them. In the one family that extended across generations, the husband's mother lived in the home.

In summary, the sample consisted mainly of urban, middle class Vietnamese women. In this country, their incomes were generally low. With immigration, the household size decreased and the family changed from extended to nuclear, hence coming to resemble the ideal American family form.

Feeding of Infants Born in Vietnam

In Vietnam, 17 of the mothers breast fed and 3 bottle fed their infants. No mothers combined bottle feeding with breast feeding. Apparently that arrangement so frequent in developing countries such as Nigeria (Meldrum & DiDomenico, 1982) does not prevail in Vietnam. Eighteen mothers reported breast feeding was the usual method of infant feeding in Vietnam and also in the community in which they lived; two mothers stated both breast and bottle feeding were customary. Nineteen stated their own mothers had breast fed their babies; one mother did not know (see Table 4).

For the 17 women who breast fed their infants, the duration of nursing varied from 4 to 12 months, with 12 women breast feeding for 12 months, one for 4 months, and the other four from 7 to 9 months. One mother commenced breast feeding the first day, but the majority delayed three

Table 4

Mothers Who Breast Fed Their Infants and Mothers Who Bottle Fed Their Infants Born in Vietnam: Compared With Respect to Demographic, Cultural, and Socioeconomic Factors

Factors Influencing Feeding Practices	Total (N = 20)	Mothers Who Breast Fed (*n* = 17)	Mothers Who Bottle Fed (*n* = 3)
Demographic			
Age when baby born			
M	24.3	24.8	21.0
SD	5.4	5.7	2.7
Range	17 - 36	17 - 36	19 - 26
No. of children (mean)	1.9	2.0	1.0
Birth order of child			
First	10	7	3
Second	4	4	
Third	1	1	
Fourth	2	2	
Fifth	3	3	
Cultural			
Residence			
Urban	15	12	3
Village	4	4	
Farm	1	1	
Custom of area			
Breast	18	15	3
Bottle	0	0	
Both	2	2	
Mother's mother			
Breast fed	19	16	3
Unknown	1	1	0

Table 4 (continued)

Factors Influencing Feeding Practices	Total (N = 20)	Mothers Who Breast Fed (n = 17)	Mothers Who Bottle Fed (n = 3)
Socioeconomic			
Income			
High	2	1	1
Average	16	15	1
Low	2	1	1
Mother works			
Yes	4	3	1
No	16	14	2
Education (years)			
Mother of child			
M	7.5	7.5	7.5
SD	3.7	3.7	3.7
Range	2 - 17	2 - 17	8 - 14
Father of child			
M	9.1	9.8	11
SD	3.5	3.6	2.7
Range	3 - 17	3 - 17	9 - 14

days. All gave their babies water, sugar water, or most frequently, herbal tea before breast feeding was initiated.

Three of the women reported that their husbands approved breast feeding; three others stated their husbands would have preferred that they bottle feed. The other 11 husbands had expressed no preference. Two of the mothers reported they had some friends who breast fed and some who bottle fed; the other 15 women reported that all their friends breast fed. Thirteen women stated their doctors did not discuss infant feeding with them, three reported their doctors advised breast feeding, and one was advised to bottle feed (see Table 5). One woman said she was influenced to breast feed by the media. Six mothers said they would have bottle fed if they had been able to afford the formula. Only three of these women worked outside the home in Vietnam after their babies were born.

The three mothers who bottle fed all used Similac. One mother did not remember when formula was started. The other two fed herbal tea to their babies for the first 24 hours, and then started formula. These mothers all resided in cities in Vietnam. All believed that breast feeding was the usual method of infant feeding in Vietnam generally, and in the community in which they lived. All three had friends who bottle fed, and two had been advised to bottle feed by health professionals (see Table 5). The husbands of two

Table 5

Mothers Who Breast Fed Their Infants and Mothers Who Bottle Fed Their Infants Born in Vietnam: Compared With Respect to Social Support Factors

Social Support Factors	Total (N = 20)	Mothers Who Breast Fed (n = 17)	Mothers Who Bottle Fed (n = 3)
Social Support			
Size of household			
M	7.8	8.0	6.3
SD	3.2	3.2	3.1
Range	3 - 15	3 - 15	3 - 9
Composition of family			
Nuclear	6	5	1
Extended across generations	3	3	0
Extended collaterally & across generations	11	9	2
Mother reports influence of			
Husband	5	3	2
Family	6	6	0
Friends	18	15	3
Health professionals	5	4	1
Media	1	1	0

preferred bottle feeding; the third did not care. The reason for the decision to bottle feed was probably not employment, because only one of these mothers worked outside the home after her baby was born.

Inasmuch as so few mothers bottle fed their infants in Vietnam, comparisons between the two groups of mothers are not too meaningful. However, the three who bottle fed were all primiparas, and perhaps younger than the other mothers (the mean age was 21 years). It might also be noted from Table 4 that the fathers of the bottle fed babies were somewhat better educated than the fathers of the breast fed babies (means of 11 years of schooling versus 9.8 years). In other respects, the backgrounds of the two sets of families appeared very similar.

There was also very little difference in the ages at which the infants in the two groups were given solid foods. According to Table 6, the first solid introduced was <u>bot</u> (a thin gruel made of boiled rice flour) at about 4 months, and <u>chao</u> (rice pudding) added at 6 months. About a third of the mothers started juices at 6 months, and three also added cereals at that time. At 8 months, vegetables and fruits were started. At 12 months eggs, meats, fish, and rice were introduced into the diets, and at 18 months, <u>pho</u> which is a mixture of vegetables and meat served over noodles and bean sprouts.

Table 6

Median Age in Months at Which Different Foods Were Introduced into Diets of Infants Born in Vietnam

	Infants Given Food		Breast Fed Infants		Bottle Fed Infants	
Food	No.	Median Age (months)	No.	Median Age (months)	No.	Median Age (months)
Bot	19	4	16	4	3	4
Cereals	3	6	1	6	2	6
Juices	8	6	8	6	0	-
Chao	18	6	15	6	3	12
Fruit	20	8	17	8	3	7
Vegetables	20	8	17	8	3	7
Eggs	20	12	17	12	3	12
Meat	20	12	17	12	3	12
Fish	20	12	17	12	3	12
Rice	20	12	17	12	3	12
Pho	19	18	16	18	3	18

Feeding of Infants Born in the United States

In the United States, 17 mothers bottle fed their babies and 3 breast fed. No mothers combined the two methods. Nineteen of the mothers stated that the usual method of infant feeding in America is by bottle. One mother stated that both methods are customary (see Table 7).

All 17 infants who were bottle fed began nursing on the first day. Most frequently, the first feeding was given in the hospital nursery. Five of the 17 mothers said they were encouraged to bottle feed by their husbands, 1 by her own mother, and 15 by friends (see Table 8). None admitted to being influenced by the media. In one case, the husband and in three other cases, health professionals advised breast feeding, but the mothers disregarded their advice. Finally, three women reported being advised by health professionals to feed by bottle. This advice would seem to run counter to contemporary views of the comparative health benefits of the two feeding methods. Perhaps particular circumstances such as the health status of the mother elicited that advice.

Three of the 17 mothers who bottle fed their babies believed, nevertheless, that breast feeding was healthier. Two women stated that mother's milk was nutritionally better than cow's milk, and two stated mother's milk protected the baby against disease. Eight mothers believed breast milk

Table 7

Mothers Who Breast Fed Their Infants and Mothers Who Bottle Fed Their Infants Born in the United States: Compared With Respect to Demographic, Cultural, and Socioeconomic Factors

Factors Influencing Feeding Practices	Total (N = 20)	Mothers Who Breast Fed (*n* = 3)	Mothers Who Bottle Fed (*n* = 17)
Demographic			
Age when baby born			
M	28.3	24.7	28.9
SD	6.1	4.9	6.2
Range	19 - 41	19 - 28	21 - 41
Birth order of child			
Second	7	2	5
Third	4	1	3
Fourth	2	0	2
Fifth	4	0	4
Sixth	2	0	2
Seventh	1	0	1
Cultural			
Residence			
Urban	20	3	17
Custom of area			
Breast	0	0	0
Bottle	19	2	17
Both	1	1	0
Socioeconomic			
Income[a]			
High ($30,000+)	3	0	3
Average ($14-15,000)	2	0	2
Low (≤ $10,000)	15	3	12

Table 7 (continued)

Factors Influencing Feeding Practices	Total (N = 20)	Mothers Who Breast Fed (n = 3)	Mothers Who Bottle Fed (n = 17)
Mother works[b]			
Yes	7	0	7
No	13	3	10
Education (years)			
Mother of child			
M	7.5	9.0	7.2
SD	3.6	2.7	3.8
Range	2 - 17	6 - 11	2 - 17
Father of child			
M	9.0	11.0	8.6
SD	3.5	2.7	3.5
Range	3 - 17	9 - 14	3 - 17

[a]Two of the 3 mothers who breast fed, and 7 of the 12 "low income" mothers who bottle fed were on welfare.

[b]Four more women who bottle fed attended school after infant's birth.

Table 8

Mothers Who Breast Fed Their Infants and Mothers Who Bottle Fed Their Infants Born in the United States: Compared With Respect to Social Support Factors

Social Support Factors	Total (N = 20)	Mothers Who Breast Fed (n = 3)	Mothers Who Bottle Fed (n =17)
Social Support			
Size of household			
M	5.8	4.7	6.0
SD	1.6	0.6	1.6
Range	4 - 9	4 - 5	4 - 9
Composition of family			
Nuclear	17	2	15
Extended across generations	1	0	1
Extended collaterally	2	1	1
Extended collaterally and generations	0	0	0
Mother reports influence of			
Husband	7	2	5
Family	1	0	0
Friends	17	2	15
Health professionals	6	3	3
Media	1	1	0

and formula were equally healthy. Seven based their opinions on their personal observations and claimed that the breast and bottle fed children they knew were equally healthy. The eighth mother claimed formula was as nutritionally healthy as breast milk. Finally, six of the 17 mothers claimed that bottle feeding was better for the infant. Four argued that if the mother's diet was poor, her milk would not be healthy. One woman also claimed that the mother would be healthier if she did not breast feed. Two mothers said that formula produced in the United States was very good and contained everything needed for growth.

With regard to the three mothers who breast fed their infants born in the United States, the first fed her baby within 5 hours of birth, the second within 12 hours, and the third when the baby was 24 hours old. All infants had been given water prior to breast feeding.

These mothers had been encouraged to breast feed, two by their husbands, two by their friends, three by the health professionals, and one from messages in the media. All believed that breast feeding was healthier than bottle feeding. They commented "milk is clean and warm," "milk is clean and natural," and "baby is closer to mother." Despite this belief in the virtues of breast feeding, still they ceased nursing quite early, at 1 month, at 2 months, and at 3 months.

Few differences are evident between the three who breast fed and the 17 who bottle fed. The three who breast fed had lived for a shorter period of time in the United States (mean of 31.3 months versus 46.4 months). From Table 7 it may be seen that their educational level was somewhat higher than that of the bottle feeding mothers (9.0 years versus 7.2 years). The educational level of their husbands was also higher (11 years) than of the husbands of the women who bottle fed (8.6 years).

Insofar as the introduction of solid foods into infant diets is concerned, there appeared to be little difference between the two groups of mothers. Table 9 indicates that the first solid foods were <u>bot</u>, cereals, juices, fruits, and vegetables, all of which were started about 6 months for both breast fed and bottle fed infants. The three breast fed babies were fed eggs, meat, fish, and rice at about 8 months, whereas the bottle fed babies were not started on these solid foods until about 12 months.

<u>Comparison of Infant Feeding Practices in Vietnam and in the United States</u>

Anthropologists have used the incidence and duration of nursing as a measure of acculturation of a group (Bader, 1981). By that measure, this sample of Vietnamese women were not acculturated to Western ways when they lived in Vietnam. Seventeen breast fed their last child born in

Table 9

<u>Median Age in Months at Which Different Foods Were Introduced into Diets of Infants Born in the United States</u>

	Infants Given Food		Breast Fed Infants		Bottle Fed Infants	
Food	No.	Median Age (months)	No.	Median Age (months)	No.	Median Age (months)
Bot	16	6	3	6	13	6
Cereals	20	6	3	6	17	6
Juices	20	6	3	6	17	6
Chao	16	7	1	7	15	7
Fruit	20	6	3	6	17	6
Vegetables	20	6	3	6	17	6
Eggs	19	12	3	8	16	12
Meat	20	12	3	8	17	12
Fish	19	12	3	8	16	12
Rice	20	12	3	8	17	12
Pho	8	14	1	12	7	14

Vietnam, and the majority of these nursed for a full year. However, for all its dominance, breast feeding was not a practice imbued with deep significance, nor embedded in core values. Rather, the reasons given for adhering to the practice were custom ("everyone breast fed") and economy. Several women retrospected that they would have liked to use the bottle in Vietnam, but were dissuaded by the cost of formula. The mothers tended to view artificial feeding as an acceptable alternative, but only within the means of more affluent Vietnamese and Europeans. Bader (1981), Meldrum and DiDomenico (1982), and Huffman et al. (1980) have all suggested that urban populations in developing countries may consider breast feeding as a backward and vulgar peasant custom, and bottle feeding as a status symbol. Whether or not this was true in Vietnam, there appeared to be neither a strong commitment to breast feeding nor a strong tabu against artificial feeding.

This lack of commitment to the custom of breast feeding may account for the alacrity with which the Vietnamese women adopted bottle feeding in the United States. Seventeen of the women bottle fed their last child born in this country. Only three of the mothers who had breast fed their infants in Vietnam also breast fed their American-born infants. All discontinued by the third month. Similar dramatic declines in the incidence and duration of breast feeding have been documented for other immigrant groups, such as Indian women to England (Evans et al., 1976), Chinese women to Scotland (House & Goel, 1980), Asian and African women to Israel (Mansbach et al., 1984), and Vietnamese women to Australia (Mathews & Manderson, 1982).

It may be noted that this adoption of what the Vietnamese mothers perceived as the American custom occurred even before the women had achieved fluency in the English language. Many declared that bottle feeding was just as healthy as breast feeding, but even those who believed that breast feeding was healthier, still chose bottle feeding or discontinued breast feeding shortly after birth. The major reasons given for the decision to bottle feed were its convenience, and the freedom it offered the mother to participate in the life of the community, whether to work, go to school, shop, or socialize. The desire for freedom from the constraints of motherhood must be reckoned with as a powerful motive for artificial feeding.

Other than for the dramatic shift from breast to bottle, there were few changes in infant feeding patterns. It is true that in Vietnam, feeding was usually delayed three days, perhaps in order to avoid the baby's ingestion of colostrum. The babies were fed herbal tea or sugar water. This custom broke down in the United States, with babies being fed formula in the hospital nursery the first day, or babies being put to the breast the first day.

There appeared to be no real differences in the ages at which various foods other than milk were added to the infants' diets in the two countries. Apparently American and Vietnam beliefs and customs regarding the appropriate timing of solids do not conflict. In addition, the WIC recommendations in this area closely paralleled traditional Vietnam practices (Pipes, 1981). Certain foods such as cereals and orange juice were absent from infant diets in Vietnam, but were added here, because of their greater availability. Almost all mothers continued to feed the traditional bot, chao, and pho. Mathews and Manderson (1980) also reported that Vietnamese mothers in Australia continued to use the traditional rice gruel.

Factors Influencing Infant Feeding Patterns

The small size of this sample, coupled with the fact that in Vietnam very few mothers bottle fed their infants, precluded any adequate assessment of the effects of demographic and social factors on infant feeding practices. It may be noted that the three mothers who bottle fed were similar in many respects to those who breast fed. However, they appeared to be somewhat younger, they were all primiparas, they were all residents of urban areas, and their husbands were somewhat better educated than the husbands of the mothers who breast fed. Previous research on infant feeding by women in underdeveloped countries suggests that these latter are characteristics of women more likely to break with traditional ways. Manderson (1984) claimed that those who bottle fed in Malaysia tended to be younger women. Meldrum and DiDomenico (1982) reported more bottle feeding among urban, better educated women in Nigeria, and Guthrie et al. (1985) reported the same for the Philippines. Huffman et al. (1980) remarked that Bangladesh women of greater wealth or some education tended to breast feed for a shorter time than poor, uneducated women.

An adequate assessment of the effects of various demographic and social factors on infant feeding practices of Vietnamese immigrants to the United States is also impossible, because of the very small number of women who breast fed. The three women who breast fed their infants born in the United States were very similar to the mothers who bottle fed. However, they tended to be younger, better educated, and with better educated husbands than the women who bottle fed. They also had fewer children; two of the mothers had two children, and the third had three children. None of the three mothers worked. They were also more recent migrants from Vietnam. It might be argued that their shorter residence in this country would result in their lesser acculturation; and this would account for their retention of the traditional custom of breast feeding.

These conclusions are extremely tentative. In order better to understand why some Vietnamese mothers chose to breast feed and some mothers chose to bottle feed, a much larger sample of mothers would be required. Morever, the sample should draw from the two strata of breast and bottle feeding mothers disproportionately, so as to obtain a sufficient number of mothers who breast feed in America. Only then, would one be able to explicate the effects of age, birth order, socioeconomic status, and employment status on the mother's infant feeding practices.

Finally, it should be stressed that whether or not these factors have an effect, it is clear that the fact of migration from a developing country to a developed one is a major factor in persuading women of all classes and ages to adopt bottle feeding. What is perceived to be the custom of the land, what "everyone does" is a powerful force overriding other considerations, whether in Vietnam or the United States.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The first purpose of this investigation was to explore and describe changes in the method of infant feeding following migration from Vietnam to the Northwest United States. To this end, 20 Vietnamese women were interviewed who had borne children both in Vietnam and in the United States. Most of these women had resided in urban areas in Vietnam; all resided in an urban area in the United States. In Vietnam, their incomes had been average; in this country, their incomes were generally low, and all participated in the WIC program for low income mothers. At the time of the interview, the number of children in these families ranged from 2 to 7. In Vietnam, most of the women had lived in households that included members of the extended family, whereas in the United States almost all lived in households which included only members of the family of procreation.

In Vietnam, 17 of the women breast fed their infants, usually for a full year. The reasons given were convenience, economy, and custom ("everybody breast fed"). Several mentioned they would have liked to bottle feed, but that the cost of formula deterred them. Their comments suggested that the custom of breast feeding was not deeply rooted in the core values of Vietnamese culture, but was merely a practical technique of caring for infants. No strong sanction appeared to exist against bottle feeding.

A dramatic and quite general shift in infant feeding methods occurred with immigration. In the United States, 17 of the women bottle fed their infants, and the three who breast fed did so for a maximum of three months. Here the reasons given for bottle feeding were convenience, custom ("most everyone bottle feeds"), and the mother's greater "freedom." The women observed their friends and acquaintances bottle feeding, and adopted them as role models. The fact that they had more freedom to go to work, to go to school, to shop, or to visit friends did not go unnoticed. Moreover, few could see that the babies had suffered from being fed formula. Six mothers claimed that bottle feeding was the healthier method; eight stated that breast and bottle feeding were equally healthy. The six who considered breast feeding as healthier still did not see bottle feeding as unhealthy. It is possible that quite different responses would have been offered in Vietnam, in view of the sanitary and other conditions prevalent there. However, in the United States, the mothers compared children fed by the two methods, and concluded that the bottle fed children were just as healthy. Finally, it should be noted that for many of these women, bottle feeding became a viable option, economically speaking, only in this country. Confronted with a choice of methods for the first time, the lack of a strong belief in the rightness of breast feeding, coupled with the promise of freedom and the comfort of conforming to the custom of the new land, it is not surprising so many women opted to bottle feed. The advice of their friends and their personal predilections outweighed the influence of the professionals of the WIC program who recommended breast feeding. These considerations must be taken into account by any campaign to promote breast feeding. In order to succeed, sufficient inducements must be offered women to counteract the perceived advantages of bottle feeding.

In contrast to this sharp change in the incidence and duration of breast feeding, other infant feeding patterns such as the timing of the introduction of solid food into the infant's diet, remained relatively unchanged. Perhaps this was so because the timing recommended by the WIC program in the Northwest area did not differ greatly from that to which the women had traditionally adhered. The only differences noted were in the incorporation of cereals and orange juice into the infant's diet in the United States. These foods were not readily available in Vietnam, but were provided by the WIC program in America. Traditional gruels were maintained in this country.

The second purpose of this investigation was to describe the differences between the Vietnamese women who chose to breast feed their infants and those who chose to bottle feed, either in their native land or in the United States. Unfortunately, in this sample too few mothers bottle fed in Vietnam, and too few breast fed in the United Stated, to permit a meaningful assessment of the effects of the selected demographic, socieconomic, and social support factors. Perhaps those women who bottle fed in Vietnam were somewhat younger, and of slightly higher socioeconomic status than other mothers. Perhaps those women who breast fed in the United States were somewhat younger, with fewer children, better educated, and more recently arrived from Vietnam. However, none of the selected characteristics appeared to exert as strong an impact on infant feeding practices as did the tendency to adopt the cultural patterns of the host country, and the desire to enjoy the personal freedom attendant on those patterns.

The tentative nature of the above conclusions must be acknowledged in light of the limitations of this research. First, the small and nonrepresentative sample makes generalizations of the findings to other Vietnamese samples difficult. It is even more difficult to generalize to other immigrant groups. Second, the quality of the data obtained on infant feeding practices in Vietnam suffers from all the problems of retrospective studies, such as memory decay. In addition, no doubt mothers to some degree reconstructed their past behavior and attitudes to accord more with their current views and attitudes. If they had been interviewed in Vietnam, they might have expressed more commitment to breast feeding, and more disapproval of bottle feeding. A third limitation lies in the very small number of women who bottle fed in Vietnam, and the very small number of women who breast fed in the United States, making comparisons of the groups very difficult. A fourth limitation arises from the interview schedule itself, and its failure to include a sufficiently diverse sample of items to represent the entire domain of factors influencing infant feeding decisions.

Recommendations for Future Study

Future investigators should, of course, attempt to circumvent the obvious limitations of the present exploratory study by drawing larger, more representative samples. Given the low incidence of breast feeding in the United States among Vietnamese immigrants, it would also seem advisable for investigators to resort to the techniques of "disproportionate stratified sampling." By oversampling women who breast feed, the researchers could secure large enough numbers to permit comparisons between the two groups. Thirdly, future investigators of the determinants of mothers' decisions to breast or bottle feed should explore in greater depth women's beliefs and perceptions regarding the relative costs and benefits of the two methods. These costs and benefits should relate not only to health matters, but should include economic, social, aesthetic, emotional, family, and time-and-effort considerations.

Remarks made by the women of the present study in response to open-ended items in the interview, and general comments volunteered throughout the interview, suggest a variety of factors enter into the mother's decision, some of which have not been explored in the research conducted to date. For example, women's views on the following issues seem to be relevant. Under what conditions, and to what extent, do mothers believe bottle feeding is healthier than breast feeding for the infant, and vice versa? Do mothers believe that breast feeding results in significant immunological advantages for the baby? If so, until what age? Under what conditions, and to what extent, is breast feeding healthy for the mother, and vice versa? To what extent do mothers find breast feeding physically uncomfortable or painful? To what extent do mothers believe breast feeding has either an adverse or a good effect on the figure and physical appearance of women? Do women believe in the contraceptive effects of breast feeding? If so, how important are these to the woman? Does breast feeding carry religious connotations? To what extent do mothers believe breast feeding is restrictive of a woman's life style? How important to mothers is freedom from such restrictions? Does breast feeding an infant detract from the attention and care a mother can give to other children, or to other members of the family? How likely is it that a baby will refuse to nurse? To what extent does the mother consider breast feeding immodest? Finally, to what extent do mothers view breast feeding as a backward and primitive way to feed children, or as an advanced and progressive way? The answers to these questions should prove useful in developing an instrument to estimate women's inclinations to breast feed their infants, and should provide a better understanding of the factors determining women's infant feeding practices.

Implications for Nursing

The main value of this study for nursing may be in alerting nurses to the fact that Vietnamese immigrant women are unlikely to adopt the recommendations of professionals to breast feed. The same may be true of other immigrant populations. By becoming aware of the many reasons that may underlie their resistance to breast feeding, nurses on maternity units or in well baby clinics can provide counseling to eliminate anxieties, misconceptions, or apathy about breast feeding. They may also come to recognize good reasons why breast feeding may not be the best decision for individual mothers. Then, understanding that these women may be both unfamiliar with the techniques of formula preparation, and unable to read, or understand well, directions given in the English language, nurses should be mindful of the possibility that serious mistakes may be made in the preparation of bottle feedings. Mothers in the WIC program are in a particularly advantageous position. As such programs to learn safe and healthful ways of infant feeding are cut back, it becomes more imperative that nurses provide this counseling. The more they understand the views and beliefs of the Vietnamese, the more effective their counseling will be.

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Appendix A

Informed Consent

THE OREGON HEALTH SCIENCES UNIVERSITY

School of Nursing
Department of
Family Nursing

3181 S.W. Sam Jackson Park Road Portland, Oregon 97201 (503) 225-8382

INFORMED CONSENT FORM

I, ______________________________, agree to participate in the investigation named, Infant Feeding Practices of Vietnamese Immigrants to the Northwest United States. The investigation, conducted by Shirley Henderson, R.N., under the supervision of Dr. Jilia Brown, Ph.D., explores the infant feeding practices in both Vietnam and the United States.

I understand participation involves answering a set of questionnaires regarding the infant feeding methods of my last child born in Vietnam and my last child born in the United States. I understand there are no risks involved to myself or my children. The information obtained will be kept confidential. My name will not appear on the records and anonymity will be insured by use of code numbers.

Shirley Henderson has offered to answer any questions that I might have about my participation in this study. I understand I am free to refuse to participate or to withdraw from participation in the study at any time without effect on my participation in the WIC program, or my relationship with the Vancouver Health Department or Vietnamese Retreat Association.

The Oregon Health Sciences University, as an Agency of the State, is covered by the State Liability Fund. If you suffer any injury from the research project, compensation would be available to you only if you establish that the injury occurred through the fault of the Center, its officers or employees. If you have further questions please call Dr. Michael Baird at (503) 255-8014.

I have read the foregoing and agree to participate in this study.

____
(Subject's Signature)

____
(Witness)

____
(Date)

Appendix B

Interview Schedule

INTERVIEW SCHEDULE

Section 1: Demographic Information

1. Where were you born? ______________________

2. Where was the baby's father born? ______________

3. In your native country did you live in a

   city ________

   village ________

   farm ________

4. When did you enter the U.S.A.? ______________

5. Did you live in a relocation camp? Yes _____ No _____

6. If yes, when and how long? ________________

7. How many years of formal education did you have? _____

8. How many years of formal education did your husband have? ____________

9. Was your husband employed in Vietnam? Yes ____ No ____

10. If yes, what was his occupation? ______________

11. Was your income considered to be

    high ________

    average ________

    low ________

12. What is your family's yearly income in the U.S.A.? ____

13. Do you live as well as you did in Vietnam?

better __________

same __________

worse __________

14. Number of people in household:

Vietnam __________

U.S.A. __________

15. Relationship of people in household after you married:

A. Vietnam

Husband _____

Children (how many) _____

Your relatives

Mother _____

Father _____

Sisters (how many) _____

Brothers (how many) _____

Your husband's relatives

Mother _____

Father _____

Sisters (how many) _____

Brothers (how many) _____

Others

Uncles _____

Aunts _____

Cousins _____

B. U.S.A.

Husband _____

Children (how many) _____

Your relatives

Mother _____

Father _____

Sisters (how many) _____

Brothers (how many) _____

Your husband's relatives

Mother _____

Father _____

Sisters (how many) _____

Brothers (how many) _____

Others

Uncles _____

Aunts _____

Cousins _____

16. Your age _____ Date of birth ________________

17. How many living children do you have? _____

18. Children born alive in Vietnam _____

19. Children born alive in relocation camp _____

20. Children born alive in U.S.A. _____

Section II: Social Factors

21. What do you believe was the usual method of infant feeding in Vietnam?

    breast _____ bottle _____ breast and bottle _____

22. What do you believe was the usual method of infant feeding in the area where you lived?

    breast _____ bottle _____ breast and bottle _____

23. What do you believe is the usual method of infant feeding in the U.S.A.?

    breast _____ bottle _____ breast and bottle _____

24. Which feeding method do you feel is healthiest for a baby?

    breast _____ bottle _____

    breast and bottle equally healthy _____

25. Why do you feel this method is healthiest? ____________

    ____

Section III: Last baby born in Vietnam

26. Date of birth __________

27. Place of birth

    Home ______

    Hospital ______

28. Sex of child ______

29. Was the baby born premature? ______

30. Method of delivery

    Normal ______

    Cesarean section ______

31. How did you feed the baby?

    Breast only ______

    Bottle only ______

    Breast and bottle ______

32. Why did you choose this method? ____________________________

    ____

33. Did anyone discuss methods of infant feeding prior to or at the time of delivery? ______

    Nurse ______

    Doctor ______

    Family member ______ Relationship ______

    Friend ______

    Other ______

34. What was said? ____

    ____

35. If delivered in hospital were the hospital people supportive of your method of infant feeding?

    Yes ______ No ______

    Give examples ____

    ____

36. Did any advertisement which you saw or heard influence your method of infant feeding? Yes ______ No ______

37. If yes, how did it influence you? ____________________

    ____

38. Did you work outside your home after the birth of the baby? ________

39. If yes, how old was the baby when you went to work? ___

40. Did this influence your method of feeding? ___________

41. Was cost a factor in the method of feeding you chose?

    ____

Section III(A) If baby was bottle fed.

42. What was the baby fed?

Formula _____ Type ______________________________

Whole milk _____ Type ___________________________

Evaporated condensed milk _____ Type _____________

Sweetened condensed milk ______

43. What do you feel are the advantages of bottle feeding?

____

44. Did you have problems with bottle feeding? Yes __ No __

45. If yes, what problems did you have? __________________

____

46. Duration of bottle feeding in months _________________

47. Did you think of breast feeding this baby? Yes __ No __

48. Did your mother bottle feed her babies? Yes ___ No ___

49. Did you have friends or acquaintances who bottle fed their babies? Yes _____ No _____

50. How did your husband feel about the feeding method you chose? ____

51. Age in months when solid foods introduced.

Cereals _____ eggs _____ fruit _____ vegetables _____

Juices _____ meats _____ <u>chao</u> _____ <u>bot</u> _____

<u>Pho</u> _____ fish _____ rice _____

Section III(B) If baby was breast fed.

52. When did you start to breast feed? ____________________

53. Was the baby fed anything before you started to breast feed? Yes _____ No _____

54. If yes, what was the baby fed? ________________________

____

55. What do you feel are the advantages of breast feeding?

____

56. Did you enjoy breast feeding? Yes _____ No _____

57. Did you have problems with breast feeding? Yes __ No __

58. If yes, what problems did you have? ___________________

____

59. Duration of breast feeding in months __________________

60. Did you think of bottle feeding this baby? Yes __ No __

61. If you had wanted to bottle feed, were bottles and milk or formula available? Yes _____ No _____

62. Did your mother breast feed her babies? Yes ___ No ___

63. Did you have friends or acquaintances who breast fed their babies? Yes _____ No _____

64. How did your husband feel about the feeding method you chose? ____

65. Age in months when solid foods introduced.

Cereals _____ eggs _____ fruit _____ vegetables _____

Juices _____ meats _____ chao _____ bot _____

Pho _____ fish _____ rice _____

Section III(C) If baby was both bottle and breast fed.

66. What was the infant's first feeding?

Breast _____ Bottle _____ Other _____

67. When was breast feeding started? ____________________

68. When was bottle feeding started? ____________________

69. How many bottles were fed in a 24-hour period? ________

70. What are the advantages of breast and bottle feeding?

____

____

71. Did you have problems with this feeding method?

Yes _____ No _____

72. If yes, what problems did you have? __________________

____

73. Duration in months of breast feeding _________________

74. Duration in months of bottle feeding _________________

75. How did your mother feed her babies?

Breast _____ Bottle _____ Both _____

76. Did you have friends or acquaintances who both bottle and breast fed their infants? Yes _____ No _____

77. How did your husband feel about the feeding method you chose? ____

78. Age in months when solid foods introduced.

Cereals _____ eggs _____ fruit _____ vegetables _____

Juices _____ meats _____ <u>chao</u> _____ <u>bot</u> _____

<u>Pho</u> _____ fish _____ rice _____

Section IV: Last baby born in the U.S.A.

79. Date of birth __________

80. Place of birth

Home ______

Hospital ______

81. Sex of child ______

82. Was the baby born premature? ______

83. Method of delivery

Normal ______

Cesarean section ______

84. How did you feed the baby?

Breast only ______

Bottle only ______

Breast and bottle ______

85. Why did you choose this method? ____________________________

____

86. Did anyone discuss methods of infant feeding prior to or at the time of delivery? ______

Nurse ______

Doctor ______

Family member ______ Relationship ______

Friend ______

Other ______

87. What was said? ____

____

88. If delivered in hospital were the hospital people supportive of your method of infant feeding?

Yes ______ No ______

Give examples ____

____

89. Did any advertisement which you saw or heard influence your method of infant feeding? Yes ______ No ______

90. If yes, how did it influence you? ____________________

____

91. Did you work outside your home after the birth of the baby? ________

92. If yes, how old was the baby when you went to work? ___

93. Did this influence your method of feeding? ___________

94. Was cost a factor in the method of feeding you chose?

____

Section IV(A) If baby was bottle fed.

95. What was the baby fed?

Formula _____ Type ______________________________

Whole milk _____ Type ___________________________

Evaporated condensed milk _____ Type _____________

Sweetened condensed milk ______

96. What do you feel are the advantages of bottle feeding?

____

97. Did you have problems with bottle feeding? Yes __ No __

98. If yes, what problems did you have? __________________

____

99. Duration of bottle feeding in months _________________

100. Did you think of breast feeding this baby? Yes __ No __

101. Did your mother bottle feed her babies? Yes ___ No ___

102. Did you have friends or acquaintances who bottle fed their babies? Yes _____ No _____

103. How did your husband feel about the feeding method you chose? ____

104. Age in months when solid foods introduced.

Cereals _____ eggs _____ fruit _____ vegetables _____

Juices _____ meats _____ <u>chao</u> _____ <u>bot</u> _____

<u>Pho</u> _____ fish _____ rice _____

Section IV(B) If baby was breast fed.

105. When did you start to breast feed? ________________

106. Was the baby fed anything before you started to breast feed? Yes _____ No _____

107. If yes, what was the baby fed? ________________

____

108. What do you feel are the advantages of breast feeding?

____

109. Did you enjoy breast feeding? Yes _____ No _____

110. Did you have problems with breast feeding? Yes __ No __

111. If yes, what problems did you have? ________________

____

112. Duration of breast feeding in months ________________

113. Did you think of bottle feeding this baby? Yes __ No __

114. If you had wanted to bottle feed, were bottles and milk or formula available? Yes _____ No _____

115. Did your mother breast feed her babies? Yes ___ No ___

116. Did you have friends or acquaintances who breast fed their babies? Yes _____ No _____

117. How did your husband feel about the feeding method you chose? ________________

118. Age in months when solid foods introduced.

Cereals _____ eggs _____ fruit _____ vegetables _____

Juices _____ meats _____ chao _____ bot _____

Pho _____ fish _____ rice _____

Section VI(C) If baby was both bottle and breast fed.

119. What was the infant's first feeding?

Breast _____ Bottle _____ Other _____

120. When was breast feeding started? ____________________

121. When was bottle feeding started? ____________________

122. How many bottles were fed in a 24-hour period? _______

123. What are the advantages of breast and bottle feeding?

____

____

124. Did you have problems with this feeding method?

Yes _____ No _____

125. If yes, what problems did you have? _________________

____

126. Duration in months of breast feeding ________________

127. Duration in months of bottle feeding ________________

128. How did your mother feed her babies?

Breast _____ Bottle _____ Both _____

129. Did you have friends or acquaintances who both bottle and breast fed their infants? Yes _____ No _____

130. How did your husband feel about the feeding method you chose? ____

131. Age in months when solid foods introduced.

Cereals _____ eggs _____ fruit _____ vegetables _____

Juices _____ meats _____ chao _____ bot _____

Pho _____ fish _____ rice _____

AN ABSTRACT OF THE THESIS OF

SHIRLEY MAY HENDERSON

FOR THE MASTERS OF NURSING

DATE OF RECEIVING THIS DEGREE: JUNE 1986

TITLE: INFANT FEEDING PRACTICES OF VIETNAMESE IMMIGRANTS TO THE NORTHWEST UNITED STATES

APPROVED: [redacted]

Julia Brown, Ph.D. THESIS ADVISOR

The purpose of this exploratory and descriptive study was to explore the effect that Western culture has on traditional infant feeding practices of Vietnamese immigrants by identifying the changes and the factors which influenced these changes.

Interviews were conducted with 20 Vietnamese women who had borne children both in Vietnam and in the United States. Most of these women had resided in urban areas in Vietnam; all resided in an urban area in the United States. All participated in the WIC program.

The structured interview schedule consisted of four sections. The first section collected data on social and cultural background of the respondents. Section Two inquired into the woman's perception of customary infant feeding practices in Vietnam and the United States. The third section gathered information about the last child born in Vietnam, about the manner in which the child was fed, and

factors which might have influenced that method of feeding. The fourth section focused on the last child born in the United States, and inquired into manner in which the child was fed, and why.

A dramatic decline in the incidence and duration of breast feeding among the infants born in the United States was clearly documented. However, there was little difference as to the timing of introduction of solid food between the Vietnamese and American born infants. Unfortunately, in this sample too few mothers bottle fed in Vietnam, and too few breast fed in the United States, to permit a meaningful analysis of the effects of the selected demographic, socioeconomic, and social support factors. The strongest impact on infant feeding practices was the tendency to adopt the cultural patterns of the host country, and the desire to enjoy the personal freedom attendant on those factors.

The small and nonrepresentative sample makes generalizations of the findings to other Vietnamese samples difficult. It is even more difficult to generalize to other immigrant groups.

The main value of this study for nursing may be in alerting nurses to the fact that Vietnamese immigrant women are unlikely to adopt the recommendation of professional to breast feed. By becoming aware of the many reasons that may underlie their resistance to breast feed, nurses can provide counseling to eliminate anxieties, misconceptions, or apathy about breast feeding. In addition nurses should be mindful of the possibility that serious mistakes may be made in preparation of bottle feedings because these women are unable to read, or understand well, directions given in the English language.