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[Home](#)

[Contents](#)

[Search](#)

[Back Issues](#)

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## **Gathering Food and Nutrition Information from Migrant Farmworker Children through In-depth Interviews**

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### **Literature Review**

Migrant farmworkers have been an element of Minnesota's agricultural community since the early 1800s, making up 60% of the farmworker labor force in the state. The majority are Chicano/Latino and come from southern Texas, with smaller numbers from California and Mexico. Migrants live in Minnesota each year from April through October, harvesting sugar beets, fruits, and vegetables, and working in canning factories and meat packing plants. Many travel with

their nuclear and extended families, bringing children to maintain family unity. Most migrant farmworkers in Minnesota live in poverty.

Interviews with migrant farmworkers and service providers in Minnesota showed that diet-related diseases common to this population were obesity/overweight, cardiovascular disease, diabetes, and anemia (Thomas, Fang, Hones, Mgeni, & Rode, 1995). Contributory problems included lack of adequate housing and cooking facilities, poor food choices or habits, limited availability of fruits and vegetables, and lack of fluoridated water (Minnesota Department of Health, 1997). Others have also indicated that adequate refrigeration in migrant camps is generally problematic (Thomas, et al., 1995).

In Minnesota, a recent study of Chicano/Latino children including migrant families found that parents were aware that their children needed healthy diets, but lack of money prohibited them from providing adequate nutrition (Compean, 1994). Migrant children frequently have health needs that are not addressed because of their migratory lifestyle, poverty, poor education, and language barriers. Health problems include overweight, anemia, infectious diseases, dental caries, lead exposure, and immunization status (Minnesota Department Health, 1997).

In general, non-migrant rather than migrant children show an earlier independence related to food selection and preparation. Non-migrant children are more alone after school and caring for themselves (Crockett & Sims, 1995). Skipping meals, snacking on high energy but low nutrient foods, and eating foods away from home, especially at fast food restaurants are typical eating habits of non-migrant adolescents that are risk factors in the development of chronic disease as an adult. The prevalence of risk behaviors for children of migrant farmworkers related to adoption of less healthful food selection and preparation activities is not well known, but may be related to the length of time their families lived in the U.S. after immigration.

Extension nutrition education staff working with migrant farmworkers in Minnesota were concerned that young children often had major responsibility for meal preparation in the home because parent time away from the field meant lost income. They were also concerned about reports that many migrant farmworker families were purchasing food on a daily basis at nearby, higher priced convenience stores.

The first step in designing effective nutrition education programming for migrant farmworker children involves a study of current behaviors and knowledge upon which to apply a theoretical base. An understanding of non-migrant children's food selection and preparation responsibilities may not be directly transferable to a migrant audience.

The present study was conducted to investigate the understanding that migrant farmworker children have concerning nutrition concepts, and responsibilities they have for food purchasing and preparation within their socioeconomic and cultural framework. A richer understanding of their world and needs would increase the service community's effectiveness in providing nutrition education programming. The three primary objectives of the current study were to determine (a) whether children of migrant farmworkers assume major responsibility for food purchasing, meal planning and food preparation at a young age, (b) whether cooking and refrigeration facilities were adequate, and (c) what nutrition concepts need to be considered when teaching these children about planning meals or making food choices.

### **Description of the Study**

Semi-structured questions in individual interviews were developed to gather preliminary information for program and material development by the state Extension Service. Questions were written and reviewed by Extension personnel, service providers, other nutrition professionals, and educators indigenous to the target population for clarity,

sensitivity, and face validity and revised prior to pre-testing.

Most children of migrant farmworkers lived in work camps close to fields, while others lived in nearby motels. The migrant camps are isolated, usually 5-10 miles from the nearest small town with a grocery store. The concrete block housing units typically contain one or two bedrooms and have gas camp stoves and refrigerators. Children were selected for interviews upon availability by age and gender in a consecutive manner as they arrived in communal locations throughout the time period that the interviewer was present in the camps. An adult guardian provided consent for the children to be interviewed.

Interviews were conducted privately in convenient communal locations in the camps, such as the laundry rooms or outdoor picnic tables. All interviews were conducted by a bilingual graduate student formally trained in interviewing techniques and with extensive teaching experience with children in Mexico and Guatemala. A bilingual Extension staff member indigenous to the population and well-known to the children was also present during all interviews to clarify questions and responses as needed.

Sample size was determined by the investigators as the interviews progressed. After interviewing about 20 children, the interviewer was hearing many similarities in responses without obtaining new or different information; therefore, sample size was limited to 22. The tape-recorded summaries were read by two other bilingual Extension professionals as they listened to the tapes to check for accuracy, minimize the interviewer's bias, and correct possible errors in translation of Spanish vocabulary and grammar. Consistent themes were identified based on the study questions. Children interviewed were from 9 to 12 years of age (mean age of 10.4+ or - 1.2 years) and about half were girls ( $n = 12$ ). Most reported living outside of Minnesota for most of the year.

## **Findings**

*Responsibilities for Food Purchasing, Selection, and Preparation*

Almost all children responded that their family shopped at a major supermarket for their main food purchasing. The shopping frequency was typically weekly with a few families shopping on a monthly basis. Children said they influenced the selection of food for their household by asking parents to purchase some types of groceries, mainly candy, sweets, or breakfast cereal, although some said they also request particular kinds of meat. The mother usually decided what kinds of food to purchase, with the father making some decisions occasionally. About half of the children said that there are foods they would like to eat but were not available to them because they cost too much. Meat was mentioned most often, followed by milk, cereal, and sweets.

From the interview responses, it was evident that young children (ages 9-12) were preparing at least one meal a day for themselves and siblings. The food of choice for the morning and evening meals was eggs. Other commonly prepared foods were: chorizo (sausage), pasta (macaroni and cheese, spaghetti), beans and tortillas, sandwiches, soups, and breakfast cereals. None of the children responded that they prepared frozen, pre-prepared convenience foods or foods that needed to be cooked in a microwave. All of the children stated that they had refrigerators at home. When asked about ways that foods can become "not safe" to eat, few children were able respond with common food handling problems that contribute to food borne illness in families.

The migrant children indicated that they made food choices based on what was available in the home or what their siblings preferred to eat, but were not the primary food purchasers for the household. They tended to be involved in food selection to a greater extent at the morning and noon meals. Children reported eating beans, tortillas, and soups which are staples of the traditional Mexican diet but also reported eating breakfast cereals, pizza, and ice-cream which

have been documented as foods that are initially added to the Hispanic diet upon entry in the United States. Most children stated that they seldom ate at restaurants.

### *Nutrition and Health Perceptions*

Migrant children had difficulty describing a healthy person with few making the connection between food and good health. Healthy meant being strong and having good teeth or being able to do whatever one wants. When asked what they needed to know to be healthy, few spoke of knowing about nutrition or healthful foods. Only a few children spoke confidently about foods that were high fat or low fat foods. Most considered candy or sweets to be high fat foods and said their parents did not talk about limiting fat in the family meals. Sugar was seen as bad because it was associated with excess calories. School was a major source of nutrition education, while several mentioned that their parents taught them about nutrition at home.

### **Discussion**

The extent of food purchasing and preparation responsibilities of the migrant farmworker children interviewed for the current study was not unlike that of non-migrant children in the U.S (Baranowski, et al., 1993). The earlier dependence on younger children for caring for themselves and siblings indicates the need for more extensive life skill education for all children.

When Mexicans immigrate to the United States, diets tend to be quickly fortified by more variety, but traditional methods of cooking, such as using the stove top methods of stewing or frying most foods, may be retained (Lang, 1992). The use of alternative cooking methods for youth may be an important focus for food preparation education if the availability of adequate cooking facilities allow for baking or broiling.

Dietary intake typically is negatively affected by adoption of

American eating habits (Lang, 1992). However, the current study indicated that the frequent consumption of processed or fast foods that occurs with non-migrant children may not occur to the same extent for the migrant children interviewed. Nutrition knowledge among the children interviewed was lacking especially as it related to intake of fat and sugar. From the interview results, it was evident that the value or appreciation for more healthful eating habits, including low fat food preparation, appears to be needed for both migrant farmworkers and their children.

### **Recommendations**

Given the food preparation responsibilities reported by children in this study, education about safe food handling practices is warranted. Basic nutrition concepts related to food selection for themselves and siblings is also needed especially as it relates to dietary fat and sugar. Several factors should be considered when implementing a nutrition education program for migrant farmworker children. It may be important to include foods that are commonly used in the migrant children's homes. Nutrition educators need to understand traditional food and health customs to provide culturally relevant nutrition education. Health education for migrant children and decisions regarding nutrition care and practices should be based on a "family" approach due to the importance of family in this culture (Morrison, Rienzo & Frazee, 1995).

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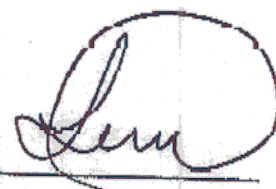


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