WillTry: a willingness to try new foods instrument for rural parents and children

AUTHORS

C G Staggs McFarlin, B J McCabe-Sellers, T Norris, M L Bogle. ARS,

United States Dept. of Agriculture, Delta NIRI, 900 S. Shackleford, Ste. 509, Little Rock, AR, 72211

ABSTRACT #311

Choosing a variety of foods is a major factor in diet quality and in teaching healthy eating to children. Food neophobia, the avoidance of novel foods, is one barrier that nutrition interventions need to address. WillTry is a survey instrument designed to assess food neophobia in the Lower Mississippi Delta (LMD) region and was tested in three rural communities with high prevalence of nutritive-responsive diseases and limited food access. Components of the survey include visual aids, some culturally specific food items, a variety of fruits and vegetables including some readily available and others not. Self reports of picky eating and overall diet quality are included. The instrument has been tested, revised, and retested in LMD communities with IRB approval using trained honor graduates from local high schools. This preliminary testing led to the inclusion of locator and preparer items on the questionnaire. The instrument provides data on both the parent's and the child's willingness to try new foods as well as the child's willingness to try new foods as perceived by the parent. Earlier research in the LMD illustrates that food and nutrient intake among this population differ in comparison with the national dietary intake. Information from this survey can assist in the design of interventions to increase food variety, increase fruit and vegetable consumption, and promote healthier cooking techniques.

Salmon

Tandoori Chicken

INTRODUCTION

Limited exposure to a variety of foods can make it difficult for many individuals to willingly try and consume new foods. Food neophobia, defined as fear of trying new foods or avoidance of novel foods, is a barrier that nutrition interventions need to address. Limited exposure and limited access to food may lead to mediocre dietary patterns and make trying new foods difficult for many individuals. The Lower Mississippi Delta (LMD) Nutrition Intervention Research Initiative (NIRI) is conducting nutrition intervention research using community based participatory research principles. The LMD is a predominantly rural area with high rates of nutrition-related chronic diseases, mortality, and morbidity. This area has been ranked among the poorest in the nation in respect to health, education attainment, and proportions of households living below the federal poverty level. Delta NIRI originated in order to address through nutrition research the nutrition and health problems that plague this region. As a result of a Comprehensive Participatory Planning and Evaluation process (CPPE), food choice behaviors were a major health and nutrition concern brought forth by the community. This WillTry survey tool was developed for use in Delta NIRI interventions targeting improvement in food variety, increased fruit and vegetable consumption, and healthier cooking techniques.

The overall goal of Delta NIRI is to design, implement, and scientifically test nutritional interventions in selected counties and parishes in the LMD. Delta NIRI has conducted two major studies in a representative cross sectional sample of 36 counties in relation to nutritional health concerns, food security, dietary intake, food access, and food availability. Currently no data exist on food neophobia for residents in the LMD. This data collection would allow for a comparison of possible food neophobia across age, gender, and race. Consumption of acceptable foods is a daily occurrence throughout the world, given access and availability. Predictions of willingness to new foods to meet dietary needs are difficult if acceptable foods are not always accessible or available. Introduction of novel foods or cuisine to the residents of the LMD may prove to be challenging task due to limitations of their rural environment.

BACKGROUND

Researchers have identified like or dislike of smell, taste, or appearance, and expected harmful effects associated with ingesting a substance as motivational elements for an individual's reaction to foods. The link between a novel food item and its nutritional benefit and quality may prove to be a meaningful approach, if trying to introduce novel foods to without changing the culture identity of individuals. Researchers have demonstrated that culture directly affects individual food choices.

In a recent study conducted in the LMD, findings concluded that nutrient intake among subpopulations in the LMD were reduced compared with national dietary intakes statistics. More importantly, the issue of access, availability, and exposure may help explain why individuals do not willingly seek new foods to try. For novel foods to be truly accepted, individuals must have repeated exposure and the opportunity to purchase the food.

The purpose of this WillTry assessment tool was to evaluate children and adolescents' willingness to try new foods along with those of their parents, caregivers or guardians. The desired objectives of this tool are: 1) to determine the willingness of local NIRI residents to try new foods, 2) to compare self-reports of "picky" eating of children with the household adult. 3) to identify what types of settings might be most suitable to offer new foods, and 4) to apply findings to the design of health interventions. The instrument has been tested, revised, and retested in LMD communities with IRB approval using trained local residents. Preliminary testing led to the inclusion of locator and preparer items on the questionnaire.

DISCRIPTION OF SURVEY

The WillTry Survey was a pilot survey that assessed individuals' unwillingness to try new foods in the three Delta NIRI target communities. WillTry, a modified version of Pliner and Hobden's (1992) Food Neophobia Scale was used in the data collection process. Questions on the survey range from, if offered new foods, would they be willing to try the new foods to in what setting(s) would individuals feel comfortable trying new foods. The instrument provides data on both the adult's and the child's willingness to try new foods as well as the child's willingness to try new foods as perceived by the parent. The questionnaire has 29 items, answered either on a four-point Likert scale (22 items), Yes or No (2 items), or Demographic blank fill in items (5 items). The Likert scale used 4 smiley faces to coordinate response to appropriate scale response (Exhibit A).

There are 4 possible responses for the following questions. Please answer the following questions first for yourself and then for your child.

			Yes =5	Maybe =3	No = 1	Not Certain
1	Would you or your child be willing to taste a new food if offered?	*You*				
		Child				

EXHIBIT A

DATA COLLECTION

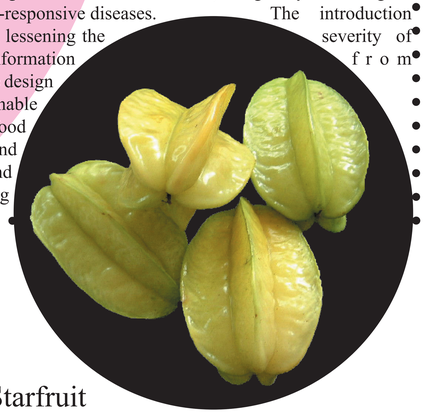
Data collectors were locally trained residents of the local NIRIs. Survey participants were recruited from local elementary and junior high summer programs. Initial testing of the instrument was done only in one community, then in a second community. In the second year, the revised instrument was testing in three communities through personal interviews. Data were written on hard copies of surveys for later computerized data entry and analysis. Data were collected over a period of 6 weeks. Unique identification codes link families and only codes numbers appeared on data forms. No identifiers other than the code number appeared on the questionnaires. Interviews were conducted in a private area and took 15-20 minutes to complete. A definition pictorial card of the foods listed on the questionnaire was available. (Exhibit B).

RESULTS

Data will be summarized into an aggregate community report to be shared with local NIRI members engaged in planning food related research interventions in that community. The data are to be used to benefit the specific community in the design and implementation of effective nutrition interventions. The name of the community will not be used in any report outside the community.

DISCUSSION

The prevalence of diet related disease has become apparent in residents of the Lower Mississippi Delta. Limitations of the rural environment have forced many residents in the LMD to engage in mediocre food choices, thus greatly increasing the prevalence of nutritionally-responsive diseases. The introduction of novel foods may aid in lessening the severity of diet related diseases. Information from this survey can assist in the design of effective and sustainable interventions to increase food variety, increase fruit and vegetable consumption, and promote healthier cooking



Starfruit

Olive
a small oval bitter-tasting fruit with a pit, green when unripe and black when ripe

Beef and Vegetable Stir Fry
a dish containing sliced beef with vegetable such as carrots, broccoli, onions, spices and soy sauce; typically served with rice

Tandoori Chicken
an Indian chicken dish containing chopped onions, garlic, ginger, lemon juice, yogurt, and several spices such as, cumin, nutmeg, cloves, cinnamon, olive oil, salt, black pepper, cayenne pepper; typically served with rice

EXHIBIT B