



An Assessment of Children's Willingness to Try New Foods in the Rural Lower Mississippi Delta: A Pilot Study



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BACKGROUND:

Childhood obesity has become a serious health problem (Heather, 2005). Over the past two decades, obesity rates have doubled among children and tripled among adolescents (O'Dougherty, M, et al, 2006; Ogden CL, et al, 2006). One in four children under the age of 18 are at risk for overweight and 15% are overweight (Patrick, H and Nicklas, TA, 2005); Ogden CL, et al., 2003). For example, Mississippi ranks number one in the nation in the percentage of children who are obese; and 24% of students in grades 1-8 are reported to be overweight. In Mississippi elementary schools, 21% of the students are overweight and 16% are at risk. (Community Foundation of Northwest Mississippi, 2005). In Arkansas, 16 % and in Louisiana 17% of children age 10-17 are overweight. Obesity puts children at risk and is associated with significant health problems such as cardiovascular health, stroke, diabetes and some cancers and can also affect mental health (depression) and low self-esteem (American Academy of Pediatrics, 2003). A need for increased fruits and vegetable consumption is well documented; consuming more servings of a variety of colorful fruits and vegetables is associated with healthy dietary patterns and healthy weight among children (Galloway, AT, et al., 2003).

Research suggest that food neophobia (reluctance to try new foods) is an important predictor of fruit and vegetable intake. Children who are reluctant to try new foods generally have lower intake of fruit and vegetables (Patrick, H, Nicklas, TA, 2005). Low income families may face food insecurity and lack regular access to healthy food choices such as fruits and vegetables. Children and adolescents of low socioeconomic status have been reported to be less likely to eat fruits and vegetables and to have a higher intake of total saturated fat (American Academy of Pediatrics 2003). The impact of food neophobia may ultimately have a profound influence on children in the Lower Mississippi Delta (LMD). Food neophobia is defined as avoidance of and reluctance to taste unfamiliar foods (2006). Most studies of neophobia in children have been measured by parental responses rather than that of the children (Cooke, L, et al., 2006). One reason for children's reluctance to eat fruit and vegetables is that they may not like the taste or texture (e.g., peel, seeds). Researchers have demonstrated that frequent exposure to a specific taste will increase and eventually lead to acceptance of that taste (Birch L. et al 1996). Willingness to try new foods was assessed by Delta NIRI in three rural communities by providing a one-time sampling of specific individual foods to selected children in these communities. No report of a neophobia or willingness to try new foods study of rural US African American children or US Southern children were found in the literature.

PURPOSE:

The purposes of this pilot study were to 1) determine children and parents/guardians willingness to try new foods, especially fruits and vegetables, in three rural Delta communities and 2) to develop a survey instrument specifically designed for the LMD and that was intervention specific.

WILLTRY Questionnaire - Adult

Four responses are provided for the following 2 questions. Please select the one that best describes you or your child.

Which of these best describes you?	Picky eater (eat only a few favorite foods)	Will eat most foods (few/certain foods you won't eat)	Will eat anything offered	Not Certain
Which of these best describes your child?				

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			

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The following questions refer to where you and your child might be willing to taste a new food.

	Yes = 5	Maybe = 3	No = 1	Not Certain
a. At home?				
	You			
	Child			
b. At a relative's home?				
	You			
	Child			
c. At a friend's home?				
	You			
	Child			
d. At a restaurant?				
	You			
	Child			
e. At church?				
	You			
	Child			
2. Would you or your child be willing to taste a new vegetable?				
	You			
	Child			

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METHOD:

Children ages 5 through 12 and their parents were recruited from the Delta Nutrition Intervention Research Initiative (Delta NIRI) summer programs in three communities, one each in Arkansas, Louisiana and Mississippi. Seventy-five children expressed an interest and were assented with parental consent to participate in the survey. IRB approval was obtained from the University of Arkansas for Medical Sciences to administer the WillTry Survey (willingness to try new foods) during the four to six week summer programs in each of the communities. A four-point Likert Scale instrument that contained 29 questions, and fruit and vegetable photographs on flash cards were used to solicit verbal responses from the child and the parent. Questions on the instrument ranged from, if offered new specific foods, would they be willing to try that food and in what settings would that child feel comfortable trying the new foods. In addition, being a picky eater or healthy eater were self descriptive items. A set of smiley faces were used to coordinate numerical values assigned to the four-point scale. Written descriptions were also prepared for the specific food items used in the study, if interviewer or interviewee thought these were needed.

RESULTS:

Children in all three communities frequently described themselves and their parents as picky eaters. When asked the general question of are you willing to taste a new food if offered, 64 % (N=16 /25) of the children in Arkansas, 73 % (N=11/15) in Louisiana and 43 % (N=15/35) in Mississippi said yes. Children in Arkansas 76 % (N=16/25), Louisiana, 73 % (N=11/15) and Mississippi 71 % (N=25/35) were most willing to try new foods at home. Sixty-three percent (N= 47/75) of the children in all three communities were willing to taste a new vegetable and 95 % (N=71/75) were willing to taste a new fruit. In an effort to validate the survey instrument, fruit and vegetable snack items listed on the Will Try instrument were offered to children participating in this pilot study.

CONCLUSIONS:

Interventions in the LMD could focus on the consumption of fruit and vegetable snacks that are less familiar to children and their families. Opportunities to try new fruits and vegetables appear to improve attitudes and behaviors toward fruit and vegetable snacks.

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