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Interactive Computerized Fruit and Vegetable Preference Measure for African-American and Hispanic Preschoolers

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Abstract

Objective—The objective of this study was to develop a computerized measure for assessing fruit, fruit juice and vegetable (FJV) preferences of African-American (AA) and Hispanic (H) preschool children.

Design/Setting—Preschool children were selected from Head Start Centers to participate in this study.

Participants/Main Outcome—Descriptive data on FJV preferences were obtained from a sample of 198 preschool children. Test-retest reliability (n=50) and predictive validity (n=47) were assessed in a sample of children.

Analysis—Analysis of variance (ANOVA) was used to evaluate gender and ethnic differences in FJV preference scores. Mean FJV preference scores were correlated using the Pearson's correlation coefficients and intra-class correlation to assess the reliability of the preference measure. ANOVA was applied to test the mean FV consumption difference between the low and high FV preference groups.

Results—Compared to H, AA had a significantly higher preference for vegetables. Boys had a significantly lower preference for fruit than girls. Data show adequate test-retest reliability ($r = .70$; $p < .01$) and internal consistency of FJV items (Cronbach $\alpha = .87$). Mean FV consumption was significantly higher in children who reported higher preferences for FV compared to those who reported lower FV preferences ($p < 0.05$).

Conclusion—Data provide evidence for the reliability and validity of an interactive, computerized measure for assessing FJV preferences of young children.

Implication—Development of a valid and reliable method for assessing FJV preferences of preschool children may be useful in characterizing FJV preferences of young children and in evaluating specific intervention programs.

Keywords

food preference; preschool children; fruits; vegetables; preference measure

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Introduction

Dietary patterns with high intakes of fruits, fruit juices and vegetables (FJV) are associated with multiple health benefits, including a decreased risk for some types of cancer,¹ obesity,² and type 2 diabetes.¹⁻³ Because of the health benefits of increased FJV consumption, national dietary guidelines recommend that Americans, including children 2 years old and older, consume 5 or more servings of FJVs daily. Forty-two percent of 2-year-old children and 50% of 5-year-old children consume less than 2 servings per day of FJV.³ Health habits formed during childhood track into adulthood.⁴ Several studies have reported a moderate tracking of dietary patterns in youth,⁵⁻⁹ primarily involving nutrients,^{3,10} food preferences,¹¹ and more recently, in fruit and vegetable consumption.¹² Evidence suggests that children are not born with the innate ability to choose a nutritious diet; instead, their food habits are learned through exposure and education.³ Children develop their food preferences when exposed to a variety of food items, textures, tastes, and flavors as they grow.¹³ Early exposure to FJVs can establish preferences for these items. During the preschool years, children are introduced to many foods that are in the adult diet, and these early experiences with food are particularly important, because food preferences formed during this period persist into adulthood.⁴

The primary predictor of children's food selection and consumption is preference.^{10,14-24} Limited studies have attempted to assess food preferences of young children. One method, developed by Birch et al¹⁴ and used extensively to assess food preferences of young children, is not practical for use in large studies because it involves the presentation of actual foods, which is logistically difficult. A more practical method is needed that would be time efficient and would not require food preparation.

Clafas and Guthrie have shown that food photographs are a reliable alternative to tasting methods of assessing food preference.²⁵ They found that the choices children made with food photographs were similar to those made with actual food. Test-retest correlations ranged from 0.4 for 3-year-olds and 4-year-olds, to 0.7 for 5- to 8-year-olds. Additionally, Guthrie²⁶ found that good quality food photographs can be used as the stimuli for eliciting preferences in preschool children and that photographs can yield similar reliabilities as those obtained with the tasting method, whereas the use of food models was less reliable. The goal of this study was to develop a practical, interactive measure using food photographs for assessing FJV preferences of African-American (AA) and Hispanic (H) preschool children.

Methods

Overall Approach To Development of Measure

The development of the computerized FJV preference measure was completed in 2 phases. In Phase I, detailed formative assessment was conducted to develop the FJV preference measure. Phase II involved establishing the reliability (ie, internal consistency, test-retest reliability) and predictive validity (ie, the association between FJV preference and FJV consumption) of the FJV preference measure.

Phase I: Development of FJV Preference Measure

An advisory panel (a nutritionist, a behavioral scientist, a child development psychologist, a health educator, an AA mother, and an H mother) participated in all aspects of the research to ensure that it was developmentally appropriate as well as culturally sensitive to assessing FJV preferences of preschool children. The study protocol and instruments for Phases I and II of the study were reviewed and approved by the Internal Review Board of Baylor College of Medicine. Parental consent was obtained for all children who participated in any aspect of the study.

Formative Assessment—A preliminary list of 62 “most,” “moderately” and “least” commonly consumed FJV by H and AA 3-year-olds and 4-year-olds was generated from the 1994-96 Continuing Survey of Food Intakes by Individuals (CSFII) survey data.²⁷ The CSFII is a national food consumption survey conducted on noninstitutionalized individuals in all 50 states ranging in age from 2 through 20 years. Use of the national data set minimized concerns about geographical generalizability or seasonality of the measure. Individual interviews were conducted with 30 Head Start Center (HSC) staff members across 10 participating centers. Each HSC staff member was presented with a list of the 62 FJVs and asked to indicate how each item was served at the center and children's preference for each item (ie, “yummy,” “yucky,” or “okay”). Each FJV was given an average preference score. Average preference scores ranged from 0 to 2 (0 for “yucky,” 1 for “okay,” and 2 for “yummy”). HSC staff members rated each FJV according to their perceptions of children's preferences for those foods. Scores for each FJV were averaged across the 30 staff members and ordered by category (fruit, juice, or vegetable) from least to most preferred. Following these interviews, a list of 30 FJVs was identified based on the average preference score. The 30 FJVs chosen represented those FJVs selected from national survey data and were consistently endorsed by the HSC staff and experts in the nutrition field regarding what FJVs represented the full preference range (from “yummy” to “yucky”) of children from 3 to 5 years old. It was later confirmed on a sample of children that the amount of time it took (approximately 15 minutes) to complete the 30 FJV preference measure was appropriate for the attention span of this age group. The final list included 11 fruits (eg, pineapple rings, apple wedges, fruit cocktail), 4 fruit juices (eg, orange juice, apple juice), and 15 vegetables (eg, green peas, mashed potatoes, squash).

Food Photographs—Photos of FJVs were shot to reflect the way each FJV was typically prepared and served at the HSCs. Preparation of foods and presentation of the FJVs were conducted by an experienced food manager at the Children's Nutrition Research Center Metabolic Research Unit at Baylor College of Medicine. Preliminary pictures were piloted with 20 children at HSCs to ensure that the size of the photograph was appropriate and that the children could recognize the FJVs in the photos.

Animation—Six characters (rabbit, fuzz ball, monkey, raindrop, bird, and X-man) were chosen and pilot-tested with the children. Testing was conducted with 23 AA and H children to determine which character they liked the best, and which character they liked the least. In addition, they were asked which color was most likeable. The children were asked to choose the character and the color (yellow, red, orange, or blue) they liked the best. One-third of the children liked the bird the best, one-fourth of the children liked the fuzzy character the least, and blue was the predominant preferred color. Based on these preferences, an animated blue bird character was developed for use as a guide in the FJV preference assessment measure. The animated bird, named “Chipper,” was pilot-tested with an additional 23 children at HSCs to ensure the likeability of the character.

To accompany the bird's animation, a bilingual professional actress was hired to perform the voiceover in both English and Spanish. Overall, the program was designed to be engaging and entertaining by including music, a reward system with stars, and colorful pictures of FJVs.

Administration—The computer program contained 2 practice screens to acquaint the child with the program and the modules. The program consisted of 3 modules: one for the 11 fruits, one for the 4 fruit juices, and one for the 15 vegetables. The food preference measure developed by Birch¹³ was used as the basis to design the computerized FJV measure. For each item, “Chipper” told the child what the item on the screen was, and “Chipper” asked the child if the specific FJV tasted “yummy,” “yucky,” or just “okay.” An example of the screen format is included in the Figure. The order in which “Chipper” provided the response options “yummy,” “yucky,” and “okay” was randomized. A nongendered face with expressions representing

preference accompanied each response. The eyes blinked on the “yummy” face, the tongue appeared on the “yucky” face, and the eyes moved from side to side on the “okay” face. The child used a touch screen to select the face that corresponded to his or her preference. Each time the child indicated his or her preference for an item, a yellow star appeared on the cloud corresponding to that item. Each food item had a corresponding cloud to mark the child's progress in each module (eg, 15 clouds to reflect 15 vegetables). At the end of each module, the stars came together as one large star, signifying completion of that module. To minimize distractions, during the whole administration of the measure, the children wore earphones connected to the computer. A research assistant stayed with each child during the entire food preference measure to facilitate administration and to address any problems (eg, the child did not understand, the computer malfunctioned).

Quality Control—At the end of the preference assessment, a quality control assessment panel was completed to indicate any problems that occurred during administration of the FJV preference measure. Sample problems included interruption of data collection because of a fire drill and computer malfunction (eg, electricity went out). The quality control assessment also provided an opportunity to document whether the child had difficulty in understanding the procedure and to identify potential outlying responses in the study.

Training on the FJV Preference Measure—Prior to administration of the FJV preference assessment, children completed a brief training session in small groups to familiarize them with the assessment. The training protocol involved the use of a puppet glove that had “Chipper” attached with Velcro. The puppet was used to capture the children's attention and to acquaint them with the character used in the program. The research assistant trained the children using pictures of foods (eg, grapes and okra) not included in the assessment measure along with pictures of the “yummy,” “yucky,” and “okay” faces. The child wore the glove throughout the assessment program.

Pilot-testing of FJV Preference Measure—The FJV preference measure was pilot-tested with 198 (107 AA, 91 H, 105 boys, 93 girls) preschool children to look at response distribution and variability.

To ensure that the children were exposed to all 30 FJVs, these items were incorporated into the HSC cycle menus during the 6-week period preceding the study and during the food preference pilot testing and validation study. It was important for the children to have been exposed to each item to be assured that their preferences were based on whether they liked the item or not, rather than on a lack of familiarity with the item. Each food service manager received a laminated booklet containing photographs of all of the 30 FJVs to illustrate how the FJV was to be served to the children on each day of assessment (eg, pineapple chunks, apple wedges, broccoli florets, sliced carrots). The investigators worked closely with the district in revising the 6-week cycle menus so that they incorporated the 30 FJVs.

Scoring the FJV Preference Measure—The FJV preference measure was scored by averaging participants' responses in each category. The measure can be used to yield an overall FJV preference score or to yield separate preference scores for fruits, fruit juices, and vegetables. The FJV preference scores ranged from 0 to 2 (0 for “yucky,” 1 for “okay,” and 2 for “yummy”).

Phase II: Establishing Reliability and Predictive Validity

A sample of 50 preschool children was randomly selected to participate from 12 HSC in the Houston metropolitan area. The sample size was determined based on published studies and on the budget constraints of the developmental grant. The reliability and predictive validity of

the measure were assessed. The study included a 7-day test-retest administration to establish test-retest reliability and 4 meal observations on each child to assess FJV consumption in order to evaluate predictive validity of the preference measure. This sample was composed of 42% AA and 58% H, with 48% boys and 52% girls. Children in the sample ranged in age from 3 to 5 years, with a mean age of 4.1 ± 0.7 years. Of these 50 children, 50 had complete data for test-retest reliability, and 47 had all 4 food observations.

Test-retest reliability—To provide data on the test-retest reliability of the measure, each child in the sample completed the FJV preference measure on 2 separate occasions approximately 7 days apart.

Predictive validity—Predictive validity of the measure was determined based on the correlation between FJV preference and FJV consumption. FJV intake was assessed using a combination of observation and plate waste assessment. The method used for food observations was adopted from a method developed specifically for preschool children.²⁸ Research assistants were trained through multiple, double-coded observations at the HSC until percent agreement exceeded 80% on 3 observations prior to the validation study. FJV intake was assessed only for foods that appeared in the computerized FJV preference measure.

Research assistants were trained to collect FJV consumption data using observational and plate waste assessment. The total amount served to each child by the caregiver was calculated as the number of heaping, level, and less-than-level spoonfuls times the estimated weight of each spoonful. The estimated weight of each spoonful was determined on each day of observation by the trained observers. Three actual weights of each spoonful (eg, heaping, level, and less-than-level) of FJVs being assessed were obtained and averaged. The amount of food remaining (plate waste) was calculated using self-calibrated food scales and subtracted from the amount initially served, traded, or spilled by each child to obtain the amount of FJV consumed. Each research assistant unobtrusively observed 2 children during mealtime and estimated the amount of all targeted FJVs served to the child by the caregiver. The amount of FJVs served and spilled was also documented. The amount of FJV remaining (plate waste) was subtracted from the amount initially served to obtain the amount of FJV consumed. Children were observed during 4 eating occasions at the HSC (3 lunches, 1 breakfast or snack). FJV intake was aggregated across all 4 observations, yielding average intake for FJV overall and fruit, fruit juice, and vegetable separately. During data collection, interrater reliability was maintained at the 90% level by double-coding 10% of all observations.

Statistical analysis—All statistical analyses were performed using Statistical Package for the Social Sciences (SPSS, Chicago, IL, Version 12.0, 2003). One hundred ninety-eight children were included to calculate the mean preference score for each FJV by gender and ethnicity. Analysis of variance (ANOVA) was used to evaluate gender and ethnic differences in mean FJV preference scores and total FJV score. Data from only 47 children were included in the analysis of the validation study; 3 children were excluded because they were missing food consumption data. Mean FJV preference scores were correlated using the Pearson's correlation coefficients and intraclass correlation to assess the reliability of the preference measure. According to the scatter plots, the relationship between fruit and vegetable (FV) preference and FV consumption was nonlinear; therefore, to conduct the analysis of variance the subjects were categorized into groups based on their preference score. The relationship between juice consumption and juice preference was excluded from this analysis because only 4 types of juices were assessed. Based on mean FV preference score, 47 children were categorized into 2 groups: those children whose mean FV preference score was less than the median, and those whose mean FV preference score was greater than the median. ANOVA was applied to test the mean FV consumption difference between the low and high FV preference groups. *P* value less than .05 was considered statistically significant.

Results

Pilot-testing of the FJV Preference Measure

Mean FJV preference scores by ethnicity and gender are presented in Tables 1 and 2. Percentage of children reporting a “yummy” preference for fruit ranged from 48% to 66%, with kiwi preferred by the smallest number of children and pineapple by the largest number of children. Preference for vegetables ranged from 37% to 63%, with squash preferred by the smallest number of children and french fries by the largest number of children. Preference for juices ranged from 37% to 65%, with tomato juice being preferred by the smallest number of children and apple juice by the largest number of children. The least preferred fruit were plums, kiwi, and pears. The least preferred vegetables were squash, mixed greens, and mixed vegetables. Tomato juice was the least preferred fruit juice. Compared to H, AA had a significantly higher preference for total vegetables ($P<.05$), particularly green beans, cauliflower with cheese ($P<.05$), and mixed greens ($P<.01$) (Table 1). Compared to girls, boys had a significantly lower preference for total fruit ($P<.05$), specifically strawberries ($P<.01$) and apples ($P<.05$). Boys also had a lower preference than girls for mashed potatoes with gravy ($P<.05$) and green beans ($P<.01$) (Table 2). Overall, data show that there were variations in FJV preferences among AA and H preschool children.

Internal consistency—Internal consistency (Cronbach α) was assessed for the overall FJV preference score and for F, J, and V preferences separately. Internal reliability for overall FJV preference was .87; internal reliabilities for fruit, fruit juice, and vegetable subscales were .77, .58, and .82, respectively (data not shown).

Test-retest reliability—Table 3 provides information about means and standard deviations at Time 1 and Time 2 FJV preference along with Pearson Product Moment Correlation coefficients and significance tests for test-retest reliability. As shown, for overall FJV preference and for each subscale, correlations between Time 1 and Time 2 assessments were strong and statistically significant. The overall correlation for the test-retest was 0.73.

Predictive validity—Table 4 provides mean FV consumption based on FV preference. Scores on FV preference were divided into high and low by means of a median split. Mean combined fruit and vegetable consumption was significantly higher in the children who had total FV preference scores greater than the median compared to those children with total FV preference scores lower than the median ($P \leq .02$).

Discussion

During the preschool years, children are introduced to many foods, and these early experiences with food are particularly important, because food preferences formed during this period are assumed to persist into adulthood. Food preferences are, in part, learned and data suggest that the best chances for fostering patterns of food preferences consistent with healthier diets may be to focus on the very young. These data provide an expansion of research in an area where few studies have been conducted to develop practical assessment methods for use with very young children. The purpose of the present study was to develop a measure of food preference that is both economical and time efficient and to examine the association between children's preferences of fruits, juices, and vegetables with actual consumption. The results showed promising agreement between preference and observed consumption. The measure demonstrated good predictive validity for both ethnicities, and internal reliability was strong. The somewhat low reliability for the juice subscale may be attributed to the fact that there were only 4 juice items.

There are potential limitations to this study, including that the study was limited to the Houston area and that the results of the study may not be generalized to other ethnicities. The FJV preference measure consists of 30 FJVs, which may not capture preferences of all possible FJVs. This limitation has been recognized in the use of other preference and food frequency measures. However, the measure may be useful in characterizing FJV preferences in groups of preschool children. Additional research is needed to confirm these findings in larger, ethnically diverse samples of preschool children.

The instrument designed in the current research is an enhancement from the Birch method.¹⁴ The measure developed in the current research can easily be administered to multiple children, does not require food preparation, does not require a one-on-one assessment, has been validated with 2 ethnic minority groups, and can be collected in a relatively short period of time. We are not aware of other studies that have attempted to validate a food preference measure like the one presented here.

Implications for Research and Practice

This validated FJV preference measure may be useful in characterizing FJV preferences of AA and H preschool children in other geographic locations. In addition, the FJV preference measure may be a useful tool for evaluating intervention efforts designed to increase FJV preferences among young children.

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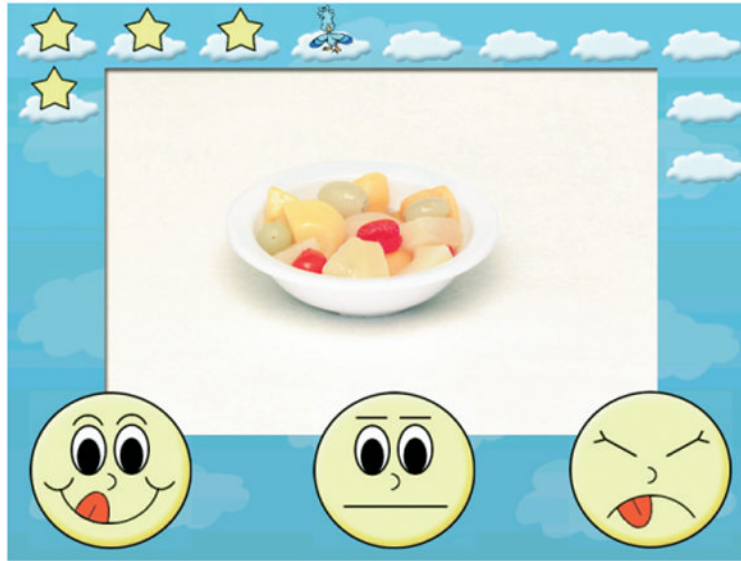


Figure.
Example of FJV Preference Measure.

Table 1
Fruit, Fruit Juice and Vegetable Preferences of Preschool Children by Ethnicity

	Ethnicity			Preference		
	African-America		Hispanic	Yummy	Okay	Yucky
	Mean	S.D.	Mean			
Fruits						
Pineapple	1.60	0.66	1.47	130 (66)	23 (11)	45 (23)
Watermelon	1.38	0.77	1.30	110 (56)	46 (23)	42 (21)
Strawberries	1.35	0.81	1.43	112 (57)	50 (25)	36 (18)
Oranges	1.48	0.71	1.46	119 (60)	53 (27)	26 (13)
Fruit Cocktail	1.45	0.70	1.31	111 (56)	52 (26)	35 (18)
Pears	1.42	0.77	1.25	107 (54)	52 (26)	39 (20)
Apples	1.47	0.73	1.41	116 (59)	53 (27)	29 (15)
Kiwi	1.18	0.85	1.20	96 (48)	43 (22)	59 (30)
Cantaloupe	1.34	0.81	1.35	112 (57)	42 (21)	44 (22)
Banana	1.59	0.49	1.57	115 (58)	83 (42)	0 (0)
Plum	1.26	0.87	1.09	97 (49)	40 (20)	61 (31)
Total Fruits	1.41	0.41	1.35
Vegetables						
Corn	1.47	0.74	1.48	123 (62)	46 (23)	29 (15)
Mashed Potatoes	1.22	0.81	1.09	85 (43)	60 (30)	53 (27)
Mashed Potatoes w/Gravy	1.42	0.75	1.23	109 (55)	46 (23)	43 (22)
Broccoli w/Cheese	1.19	0.87	1.10	94 (47)	39 (20)	65 (33)
Broccoli	1.24	0.82	1.11	93 (47)	48 (24)	57 (29)
Green Beans	1.29	0.84	0.99*	92 (47)	44 (22)	62 (31)
Peas	1.26	0.84	1.07	92 (47)	48 (24)	58 (29)
Carrots	1.09	0.83	1.11	82 (42)	54 (27)	62 (31)
Cauliflower	1.23	0.88	1.05	93 (47)	42 (21)	63 (32)
Cauliflower w/Cheese	1.38	0.80	1.11*	101 (51)	47 (24)	50 (25)
Squash	1.11	0.86	0.89	73 (37)	54 (27)	71 (36)
Mixed Greens	1.23	0.81	0.86**	76 (39)	58 (29)	64 (32)
Tomatoes	1.13	0.89	1.18	94 (48)	40 (20)	64 (32)
Mixed Vegetables	1.12	0.87	0.97	81 (41)	46 (23)	71 (36)
French Fries	1.46	0.76	1.46	125 (63)	39 (20)	34 (17)
Total Vegetables	1.26	0.45	1.11
Fruit Juices						
Apple	1.51	0.71	1.49	128 (65)	42 (21)	28 (14)
Orange	1.32	0.72	1.44	102 (52)	68 (34)	28 (14)
Grape	1.47	0.74	1.40	118 (60)	48 (24)	32 (16)
Tomato	0.91	0.89	0.96	73 (37)	38 (19)	87 (44)
Total Fruit Juices	1.30	0.49	1.32

* $P < .05$.

** $P < .01$ Analysis of variance test of effects of ethnicity on preference.

Table 2

Fruit, Fruit Juice and Vegetable Preferences of Preschool Children by Gender

	Gender					
	Girls		Boys		Total	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Fruits						
Pineapple	1.60	0.66	1.49	0.72	1.54	0.70
Watermelon	1.42	0.81	1.28	0.80	1.34	0.81
Strawberries	1.54	0.69	1.25 ^{***}	0.83	1.38	0.78
Oranges	1.49	0.70	1.45	0.73	1.47	0.72
Fruit Cocktail	1.49	0.76	1.29	0.77	1.38	0.77
Pears	1.44	0.74	1.26	0.82	1.34	0.79
Apples	1.55	0.70	1.34 [*]	0.76	1.44	0.74
Kiwi	1.26	0.87	1.12	0.86	1.19	0.87
Cantaloupe	1.31	0.83	1.37	0.81	1.34	0.82
Banana	1.61	0.49	1.55	0.50	1.58	0.50
Plum	1.22	0.87	1.15	0.89	1.18	0.88
Total Fruits	1.45	0.41	1.32[*]	0.43	1.38	0.42
Vegetables						
Corn	1.54	0.72	1.42	0.76	1.47	0.74
Mashed Potatoes	1.25	0.83	1.09	0.81	1.16	0.82
Mashed Potatoes w/Gravy	1.47	0.79	1.21 [*]	0.82	1.33	0.81
Broccoli w/Cheese	1.22	0.92	1.09	0.86	1.15	0.89
Broccoli	1.29	0.84	1.09	0.86	1.18	0.85
Green Beans	1.32	0.87	1.00 ^{**}	0.84	1.15	0.87
Peas	1.15	0.90	1.19	0.82	1.17	0.86
Carrots	1.11	0.88	1.10	0.83	1.10	0.85
Cauliflower	1.27	0.86	1.05	0.88	1.15	0.88
Cauliflower w/Cheese	1.30	0.87	1.22	0.81	1.26	0.84
Squash	1.05	0.89	0.97	0.83	1.01	0.86
Mixed Greens	1.11	0.85	1.02	0.83	1.06	0.84
Tomatoes	1.17	0.90	1.13	0.87	1.15	0.88
Mixed Vegetables	1.04	0.92	1.06	0.84	1.05	0.88
French Fries	1.47	0.80	1.45	0.75	1.46	0.77
Total Vegetables	1.25	0.48	1.14	0.42	1.19	0.45
Fruit Juices						
Apple	1.53	0.76	1.49	0.71	1.51	0.73
Orange	1.39	0.77	1.36	0.68	1.37	0.72
Grape	1.53	0.73	1.35	0.77	1.43	0.76
Tomato	0.92	0.94	0.93	0.87	0.93	0.90
Total Fruit Juices	1.34	0.54	1.28	0.52	1.31	0.52

* $P < .05$.** $P < .01$ Analysis of variance test of effects of ethnicity on preference.

Table 3
Test-Retest Reliability of the Fruit, Fruit Juice and Vegetable Preference Measure

	Test Overall Mean (S.D.)	Retest	Test-Retest Correlation Overall ^a	Test-Retest ICC Overall
Fruit	1.3 (0.4)	1.3 (0.4)	0.49****	0.50
Vegetable	1.1 (0.4)	1.0 (0.4)	0.73****	0.68
Juice	1.3 (0.5)	1.3 (0.5)	0.37**	0.38
Overall	1.2 (0.3)	1.1 (0.4)	0.73***	0.71

S.D. indicates standard deviation; ICC, Intra-class Correlations

^aPearson Correlation

**
 $P < .01$

 $P < .001$

 $P < .0001$

Table 4

Mean Fruit and Vegetable (FV) Consumption by Fruit and Vegetable Preference Cutoff Values: < Median vs. > Median

FV Consumption	FV Preference Cutoff Values		<i>P</i> value
	< Median [*]	> Median [*]	
Fruit, g	63.1 (45.9)	75.9 (44.7)	.39
Vegetable, g	27.2 (29.7)	47.1 (40.7)	.07
Fruit + Vegetable, g	70.4 (49.7)	109.6 (57.7)	.02

g indicates grams

* Mean (SD)