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Title: An evaluation of Knowledge, Attitude and Fruit and Vegetable consumption
in school children aged 10-12 years old

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AN EVALUATION OF KNOWLEDGE, ATTITUDE, AND FRUIT AND VEGETABLE
CONSUMPTION IN SCHOOL CHILDREN
AGED 10-12 YEARS OLD

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ABSTRACT

Objective: To assess primary school children's fruit and vegetable related knowledge, attitude and practices.

Design: Cross-sectional study

Setting: Three primary schools in Maraval, Trinidad

Methods: Fruit and vegetable knowledge, attitudes and practices was assessed using a three component (29-item) questionnaire.

Subjects: One hundred and two students in Standard Four from ages 10 to 12.

Results: More males received higher knowledge scores than their female counterparts as well as the 'mixed' race receiving the highest marks. The majority of students was not sure how they felt about vegetables and most had positive attitudes about fruits. None reported crying to eat fruits and vegetables. No significant difference was observed in different schools regarding fruit and vegetable consumption $F(2,99)=1.6, P>0.001$. There was also no significant difference in fruit and vegetable consumption by gender ($t= 1.069, df=100, p>0.05$).

Conclusion: Primary school children had low nutrition related scores and a negative attitude toward vegetables even though they did not mind trying new types. Positive views were received about fruit consumption and it was seen that the student's fruit and vegetable consumption was insufficient.

CHAPTER I

INTRODUCTION

Statement of the Problem

Research indicates that consuming a diet rich in fruits and vegetables promotes health and protects against many chronic diseases, including cardiovascular disease, stroke and cancer (Gaziano et al., 1995; Gillman et al., 1995; Key et al., 1996; Steinmetz & Potter, 1996). Additionally, fruit and vegetable consumption during childhood may reduce the risk of a number of childhood illnesses including respiratory symptoms (Antova et al., 2003). A common recommendation is that adults and children over 2 years of age should eat at least five portions of these foods daily (US Department of Health and Human Services, 1996; Williams, 1997; Department of Health, 2000). Despite the well-established benefits of fruits and vegetable consumption, nutritional surveys consistently show that many children and adults do not meet nutritional guidelines (Epstein et al., 2001; Antova et al., 2003; Brady et al., 2002). Similarly, Caribbean children fall short of reaching the recommended daily minimum. Further, studies show that fewer than 25% of adolescents reported the consumption of nutritious snacks such as fruits, vegetables, juice, and low-fat milk. These potentially adverse dietary practices are particularly important during the period of adolescence. It is during this developmental phase that negative dietary practices can become the foundation of lifestyles in later years (McGinnis, American Cancer society, 1995 and Surgeon General's Report on Nutrition and Health, 1988).

Knowledge, attitude, and practice seem to be some of the determinants in relation to fruit and vegetables. One study showed that among children 6-11 years of age, only 16% ate 5 or more servings per day (Krebs-Smith et al., 1996). A number of studies suggest that adolescents lack adequate nutritional knowledge (Skinner et al., 1984; Schwartz 1975). To that extent, there are a number of reasons why improving the diet of children is particularly important. Many eating behaviours are

initiated in childhood, track over the childhood years (Kelder et al, 1994) and persist into adulthood (Lien et al., 2001; Lytle et al., 2000). There is a worrying trend away from fruit as a natural product towards fruit substitutes as a snack, i.e., nutritionally –dense fruit bars with added sugars (Sanidorski et al., 2005). This reflects the knowledge that most children view eating as a way to satisfy hunger rather than a means to maximize health while at school (Livingstone & Robson, 2000).

Attitude plays a significant role in children's fruit and vegetable intakes. In a study that investigated whether the consumption of fruit and vegetable by Chinese primary students in Hong Kong is associated with their mother's (1) nutrition knowledge on fruit and vegetables; (2) attitude towards healthy eating; and (3) fruit and vegetable consumption found that students' fruit consumption is associated with their mother's (1) knowledge on fruit and vegetables ($P = 0.006$); (2) attitude towards healthy eating ($P = 0.010$); and (3) fruit consumption ($P < 0.001$). Additionally, these researcher reported that students' vegetable consumption exhibited the same association with their mother's (1) knowledge ($P < 0.001$), (2) attitude towards healthy eating ($P = 0.005$), and (3) vegetable consumption ($P < 0.001$) and knowledge, attitude and dietary practice of mothers were independent factors associated with the consumption of fruit and vegetables by students and are not influenced by the level of education and household income (Yung et al., 2010). Further, Beech et al., 1999 cited that although the knowledge and consumption levels of adolescents with regard to fruits and vegetables were low, their attitudes toward learning about healthier eating practices were favourable.

Gender also appears to be related to fruit and vegetable intake in adults. Men consume fewer fruits and vegetables than do women across many different settings (Fagerli et al., 1999; Thompson et al., 1993; Wardle et al., 1997). The gender patterning in adolescents' consumption is less clear, although where differences have been documented they always show higher intake in girls (Beech et al, 1999; Neumark-Sztainer et al., 1996; Reynolds et al., 1999; Cartwright et al., 2003).

Since the availability of data from the Caribbean is scarce and very few studies have been conducted to examine the knowledge, attitude and practices in relation to fruits and vegetables in school-aged children, this study is warranted.

Purpose of Study

This study was conducted to assess the level of nutrition knowledge, attitudes, and practices related to fruit and vegetable consumption of primary school children, ages 10-12 years old.

Objectives of the Study

The specific objectives of this study were:

1. To determine if there is a significant difference between children at each school regarding fruit and vegetable consumption.
2. To assess the children's knowledge about the benefits of fruit and vegetables.
3. To determine the children's attitude regarding the consumption of fruit and vegetables.
4. To determine which gender will have a higher intakes of fruits and vegetables.
5. To determine if children consume sufficient amounts of fruit and vegetables.

Hypotheses

It was hypothesized that:

1. There will not be a significant difference between the children at each school regarding the consumption of fruits and vegetables.
2. The children at all school will not be very knowledgeable about the benefits of fruits and vegetables.

3. The children at all school will have negative attitudes regarding the consumption of fruits and vegetables.
4. Females will have significantly higher intakes of fruits and vegetables compared to the males.
5. The children will not consume sufficient amounts of fruits and vegetables.

Significance of Study

Chronic non-communicable diseases (CNCDs) are the leading cause of morbidity and mortality in the Caribbean (PAHO, 2009) and have been steadily increasing throughout the world (WHO, 2009). Despite the fact that CNCDs are the leading causes of death, studies on the primary prevention in the Caribbean have been sparse. Also, despite the importance of consumption of fruits and vegetables, there have been relatively few epidemiologic studies investigating the level of nutrition knowledge, attitudes, and practices related to fruit and vegetable in school-aged children. Furthermore, within Trinidad and Tobago or within the Caribbean, relatively few data are available for cultural minorities. Therefore, this study focused on assessing the level of nutrition knowledge, attitudes, and practices related to fruit and vegetable consumption of primary school children, ages 10-12 years old. This study was warranted because the adult pandemic of obesity appears to be foreshadowing a similar problem in children and is a major health concern, since obesity has been identified as a common denominator in many CNCDs (Caribbean Community (CARICOM) Secretariat, 2007). This information can be used in the development of strategies to inhibit the entrenchment and spread of unhealthy lifestyles and thus, enhance the prevention and reduction of CNCDs in the Caribbean. Additionally, this study can add to the body of knowledge regarding fruit and vegetable consumption in school-aged children in Trinidad and Tobago.

CHAPTER II

LITERATURE REVIEW

A recent review of the scientific evidence of the casual links between food, nutrition and cancer estimated that between 30% and 40% of all cases of cancer are preventable by feasible and appropriate diets, especially the consumption of substantial and varied amounts of fruits and vegetables, and by physical activity and maintenance of appropriate body weight (American Institute for Cancer Research, 1997). Studies also suggest a protective effect from fruits and vegetables that may be attributable to multiple factors including a variety of antioxidants and anticarcinogenic compounds (Block et al., 1992; Steinmetz et al., 1996; The President's Council on Physical Fitness and Sports, 1996). Several research articles have demonstrated that children have little knowledge about fruits and vegetables and they consume fewer servings than the recommended amount (Beech et al., 1999). Studies have also shown that they are willing to learn about healthier eating practices (Murphy et al., 1994; Havas et al., 1994)

The findings of Beech et al. (1999) confirmed that there are low nutrition levels and daily fruit and vegetable consumption among adolescents as reported in other studies (Schwartz, 1975; Perry-Hannicutt et al., 1993). Lorson et al. (2009) also found that large portions of US children and adolescents were below the recommended fruit and vegetable intakes. Cooke et al. (2003) provided further evidence of the low levels of fruit and vegetable consumption in children, with more than one-third of children failing even to eat fruit and vegetable on a daily basis, despite the number of public awareness campaigns.

In another study conducted by Lorson et al. (2009), it was found that Mexican-American fruit intake was significantly higher than those of non-Hispanic white children and adolescents. According to Lorson et al. (2009), this difference was noted because a recent study showed among Mexican-American food secure families; mothers' attitudes about availability of healthful eating were positively associated with

children's fruit intake. Hildebrand et al. (2010) found that slightly less than half (46%) of the surveyed African-American parents were in pre-action stages (i.e., not having plans to make a behavior change to making plans for change in the near future (1 month) for increasing fruit and vegetable availability to their children. This may account for the reason why there is low fruit and vegetable consumption among some African-American children. Studies have suggested that children and adolescents lack nutritional knowledge (Skinner & Woodburn, 1984; Schwartz, 1975). Additionally, ethnic effects were found in nutrition knowledge and frequency of fruit and vegetable consumption. White respondents had higher nutrition scores and higher reported daily servings of fruit and vegetable consumption than African-Americans or Hispanics (Beech et al., 1999).

Moreover, significant gender differences were noted in nutrition knowledge. Female students had higher nutrition scores than male students which were in agreement with results from The National Adolescent Student Health Survey (NASHS). No significant changes were observed in boys and girls with regard to fruit and vegetable consumption (Beech et al., 1999), but in the study conducted by Lorson et al. (2009) boys consumed significantly more vegetables than girls. Perry et al. (1998) found that girls appeared to be more receptive than boys to increasing their vegetable consumption. Girls have been shown to be more receptive to other health education programs concerning eating patterns and physical activity (Perry et al., 1994). Since dieting is a concern far more prevalent among female than male adolescents, (Neumark-Sztainer et al., 1996) perhaps the intervention, even without any low-calorie message about vegetables, heightened interest in dieting-and thereby vegetables- even on the pre-adolescent population.

A limitation to the study conducted by Beech et al. (1999) was that the children in the survey were from parochial (parish) schools, so the findings were not generalized to those attending high

schools. In the Hildebrand et al.,(2004) study, the questionnaire was self-reported and had the potential to misclassify parents in the stages of change.

Fundamentally, the study conducted by Beech et al., (1999) makes a great contribution to the understanding and development of the knowledge, attitudes and practices related to fruit and vegetable consumption of high school students. Further research should be conducted presently and on different types of the population such as, children, pre-teenagers, teenagers and young adults. This will give a more cohesive outlook on the fruit and vegetable related knowledge, attitude and practices in these stages of life.

CHAPTER III

METHODOLOGY

Research Design

A cross-sectional study design was utilized in this research and students were required to complete a fruit and vegetable survey. Participants were recruited from Standard Four classes at three conveniently selected Government primary schools in the Maraval area, north of Port-of-Spain, Trinidad. All of the three schools were co-ed with different racial mixtures.

Subjects

All students, 10-12 years old were invited to participate in the study. The total number of students recruited for the study was 111. However, only 102 students (92%) participated. Eighteen students represented School X, 16 students represented School Y, while 68 students represented School Z. The inclusion criteria were children aged 10-12 years old, in Standard Four and attending one of the three conveniently selected Government schools. Children younger than 10 and older than 12 years old, those that were not in Standard Four, and students who were absent when the questionnaire was administered were excluded from the study.

Procedure

Since no form of identifying information was collected for the study, it was determined that obtaining informed consent was not needed and a cover letter was adequate for the purpose of the study. After an explanation of the study, 102 questionnaires were distributed to the students for completion. The self-administered questionnaire consisted of 29 items, including 5 demographic questions, 5 knowledge questions, 7 questions in a tabular form to complete regarding fruit and vegetable intake and 12 attitudinal questions. Administration of the questionnaire was conducted in the classrooms and all responses were kept confidential.

Statistical Analysis

All data were analyzed using the Statistical Package for the Social Sciences for Windows (SPSS), Version 19 (SPSS Inc. Chicago, Illinois, USA) computerized program. Descriptive statistics were used to summarize demographic data of the samples. The significant differences between the children at each school regarding the consumption of fruits and vegetables was analyzed using ANOVA, while gender differences regarding fruit and vegetable intake were examined using independent samples t-tests. The knowledge questions were analyzed using descriptive, while the fruit and vegetable intake questions and the attitudinal questions were analyzed using frequency data. All statistical analyses were evaluated at the 0.05 level of significance.

CHAPTER IV

RESULTS

The current section presents the statistical results for the hypotheses. The section is divided into the following sections: demographic data, students' knowledge, students' attitudes, and fruit and vegetable intakes.

Demographic Data

A total of 48 girls and 54 boys participated in the study. The mean age was 10.9. They were of different ethnicity groups: 20 African, 10 East Indian, 1 Chinese, 3 Caucasian, 59 Mixed, and 7 other. Two participants did not report their ethnicity.

Students' Knowledge

A total of 5 questions were used to assess students' knowledge about fruits and vegetables. Table 1 presents the results of the knowledge questions. Table 1 shows that the majority of students (37), (36.3%) obtained 3 (40%) correct answers, 2 children (2%) obtained 0%, and only 8 children (7.8%) got 4 of the 5 questions correct.

Table 1: Children's knowledge scores

Correct Answers %	Frequency	Percent Frequency
0	2	2.0
20	22	21.6
40	37	36.3
60	33	32.4
80	8	7.8
Total	102	100.0

Table 2 illustrates the students' knowledge scores by gender. Results revealed that 5 males obtained the highest percentage of correct answers when compared to their female (3) counterparts. Also, shown is that those children who obtained 0% correct answers happen to be females (2).

Table 2: Knowledge Scores by Gender

Correct Answers (%)	Male	Female
0	0	2
20	16	6
40	17	20
60	16	17
80	5	3
Total	54	48

Table 3: Knowledge Scores by Ethnicity

% Correct Answers	African	East Indian	Caucasian/ White	Chinese	Mixed	Other	No Response
0	0	0	0	0	2	0	0
20	3	2	0	0	10	6	1
40	9	6	1	1	19	1	0
60	8	2	1	0	21	0	1
80	0	0	1	0	7	0	0

'Mixed' race as depicted in Table 3 had the most number of children obtaining the highest percent of correct answers, although two students from this ethnicity scored 0%. One student from the Caucasian

group scored 80%. The 'Other' category received the lowest scores with six students obtaining only 20% of correct answers.

Students' Attitude

Twelve questions were used to determine the children's attitude toward fruits and vegetables. A 5 point Likert scale was used with responses ranging from 'Strongly Agree' to 'Strongly Disagree'. Figure 1 shows how children feel about vegetables. Only 30.4% of the children strongly agree with the statement that they like vegetables and 6.9% strongly disagree. The majority (28.4%) reported that they were not sure how they felt about vegetables; however, most children (42.2%) stated that they do not cry to eat vegetables. The majority of children also reported that they did not mind trying new vegetables.

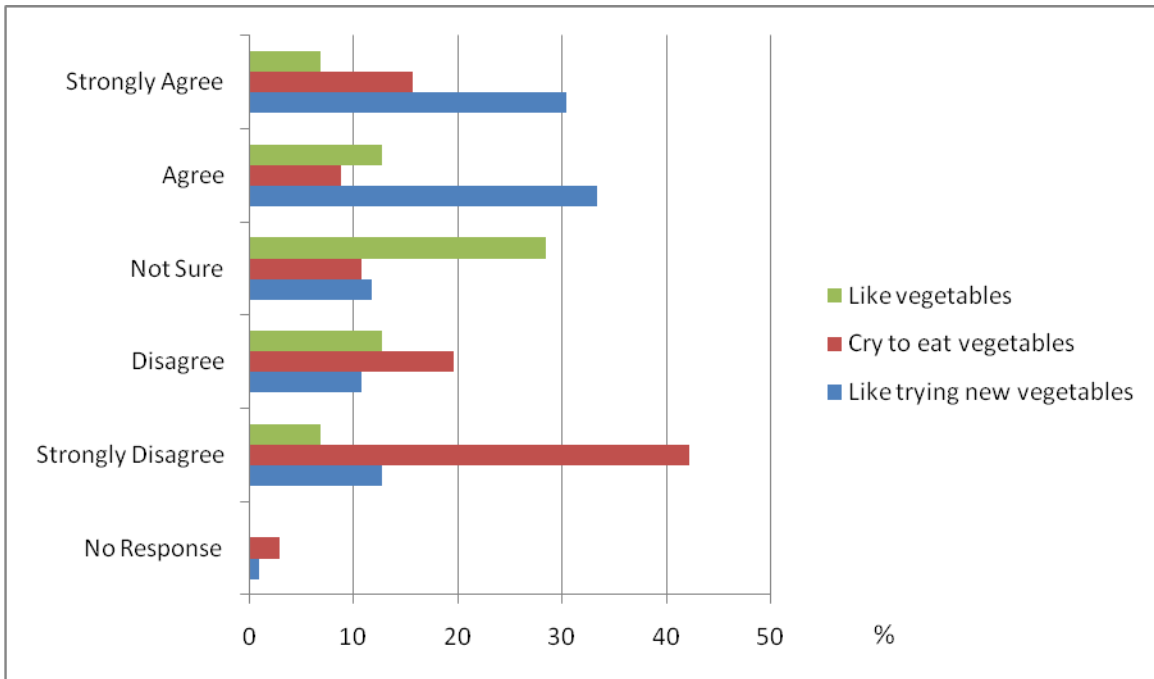


Figure 1: Children's Attitudes Toward Vegetables

As illustrated in Figure 2, 84.3% of children strongly agree with the statement that they like fruits, 79.4% reported that they think that eating fruits make them feel healthy, and 68.6% think that fruit is a nice

snack. Most of the responses (61.8%) stated that they strongly disagree with the statement that they cry to eat fruits.

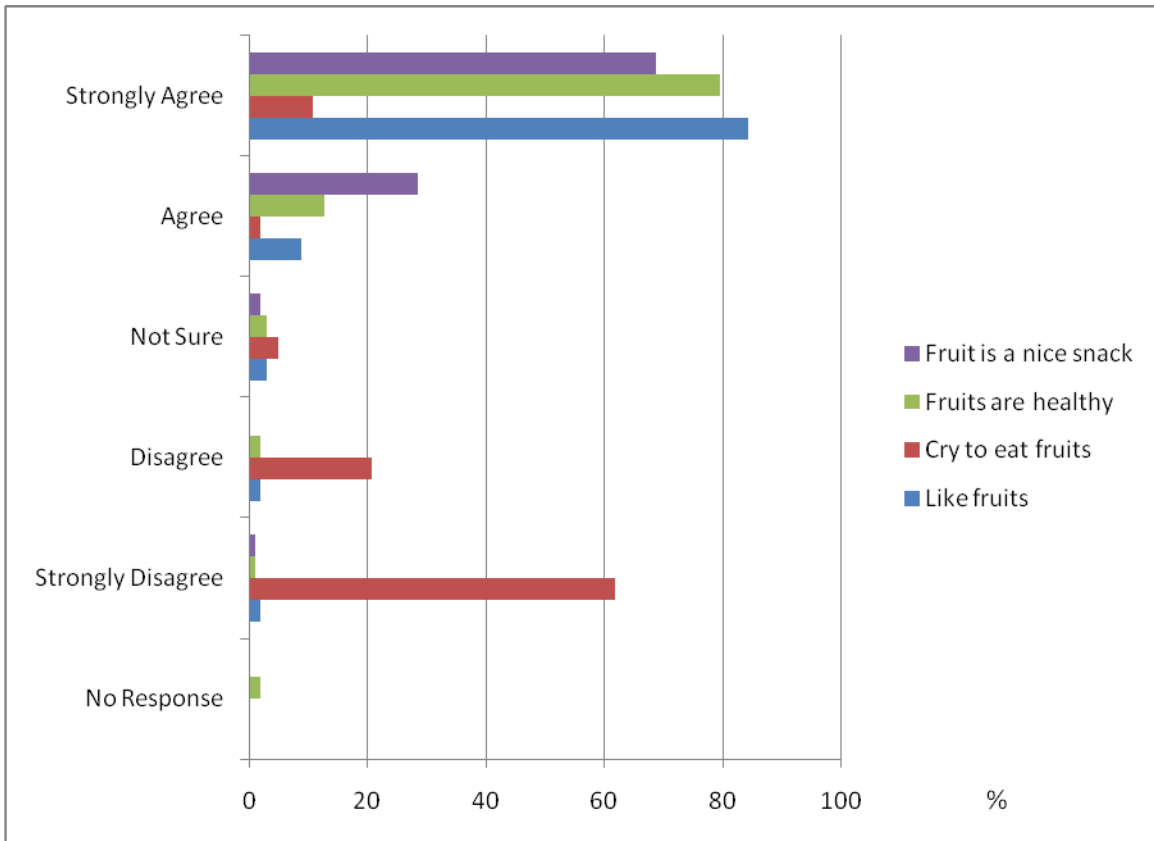


Figure 2: Children’s Attitude Toward Fruits

Fruit and Vegetable Intake

Participants were asked to indicate how many times they ate fruits and vegetables for the past week. Response options included 6 categories with a range from never to 2 or more times a day. There were no significant differences observed in the consumption of fruits and vegetables among the students at the different schools, $F(2, 99) = 1.6, p > 0.001$. The pie chart in Figure 3 and 4 depicts the average number of times students reported vegetable and fruit consumption for the week, respectively.

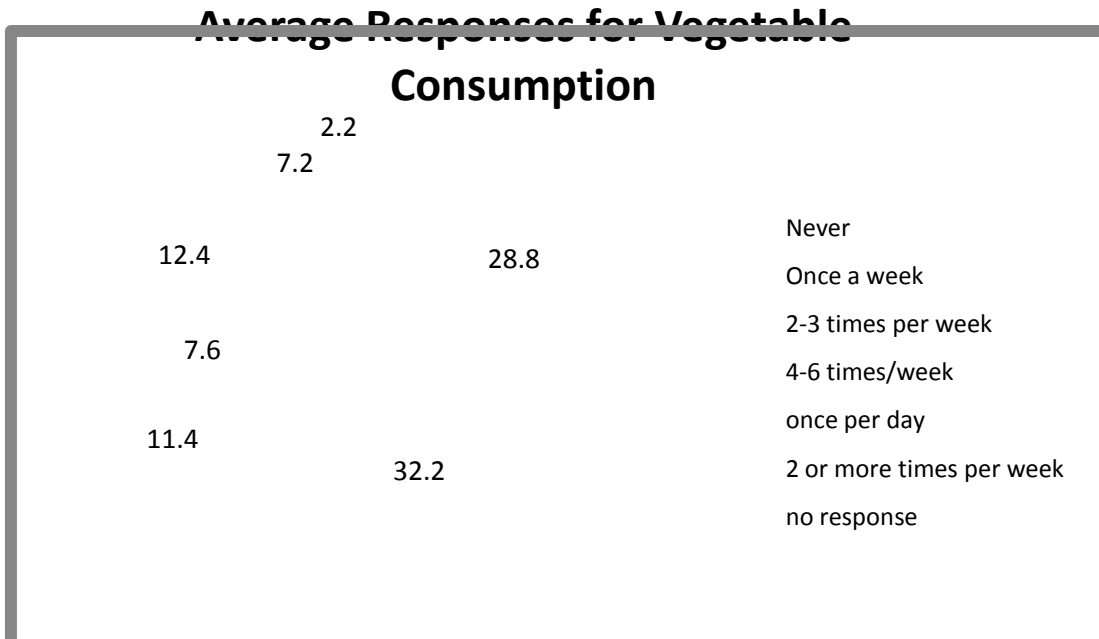


Figure 3: Average Number of Responses for Vegetable Intake in Children

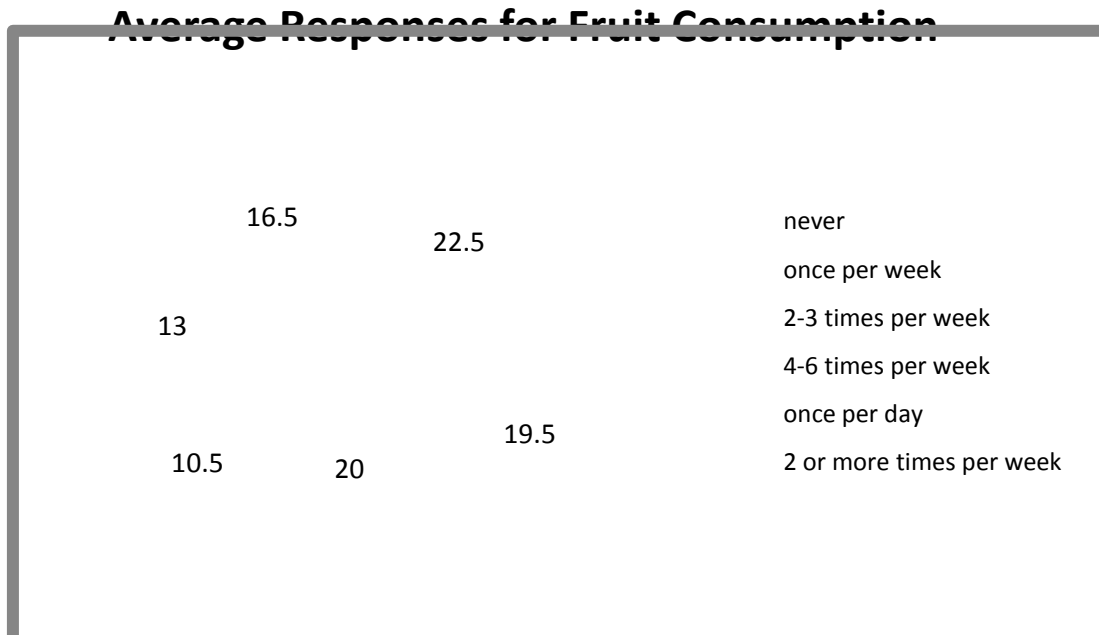


Figure 4: Average Number of Responses for Fruit Intake in Children

Figures 3 and 4 show that an average of 32.2 responses indicated that they consume vegetables once per week compared with 19.5 responses for fruit consumption, followed by 28.8 responses reporting that they never consumed vegetables within the last week and 22.5 responses reporting fruit consumption. Average vegetable consumption responses once per day was 12.4 compared to 13 responses for fruit and an average 7.2 responses indicated consumption of vegetables 2 or more times per week within the last week compared to fruit consumption which reported an average of 16.5 responses.



Figure 5: Average Consumption of Fruits and Vegetables by Gender

Figure 5 shows consumption of fruits and vegetables by gender. Male students consumed on average higher intakes of fruit and vegetables than their female counterparts. The results show that males' average response was 8.7 for consumption of fruits and vegetables 2 or more times per day versus females' average response of 3.15 for 2 or more times per day. No significant differences were observed between male and female intakes of fruits and vegetables ($t=1.069$, $df=100$, $p>0.05$).

CHAPTER V

DISCUSSION

In this evaluation, the knowledge, attitude, and practices of primary school children regarding fruit and vegetable consumption was explored. The findings confirmed the low nutrition knowledge levels and fruit and vegetable consumption among primary school children as reported in similar studies (Schwartz, 1975; Perry-Hunnicut et al., 1993).

Gender differences were observed in nutrition knowledge in reference to fruits and vegetables. Male students obtained the highest number of correct answers than the female students. These findings are inconsistent with results from NASHS (Perry-Hunnicut et al., 1993), where girls had higher nutrition scores. Generally, children were not very knowledgeable about fruits and vegetables seeing that the majority of them obtained 40% correct answers which are consistent with two out of five correct responses. The study done by Perry-Hunnicut et al. (1993) was unswerving in that they also found knowledge scores to be very low.

Significant ethnic differences were found in nutrition knowledge among the students. The 'mixed' group obtained the greatest number of students getting the highest score. The 'Caucasian/White' group was able to attain higher scores than the 'African/Black' group, which is also showed by the finds of Beech et al. (1999). It should be noted, however, that the percentages of African/Black (20%) and Caucasian/White (3%) students are small when compared to the 'Mixed' students in the sample.

Results from the attitudinal component of this study show that children have negative attitudes toward consumption of vegetables and extremely positive attitudes toward consumption of fruit. This may be explained by the bright colours of fruits, which is sometimes associated with a sweet taste and the health properties of the fruit as most children agreed that fruits are healthy (Perry et al., 1998). This may

also be the case because of differences in availability, ease or attractiveness (Perry et al., 1998). Another reason for the negative attitude towards the consumption of vegetables versus fruits as reported by Basch et al. (1994) is that fruits are generally easier to eat than vegetables because they mostly come in their own 'packages'. Kirby et al. (1995) further stated that fruits may be more appealing to children, since they are sweet and juicy when compared to vegetables. This view was opposite for vegetables as they can be looked at as having a 'bad' taste and texture that is unappealing. However, most students agree that they do not cry to eat vegetables, nor do they have a problem with trying new vegetables which is inconsistent with the findings of Cooke et al. (2003) that reported children are unwilling to try new fruits and vegetables. Furthermore, the responses of this study also indicate that the children do not cry to eat fruits and they believe fruits are a nice snack.

The children's fruit and vegetable consumption was insufficient therefore there was no significant difference between the three schools in the sample. These findings support Beech et al. (1999) conclusion that adolescents were consuming substantially fewer servings of fruit and vegetables. This study found that there are no significant changes observed in boys and girls related to fruit and vegetable consumption, which also supports the findings of Beech et al. (1999). However, it was noted that more males consumed slightly more fruits and vegetables per day than females, which is contrary to reports by Perry et al. (1998), which indicated that girls appeared to be more receptive than boys to increasing their vegetable consumption because girls have been shown to be more receptive to other health education programs concerning eating patterns and physical activity (Perry et al., 1994).

Limitations to this study was that the participants in the sample was only from one area in Trinidad and Tobago, as well as, children ranging in age from 10 to 12, therefore the findings of this study may not be generalized to all primary school students in the country. These students may differ from other students who attend private schools because of factors such as socioeconomic status, family functioning and

availability and accessibility to fruits and vegetables. These factors could have an effect on fruit and vegetable consumption in students. Another limitation to this study pertains to the questionnaire. It was not pre tested to screen for any misconceptions or misunderstandings the students may have encountered. Finally, the sample size in each school was unevenly distributed with School Z containing the largest number of students so their responses would generally be greater in comparison to School X and Y with fewer students.

CHAPTER VI

CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study, it can be seen that the students are consuming fewer amounts of fruits and vegetables than what is expected. Contrary to other studies, it was reported that females consume fewer fruits and vegetables than males. The children were not knowledgeable about fruit and vegetable related questions as evident by their responses and low knowledge scores. Many children were not sure how they felt about vegetables but they didn't mind trying new types and were positive in their attitude towards fruits. There was also no significant difference between the children at each school regarding their fruit and vegetable intake.

Nutrition programs should be implemented in schools to educate children about the benefits of fruits and vegetables and how much should be consumed on a daily basis to provide optimal nutrition. A Garden Pilot Project has also been shown to enhance fruit and vegetable consumption among children so this program can be added to schools. Parents may also try to create innovative ways to serve vegetables to children so that they can increase their consumption. Finally, further studies are needed to examine fruit and vegetable consumption in larger and more diverse groups of primary school students.

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Department of Health Statistics and Informatics in the Information, Evidence and Research
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APPENDIX A



**THE UNIVERSITY OF THE WEST INDIES
ST. AUGUSTINE, TRINIDAD AND TOBAGO
Department of Agricultural Economics and Extension
Faculty of Science and Agriculture**

FRUIT AND VEGETABLE CONSUMPTION QUESTIONNAIRE

Dear Student:

The following questionnaire was designed to find out how much you have learnt or know about fruits and vegetables. Also, what you think and how much you should eat daily or weekly. You are asked to answer all questions honestly.

Please do not write your names anywhere on the questionnaire. The information will be used to describe all of the children in Standard Four as a group. Your information will be kept privately.

Thank you for your help in completing this questionnaire.

Yours Respectfully,

Cherrelle Lewis
Human Nutrition and Dietetic Student

FRUIT AND VEGETABLE CONSUMPTION QUESTIONNAIRE

DEMOGRAPHIC INFORMATION

1. Age: _____
2. Standard: _____
3. Name of School: _____
4. Gender: Male Female
5. Ethnicity/Race: African/Black East Indian Caucasian/White
 Chinese Mixed Other (specify) _____

KNOWLEDGE

Circle the **ONE** correct answer to the following questions in this section.

1. A serving of fruit is equal to:
 - a. 1 medium sized fruit (such as an apple, orange or banana)
 - b. 3 cups of fresh, frozen or canned fruits
 - c. 2 cups of 100% fruit juice
 - d. 2 cups of fresh, frozen or canned fruits

2. A serving of vegetables is equal to:
 - a. ½ cup cooked or raw vegetables
 - b. 1 cup cooked or raw vegetables
 - c. 2 large bowls of cooked or raw vegetables
 - d. 2 cups of cooked or raw vegetables

3. What is the recommended number of serving of fruits you should eat daily?
 - a. 1 serving of fruit daily
 - b. 2-4 servings of fruit daily
 - c. 3-4 serving of fruit daily
 - d. 4-5 servings of fruit daily

4. What is the recommended number of serving of vegetables you should eat daily?
 - a. 1 serving of vegetables daily
 - b. 2-3 servings of vegetables daily
 - c. 3-4 serving of vegetables daily
 - d. 3-5 servings of vegetables daily

5. Fruits and vegetables are good sources of:
 - a. Vitamins and minerals
 - b. Fats and oils
 - c. Starches
 - d. Protein

FRUIT AND VEGETABLE INTAKE

Think about your eating habits over the past week. About how often do you eat each of the following foods? Remember breakfast, lunch, dinner, snacks, and eating out. Tick ONE button for each food.

Fruits and Vegetables	NEVER	Once a WEEK	2 to 3 times a WEEK	4 to 6 times a WEEK	Once a DAY	2 or more times a DAY
100% pure fruit juice, like orange, apple, grape, mango, and pineapple. (Not sodas or other drinks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often do you eat fruit? Include fresh, frozen or canned fruit. (Do not include juices)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vegetable juice, like tomato juice, V-8, carrot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Green salad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potatoes, any kind, including baked, mashed or french fried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vegetable soup, or stew with vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Any other vegetables, including string beans, peas, corn, broccoli, patchoi, callallo or any other kind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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ATTITUDE

How strongly do you agree or disagree with the following statements? Tick one box in each row

	Strongly agree 1	Agree 2	Not sure 3	Disagree 4	Strongly disagree 5
a. I like vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I like the taste of most vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I like tasting new vegetables that I have not tried before	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. It is fun to prepare vegetables to eat e.g., make a salad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I eat vegetables to avoid punishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I cry to eat vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. I like fruits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. I like the taste of most fruits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Fruit is a nice snack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Eating fruits make me feel healthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. I eat fruits to avoid punishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. I cry to eat fruits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☺ Fantastic, you have finished!

THANK YOU! ☺