Abstract

With obesity, dieting, and dysfunctional eating patterns of adolescent girls on the rise, there is an inescapable need to understand the influences surrounding their food consumption, as well as their understanding of nutrition. The purpose of this study was to examine whether adolescent females' dietary management practices are affected by nutritional knowledge and/or dietary myths. The study examined 21 eighth grade girls between the ages of 13 and 14 attending a private school. The students were asked to answer a questionnaire as a way to evaluate their perceptions regarding 'healthy' eating, junk food, and their eating behaviors. Influences such as family, institutions, media and peers were evaluated in conjunction with adolescent girls' nutritional knowledge. The findings indicated that these girls have a general understanding of 'healthy' eating, and a strong familial influence in their diets. This subsequently impacts their food consumption patterns and their dietary management. The majority of participants consider themselves to be 'healthy' eaters, and are satisfied with their food choices.

Introduction

In our study, we chose to examine eating habits of adolescent females in the current social climate. In our research, we sought to answer the question: are adolescent females' dietary management practices affected by their nutritional knowledge and/or cultural dietary myths?

Adolescent females today are developing in a time of conflicting nutritional and dietary directives. Fast food culture and the rising obesity epidemic are causing panic among parental and public advocacy groups as well as the medical profession, and the general population. Our interest was in determining the factors that are influencing the eating habits and nutritional knowledge of our sample of 13 and 14 year old girls. In doing so, we hoped to determine how consciously and autonomously the respondents made their food choices.

In order to conduct thorough research regarding the dietary choices of our sample, we felt that it was necessary to define the following key phrases:

- Nutritional knowledge refers to any conceptions-educational, commercial, or otherwise regarding nutrition that our sample may have been taught or may have internalized throughout the course of their lives.
- Dietary management refers to the application of this knowledge for the function of making everyday food consumption choices and its role in the creation of personal eating habits.
- Fast food, for the purposes of our study, was food prepared quickly and outside of the home, usually foods stipulated to lack nutritional value,

such as that produced by McDonald's restaurants and similar fast food chains.

Junk food was a category we asked the respondents to define, in order to determine which foods our sample considered 'junk.'

In our study, we discuss the level and types of nutritional knowledge held by our sample, followed by an examination of their eating habits in juxtaposition to current adolescent eating habits described by the literature. We also delve into the conceptions and habits of our sample concerning 'junk food' in the context of a discussion of the junk food industry. Finally, we consider various factors in terms of their influence on the dietary management of our sample.

Literature Review

Literature in the fields of nutrition and communication expresses concerns about young girls and their understanding of nutrition and its relationship to their food consumption patterns. The prevalence of high fat foods and increasing portion sizes combined with the increase of inactive lifestyles has resulted in an obesity crisis. As citizens become fatter there is also a growing incidence of "dysfunctional eating practices" including eating disorders, unhealthy means to loose weight and dieting (Irving & Neumark-Sztainer, 2001). Much of the literature expresses that there is a positive relationship between nutritional knowledge and eating behavior of junior high students. This indicates that, "nutrition knowledge might have a positive impact on eating behavior" (Irving & Neumark-Sztainer, 2001, p.299).

With both eating disorders and obesity on the rise there have been a number of studies examining the factors contributing to these epidemics. The majority of the research holds "environmental factors" accountable (Irving & Neumark-Sztainer, 2001). The increase in obesity as well as dysfunctional eating practices

> have occurred within the context of an environment that is becoming increasingly "toxic" relative to food and weight – an environment that exults thinness, stigmatizes fatness, encourage unregulated consumption of energy dense food and promotes "quick –fix" approaches to with loss (2001, p. 299).

The problem is that children, starting at a very young age, are exposed to a variety of conflicting messages surrounding nutrition and healthy eating practices.

Before examining those external factors relevant to a child's dietary management, it is important to look at personal factors. According to Alyson Escabor, "25 percent to 50 percent of variation in food consumption among individuals can be attributed to

preference alone." Although children's' responses to food also have to do with their previous food experiences (1999, p. 46). Research indicates that "knowledge alone is insufficient to change behavior; individuals must believe in their ability to institute behavior change (Irving & Neumark-Sztainer, 2001, p. 303). Therefore, their preferences as well as their commitment to dietary management affect their food choices.

Socio-environmental factors also play a major role in a child's understanding of nutritional management. Family and peer norms are integral to a child's perception of healthy eating. Parental involvement can be one of the most important tools in educating children about nutrition and nutritional options, especially mothers when have a very strong influence on their children's knowledge of nutrition. (Pirouzina, 2001). Various research also indicates that young children are more likely to eat food that they observe their parents eating (Pirouzina, 2001, p.46). Furthermore, children's nutritional knowledge increases dependence on the number of meals parents are eating at home with their children (p.46). However, with an increase in dual-income households, children are often forced to learn about nutrition from outside sources.

Some of the literature express that in an adolescent's life peers, both in and outside of school, have an effect on one another's nutritional knowledge and choices. Studies have found that "children as young as 3 and 4 could be persuaded to change their selection and consumption of vegetables as a result of eating meals with their peer group, who had different preferences than their own" (Escabor, 1999, p. 46). In addition, nutritional knowledge from peers has a high correlation with dysfunctional eating, especially in girls (Irving & Neumark-Sztainer, 2001, p. 299). The media also play a large role in the relationship between nutritional attitudes and dysfunctional eating.

A child's exposure to media is ever growing. When the time comes for a child to graduate, " the average child will have spent over 20,000 hours watching television and only 11, 000 in the classroom"(Kline, 1993,p.17). Children are not only watching more television then ever before, but are watching "18,000-21,000 commercial messages a year"(Kline, 1993, p.17) promoting foods high in fat, sugar and salt leading to obesity, dental problems and chronic disease" (Zuppa, 2003, p.80). There is a growing concern that children lack a proper understanding of what constitute appropriate nutritional attitudes and habits.

Studies suggest that it is not only children's' growing exposure to an array of media, but also the way children understand and interpret media that will affect a child's nutritional choices. Advertising's effects on children can be assessed along interrelated dimensions such as product desires and consumption patterns. According to Zuppa, "food advertising is the single largest category of advertising in the majority of countries to appeal to children" (2003, p.78). Advertisements for healthy foods are virtually non-existent; "balanced meals are not portrayed visually in 89.8 percent of commercials" (Winicik et al., 1973, p.287). Not only does food advertising influence food preferences, but it can also shape the basic nutritional beliefs and attitudes of a child.

The prevalence of the promotion of fad diets is a "nutritional disaster for children fostering harmful nutritional habits and ill preparing children for the basic human activity of eating properly"(Zuppa, 2003, p.79). Due to the excessive amounts of advertising aimed at children and the fact that the majority of these diets lack a healthy nutritional structure, this can contribute to misconceptions about what is 'healthy' eating. A study suggests that, "if a food guide pyramid was constructed using the frequency with which

each food group was advertised it would bear little resemblance to the recommended eating patterns" (Byrd-Bredbenner, 2000, p.64). Although fad dieting may not cause all girls to diet it still contributes to unhealthy nutritional practices, and is instrumental in the development of misconceptions with regards to diet.

The lack of proper nutritional education of healthy foods is leading children to eat empty calories and causing health problems such as obesity and eating disorders, and early-onset diabetes. The food habits that a child formulates early in life have permanent influences in their lifelong eating habits. The media is providing an unclear and disproportionate picture of what a child needs to eat to stay healthy. The family plays an important role in shaping a child's nutritional values, but many families do not make or do not have time to properly educate their children.

Not only is it important to understand how young girls learn about nutrition, it is also important to look at what young girls think about nutrition. Girls tend to classify foods as either "healthy" (i.e., good) or "junk" (i.e., bad) (Chapman, 2001). Young girls consider fresh fruit and vegetables healthy, as well as foods that are low in calories, sugar and fat. "Junk" foods are described as chocolate bars and potato chips (2001). Although young girls consider poor health a consequence of eating poorly, "weight gain, acne, bad mood, laziness and cavities are most commonly associated with unhealthy foods" (2001). Junk foods elicit negative connotations from young girls such as being out of control, overeating, feeling guilty and the failure of a diet. "Healthy" food for young girls is most commonly associated with being on a diet, and being concerned with weight, appearance, self-control, and being good. Generally, girl's opinions of foods have more to do with body image than actual health concerns (Chapman, 2001). These connotations of "junk"

and "healthy" foods reflect how teenage girls' insecurities about their bodies affect their thoughts about and behavior towards food.

Evidence shows that young women of British Columbia recognize that in order to lose weight, exercise was the healthiest strategy, followed by diet combined with exercise. Chapman reports, "that teenage girls dismissed fad diets as 'stupid', unhealthy and ineffective, and advocated increased exercise and 'watching what you eat' by eating 'healthy' foods and reducing or eliminating 'junk' foods" (2001).

Girls' weight and dieting concerns are linked more strongly to social and psychological issues than to physical health matters. Teenage girls' concerns about their eating habits tend to focus on the interrelationship between their food preferences, beliefs about "healthy" or "junk" foods, and concerns about weight and body image. Therefore, issues of social and psychological well being, rather than physical health, are their main concerns.

Methods

The participants in our pilot study consisted of 21 female students in the eighth grade at an independent, Catholic all-girls high school located in Vancouver, British Columbia. The principal of the school granted us permission to conduct our research but specifically requested that the name of the school remain anonymous.

This particular school was chosen because of a personal contact with a teacher in the school. The school is located in an affluent area of Vancouver and tuition fees for one student are $5,050.00 per year. Acceptance into grade eight is dependant on an entrance exam that evaluates a student's knowledge of English, Mathematics, and French. Only the top percentage of students is admitted into the school.

On Tuesday, March 15th, 2005, we asked the teacher contact to pass out an Simon Fraser University "Informed Consent for Minors and Dependent Populations" form to her class, to take home and have their parent/guardian sign and return by Thursday, March 17th. The document informed parents of the purpose and procedures of our study. We received 22 signed forms, which are included in our appendix.

On Thursday, March 17th, two group members went the school to administer the survey to the students, who were very excited to be participating in an important Simon Fraser University study. Twenty-one students in a grade eight Science class participated in the study, with one student absent.

Our questionnaire consisted of 26 questions investigating participants' nutritional knowledge, dietary management, eating habits and ideas about junk food and fast food. We included a few different types of questions including multiple choice (some which

consisted of Likert type scales), yes or no questions, and written response questions. The survey was anonymous and we asked the participants to individually complete the questionnaire in silence so their responses would remain personal and not affected or influenced in any way. The completed surveys are also included in the appendix of our report.

We coded all the responses to our survey and used the computer program SPSS to obtain statistics for our results. The program allowed us to compute frequencies, percentages and create cross tabulations as well as bar graphs and pie charts. For questions 12 and 19, we collapsed answer categories to make them more synchronized. For question 12: "If you are at the mall food court, what are you most likely to buy?" we combined "subs or wraps" and "salads," and also fused "Chinese food" and "sushi" into one category called "Asian Cuisine." In question 19: "Where do you learn about healthy eating?" we collapsed "books and magazines" and "TV" into simply "media."

Any written responses were accumulated and reviewed in our empirical data analysis. All multiple choice and written responses were allocated into four themed categories: *nutritional knowledge, eating habits, dietary management* and *junk and fast food*. Due to the small sample size in our pilot study, the unit of analysis was not case specific but collective. We utilized a select number of responses to illustrate the key findings of this study.

Analysis

Nutritional Knowledge

A main focus of our study is to determine how much nutritional information girls 13 and 14 years of age have. To find out how much nutritional knowledge the girls knew, we asked a series of questions, which would give us insight into their dietary awareness. We also wanted to assess what kind of nutritional information they paid attention to. Additionally, the source of the participant's nutritional knowledge was also studied. Pirouznia (2001) looked at the correlation between nutritional knowledge and eating behavior in middle school children. There was a strong correlation between the nutrition knowledge and eating behavior of girls in the seventh and eighth grades (p.131). We thought that to determine our participant's knowledge, it would be beneficial to ask them about the Canadian Food Guide, a standard device used to teach Canadians what healthy eating entails. We also asked the girls whether or not they are active consumers and if they read the nutritional labels on packaged foods. Pirouznia (2001) found that "nutritional knowledge has been shown to have a positive impact in the selection of healthy foods" (p. 127).

The girls were asked if they knew the purpose of the Canadian Food Guide, and then to subsequently write down what they actually thought the guide encompasses. Two-thirds (66.6%) of the girls answered that they did not know what the Canadian Food Guide was. Interestingly, in the next question when they were asked, "What is the purpose of the Canadian Food Guide?" seven girls wrote correct answers, eight did not know, and five girls had an idea of what it was, but their answers did not grasp the

purpose of the guide. One of the most comprehensive answers was that the purpose of the Canadian Food Guide is, “to determine how much [sic] pieces of food should be eaten from each of the food groups.” Girls who did not fully understand the function of the food guide but had some idea of its purpose wrote responses such as, its purpose is “to make sure that a person meets her body’s nutrients need” or to “outline what the body needs when it comes to food.” Although two-thirds of the girls responded that they did not know what the Canadian Food Guide was, they did make an attempt to answer the question.

We also looked at whether or not the girls paid attention to nutritional information labels on packaged foods. This gave us an indication of whether they are aware of the importance of nutritional information and if they actively use this resource. We found that 71.4% of the girls read the labels on packaged foods and of that 71.4% we then asked them to tell us which sections of the label they usually read. Interestingly, 61.9% of the girls paid attention to the fat content of the foods. Of these girls, 71.4% paid attention to the nutritional content of the food. We also asked the participants if they paid attention to serving size, energy, protein, fat, vitamins, ingredients, carbohydrates, fiber and sugars, which are also usually listed on packaged food labels. There was not a lot of variance within these categories, but we did find a low numbers of respondents (under 30-40%) did not pay attention to serving size (19%), protein (28.9%), vitamins (33.3%), carbohydrates (38.1%) or fiber, at the lowest with 14.3%.

What is also important to look at is the origin of this knowledge. We looked into four major influences on a teen girl’s life: school, parents, peers and media. We asked the girls to tell us which group affected their healthy eating choices. The largest influence for

this group of girls is their parents at 76.2%. Interestingly, only 9.5% of the girls said that their friends influenced their healthy eating choices. However, we were surprised to find that school ranked second as an influence at 42.9%, and media third at 33.3%.

It was not expected that parents would have such a contributing factor in the girls' healthy eating choices. We thought that since these participants were adolescents, they would be more independent in their choices, and therefore rely heavier on the media and their peers for nutritional information. Pirouznia's (2001) study of middle school children (11 to 13 year olds) found that, "the perception of the importance of nutrition by the parents, especially the mothers, has a very strong influence on their children's knowledge of nutrition" (Pirouznia, 2001). Therefore if a child is from a family that is concerned with healthy eating or promotes nutritional knowledge, these children will have a higher aptitude for nutritional knowledge. In the 1994-1995 National Population Health Survey (NPHS) different age groups were surveyed to find out where Canadians get their nutritional knowledge. In the 12 to 14 year old category, 48% answered parents, 24% chose pamphlets, magazines and books, and 18% chose television, radio and newspapers (Health Canada, 1994, 1995). The NPHS survey, which was completed through Health Canada, corresponds with our finding that in this age group, 13 and 14 year old girls still have a high instance of influence from their parents when it comes to healthy eating knowledge.

Taking into account that these 13 and 14 year old girls are presumably from upper middle class Catholic families, it is not surprising that parents have significant influence over the girls' dietary knowledge and management. Hart, Bishop and Truby (2002) acknowledge in their study on children's nutritional knowledge that, "health inequalities

between different socio-economic status (SES) population subgroups have long been recognized" (Hart et al., 2002).

Our findings are contradictory to Hart, Bishop and Truby's findings that during adolescence, peers and media have a more significant influence than parents on dietary choices (Hart et al., 2002). We found, as noted above, that peers and media has a significantly lesser impact upon teens. Additionally, our findings are in concurrence with other studies in that we also found a lack of significant influence from schools as contributors to girls' nutritional knowledge (Hart et al., 2002). The private school Web site states that the students are exposed to "healthy eating patterns" in Home Economics class. This is interesting considering the very small proportion of our sample, which selected school as an influence in their dietary habits.

Eating Habits

The National Institute of Nutrition points out that even though there has been a 'general improvement' in the nutritional knowledge and education of teenage girls, there has yet to be a general improvement in their actual dietary habits (Chapman, 2001). The sample was asked a range of questions in order to determine their daily eating habits.

Fast food consumption has been one of the major controversies surrounding childhood health and obesity. Our sample was asked, "how often do you eat fast food per week?" The majority, 95.2% ate fast food zero to two times per week, with only 4.8% consuming fast food more frequently. A study done by Parry (2003) found that, "in the past three months, eight per cent of 11 to 19-year olds have eaten more than 15 take-aways and six per cent have visited more than 15 fast-food outlets over the same period" (p. 34). Furthermore, an American study states that, "the average teen eats at a fast food restaurant twice a week"(Story & Stang, 2004, p 7). Our results contradict the findings of the previous two studies. We can conclude that our sample is highly aware of the adverse health affects of eating fast food and consequently consume fast food moderately as compared to the average.

Portion sizes have been an issue in regards to the childhood-obesity debate. In order to combat this problem, one of the major recommendations to the public has been the reduction of portion sizes. In regard to this issue, we felt an understanding of the girls' nutritional knowledge and its relation to portion selection needs to be examined. The majority of our sample, 81%, said that they would most likely order medium –sized food when eating out. The remaining 19% claimed to order small sizes. Our results also

showed that of the 81% who were likely to order medium, 52% did not know the guidelines of the Canadian food guide. In addition, 28.5% who chose medium size portions understood the Canadian Food Guide. While our results indicate that these adolescent girls have a very limited knowledge of the Canadian Food Guide, they still have a basic understanding of nutrition, which is reflected in their choice of portion size.

It is widely expressed in the field of nutrition that breakfast is the most important meal of the day. This message has clearly been ingrained in young girls minds. The results of our study show that 81% of our sample eat breakfast, while only 14.3% do not. In fact, 66.6% of those who eat breakfast also consider themselves a healthy eater. The promotion of breakfast foods is wide spread and reinforces the idea that a balanced breakfast contributes greatly to a healthy diet.

Skipping meals was also a question that concerned our research, considering adolescent girls are considered to be 'dysfunctional eaters." According to Story & Stang (2004), "meal skipping is common among adolescents, especially during middle and late adolescence…the percentage of youth skipping breakfast increases with age, especially for females" (p. 6). When asked whether they skipped meals, 38.1% of our sample did skip meals, as opposed to 61.9% that did not. In addition 52% of our sample don't skip meals and have never been on a diet. This coincides with findings by Lattimore & Halford that females who were not dieting were not likely to skip breakfast (2003, p. 460).

Another major concern in studying young girls' nutritional behavior is whether they eat three square meals a day. Our data indicates that 76.2% of our sample eats three square meals each day, with only 23.8% failing to eat three square meals.

Junk Food and Fast Food

Obesity has risen in the United States and Canada, and junk food has been fingered as one of the major causes. A report by the Institute of Medicine says that the United States has over 9 million children who are obese and that "80% of these children will remain overweight into adulthood" (Kiley, 2004). Junk food and fast food provide little nutritional incentive for the management of a healthy diet. The respondents of this pilot study were asked to identify key brands associated with junk food, as well as to comment on fast food companies' attempts at healthy alternatives.

Junk food is becoming more widely available in schools than ever before. Most cafeterias have pop machines and vending machines carrying teenagers' favorite snacks. According to the Journal of Food Chemistry, over one third of the diet of North Americans consists of junk food (Scholastic Choices, 2004). Of the girls surveyed they defined junk food as chips, chocolate, candy, pop, slurpies, and sugar. One respondent defined junk food as having "no nutritional benefits." The responses correspond with the opinions of the Canadian Food Guide, which state that high-fat foods can be "snack foods like potato chips, corn chips and chocolate" (Health Canada, 2002).

In our pilot study, there were two primary questions on junk food. The first required the respondent to determine what they consider junk food. The responses were general with some specific examples of junk foods. The respondents used adjectives like "saturated," "greasy", "artificial," and "fatty" to define junk food. This indicates that our sample's perception is that junk food is unhealthy in comparison to other foods. They also frequently said that chips and sugary foods were not healthy.

The second question asked them to name brands associated with junk food. Most responses listed more than two brands, with only a few providing non-brand specific answers. When the respondents provided more than one brand they tended to cluster their answers around a few products. For example, one respondent wrote "Mr. Christies, Pepsi, Coca-Cola, Lays, Old Dutch, Hershey." This symbolizes that these young consumers are also aware of the competition between the companies for their attention, such as the Coke-Pepsi wars, the Burger King-McDonalds wars, and many other competing products. Popular brands mentioned by the girls included Lays, Miss. Vicki's, Doritos, Ruffles, and Old Dutch. Due to the stigma of unhealthiness surrounding junk food, companies are recognizing and offering healthier options to remain competitive.

McDonalds was the second most commonly identified junk food company by the respondents. The respondents also mentioned other fast food restaurants like Burger King, and KFC, but not in the same frequency as McDonalds. In an attempt to eliminate criticism that McDonalds has played a major role in the increasing obesity epidemic around the world, they have tried to market themselves as providing healthy options to their consumers, while not neglecting their traditional menu options. Our survey asked the participants what they thought of McDonalds' healthy eating options and whether they had tried any of these foods. This is an important question in determining how young girls perceive eating healthy within a fast food environment.

They felt that this was a step in the right direction, but most of the girls saw through the McDonalds marketing saying that, "I think they probably aren't very healthy. They're just another way of getting McDonald's more money and more publicity" and that "there is almost no nutritional value in McDonald's. When they say something is low

in fat, compared to other places, it is still high in fat." Within our sample 57.1% have tried McDonald's healthy options and 42.9 % have not. Many of the girls who have tried the options felt that they were "tasteless" or assumed that they were not healthy. In addition, their answers demonstrate that they understand that McDonalds' healthy options menu is a marketing tactic. As one respondent says, "I think they probably aren't very healthy. They're just another way of getting McDonalds more money and more publicity." The majority of the girls in our sample are able to understand the nutritional myths and propaganda that surround McDonalds' healthy eating options. This expresses that these young girls are aware of many of the nutritional myths that surround food. The girls who participated in the study felt that McDonalds was not a place they would go if they were truly in search of healthy eating options.

The documentary "Super Size Me" seemed to play a major role in the fast food considerations of our subjects. Post-viewing, many of them had decided not to eat at McDonalds period. As one teenager said "I don't eat at McDonalds'. I won't eat their food after "Super-Size me" grossed me out." The documentary was an experiment where the director, Morgan Spurlock, ate only McDonalds food for all of his meals for 30 days. The justification behind the movie, which is effectively disgusting, is the fact that "25% of people who eat at McDonalds are heavy users, eating at an outlet 4 to 5 times a week"(French, 2004, p.32). The subjects from this survey said that they ate at fast food restaurants less than twice a week. However, that is a significant number when the professionals consulted for the movie indicated that they would prefer fast food consumption to slow to no more than once a month, or even better, to cease entirely (French, 2004). Although McDonalds has since stopped selling super-sized options, the

amount of fat in their products is still very high. Fortunately, 81% of the respondents indicated to regularly medium- sized fast food, with none of the respondents indicating regular consumption of anything larger.

Instead of eating at McDonalds, many of the girls in our sample seem to have found alternatives to the typical fast food menu. As our results indicate, 33% of the girls studied would most likely eat Asian cuisine including sushi and Chinese food at a mall food court. A large percentage of girls, 23.8%, would purchase food at an outlet that sold salads, subs or wraps. Only 14.3% of our sample was likely to buy burgers and fries at the mall food court. Cusatis & Shanon (1996) determine that the eating behavior of girls was directly related to the higher fat food groups (St.-Onge et al, 2003). The correlation between food court choices and their happiness with their food decisions is strong. Of our sample 61.9% of the girls who were happy with their food decisions most of the time, were likely to choose Asian cuisine, or salad subs or wrap. Overall, the girls in the study were generally aware of lack of nutritional benefits of fast food. These perceptions are reflected in their dietary management.

Dietary Management

There is little doubt that young girls today are significantly more aware of their food intake, and manage their diets much more carefully than in the past. Girls tend to be more preoccupied with their looks at an earlier age than boys, which often results in a higher concern for their weight. As a result, young girls are generally considered to be more motivated than boys in seeking out and understanding nutritional knowledge concerning their food intake.

However, there is very little research into the nutritional awareness and food consumption patterns of 'tween' girls, between the ages of 10 and 14. Our inquiry into this issue found that they are happy with the food decisions that they make most of the time, according to 61.9% of the sample. A total of 14.3% were happy with their food decisions all of the time, and 19.0% were somewhat happy about their decisions, while only 4.8% of our sample were not happy. What these results indicate is that young girls, especially those in our sample, are not as conflicted surrounding their food decisions as the literature would seem to suggest. Included in the responses to the question of how happy they are with their food choices, the respondents acknowledged that they consider themselves to be 'bad' occasionally. In validating why they are happy with their food decisions, the majority of respondents said things like, "I eat healthily, but maybe not as much as I want", or "I try to eat healthy, but sometimes I slip and eat something bad." In general, girls involved in our sample displayed a high level of satisfaction with their food choices in eating healthy, or trying to eat healthy most of the time, with occasional 'slip-ups' in eating 'junk food.' A couple of girls expressed guilt surrounding their

consumption of junk food saying, “I feel like I eat too much fatty foods,” or “I eat a lot of chocolate.” However, a majority of the respondents commented that they are generally happy with their healthy food choices.

We also questioned the girls in our sample regarding how they make decisions about what they eat. We noticed some general themes come up in respondents’ written answers so we coded those themes and input the data into SPSS. The themes were “parents,” “what I feel like eating,” “cravings,” “what is available,” and “based on health/activity.” We distinguished “what I feel like eating” and “cravings” as separate categories because the respondent specifically used the word “craving” and we felt it denotes more of an urge or impulse to eat. There is some discrepancy with our statistics for this question because participants often listed more than one factor that played into their decision-making. For example, one girl said, “I pick whatever tastes good, what I feel like. Price and how healthy it is can affect my choice.” Another said, “Sometimes I eat it because I feel like it. Some other times it is what my mom makes.” In these cases, we simply used the factor that the girl listed first, for the purposes of obtaining the statistical data.

Our results show that 33.3% of the sample decides what to eat based on what they feel like, but many of these girls also made some reference to health factors. For example, participants made comments such as, “I eat what I feel like, but I make sure it stays pretty healthy and balanced” and “I decide by figuring out what I feel like, if it’s healthy, and how much I can eat.” Again, we noticed evidence of guilty feelings associated with junk food consumption within this question. Of her decision making process, one girl wrote,

"If I feel like I want to eat it or if I like it… sometimes, if I've felt that I've ate too much junk food, I won't eat."

Furthermore, our results show that 23.8% of the participants make food choices based on health factors or their activities. One girl wrote, "Well, I try to eat fruits and veggies like salad for lunch and healthy snacks all the way." Another responded with a reference to the Canadian Food Guide saying, "I read the ingredients and see how much carbs/fats it has, and whether I had enough of that food group." Additionally, we asked the participants about vegetarianism, however none of them are vegetarians and 71.4% have never considered it, with only six contemplating becoming one. Vegetarianism does not play an important factor in this population, which may be a result of parental control over family eating habits.

The same amount (23.8%) make food decisions based on what their parents provide and/or prepare for them. One girl expressed that she does not have a choice: "I don't really decide. Whatever my parents cook is the meal." Again, we noted that many of the girls in this category also mentioned health factors, for example, "Mainly what my parents give me – believe me, they're health maniacs!" and "My parents help me and give me healthy choices of food." Three of the twenty-one girls (14.3%) decide what to eat based on what is available to them and one girl (4.8%) listed cravings as a major factor in her food choices.

Upon examination of the total number of girls in our sample, a majority mentioned health factors in their answers. This data illustrates that a large portion of our sample has a high knowledge of nutrition because their food decisions are largely

dependent on what they deem to be healthy. These girls are conscious of the foods they are putting into their bodies.

In terms of the girls in our sample utilizing their knowledge of the Canadian Food Guide as a resource in determining their food choices, and satisfaction with those decisions, 10 of the 13 respondents who were happy with their decisions had little or no knowledge of the Canadian Food Guide. However, they were still able to distinguish between healthy, and less healthy options and this had an effect on how happy they were with their food decisions. The question of their happiness associated with their food decisions is significant in terms of understanding young girls' diet habits. The traditional literature suggests that media and unhealthy nutritional myths influence adolescent females to partake in 'dysfunctional' eating patterns. However, our study showed different results. They indicated that young girls have an understanding of healthy eating, which can be reflected in the food choices they make, and the subsequent satisfaction with themselves. The majority of them expressed that they felt a happy balance between eating junk food occasionally, and enjoying it, as well as eating a healthy diet. This could be attributed to their school curriculum. For instance, Home Economics 8/9 includes a section on food studies, which provides students with information and experiences necessary in order to become self-reliant in food preparation and to make wise food choices (school website, 2005).

Responding to the question of whether they were on a diet, the results showed that 95.2% of our sample was not on a diet, while 76.2% of them had never been on a diet. In cross analyzing the results of those girls happy with their food decisions most of the time, 11 of the 13 respondents said that they had never been on a diet. Of those girls somewhat

happy with their decisions, 3 out of the 4 girls had never been on a diet. These results indicate that the girls understand the importance of a balanced diet, as opposed to dieting, where they may be endangering their health in order to lose weight. Furthermore, of the 13 girls happy most of the time, 11 of them associated food consumption with exercise. In response to question 24, “Do you mentally associate food and exercise?” eighteen of the 21 girls (85.7%) wrote that they do associate food and exercise while only three (14.3%) said that they do not. This could indicate a cultural understanding of personal fitness and overall health, as opposed to strict diet management. This idea is likely reinforced in their physical education curricula. The P.E. classes teach the importance of a healthy lifestyle, which includes both exercise and healthy food choices (school website, 2005).

In a study conducted by Paul Lattimore & Jason Halford, they suggest that those who embark on weight loss diets are `tuning into’ healthy eating messages more effectively than others. Their study essentially mirrors results from other literature that indicates the potential health benefit of `moderate’ dieting in terms of consumption of healthy foods or reduced consumption of unhealthy foods (2003). However, the results of our study do not correlate with these results, and even challenge them. The participants of our study seem to be consciously reducing their consumption of unhealthy foods, though not always, and for the most part, are not dieting.

This understanding of the importance of leading a general healthy lifestyle was also evident in question 21 in which we asked participants to fill in the statement, “If I (weighed more, weighed less, was more fit, was the same), I would be (happier, less happy, the same).” Of our respondents, 47.62% wrote that if they were more fit they

would be happier and 23.81% of the girls said that they would be happier if they weighed less. One girl wrote that she would be less happy if she weighed more. Four participants responded neutrally, indicating that they are content with their body and one girl said that she would be happier if she weighed more. These results indicate that the largest portion of our sample associate happiness with being fit and generally healthy and not necessarily with weighing less.

Just over half of our sample (52.4%) said that they "care a lot" about healthy eating and food choices, and one respondent said she is "very passionate." Also, eight of the 21 girls are neutral and one girl said she "cares a little." Of the girls that said they "care a lot," 47.62% of them associate food and exercise, which reiterates that the girls have a basic understanding that a healthy lifestyle involves the combination of both physical exercise and nutritional food choices.

Despite these encouraging statistics however, these results also illustrate that seventeen girls in our sample (80.9%) are currently dissatisfied with their bodies. A 1993 study done by the McCreary Centre Society that surveyed teenage girls in British Columbia reflects our findings. While 80% of those they surveyed fell into a healthy body weight for their height, less than 50% perceived their weight to be "about right." Furthermore, their study found that 38% of girls in grade eight saw themselves as overweight and 69% of seventh graders wanted to lose weight (Chapman, 1994).

The results of our study also indicate that the participants had a basic understanding of nutritional knowledge, with the majority considering themselves to be healthy eaters. Furthermore, 90.5% of the sample claimed that they eat healthy most of the time. In addition, 76.2% of girls would describe themselves as a healthy eater, with

19% not confident in labeling themselves as a healthy eater. This contradicts the claim by most research that seems to indicate that young people, especially females, engage in poor eating habits.

As stated by Mahshid Pirouznia (2001) in his study, there are many factors that could influence adolescent eating behavior, including mass media, parental dietary habits, nutritional knowledge, and peer influences. Our study asked young girls, 'do you feel pressured by your friends to eat certain foods.' Surprisingly, 85.7% of respondents said that they did not feel pressured by their friends, with 14.3% saying they do feel pressured. Furthermore, 90.5% of respondents did not learn about healthy eating from their friends, instead 76.2% learn from their parents, while 33.3% learn from the media. This indicates that peer interactions may not play as active a role in young girl's decision- making processes in terms of food as is generally conjectured.

There is very little research concerning the correlation between young girls' nutritional knowledge and their food consumption patterns. Much of the research looks instead at young children. However, studies that have been done on adolescent females have found diverse results. The results of our study show a population of young girls who are not only happy with the decisions they make, but also healthy eaters most of the time, and are not revolving their food choices around dieting. While most of the girls mention eating junk food, they seem to understand the difference between healthy and unhealthy food, and seem to make an informed effort to eat healthy most of the time. Furthermore, the results of this survey indicate that their dietary choices are based on nutritional knowledge rather than socio-cultural myths.

Conclusion

According to the results from our study, it can be concluded that the adolescent girls in our sample have a general understanding of nutrition, primarily influenced by their family. Furthermore, this understanding of nutrition has a strong impact on their food choices and healthy eating patterns. Some significant findings from our study are that 76% of 13 and 14 year old girls consider themselves to be healthy eaters and 90.5% say they eat healthy most of the time. Parents were listed as the number one source for information about healthy eating by 76.2% of our sample. We found that the majority of the girls in our sample, 95.2%, are not and have never been on a diet. Based on this finding we can conclude that although girls in our sample are not dieting, they are still likely to be focused on nutritional eating but more for body image considerations than for health concerns. Furthermore, while the media do not seem to play an active role in this population's nutritional knowledge, it is still likely a prevalent influence in their conceptions of body image and health.

Overall, we were satisfied with the research methods utilized and our results in this study. However, there are a few aspects of our methodology that we would change if re-conducting this study with a different sample. Our questionnaire, although very inclusive and encompassing, consists of a couple questions that could have been worded more appropriately for the age group. For instance, question 20, "do you contribute to food purchases in the house? Yes/No" could have been elaborated on. The word 'purchases' may have led participants to interpret the word in terms of monetary contribution. Instead, we would modify the question to ask, "do you have input into the

food your family eats?" which would eliminate any confusion in regards to monetary contribution. It would focus more specifically on the children's role in the family food choices.

In addition, we would rephrase the question, "do you eat three square meals a day? to "do you eat three balanced meals each day?" Although we don't feel that this question had much of an effect on their responses, if the study were to be replicated, altering the question could eliminate any ambiguity in interpreting the question and their response.

One significant limitation in our methodology involved our inability to carry out interviews with the subjects, due to minimal amount of time to analyze data, as well as the poor timing of the school's extended Easter/Spring Break.. We feel that interviews would have provided a more in-depth, qualitative aspect to this study. Furthermore, it would have provided the opportunity to not only clarify the questions of this survey but to get further insight into how these adolescent girls understand nutrition and nutritional myths, as well as details of their dietary management practices.

We feel that certain findings in our research bring to light various issues surrounding adolescent girls, their nutritional knowledge and their eating behaviors that require further research. Our study reported that less than half of our sample claimed they learned about healthy eating in school. However, nutritional knowledge and the promotion of a healthy lifestyle are clearly a part of the curriculum of Home Economics, Foods, and Physical Education classes within the school. If adolescent girls are required to learn about these issues in the academic arena, then why did only 42.9% of our participants acknowledge school as a source of information about nutritional knowledge?

Our findings raise questions about the quality of the health education programs in schools and require further research into the influence these programs should have on girls' nutritional knowledge.

Also, we found that the majority of our survey participants are currently not on a diet and approximately three quarters have never been. Literature in the field reports a significant increase in the number of girls going on diets when they reach high school, yet there seems to be little research done that looks into why this shift from not dieting to dieting in junior high to dieting in high school. Similarly, after junior high school, girls' eating patterns seem to change significantly. Our research found that 13 and 14 year old girls consistently eat breakfast as well as three square meals a day. Therefore, we recommend that further research needs to be implemented in order to identify and discuss factors contributing to the change in adolescent girls eating habits as they mature.

The demographic of the girls looked at in our study is part of a larger adolescent market with increasing consumer power. However, they exist in a conflicted realm between the 'innocence' of childhood and the 'maturity' of teen culture. The sample we tested is at the end of childhood and based on our results, their dietary influences are still strongly connected with their parents' eating values. However, as they pass through this in 'between' period there is likely to be an increasing influence from peers and a decreasing influence from parents in determining their food choices. Ultimately, our sample seemed to have rejected the unhealthy eating habits promoted by the media. Their comments on the correlation between healthy eating and body image would indicate that they likely internalized media myths regarding body image, and as a result have adopted healthy eating habits. As Cook & Kaiser (2004) comment, "middle girlhood has

increasingly become a favored political site for the understanding of femininity, for discourses about vulnerability and ‘lost childhoods’ and for locating some of the evils of the consumer marketplace” (223). Ultimately, the continuing debate surrounding adolescent girls, nutrition, eating behaviors, junk food, body image and the various influences in a young girl’s cultural environment is definitely food for thought.

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Appendix

Sample Questionnaire

QUESTIONNAIRE

THIS IS AN ANONYMOUS SURVEY, PLEASE DO NOT WRITE YOUR NAME

1) How old are you? _____
2) Do you know what the Canadian food guide is? Yes / No
3) What is the purpose of the Canadian food guide?

_____

4) How do you make decisions about what you eat?

_____

_____

5) Are you happy with the food decisions you make? (Circle Answer)

1 (least) 2 3 4 5 (most)

Why_____

6) Would you describe yourself as a healthy eater? Yes / No
7) Do you read labels on packaged food? Yes / No
   A) Do you focus on any of the following: (Circle any/all that apply)
      a) ingredients
      b) nutritional information
      c) serving size
   B) Circle (if applicable) any of the following nutritional info categories that you pay attention to:
      - Energy (calories)
      - Protein
      - Fat
      - Vitamins
      - Carbohydrates (carbs)
      - Fiber
      - Sugars
8) Are you on a diet? Yes / No
   Have you ever been? Yes / No,
   If yes, what was your motivation to go on a diet?

_____

9) What do you consider to be 'junk food'?

_____

10) What brands do you associate with junk food?

_____

11) How often do you eat fast food per week?
    a. 0-2 times
    b. 3-5 times
    c. 5 or more times
12) If you are at the mall food court, what are you most likely to buy?
    a. Burger and/or fries
    b. Sub or wrap
    c. Chinese food
    d. Sushi
    e. Salads
    f. Pizza

g. Other_____

13) What do you think of McDonald's healthy eating options?

_____

_____

Have you tried any of these foods? _____

_____

Are you a vegetarian? Yes / No

If yes, is it because:

a. You think killing animals is wrong
b. Your family members are vegetarians
c. You don't like the taste of meat
d. Religious reasons
e. Allergies
f. Other_____

14) If you are not a vegetarian, have you ever considered being a vegetarian? Yes / No
15) Do you feel pressured by your friends to eat certain foods? Yes / No
16) Do you ever skip meals? Yes / No
17) Do you eat breakfast? Yes / No
18) Where do you learn about healthy eating?
    a. School
    b. Parents
    c. Friends
    d. Books and magazines
    e. TV
19) Do you contribute to food purchases in the house? Yes / No
20) If I _____, I would be _____.

a)Weighed more	a)Happier
b)Weighed less	b)Less happy
c)Was more fit	c)The same
d)The same	

21) Would you say you eat healthy:
    a. None of the Time
    b. Most of the Time
    c. All of the Time
22) Do you eat three square meals a day? Yes / No
23) Do you mentally associate food and exercise? Yes / No
24) When you order food, are you likely to order:
    a. Small size
    b. Medium
    c. Large

25) How much do you care about healthy eating and food choices?
    a. Don't care
    b. Care a little
    c. Neutral
    d. Care a lot
    e. Very passionate

THANK YOU FOR YOUR PARTICIPATION ☺☺☺

Sample Ethics Form

SIMON FRASER UNIVERSITY

INFORMED CONSENT FOR MINORS AND DEPENDENT POPULATIONS

CONSENT BY PARENT, GUARDIAN TO ALLOW PARTICIPATION IN A RESEARCH STUDY

Project: Research Project for Communications 320: Children, Media and Culture

Investigator Name: Rosalyn Young, Laura Greenberg, Sara Hof, Laura McCartney, Colleen Westendorf, Stephanie Vicic

Investigation Supervisor: Stephen Kline, School of Communication, SFU

The University and those conducting this study subscribe to the ethical conduct of research and to the protection at all times of the interests, comfort, and safety of participants. This form and the information it contains are given to you for your own protection and to ensure your full understanding of the procedures, risks, and benefits described below.

Purpose of this study: Generally, we are examining children and fast food culture. Specifically, we are looking at how girls' nutritional knowledge impacts their dietary management. The results we obtain from this survey will be used in our research paper for this course and for no other purpose.

Procedures: Participants will be asked to fill out a short, anonymous questionnaire about nutrition, eating habits, fast food etc.

All personal information will be kept in strict confidence and the identity of individuals will not be disclosed unless otherwise specified below. There will be no risks to the participant, third parties or society.

Your signature on this form will signify that you have received a document which describes the procedures, possible risks, and benefits of this research study, that you have received an adequate opportunity to consider the information in the document, and that you voluntarily agree to allow the minor named below to participate in the study.

Name Parent, Guardian or other (PRINT):_____

who is the (*relationship to minor*) (PRINT):_____

of

Name of minor (PRINT): _____

I certify that I understand the procedures to be used and have fully explained them to:

Name of minor participant: _____

and the participant knows that she has the right to withdraw from the study at any time, and that any complaints about the study may be brought to the course supervisor named above or to:

Department, School or Faculty:
School of Communication

8888 University Way, Simon Fraser University, Burnaby, British Columbia, V5A 1S6, Canada

I may obtain copies of the results of this study, upon its completion by contacting the researcher named above or:
Media Analysis Lab Simon Fraser University 8888 University Dr. Burnaby, BC V5 A 1S6

I certify that I understand the procedures to be used and that I understand the Study Information Document, and that I have been able to receive clarification of any aspects of this study about which I have had questions.

Last name of Parent or Guardian: _____

First name of Parent or Guardian: _____

Signature: _____

Date (mm/dd/yyyy): _____

Frequencies

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13	17	81.0	81.0	81.0
	14	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

Knowledge of Food Guide

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	33.3	33.3	33.3
	No	14	66.7	66.7	100.0
	Total	21	100.0	100.0	

Factors to Making Food Decisions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Parents	5	23.8	23.8	23.8
	What I Feel Like Eating	7	33.3	33.3	57.1
	Cravings	1	4.8	4.8	61.9
	What is Avaliable	3	14.3	14.3	76.2
	Based on Health/Activity	5	23.8	23.8	100.0
	Total	21	100.0	100.0	

Happiness with Food Decisions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A Little	1	4.8	4.8	4.8
	Neutral	4	19.0	19.0	23.8
	Sometimes	13	61.9	61.9	85.7
	Yes	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

Heathy Eating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	76.2	76.2	76.2
	No	4	19.0	19.0	95.2
	No Response	1	4.8	4.8	100.0
	Total	21	100.0	100.0	

Do You Read Packaged Food Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	71.4	71.4	71.4
	No	6	28.6	28.6	100.0
	Total	21	100.0	100.0	

Pay Attention to Ingredients on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	52.4	52.4	52.4
	No	10	47.6	47.6	100.0
	Total	21	100.0	100.0	

Pay Attention to Nutritional Info

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	71.4	71.4	71.4
	No	6	28.6	28.6	100.0
	Total	21	100.0	100.0	

Pay Attention to Serving Size on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	19.0	19.0	19.0
	No	17	81.0	81.0	100.0
	Total	21	100.0	100.0	

Pay Attention to Energy on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	57.1	57.1	57.1
	No	9	42.9	42.9	100.0
	Total	21	100.0	100.0	

Pay Attention to Protein on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	28.6	28.6	28.6
	No	15	71.4	71.4	100.0
	Total	21	100.0	100.0	

Pay Attention to Fat on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	61.9	61.9	61.9
	No	8	38.1	38.1	100.0
	Total	21	100.0	100.0	

Pay Attention to Vitamins on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	33.3	33.3	33.3
	No	14	66.7	66.7	100.0
	Total	21	100.0	100.0	

Pay Attention to Carbs on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	38.1	38.1	38.1
	No	13	61.9	61.9	100.0
	Total	21	100.0	100.0	

Pay Attention to Fiber on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	14.3	14.3	14.3
	No	18	85.7	85.7	100.0
	Total	21	100.0	100.0	

Pay Attention to Sugars on Labels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	42.9	42.9	42.9
	No	12	57.1	57.1	100.0
	Total	21	100.0	100.0	

Are You on a Diet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	4.8	4.8	4.8
	No	20	95.2	95.2	100.0
	Total	21	100.0	100.0	

Have You Been on a Diet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	19.0	19.0	19.0
	No	16	76.2	76.2	95.2
	No Response	1	4.8	4.8	100.0
	Total	21	100.0	100.0	

Times per Week Eating Fast Food

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2 Times	20	95.2	95.2	95.2
	3-5 Times	1	4.8	4.8	100.0
	Total	21	100.0	100.0	

Most Likely to Buy in a Food Court

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Burger and Fries	3	14.3	14.3	14.3
	Salads, Subs or Wraps	5	23.8	23.8	38.1
	Asian Cuisine	7	33.3	33.3	71.4
	Pizza	1	4.8	4.8	76.2
	Other	3	14.3	14.3	90.5
	No Response	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

Ever Tried McDonald's Heathy Options

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	57.1	57.1	57.1
	No	9	42.9	42.9	100.0
	Total	21	100.0	100.0	

Are You a Vegetarian

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	21	100.0	100.0	100.0

Have You Ever Considered Being a Vegetatian

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	28.6	28.6	28.6
	No	15	71.4	71.4	100.0
	Total	21	100.0	100.0	

Pressured By Friends to Eat Certain Foods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	14.3	14.3	14.3
	No	18	85.7	85.7	100.0
	Total	21	100.0	100.0	

Do You Skip Meals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	38.1	38.1	38.1
	No	13	61.9	61.9	100.0
	Total	21	100.0	100.0	

Do You Eat Breakfast

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	81.0	81.0	81.0
	No	3	14.3	14.3	95.2
	No Response	1	4.8	4.8	100.0
	Total	21	100.0	100.0	

Learn About Healthy Eating From School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	42.9	42.9	42.9
	No	12	57.1	57.1	100.0
	Total	21	100.0	100.0	

Learn About Healthy Eating From Parents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	76.2	76.2	76.2
	No	5	23.8	23.8	100.0
	Total	21	100.0	100.0	

Learn About Healthy Eating From Friends

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	9.5	9.5	9.5
	No	19	90.5	90.5	100.0
	Total	21	100.0	100.0	

Learn About Healthy Eating From Media

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	33.3	33.3	33.3
	No	14	66.7	66.7	100.0
	Total	21	100.0	100.0	

Do You Contribute to Food Purchases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	28.6	28.6	28.6
	No	15	71.4	71.4	100.0
	Total	21	100.0	100.0	

Frequency of Eating Healthy Meals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the Time	1	4.8	4.8	4.8
	Most of the Time	19	90.5	90.5	95.2
	All of the Time	1	4.8	4.8	100.0
	Total	21	100.0	100.0	

Do You Eat 3 Square Meals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	76.2	76.2	76.2
	No	5	23.8	23.8	100.0
	Total	21	100.0	100.0	

Do You Associate Food and Exercise

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	85.7	85.7	85.7
	No	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

Size of Food Likely to Order

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Small	4	19.0	19.0	19.0
	Medium	17	81.0	81.0	100.0
	Total	21	100.0	100.0	

How Much Do You Care About Healthy Eating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Care a Little	1	4.8	4.8	4.8
	Neutral	8	38.1	38.1	42.9
	Care a lot	11	52.4	52.4	95.2
	Very Passionate	1	4.8	4.8	100.0
	Total	21	100.0	100.0	

Cross Tabulations

Knowledge of Food Guide * Attention to Serving Size on Labels

Count

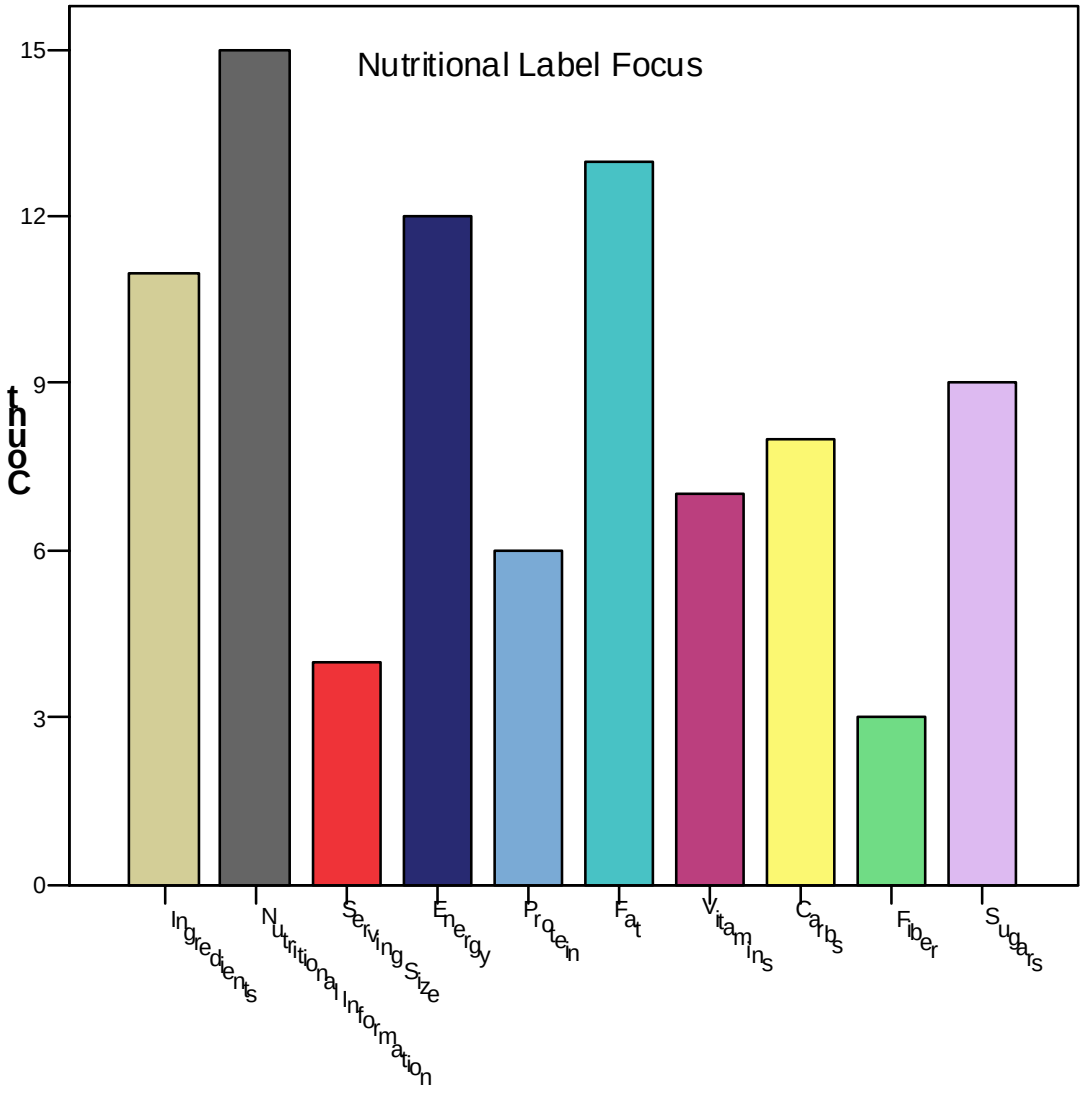
		Pay Attention to Serving Size on Labels		
		Yes	No	Total
Knowledge of Food Guide	Yes	2	5	7
	No	2	12	14
Total		4	17	21

Knowledge of Food Guide * Size of Food Likely to Order

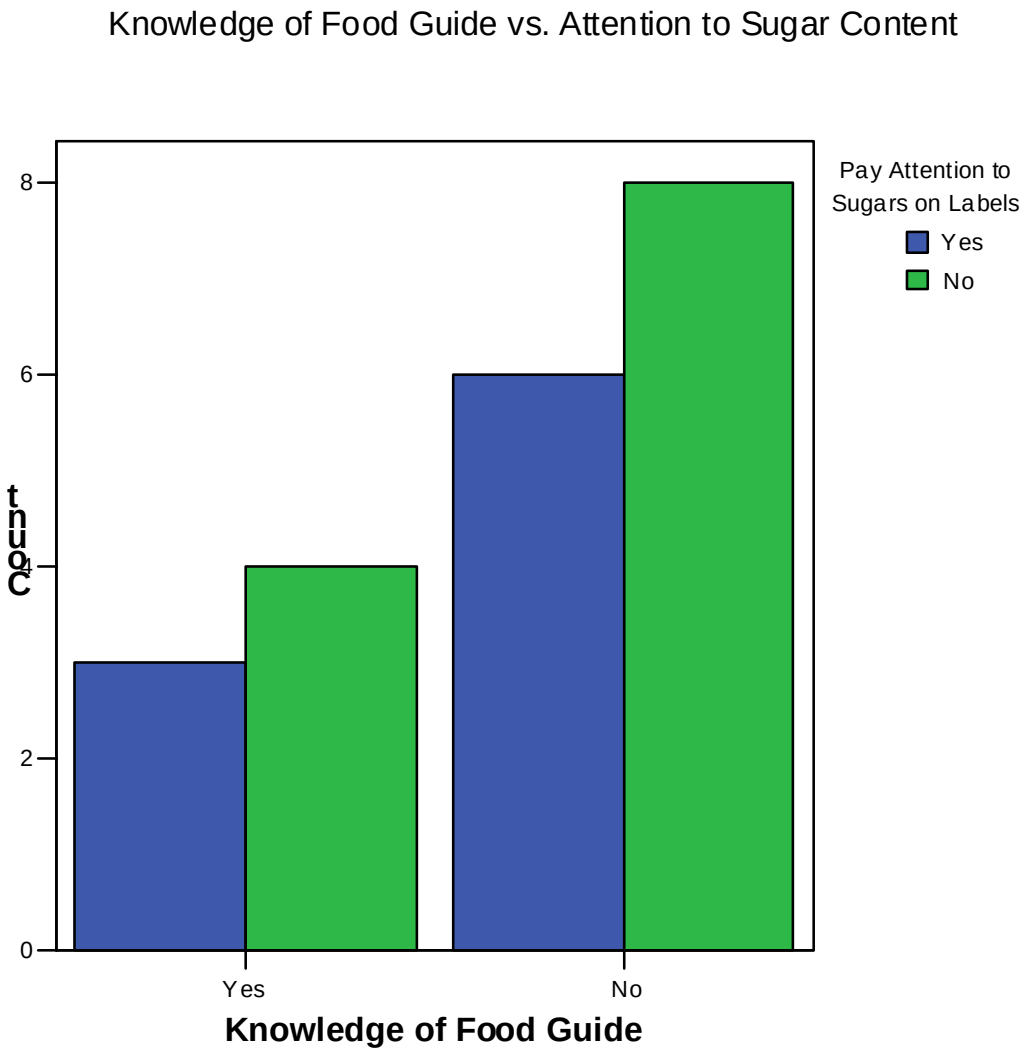
Count

		Size of Food Likely to Order		
		Small	Medium	Total
Knowledge of Food Guide	Yes	1	6	7
	No	3	11	14
Total		4	17	21

Nutritional Label Focus



Knowledge of Food Guide * Attention to Sugar Content- Graph

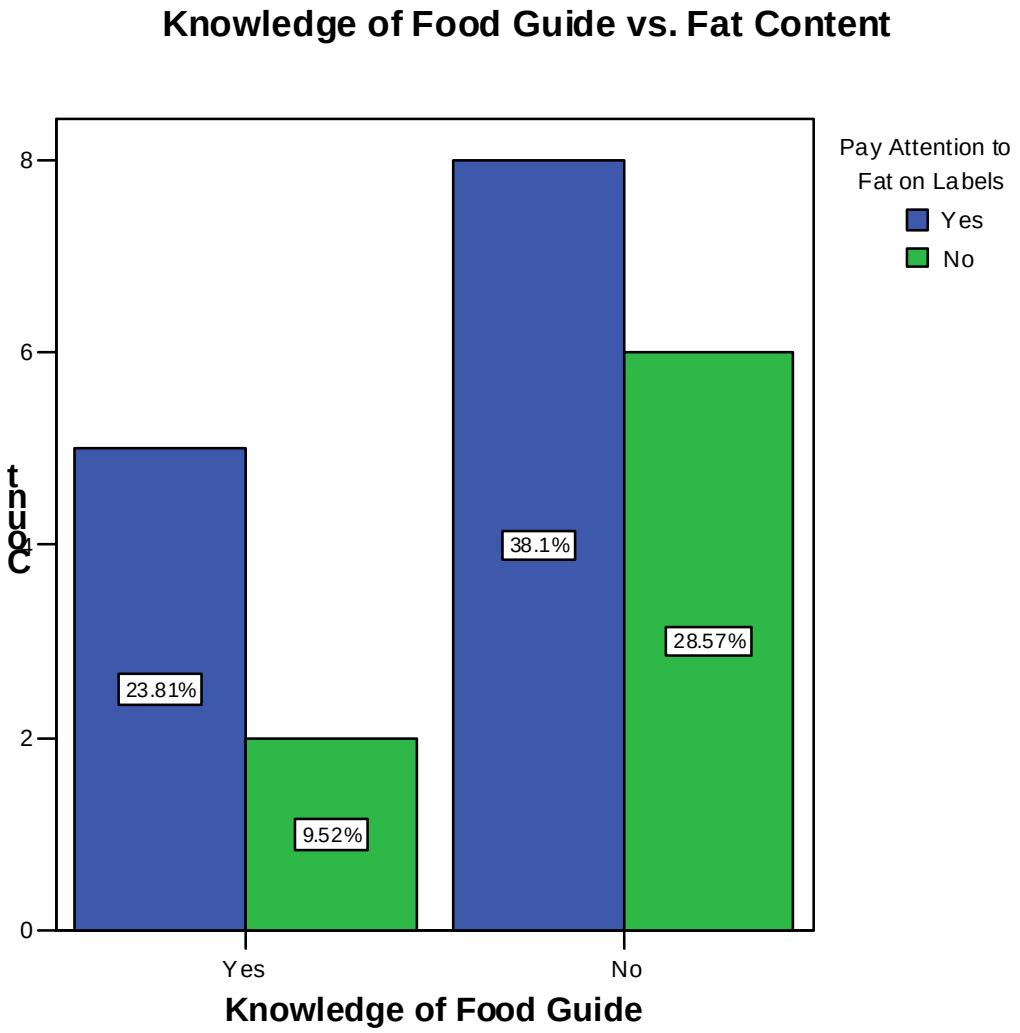


Knowledge of Food Guide * Attention to Sugar Content

Knowledge of Food Guide * Pay Attention to Sugars on Labels Crosstabulation

			Pay Attention to Sugars on Labels		
			Yes	No	Total
Knowledge of Food Guide	Yes	Count	3	4	7
		% within Pay Attention to Sugars on Labels	33.3%	33.3%	33.3%
	No	Count	6	8	14
		% within Pay Attention to Sugars on Labels	66.7%	66.7%	66.7%
Total		Count	9	12	21
		% within Pay Attention to Sugars on Labels	100.0%	100.0%	100.0%

Knowledge of Food Guide * Attention to Fat - Graph

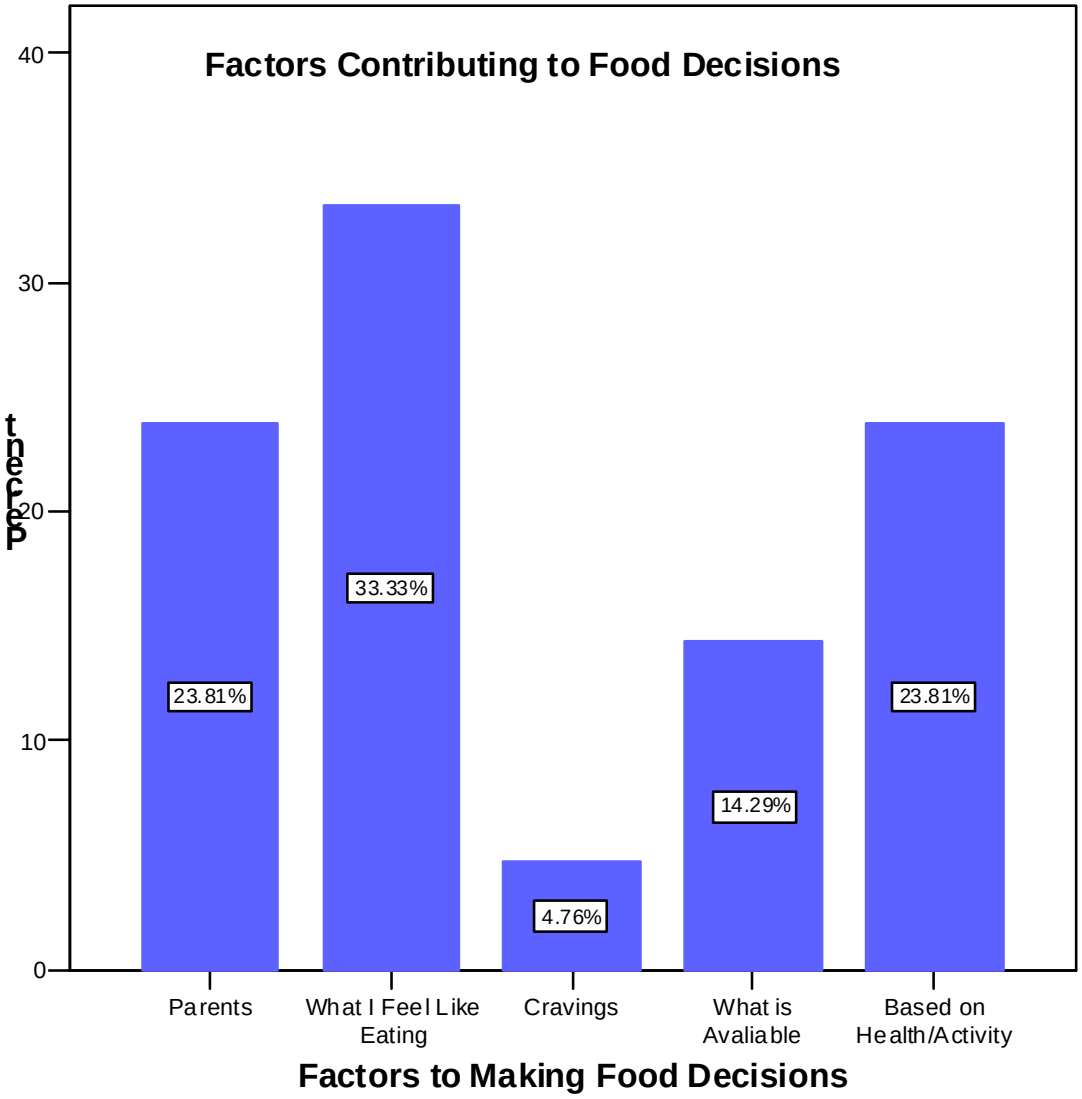


Knowledge of Food Guide * Attention to Fat

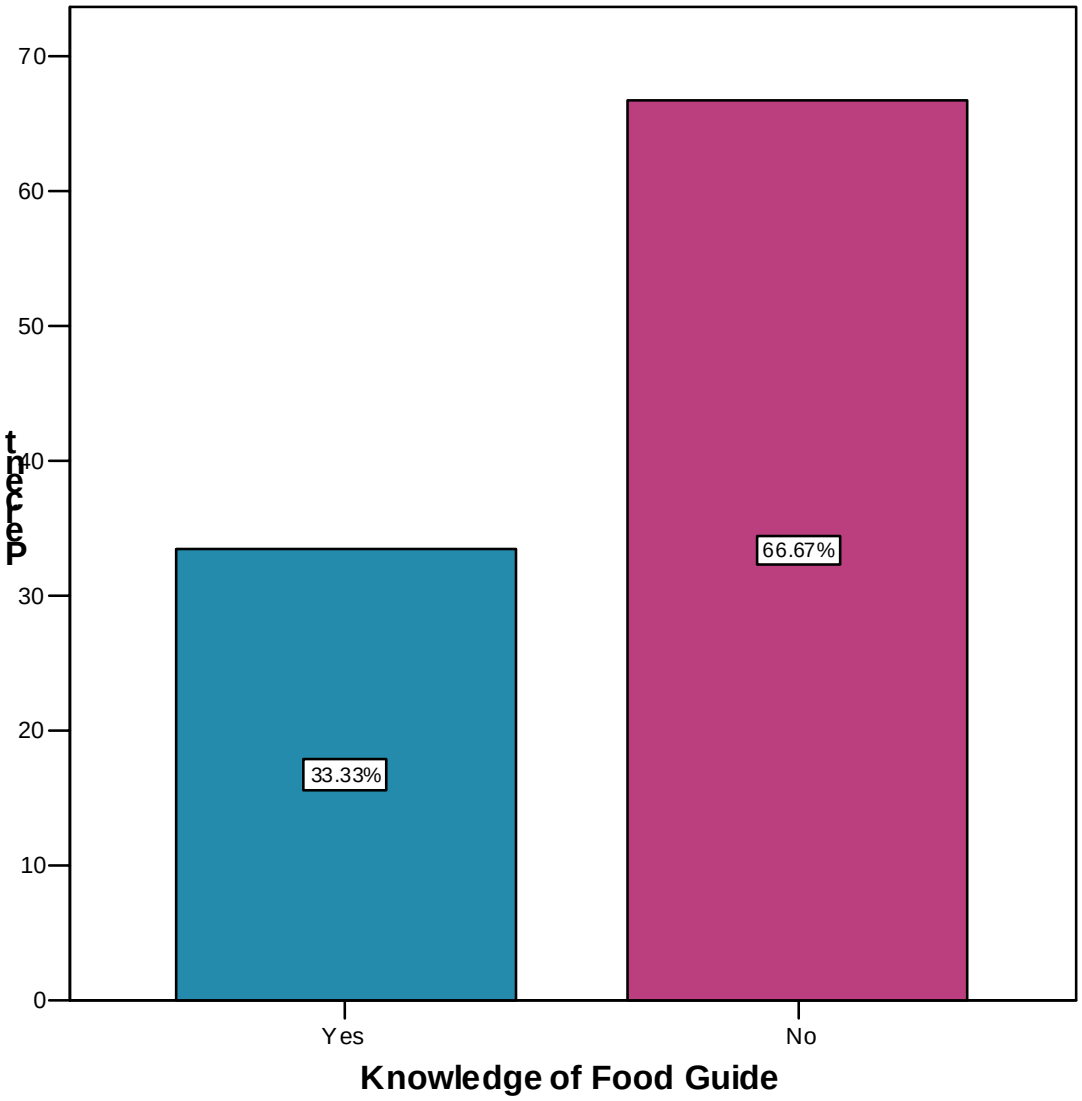
Knowledge of Food Guide * Pay Attention to Fat on Labels Crosstabulation

			Pay Attention to Fat on Labels		
			Yes	No	Total
Knowledge of Food Guide	Yes	Count	5	2	7
		% within Pay Attention to Fat on Labels	38.5%	25.0%	33.3%
	No	Count	8	6	14
		% within Pay Attention to Fat on Labels	61.5%	75.0%	66.7%
Total		Count	13	8	21
		% within Pay Attention to Fat on Labels	100.0%	100.0%	100.0%

Factors Contributing to Food Decisions



Knowledge of Food Guide – Bar Graph



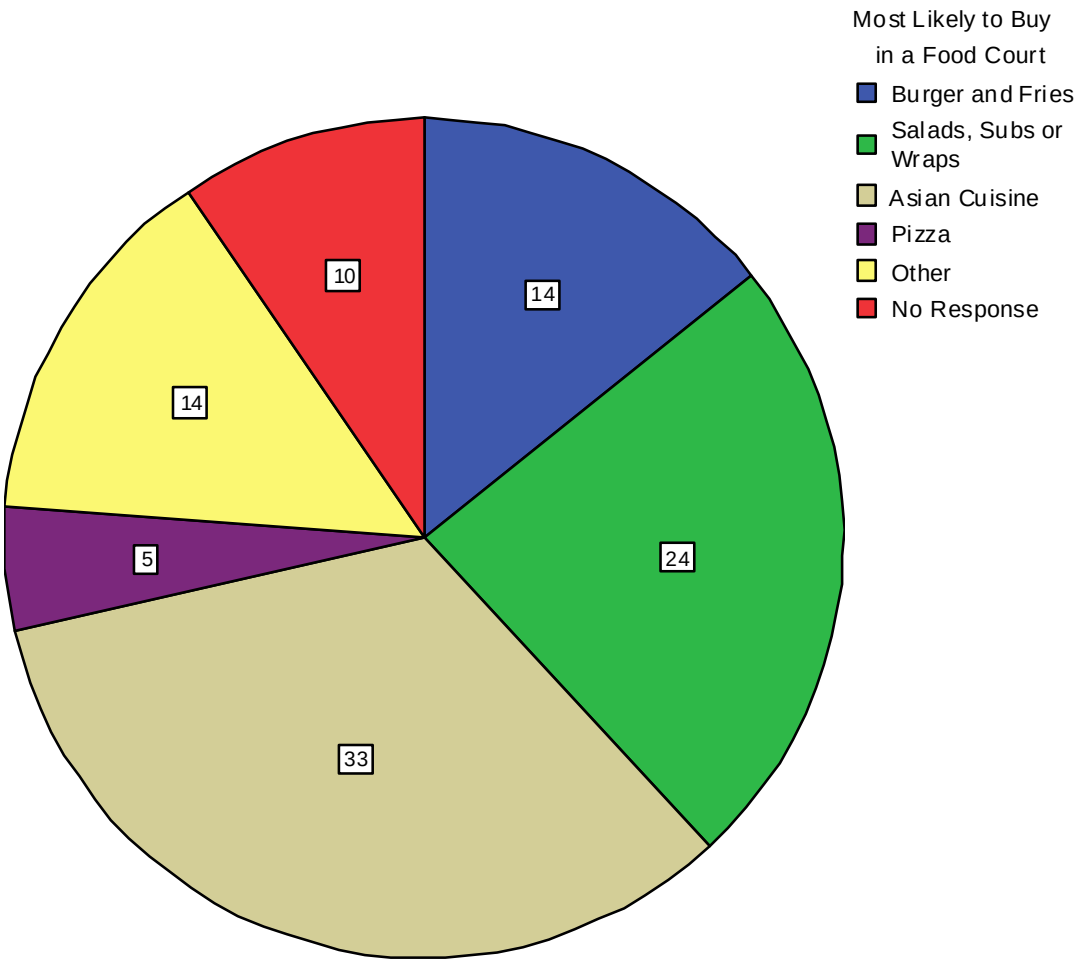
Happiness with Food Decisions * Skipping Meals

Happiness with Food Decisions * Do You Skip Meals Crosstabulation

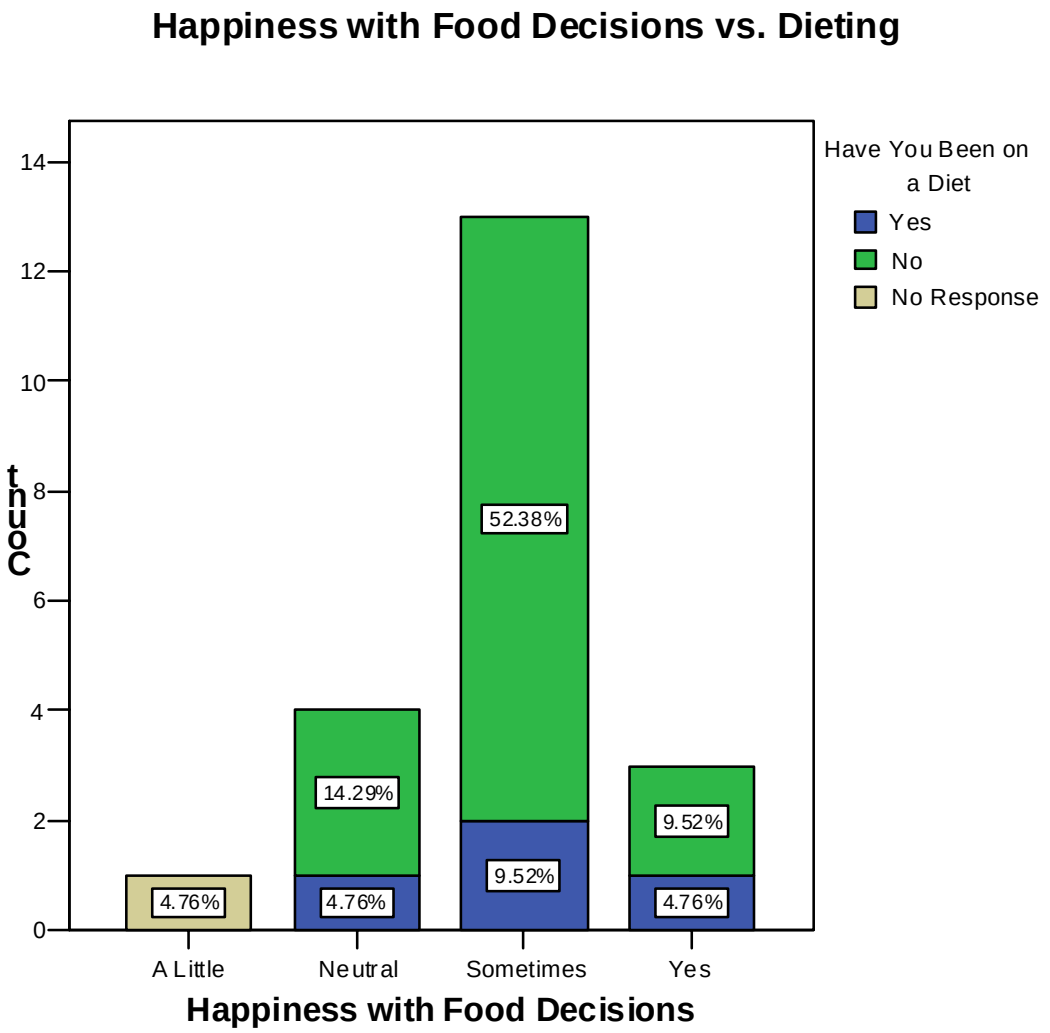
Count

		Do You Skip Meals		
		Yes	No	Total
Happiness with Food Decisions	A Little	1	0	1
	Neutral	1	3	4
	Sometimes	5	8	13
	Yes	1	2	3
Total		8	13	21

Food Court Purchases



Happiness with Food Decisions * Dieting - Graph



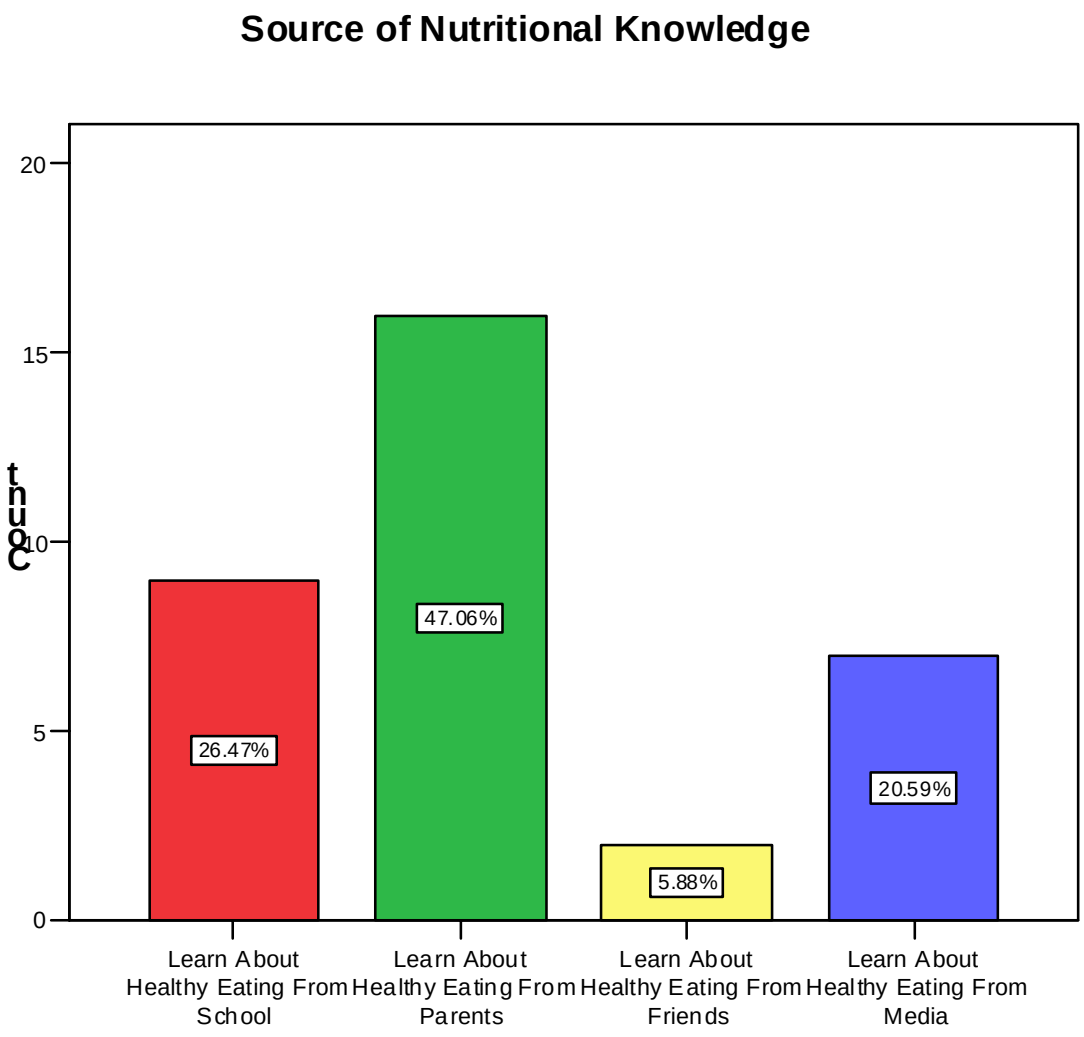
Happiness with Food Decisions * Dieting – Table

Happiness with Food Decisions * Have You Been on a Diet Crosstabulation

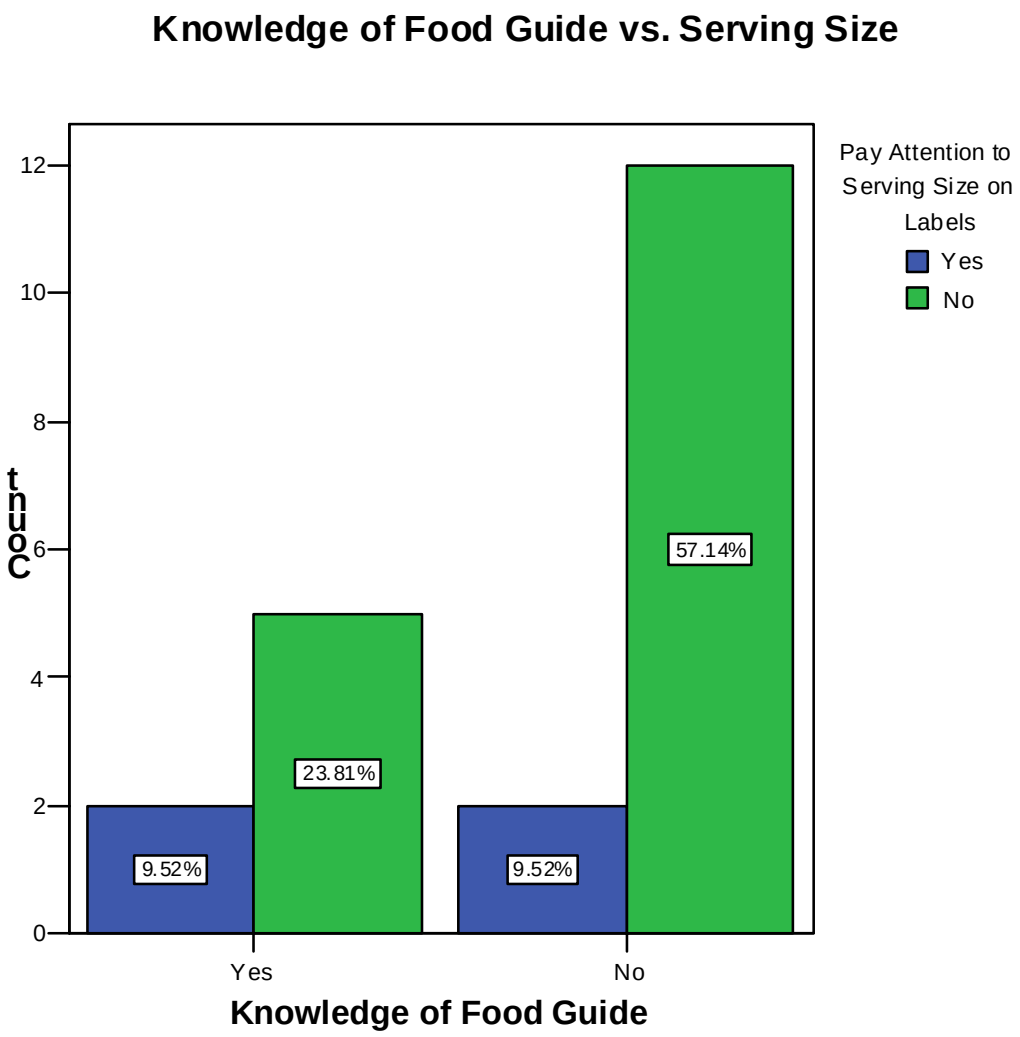
Count

		Have You Been on a Diet			
		Yes	No	No Response	Total
Happiness with Food Decisions	A Little	0	0	1	1
	Neutral	1	3	0	4
	Sometimes	2	11	0	13
	Yes	1	2	0	3
Total		4	16	1	21

Source of Nutritional Knowledge



Knowledge of Food Guide * Serving Size - Graph

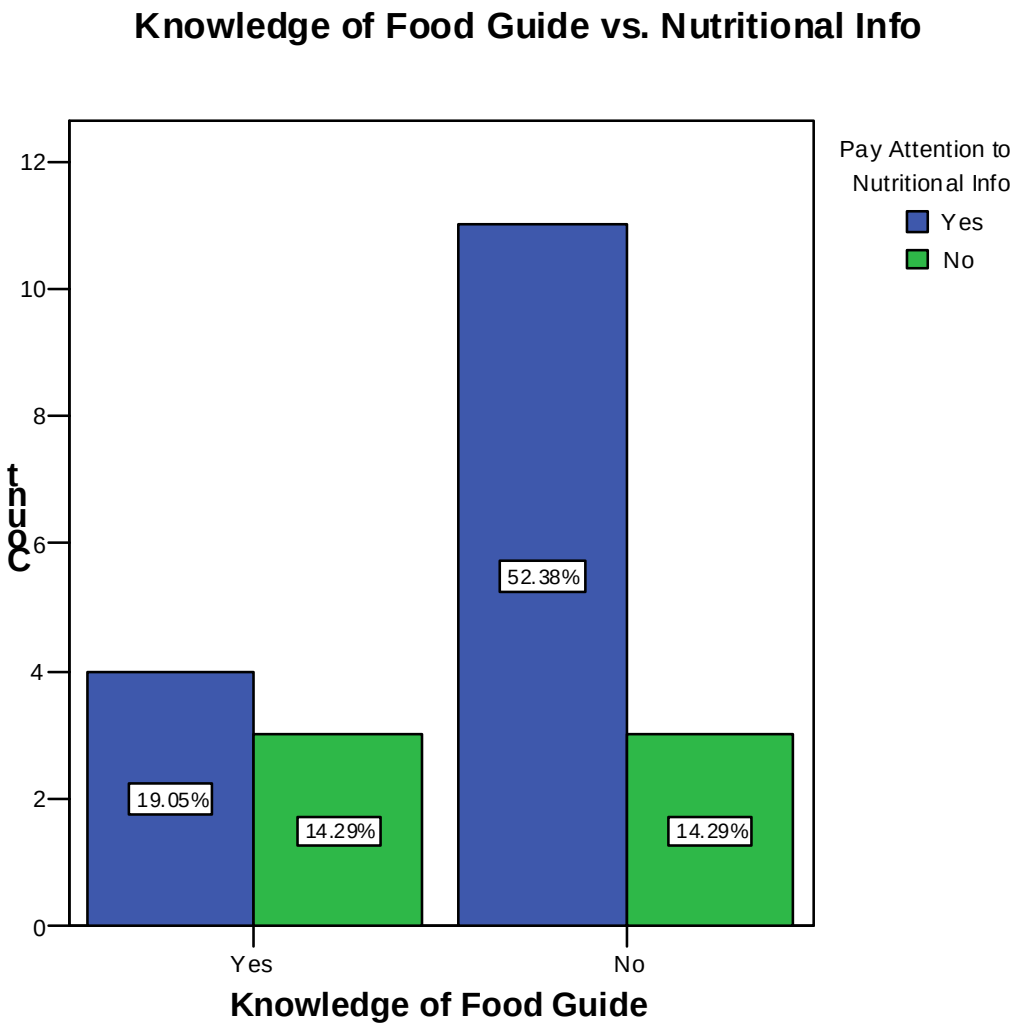


Knowledge of Food Guide * Serving Size – Chart

Knowledge of Food Guide * Pay Attention to Serving Size on Labels Crosstabulation

			Pay Attention to Serving Size on Labels		
			Yes	No	Total
Knowledge of Food Guide	Yes	Count	2	5	7
		% within Pay Attention to Serving Size on Labels	50.0%	29.4%	33.3%
	No	Count	2	12	14
		% within Pay Attention to Serving Size on Labels	50.0%	70.6%	66.7%
Total		Count	4	17	21
		% within Pay Attention to Serving Size on Labels	100.0%	100.0%	100.0%

Knowledge of Food Guide * Nutritional Info - Graph



Knowledge of Food Guide * Nutritional Info – Table

Knowledge of Food Guide * Pay Attention to Nutritional Info Crosstabulation

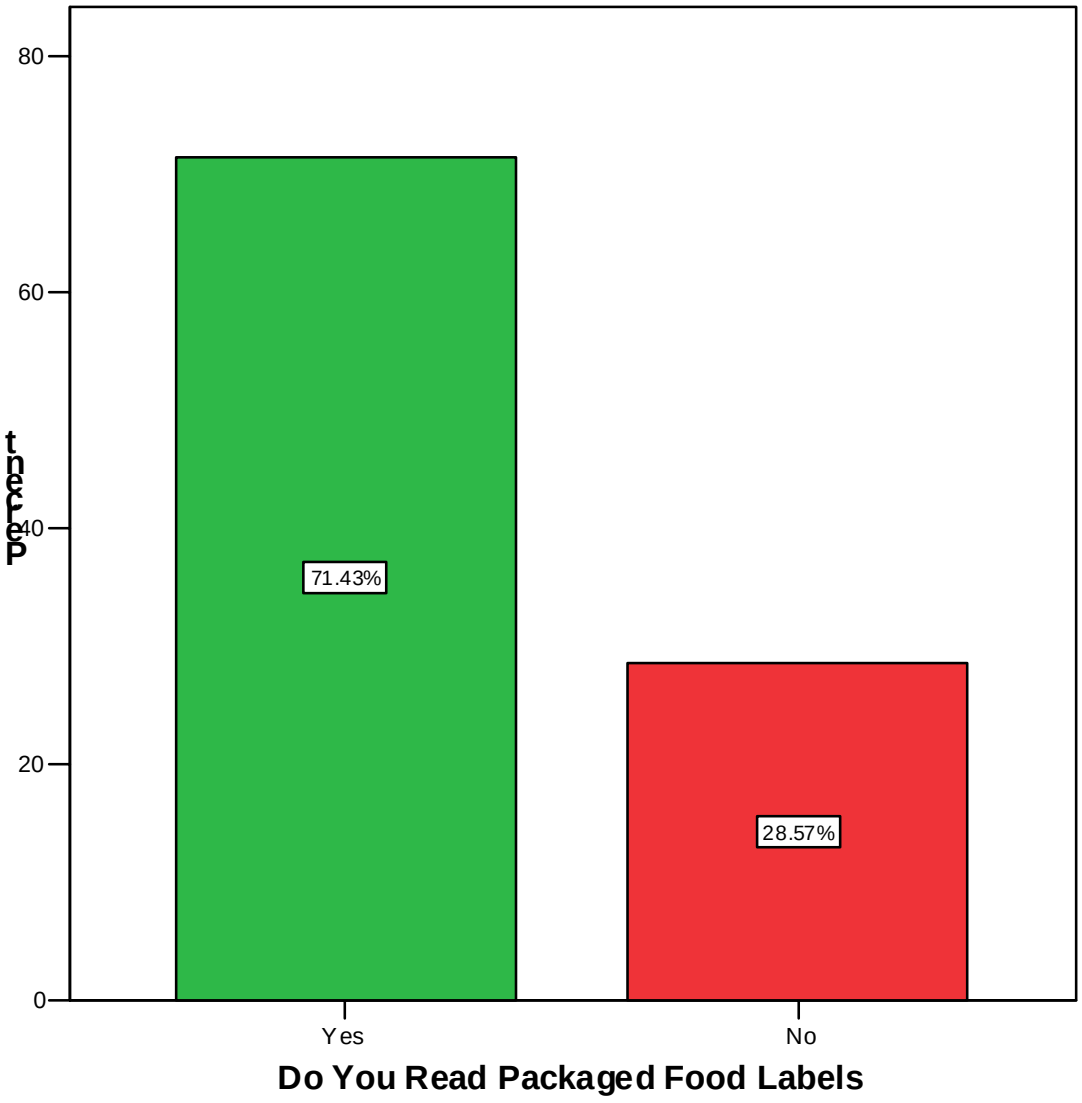
			Pay Attention to Nutritional Info		
			Yes	No	Total
Knowledge of Food Guide	Yes	Count	4	3	7
		% within Pay Attention to Nutritional Info	26.7%	50.0%	33.3%
	No	Count	11	3	14
		% within Pay Attention to Nutritional Info	73.3%	50.0%	66.7%
Total		Count	15	6	21
		% within Pay Attention to Nutritional Info	100.0%	100.0%	100.0%

Knowledge of Food Guide * Attention to Ingredients - Table

Knowledge of Food Guide * Pay Attention to Ingredients on Labels Crosstabulation

			Pay Attention to Ingredients on Labels		
			Yes	No	Total
Knowledge of Food Guide	Yes	Count	3	4	7
		% within Pay Attention to Ingredients on Labels	27.3%	40.0%	33.3%
	No	Count	8	6	14
		% within Pay Attention to Ingredients on Labels	72.7%	60.0%	66.7%
Total		Count	11	10	21
		% within Pay Attention to Ingredients on Labels	100.0%	100.0%	100.0%

Reading Packaged Food Labels



Care About Healthy Eating * Associate Food and Exercise

How Much Do You Care About Healthy Eating * Do You Associate Food and Exercise

Count

		Do You Associate Food and Exercise		
		Yes	No	Total
How Much Do You Care About Healthy Eating	Care a Little	1	0	1
	Neutral	6	2	8
	Care a lot	10	1	11
	Very Passionate	1	0	1
Total		18	3	21

SPSS Raw Data

Compiled Discussion Answers

These responses have not been edited for content, spelling or grammar. All were typed up 'as is.' For number 5, the first number in brackets represents the number chosen by the subject on the scale of 1-5 given in the question. The number at the end of each response indicates the survey number in the top left-hand corner.

Question 3: What is the purpose of the Canadian food guide?

- Maybe to help Canadians eat better. (17)
- Blank (15)
- To see the proper foods and servings you should eat daily. (20)
- Blank (16)
- To make sure that a person meets her body's nutrients need (21)
- To diminish obesity, malnutrition etc. The CFG informs people of what they should eat. (1)
- Blank (18)
- To help people know how much of each good they should consume. (12)
- Probably how much food you should eat from each category each day (13)
- I don't know (14)
- To tell us what to eat? (11)
- No idea (9)
- I dunno (8)
- To determine how much pieces of food should be eaten from each of the food groups (7)
- To show which foods are healthy and the amount of servings from the food group (6)
- To show suggested servings and the food group in order to help people eat well (5)
- Blank (4)
- To keep a balanced diet (3)
- Outline what the body needs when it comes to food (2)
- To help us make the right eating choices/habits. (10)
- Blank (19)

Question 4: How do you make decisions about what you eat?

- I look at the ingredients and ask my parents for advice. (12)
- If I feel like I want to eat it or if I like it. Sometimes, if I've felt that I've ate too much junk food, I won't eat. (13)
- I eat what I feel like, but I make sure it stays pretty balanced and healthy. (14)
- Whatever is there that I can eat and/or something I'm craving. (15)
- I decide by figuring out what I feel like, if its healthy, and how much I can eat. (1)
- Mainly what my parents give me – believe me, they're health maniacs! (21)

- I eat what I am offered. (16)
- Well, I try to eat fruits and veggies like salad for lunch and healthy snacks all the way. (17)
- Does it taste good and at the same time, good for you. (18)
- I base my decisions on what I am doing. I like to eat healthy for certain areas, such as sports. (19)
- If its cooked well, and healthy. (20)
- When I'm hungry, I eat. I never get fat so my food choices are whatever I feel like eating. (11)
- I read the ingredients and see how much carbs/fats it has, and whether I had enough of that food group. (10)
- If I am hungry and what I feel like eating. (9).
- My parents make my food. (8)
- I usually just eat what is there, or maybe my preferences. (7)
- I don't really decide. Whatever my parents cook is the meal. (6)
- I pick whatever tastes good, what I feel like. Price and how healthy it is can affect my choice. (5)
- Sometimes I eat it because I feel like it. Some other times it is what my mom makes. (3)
- My parents help me and give me healthy choices of food. (4)
- How hungry I am, the time of day (meal or snack), sometimes cravings (2)

Question 5: Are you happy with the food decisions you make?

- (4) "I eat healthily, but maybe not as much as wanted." -2
- (5) "because I know the food I eat is mostly healthy." –3
- (4) "Although I am glad I am eating healthy, sometimes healthy food is gross!"-4
- (3) "I eat a lot of chocolate."-5
- (4) "I'm happy because I try to eat healthy."-6
- (5) "Because usually the food I choo0se to eat are the ones that I like." –7
- (4) "I eat what I think is good for me." –8
- (4) "I'm healthy, they taste good." –9
- (3) " I eat fairly healthily, but." –10
- (5) " because I know I eat healthy, because I'm an athlete." –11
- (4) "sometimes it is not the healthiest food." –15
- (4) "I try to stay healthy, but sometimes I slip and eat something bad." –12
- (2) "I feel like I eat too much fatty foods." –13
- (4) "I eat well but sometimes I either eat too much or not very healthy."-14
- (3) "I make choices that aren't healthy sometimes." –1
- (4) "I eat healthy food exept also lots of snacks."-16
- (4) " Because I eat healthy but sometimes I can't help but sneak in a sip of pop. But I almost always drink water." –17
- (4) " b/c I think I eat right , but slip up sometimes."-20
- (4) ---------- -18

- (3) “I’m sometimes happy with the food I eat because I may eat a lot of junk food at one time.”-19
- (4) “I’m able to eat junkfood occasianally without beating myself about it after.”-21

Question 9: What do you consider to be ‘junk food’?)

- “Anything that has less nutritional value than sugar, fat, transfats etc.”-1
- “Chips, crackers, sugary and salty foods.”-16
- “food that does not have enough of one food group to be categorized **:.** Unhealthy.”-17
- “Chips, cookies, candy, pop”-20
- “Chips, pop, chocolate, fast food meals”-18
- “I consider chocolate and chips to be junk food.”-19
- “Food that is high in saturated fat.”-21
- “Chips, chocolate bars, candy, food with a lot of fat (KFC), and sometimes pizza.”-2
- “Chips, pop, fries, buttered popcorn, hamburgers.”-4
- “Chips, candy, pop, pizza.”-3
- “I consider ‘junk food’ anything that has artificial colour or/and flavour and has no nutritional benefits.”-12
- “Fatty foods, chocolate bars and unhealthy snacks.”-13
- “I consider junk food anything greasy or with too much sugar/fat content.”-14
- “Food that contains a lot of sugar and/or is greasy.”-15
- “Anything high in fat (the bad kind) + sugar content”-5
- “Chips, sweets, fast foods, slurpies…those type of things.”-7
- “Chips, candy, chocolate, cake ect.,ect.”-8
- “Chips, chocolate bars, anything that is baught in a bad and is greasy”-9
- “Foods that have a lot of sugars, carbs and so on. Like chips, candy.”-6
- “Ice cream, popsicles, any candy, chips, cookies, milkshakes”-10
- “Mcdonalds, chips, candy, pop”-11

Question 10: What brands do you associate with junk food?

- KFC, Nestle (2)
- McDonalds, Lays, Doritos (4)
- Pop (3)
- Old Dutch, Doritos, Cheetos, the who “itos family”, Hersheys, Coca-Cola (5)
- Ms. Vickies, Old Dutch, Lays, Smartfood, M&Ms (6)
- Hershey, Lays, McDonalds (7)
- ? chips, chocolate, etc (8)
- Lays chips, any pop, any chocolate (9)
- Lays, Breyers, Nestle (10)
- McDonalds, Lays, Ruffles, Pepsi (11)

- Cheetos, McDonalds, Burger King, Reese's Pieces (1)
- No answer (16)
- Doritos, Sprite, Coke, Pepsi, 7up (17)
- No answer (20)
- Vicky's, Hersheys, McDonalds (18)
- Old Dutch, Lays (19)
- McDonalds (fast food places) (21)
- McDonalds, Hersheys, Lays (15)
- Lays, Mr. Christie, Dare, Kraft (14)
- Willy Wonka, Lays, Nestle,…..all companies that make candy (12)
- Mr. Christies, Pepsi, Coca-Cola, Lays, Old Dutch, Hershey (13)

Question 13: What do you think of McDonald's healthy eating options?

- I think that McDonald's healthy eating options are not healthy at all, and are tasteless (14)
- I think they're trying to change their atmosphere. Honestly, it's not working and it's really gross (13)
- I haven't eaten at McDonald's for a long time, but I think they are probably better than the other choices (12)
- They're probably just as unhealthy as eating a hamburger (15)
- They taste bad and I don't go to McDonald's to eat healthy (9)
- I think they are good (8)
- I don't think McDonald's serve very healthy food. Apparently, the patties and the fries are artificial (7)
- I don't think they're even healthy (6)
- I don't eat at McDonald's. I won't eat their food after "Super-Size Me" grossed me out (5)
- I think they probably aren't very healthy. They're just another way of getting McDonald's more money and more publicity (1)
- Some of it is all right, but they still throw on loads of dressing on the salads (16)
- No! I watched Supersize Me! (17)
- I think it's a pretty good idea for those who eat McDonald's too much (20)
- I think they're trying to raise their reputation, because of the complaints and "Super Size Me." I think it's for the better (18)
- I think they are trying to get more people to buy food that is healthy because more and people are going on diets (19)
- I think it is great that McDonald's is having healthy eating options (21)
- There is almost no nutritional value in McDonald's. When they say something is low in fat, compared to other places, it is still high in fat. (2)
- Although McDonald's is trying to be healthier, they really are not. (4)
- I think it is good because it gives me another choice other than just burger and fries (3).
- They are ok, but it is still better to eat homemade things. (10)

- They are better than burgers because they are less greasy. (11)

Question 21: If I _____, I would be _____.

- Weighed less/happier (13)
- Weighed more & was more fit/happier (12)
- Was more fit/happier (3)
- Weighed less/happier (4)
- Was more fit/happier (2)
- Was the same/the same (14)
- Was more fit/happier (1)
- Weighed less/happier (16)
- Was more fit/happier (17)
- Was more fit/happier (20)
- Was more fit/happier (6)
- Weighed more/less happy (9)
- Weighed less/happier (8)
- Weighed more/happier (7)
- Was more fit/happier (5)
- Weighed less/happier (15)
- The same/the same (21)
- The same/the same (18)
- Was more fit/happier (19)
- Was more fit/happier (10)
- The same/the same (11)

Submitted Questionnaires and Ethics Forms