

College student's perception of risk factors related to fast food consumption and their eating habits.

Sam Abraham^{1*}, Manuel Martinez², Gabriela Salas³, Jessica Smith⁴

¹Bethel College School of Nursing, Mishawaka, Indiana, USA

²Emergency Department, Elkhart General Hospital, Elkhart, Indiana, USA

³Department of Nursing, Saint Mary Medical Center, Valparaiso, Indiana, USA

⁴Department of Rehabilitation, Hubbard Hill Estates, Elkhart, Indiana, USA

Abstract

The purpose of the current study was to explore college students' perceptions of the health effects of fast food consumption and their eating habits. The consequences of increased fast food consumption among college students is rising health problems, which include obesity, diabetes, and metabolic syndrome. The problem was explored in a quantitative survey using a cross-sectional approach with a descriptive design. A sample size of 120 college students among a 2000 student-body population in the Midwestern United States participated in the survey. On a 4-point Likert-type scale of strongly disagree (1) to strongly agree (4), the strongest agreement for the perception statement was: "Obesity is linked to increased fast food consumption" (M=3.54; SD=0.57). However, in the habit category, the students claimed, "I go to fast food restaurants more often, in the evenings, when hanging out with friends" (M=3.08; SD=0.73). The students were aware of the risks associated with fast food consumption on health; however, their eating habits did not indicate they practiced what they knew could be harmful to their health, especially when they were socializing with friends. Hopefully, this study will help attract attention to evils of food choices and its effects on health.

Keywords: Fast food in college, College students eating habits, Eating college life, Nutrition of college students.

Accepted on January 18th, 2018

Introduction

Increased fast food consumption can affect health because it has been linked to a diet that is "high in calories, saturated fat, sugar, and sodium, as well as body fatness, weight gain, and increased body mass index" [1]. These nutritional components coupled with a sedentary lifestyle could lead to health problems. Dingman et al. found that 23% of the student meals came from fast food, and 50% of the students reported eating at least three fast food meals per week. Therefore, the problem is that eating a significant amount of fast food meals could lead to a dominant impact on future health. Despite the advent of college meal plans, many students continue to consume a lot of meals at fast food restaurants [1]. The purpose of the quantitative study was to determine the perception of risk factors related to increased fast food consumption and the eating habits of college students. Two research questions used to lead this study were: (1) What are college students' perception of fast food consumption? (2) What are college students' fast food eating habits?

Background and the Review of Literature

Articles for the review of literature were found mostly from Ebscohost. Keywords used were "fast food college," "college students eating habits," "eating college life," and "nutrition of college students." The peer-reviewed articles were published between 2012 - 2014.

Fast food restaurants are becoming a common sight, and they make it much easier for people of different backgrounds to

have access. The college in the current study was no different in this aspect. This college in the study lies within walking distance to more than a dozen fast food restaurants outside of the campus limits. Dingman et al. observed that the geographic proximity might increase the fast food consumption within that community.

There were many factors that did contribute to the college-aged group consuming more fast food meals, including ease of access, limited time, busy schedule, and the social aspect of eating fast food with friends. There was sufficient evidence that suggested increasing the energy dense foods in a diet coupled with behaviors characteristic of college students, such as eating out and snacking promote weight gain [1]. The lack of physical activity together with increased consumption of fast food meals has a direct impact on health. Shah et al. found that majority of students who engaged in only low levels of activity were either overweight or obese. [2]

Overweight and obesity is a common world-wide problem [2,3]. The caloric intake and large portion sizes in fast food restaurants coupled with high saturated fats and low nutrient content lead to overeating and weight gain. The highest percentage of students eating out are in the obese group [2]. The diffusion of fast food restaurants resulting from the rapid influence of international marketing is leading to increases in overweight and obese individuals [2,4]. Overconsumption can lead to further complications such as diabetes, which is a chronic disease and is associated with other health problems such as heart disease, stroke, kidney failure, and

diabetes. Causes for these health complications include lack of access to healthy foods, limited access to safe places to exercise and limited access to healthcare [5].

Bahadoran, Mirmiran, Hosseini-Esfahani, and Azizi stated that fast foods are usually accompanied by increased levels of triglycerides. When the body has metabolic syndrome (MetS), which includes heart conditions, diabetes, and stroke, the body has high levels of an enzyme called MetS in their body. This is significant because increased fast food consumption leads to increased cholesterol, which in turn is leading to many of the significant health problems, such as obesity, diabetes, heart conditions, and stroke [6]. There are higher levels of MetS in younger adults, less than 30 years of age, those that have a larger waist circumference and eat fewer fruits, grains, and vegetables [6]. Phytochemical-rich foods are vegetables, fruits, grains, and beans which many fast food restaurants lack. These are important nutritional components to a healthy individual's diet as suggested by the national nutrition intake resource, myplate [7]. The choices of food at fast food establishments are also low in fiber. Increased fast food consumption is providing a lack of nutrients to individuals and leading to harmful chronic diseases [6,8].

Jaworowska, Blackham, Davies, and Stevenson found that students whose diets included a copious amount of fast food were more at risk for containing higher amounts of fat, sugar, sodium, and higher intakes of energy. Additionally, fast food was shown to contain more calories but less fiber, vitamins, or micronutrients [9]. There is a direct relation with obesity and consuming more fast food calories. College students aged 19-29 without a meal plan spend more money and consume more calories from eating fast food, which results in obesity than students with a meal plan [10].

In summary, there is a correlation between eating fast food and overall health. Fast food restaurants serve food that is tasty but with low fiber and nutrients. They contain additives and ingredients that may cause chronic health problems, such as metabolic syndrome, heart problems, and stroke. Students in the overweight and obese group spend more money at fast food restaurants. The proximity of the college to fast food restaurants increases easy access and use of such services. Students are aware of the ill effects of fast food eating practices; however, the college schedule, activities, and the push to submit assignments on time, and the peer pressure to socialize results in consumption of easily accessible food.

Definition of terms

As an operational definition for this research, fast food was considered to be a place that offers a drive-thru window and serves food quickly, such as McDonalds, Burger King, Arby's, Dairy Queen, Wendy's and similar chains. Healthy meals are defined as those that are low in saturated fats, contain the MyPlate proportions of each food group, and are made with real products and not manufactured, processed foods. Positive health effects include all the positive health outcomes that lead to a healthy, functioning body. Negative health outcomes from eating fast food include high cholesterol, high sugars, and weight gain. Throughout the paper, they will be identified as negative

health effects or positive health effects. The term "MetS" refers to an enzyme in the blood that is increased in people who have metabolic syndrome.

Method

The research method used for this study was quantitative, cross-sectional with a descriptive design. Approval from the Institutional Review Board was obtained before data collection. The survey instrument was created after a thorough review of the literature. The tool was evaluated by two peers and the faculty to obtain face validity. A 4-point Likert-type scale was used to develop the survey. The scale options were (1) strongly disagree, (2) disagree, (3) agree, and (4) Strongly agree. The convenience sample size was 120 students in a college situated in the Midwestern United States with a population of nearly 2000 students. All the participants were students 18 years or older. The students were surveyed during lunch and dinner hours because those are the two meals with the largest number of people. Permission to use the dining area was received from the manager. Surveys were distributed in the hallway outside the dining area. A table was available for students to write on and pens were provided on the tables for the students to use.

The informed consent was given with the survey, along with a copy for the student. The students were notified that one of the informed consents was for their record. The participants signed the informed consent. They were then asked not to write their name on the actual survey to prevent violation of confidentiality. After the survey had been completed, the survey and the informed consent were placed in separate envelopes. The students were thanked and offered candy for taking the time to complete the survey.

Results and Discussion

The final sample consisted of 125 surveys, which was reduced to 120 after five surveys had to be eliminated because of incompleteness. Ninety-nine percent of participants were aged 18-23. Female students were slightly higher in number (57%) than males but the year in college was somewhat spread out for all 4 years with freshmen 25%, Sophomores 16%, Juniors 37% and seniors 22%. Majority of students were White (80%), others included African-Americans, Hispanic, Asian and others. Ninety-one percent lived on campus housing and had a college meal plan.

In Table 1, the mean of each statement is ranked from highest to lowest based on the agreement. The item, which most participants agreed, was, "Obesity is linked to increased fast food consumption." (M=3.54, SD=0.57). The participants also tended to agree that in comparison to fast food, they can eat more balanced food at home, the homemade meals are healthier, and it makes them feel good. They strongly disagreed with the statement, "Fast food does not affect my health."

In the perception category, the participants overwhelmingly agreed that eating fast food contributes to obesity. However, their habits did not match their knowledge. Socializing with friends in fast food restaurants, in the evenings, was common practice in this group. The proximity of these restaurants to the college campus is notable. Dingman et al. had warned that

Table 1. What are college students' perceptions on fast food consumption?

Variables	M	SD
Obesity is linked to increased fast food consumption.	3.54	0.57
I get a more balanced diet when I eat home cooked meals.	3.47	0.55
Eating home-made meals makes me feel good.	3.45	0.58
Home-made meals are healthier than fast food meals.	3.45	0.58
Diabetes is a consequence of our eating habits.	3.18	0.64
Hypertension is a consequence of eating habits	2.74	0.78
I am more conscious of the calories I consume when I eat at fast food restaurants.	2.27	0.9
Fast food is cheaper than making home-made meals.	2.25	0.89
Fast food meals are more appealing than homemade healthy meals.	1.89	0.81
Eating fast food has the same caloric intake as eating at home.	1.79	0.71
Fast food does not affect my health.	1.62	0.71

Note: (N=120). Items were rated on a 4-point Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly Agree)

Table 2. What are college students' fast food consumption habits?

Variables	M	SD
I go to fast food restaurants more often when hanging out with friends.	3.08	0.73
I tend to eat more fast food in the evening.	2.75	0.79
I tend to eat fast food more often on my busy days.	2.64	0.81
I always get a soft drink along with my meal when eating fast food.	2.03	0.91
I always consume at least one serving of either fruits or vegetables when eating fast food.	1.99	0.74
I consume fast food products more than twice a week.	1.98	0.9
I tend to eat more fast food in the morning.	1.68	0.65
I purchase dessert along with my entrée when dining at fast food restaurants.	1.63	0.61

Note: (N=120). Items were rated on a 4-point Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly Agree)

young adults aged 20-39 consume more fast food than the older population.

The statement, "I get a more balanced diet when I eat home cooked meals," received a mean of 3.47 (SD=0.55). This statement may not have been appropriate for this group because 91% lived in on-campus housing and were on a meal plan to eat at the college dining services. Perceptions such as eating home-made meals are healthier than fast foods, diabetes and hypertension are the consequences of eating habits, received means above the midpoint indicating moderate agreement. Students in this study agree that fast food is cheaper than home-made meals, and they are conscious of the calories they consume at fast food restaurants. However, studies by De Vogli, Kouvonen and Gimeno, Dingman et al., and Shah et al., [1,2,4] indicate increased calorie consumption and weight gain in individuals eating fast food. The participants did not think that fast food is more appealing. A mean of 1.62 (SD=0.71) for the statement "Fast food does not affect my health," indicates good knowledge of the health effects.

Table 2 contains the fast food consumption habits of college students. The most notable statement of agreement was, "I go to fast food restaurants more often when hanging out with friends (M=3.08, SD=0.73). This occurred mostly in the evening. I go to fast food restaurants more often when hanging out with friend's Moderate agreement was noted for the statement, "I always get a soft drink along with my meal when eating fast food." The participants overwhelmingly disagreed that they purchase desserts when dining at fast food restaurants. They did not consume at least one serving of either fruits or vegetables when eating fast food. Though not consuming deserts is a good choice, not eating fruits or vegetables may lead to MetS in young adults [6].

Eating habits are directly related to a person's health. The food people eat, can influence their health positively or negatively. This study indicates there is a disconnect between the knowledge and eating habits in college students. The students also showed a large agreement on not focusing on the calories consumed when eating fast food. This shows there may be a lack of concern relating to the large amount of calories that fast food contains and the value of those calories when they are socializing with friends. The students were aware of the risks associated with their unhealthy eating habits, but their habits did not correlate with their knowledge base. Students need to be motivated on how to apply the knowledge they possess into their lifestyle. Further research should focus on the students' knowledge of the relation between their eating habits and chronic illness. Further research can also include exercise habits after they eat fast food.

Limitations

The students were surveyed in the dining area on campus, so the majority of the students surveyed lived on campus, and they were on a meal plan. However, the school is located in an area with a variety of fast-food options making it easier or more likely for the students to choose fast food. The survey instrument was new, and the sample size was rather small.

Conclusion

Individual consumers need to be more aware and educated about their individual dietary needs, and devise their dietary strategies for food choice according to their health. In this context, the supportive role of families, teachers, and governments in making individuals, especially the younger generation, more educated about health and nutrition can make a significant difference in the improvement of community health worldwide. There are planned meals in school and at home. However, it is important

that there are regular food restaurants beside the fast food restaurants near the colleges. It is also important that individuals have a right of preference. This preference is important if there are restaurants with regular vegetable dishes next to the fast food restaurants providing choices. Questions to ponder include: Can fast-food restaurants offer vegetable dishes beside meat? Can this be made mandatory? Can fruits be given? Can low calorie and healthy food be provided as an alternative? The health of our children and the future of countries are extremely important.

References

1. Dingman D, Schulz M, Wyrick D, et al. Factors related to the number of fast food meals obtained by college meal plan students. *J Am Coll Health*. 2014;62:562-69.
2. Shah T, Purohit G, Pillai NS, et al. Assessment of obesity, overweight and its association with the fast food consumption in medical students. *J Clin Diagn Res*. 2014;8:CC05-CC07.
3. Ogden C, Carroll M, Kit B, et al. Prevalence of childhood and adult obesity in the United States during 2011-2012. *JAMA*. 2014;311:806-14.
4. De Vogli R, Kouvonen A, Gimeno D. Globesization: Ecological evidence on the relationship between fast food outlets and obesity among 26 advanced economies. *Critical Public Health*. 2011;21:395-02.
5. Stefanik SK. Nature, nurture, or that fast food hamburger: Media framing of diabetes in the New York Times from 2000 to 2010. *J Health Commun*. 2013;28:351-58.
6. Bahadoran Z, Mirmiran P, Hosseini EF, et al. Fast food consumption and the risk of metabolic syndrome after 3 years of follow-up: Tehran lipid and glucose study. *Eur J Clin Nutr*. 2013;67:1303-09.
7. Myplate. Choosemyplate.gov. United States Department of Agriculture. Retrieved Nov 25, 2015 from <http://www.choosemyplate.gov/>
8. Stockton S, Baker D. College students' perceptions of fast food restaurant menu items in health. *Am J Health Educ*. 2013;44:74-80.
9. Jaworowska A, Blackham I, Davies I, et al. Nutritional challenges and health implications of takeaway and fast food. *Nutr Rev*. 2013;71:310-18.
10. Heidal K, Colby S, Mirabella G, et al. Cost and calorie analysis of fast food consumption in college students. *Food Nutr Sci*. 2012;3:942-46.

***Correspondence to:**

Sam Abraham, RN, MS, DHA
Assistant Professor of Nursing,
Bethel College School of Nursing,
Mishawaka,
Indiana,
USA.
Tel: 269-240-7467
E-mail: abrahams383@att.net