

Examining Fast Food Consumption Habits and Perceptions of University of Zimbabwe Students

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ABSTRACT

Fast food consumption is on the increase in developing countries and together with many factors has been associated with negative impacts on nutrition and health status of individuals. In Zimbabwe studies that determine the prevalence of fast food consumption are very few. The objective of this study was to assess the prevalence of fast food consumption among university students. This was a cross sectional survey was conducted with a total of 85 students. The subjects completed a structured questionnaire. Weight, height were measured and BMI determined.

A large percentage of the study population purchased fast foods, 28.6% reported to consume fast food two to three times a week, 31.0% consumed it at least once a week and 35.7% once a month. Fried chips were the most popular meal (57%), followed by meat (piece of chicken or beef) (33.7%), burgers (27.7%) and sodas (22.9%). A majority (75%) felt that fast food meals were not healthy, 83.3% felt that the fast food industry was contributing to economic growth whilst 85.7% felt that fast foods were not contributing to the good health of the society. There was no association between BMI and amount of time spent in fast food outlets and frequency of visits.

In conclusion fast food consumption by university students seems to be high and this may mirror closely the behaviors in the rest of the population segments. This calls for appropriate nutrition and health education messages to curb unhealthy eating behaviours.

Key words: Fast food consumption, students, habits, knowledge, perceptions

INTRODUCTION

Fast foods are defined as “food dispensed quickly at an inexpensive

restaurant generally offering a limited menu of inexpensive items, many of which may not be particularly nutritious; the food can be eaten on premises, taken out or sometimes delivered”.^[1] The tendency for people to generally consume fast foods away from home has grown dramatically in the recent past all over the world more so in the developing world.^[2] Part of the increase in this trend could be attributed to an increase in the number of outlets providing fast foods, aggressive advertising by the food industry as well as an increase in disposable income as the middle class grows in most developing countries.^[3]

A review of literature shows that fast food consumption may be associated with increased prevalence of non communicable diseases.^[4]

It has been shown that adolescents and young adults show more interest in fast food compared to other age groups. This could be because of its convenience as most adolescents would have left their homes and started living alone or the taste of fast food.^[3,5] Habits formed during adolescents are likely to stay into adulthood^[6] hence it is important to understand determinants of fast food consumption in this age group and intervene early. A study in a small town in Zimbabwe^[7] revealed an increasing prevalence of fast foods in resort towns threatening the patronage of the conventional slow food restaurants. This could be the trend in many other cities.

Although many people acknowledge the consumption of fast food, little is actually known about pattern of consumption of fast foods and perception of this practice as a risk factor for Non-

Communicable Diseases (NCDs) in Zimbabwe. There is a paucity of data on fast food consumption as well as no published studies on Zimbabwe. This study was designed to investigate the prevalence, habits and perceptions with regards to fast food consumption of University of Zimbabwe students.

Materials and Methods

A cross sectional study was undertaken at the University of Zimbabwe between June and December 2015. The following formula to calculate sample size in cross sectional studies was used:

$$N = z^2 p (1-p) / e^2 \text{ [8,9]}$$

Where:

N = sample size

Z = confidence interval (which is at 95%, 1.96)

P = expected proportion based on previous study (6.8%) [10]

e = error level of precision (which is 0, 05)

The calculated sample size was 97. To adjust for attrition, a non-response rate of 10% was factored in to give a final sample size of 107. The respondents were drawn from a list of all possible students in the Department of Food Nutrition and Family Sciences using random numbers generated from Microsoft Excel 2010. Verbal consent was sought from each participant before conduction of the interview and taking of anthropometric measurements.

Data were collected through a structured questionnaire adapted from questionnaires used reliably in previous studies. [3,10,11] The questionnaire consisted of three sections. The first assessed demographic data of the respondent, the second part assessed habits such as frequencies and choices and the last part assessed perceptions and knowledge of the respondent with regards to the probable unhealthy effects of fast food consumption. Height was measured to the last completed 1 mm using a portable stadiometer (Holtain, UK) and weight to the nearest completed 0.1 kg, using a digital weighing scale

(Dismed, USA). The International Obesity Task Force cut-offs for 21.5-year olds were used to determine BMI. [12]

Statistical Methods

Data entry and analysis were performed using Microsoft Excel 2010 (Microsoft Inc) and SPSS v22 (SPSS Inc. Chicago, IL, USA). Descriptive statistics including the calculation of means, standard deviations, ranges and frequencies of visits to outlets and perceptions were used. Chi-square tests were employed to assess association between categorical variables that is gender and education level association with habits. Linear regression was used to assess the relationship between BMI, amount of time spent in fast food outlets and frequency of visits. Significance level was set to P<0.05.

RESULTS

Table 1: Characteristics of participants¹

	Male n=30	Female n=55	P value ²
Age of respondent (yr)	21.8 ±1.8	21.4±1.7	0.260
Monthly allowance (US\$)	57.4±69.9	57.6±49.0	0.988
Height (m)	1.72±0.1	1.61±0.1	0.000
Weight (Kg)	67.1± 8.1	61.6± 11.7	0.027
BMI	22.7±24.4	23.8±4.4	0.217
BMI categories³			
<18.5 (%)	0	3.6	
18.5-24.9 (%)	80	67.3	
25-29.9 (%)	20	14.5	
>30 (%)	0	14.5	
Residential status			
Low density (%)	32.3	33.3	
High density (%)	29.0	24.1	
Campus (%)	38.7	42.6	

¹ All values represent mean and standard deviation except when indicated

² Between group comparisons by Independent samples T test

³ No significant difference between males and females $\chi^2=6.243$, P=0.100

A total of 85 respondents took part in the survey after non response from 22. By gender 64% of study subjects were females. The sample was drawn from first, second and third year students, whose average age was 21.5±1.7 years. The average weight for males was 67.1±8.1kg and females 61.6±11.7. The average height for males was 1.72±0.07 and females 1.61±0.06. Males were significantly taller and weighed

more than females ($P < 0.05$). 80% of the males had a normal BMI whilst only 67.3% of the females were in the normal range. No males were overweight, 14.5% of females were overweight. Concerning type of residency: 42.6% and 38.7% of the females and males resided on campus respectively, 24.1% and 29.0% of females and males respectively resided in high density areas and 33.3% and 32.3% of females and males resided in the low density areas (Table 1).

Habits

A significant percentage 28.6% reported to consume fast food two to three times a week, 31.0% consumed it at least once a week and 35.7% once a month. Most common reason for consuming fast food; 36.5% consumed fast food because it was 'delicious', 31.8% reported to have consumed fast food when celebrating and 23.5% consumed it due to a busy schedule.

A quarter of the respondent consumed fast food in their homes (23.8%) whilst 21.4% consumed it in their campus residence and a lesser proportion of 15.5% reportedly consumed it in the car and or restaurant (15.5%). Concerning decision making, a significant proportion (56%) impulsively ordered fast foods. More than half of the respondents (52%) preferred sharing meals with a friend on purchasing fast foods. This was followed by a lower prevalence of those who preferred to eat alone (23.8%). The rest preferred sharing with family (20.2%) or a partner (20.2%).

Lunch time was the most preferred time for visiting fast food outlet (61.4%) followed by snacking in between meals (28%) and dinner (14.3%). None of the respondents mentioned morning as the time they would visit a fast food outlet.

The presence of variety (34.1%) largely contributed to the selection of a particular outlet. This was closely followed by price (31.7%), tasty meals (26.8%) and friendly service offered (22%) were cited as reasons for frequenting a particular outlet. The least determinants of selection of an

outlet were proximity to home (11%) and school (11%).

About 74% of the respondents mentioned that the portions served at their selected fast food outlets were just enough to satisfy their expectations; a small but significant number of consumers (20%) mentioned receiving generous portions. Only 6% consider the meals to be small in portion size.

An assessment of the aggregate propensity to consume fast foods indicated that fried chips were the most popular meal (57%), followed by meat (piece of chicken or beef) (33.7%), burgers (27.7%) and sodas (22.9%).

Slightly above half (51%) of the respondents were not moved in any way on seeing a fast food advertisement. Close to third (27.7%) of the respondents reportedly felt 'hungry' on seeing a fast food advertisement. A small percentage, (4%) felt 'disgusted'. Respondents preference to visit a particular fast food outlet was reportedly based on own decision in 59% of the cases followed by influence from friends (36.1%) and other factors such as family (7.2%) and food outlet characteristics (9.6%).

Self-Awareness and Perceptions

About 54.3% were mindful of other consumers in the selected fast food outlet. 16.0% were very conscious whilst 29.6% were not conscious of other consumers. About half (52%) of the consumers felt that other individuals consumed more fast food in the outlet than they did; about 35% felt that they ate the same portions as the other patrons and 12.2% felt that they did not consume as much as other individuals. Over half (56%) of the respondents felt that they consume just about enough food per meal. Only 9% felt that they ate too much and 35% felt that they did not eat much food. More than half 56% were concerned about the amount consumed by other consumers whilst 43.9% were not concerned. The level of concern about the amount of food they ate was generally high (73%). Only 26.8%

were not concerned at all about the amount of fast food they consumed.

Multiple response analysis showed that 54% were concerned about their health when it came to fast food consumption. The fear of gaining weight was cited by 23% of the respondents. More females than male were concerned about their weight with regards to purchasing fast food ($p < 0.05$) by Chi square statistic.

Knowledge

A majority (75%) felt that fast food meals were not healthy, 83.3% felt that fast foods were contributing to economic growth whilst 85.7% felt that fast foods were not contributing to the good health of the society.

The majority of the respondents (91.5%) identified fat as the nutrient of concern present in fast foods, followed by carbohydrates (28%) and other nutrients (protein 2.4%, cholesterol 2.4% and salt 2.4%).

There were no differences by year of study ($P = 0.740$) and gender ($P = 0.707$) regarding concern about the amount consumed. Awareness about people around did not also differ by gender ($P = 0.689$) and year of study ($P = 0.324$). Females spent significantly more time (> 10 minutes) in fast food outlets than males ($P = 0.006$). Though males on average spent more (US\$6.11) than females (US\$5.63) per meal this difference was not significant ($P = 0.290$). More females than males were significantly concerned about their weight with regards to purchasing fast food ($P = 0.008$). There was no association between BMI and amount of time spent in fast food outlets and frequency of visits (adjusted R squared 0.04, $P = 0.383$).

DISCUSSION

This study set out to investigate the prevalence of fast food consumption in a university population as well as habits, perceptions and knowledge about the dangers of fast foods. The tendency to consume fast foods was high in this

population, with over half consuming fast food at least once a week. Similar high prevalences have been found in studies in South Africa [10,11] and this could be attributed to the growing middle class and increased availability of disposable income or presence of more fast food outlets. [13] In this study a significant amount of time was spent consuming fast foods with friends, partners and less so with family. This trend is indicative of a growing tendency to use that opportunity to socialize and this is usually done during lunch hours. Despite the limited incomes a significant amount was allocated to purchasing fast foods. The impulsive buying of fast foods was also common in this population. Patronage to a particular food outlet was informed by personal preference. It is however critical to note that respondents indicated that friends, relatives and partners also influenced their decision though to a lesser extent. The ambience of a chosen food outlet greatly determined its patronage, this coupled with factors like variety, price, taste, convenience and quality of service determined the place from which fast food was purchased. All determinants have been cited in other similar studies. [14,15] The students preferred portions that they perceived were big enough to satisfy their hunger. In the fast food outlets of their choice, the participants were mindful of their eating habits as well as those of other patrons particularly concerning portion sizes. The level of mindfulness was related to health concerns. The greatest fear was weight gain amongst the females. Although all students acknowledge that fast foods contain particular nutrients detrimental to their health it seems this aspect is ignored in practice. A high proportion was knowledgeable about the detrimental effects of fast food consumption. There was a general perception that although fast foods are not healthy, they are perceived to be contributing to economic growth of the country. Some studies have also found high knowledge, high awareness with high prevalence of consumption. [16,17]

Adequately designed public health messages that focus on perceived benefits of healthy eating and contribution of a healthy society to economic growth could prove to be useful.

This study was conducted amongst university students whose affinity for convenience foods may be higher than the general population. The results may therefore not be generalizable to the larger urban populace. Due to non response less participants were assessed than intended hence the study lost power. It has however some strengths. This is the first urban survey to be conducted investigating the prevalence of fast food consumption in Zimbabwe. The results can provide useful baseline information for larger studies that can be used by healthcare professionals, the government, the food industry, academia and consumers to identify risky behavior in population and hence formulate appropriate public health messages. The public need guidance with regards to eating fast foods in order to restrict any damage to their current or future health. Consumer education may be vital in preventing proliferation of an obesogenic environment. Determinants such as the social environment, physical environment and personal choices are constantly interacting and should be taken into account when formulating nutrition interventions.

CONCLUSION

In conclusion fast food consumption by university students seems to be high and this may mirror closely the behaviors in the rest of the population segments. This calls for more studies in the general populace and appropriate nutrition and health interventions for different segments of the population particularly university students.

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