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Knowledge, Attitude and Practices of High Secondary Schools Students towards Fast Foods in Hail City- Saudi Arabia

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Abstract:

A cross-sectional schools-based study was conducted from September 2015 to March 2015 with the aim of investigating knowledge, attitude, and practice of students towards fast foods and to pinpoint the factors that influencing eating practice of the students. A total of 248 students from both boys and girl's schools in Hail city were included randomly in this study. A structured questionnaire was constructed to identify their socio –demographic characteristics and investigate the difference in attitude and practices towards fast food among female and male students. The results showed that, students both sexes were overweight. The females were more over weight than the males (27.3, 25.7BMI respectively). The practice of attending fast foods restaurants was prevailing among the male students more than the females. The knowledge of both female and male students about fast foods, and its health effects at statistical significant level ($<.05$), was not significantly different. This knowledge did not deter students and their families from using fast foods once and more frequently in days and weeks, with families. The majority of male students visit fast foods restaurants with friends, while most of the female students went to fast food restaurants with their families probably due to the conservative nature of the community of Hail city. Results of the present study indicate that knowledge, attitude, and practice of the students towards fast food should be improved. Extensive nutrition education is needed to improve the students practice towards fast food.

Keywords: Fast food, restaurants, students

1. Introduction

Rapid changes in diets and lifestyles that have occurred with industrialization, urbanization, economic development and market globalization have accelerated over the past decade. This is having a significant impact on the health and nutritional status of populations, particularly in developing countries and in countries in transition. (Aung et al. 2012).

Most of the students nowadays prefer to take fast foods, fried foods, soft drinks etc. They are busy with their life and do not have time to pay attention for their health. This situation can be seen clearly among the students in Kingdom of Saudi Arabia (KSA).

Social factors have a strong impact on eating behaviors. The last few years showed dramatic change in household dynamics. This has increased the convenience aspect of fast food, therefore introducing unhealthy eating patterns in the family. Peer influence poses a significant influence on eating behaviors as well. (Banegas et al. 2009). Advertisement plays a major role in attracting children and adolescents. they view large numbers of advertisements a day through media and billboards (Banegas et al. 2009). It is often assumed that the widespread availability of fast food restaurants is an important determinant of obesity rates. Policy makers in several countries have responded by restricting the availability or content of fast food, or by requiring posting of the caloric content of fast food meals. Study by (Davis & Carpenter 2009), revealed that proximity of fast-food restaurants within half a mile of their schools and residence, consumed fewer servings of fruits and vegetables, and more servings of soft drinks, and were more likely to be overweight or obese than were youths who were not living near fast-food restaurants. Students eating habits may be influenced by several factors, including individual factors such as taste preferences, time, convenience, lack of parental control, friends and peers. Also physical environment with reference to the availability and accessibility, appeal and prices of fast food products, media and advertising also plays a considerable role in these habits. (Deliens et al. 2014).

2. Materials and Methods

This research was a cross sectional descriptive research method, aiming at fact finding of what actually exists regarding the present prevailing status and conditions of fast food knowledge attitudes and practices among high secondary school's students, both sexes.

Since the present study was about detection the present practices of both males and female students, regarding the consumption of fast food, the descriptive method of research was the most appropriate method to use. The magnitude of the consumption of fast food among the targeted students, and their attitudes and practices will be documented. Subjects for this study were (1661) male students enrolled in second and third year classes in Hail secondary schools, and (1342) female students enrolled in second and third year classes in Hail high secondary schools. The average age of both sexes was 17 years.

2.1. Sampling Method

From a pool of 25 male schools, 13 schools were selected randomly (Lottery method). Also from a pool of 10 female schools, 7 schools were selected randomly (n=25 schools). A representative stratified sample was used to determine the size of the final sample of the males and the female's students in second and third year classes from their respective finally selected schools above. The total numbers in the second and third classes was 1661 male students, and 1342 female students. The most suitable type of sampling considered for this study was stratified sampling method. The formula devised by, was used to calculate the size of the samples regarding the male and female students.

$$n = N/1+N (e)$$

In which

n =the size of the sample

N= the size of the study population, (Male students)

e =the margin of error

The same formula was repeated to calculate the sample size of the female students to end up with a total sample of (n=196 male students) and (n=190 female students). With a total number of students (n=286).

2.2. Data collection

The most suitable data collection instrument for this type of research is the A pre structured questionnaire was designed to gather the data. The questionnaire we aimed to validate it by conducting a pilot test included 10 students selected randomly from the schools which were not selected for conducting this research to answer the questionnaire questions. Also the questionnaire was given to an experienced instructor in formulation of research questions to have his comments on the questionnaire. Feedback received was positive for its clarity, plausibility and suitability for the research.

2.3. Data Analysis

All statistical analyses were conducted with SPSS 20.0. Simple statistics, such as frequencies, means, and standard deviations were used along with t-tests and χ^2 -tests. A Pearson correlation test was conducted to examine the relationships between variables.

3. Results

Results Show that almost the majority of students eat in fast foods restaurants, with a percentage of 88%. From this percentage the male students accounts for 65% while the female students accounts for 23% only. It was found that high percentage (92%) of the students were aware of the meaning of fast foods, from this percentage,76% were males and only 16% of the girls know what is meant by fast foods. It was clear from the results obtained, that the diversity of fast foods is the main reason why students attracted to the fast foods restaurants as (43%) of the respondents were attracted to these restaurants for the exotic and diverse foods provided by these restaurants. In the second place came the service the respondents receive during their presence in these fast foods restaurants. The majority of the respondents (61%) practice sports, the students males constitutes a large sector of those who practice sports with 42%.For the question with whom you visit the fast foods restaurants, it was found that,(55.5%), of the students under this study like to accompany their families to take fast foods from these percentage females students accounts for 40%.Those who used to take fast foods with their friends were 38.5%, the majority of them were male students (29%).This study revealed that, the knowledge of students about the health effects was high(62%). The knowledge about the health effects was high among the female students (45%) compared to male students. The majority of the students (76%), agreed that the fast foods are unhealthy, most of those who agreed on the unhealthiness of fast foods were female students, (39%).Regarding the level of education, most of the mothers of the target sample, completed primary education (49%) while the fathers were more educated, as 37% of them attended the university and colleges. Concerning the means by which students know about fast foods restaurants, it was found that, the majority of the students knew about fast foods restaurants from friends and posters (38, 37%) respectively. Internet and paper advertisement constituted a very low percentage as a mean for the students to know about the fast foods restaurants. The study revealed that most of the students (47%), their families' income was above 10000 Saudi Ryals. It was found that the level of significance (p=0.595) is higher than the stated significance $p>0.05$, and this proves that the knowledge about fast foods does not affect the frequency of students attended the fast foods restaurants.

There was a significant difference $p=0.001$, between the types of fast foods eaten in fast foods restaurants and the expected health risks. A significant relation, $p=0.012$, was observed between the frequencies eating in fast foods restaurants and the knowledge of obesity development. The knowledge of vitamins deficiency is significantly related, $p=0.022$ to the frequencies of eating in fast foods restaurants at $p>0.05$ level. High correlation was noticed, $p=0.010$, between the frequencies the respondents eat at fast foods restaurants and the level of their fathers education, as 60% of students who eat in fast foods restaurants for more than 7 days per week, the level of their fathers education was primary .There was a significant relationship,0.00,betweenfrequencies of eating fast foods and

those with whom the respondents eat fast foods .Eating with friends accounts for high percentage, as (80%) of the respondents prefer to eat with friends, while those who eat alone accounts for the least percentage. (Refer to Fig.1.). The results show that there was significant difference between the mean weight of males and females, since the P-value of T-test (equal variances not assumed) ($p=0.000$) is less than 0.05. It was found that there was statistically significant difference ($p=0.000$) at ($P>0.05$) between the average ages of the females and males in this study.

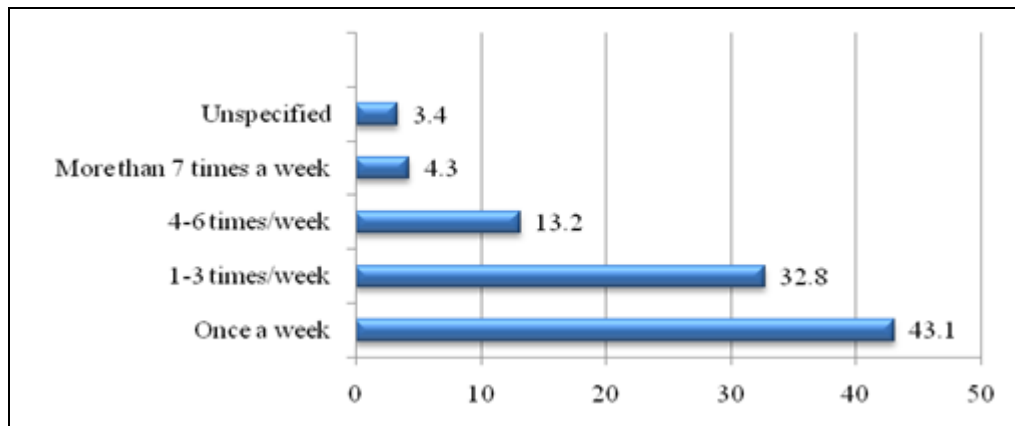


Figure 1: Frequencies of Visiting Fast Foods Restaurants

From table No:13, those who visited the fast foods restaurants more than once account for 46%, and the percentage of those who visited the restaurants was 43.1%. The figure shows that almost all the target group visit the fast foods restaurants with differences in frequencies.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.806 ^a	5	.017
Likelihood Ratio	13.666	5	.018
N of Valid Cases	348		

Table 1: Relationship between the frequencies of eating in fast foods restaurants and the knowledge of health risks related to fast foods.

High significant relation 0.017 was observed that frequencies the students go to fast foods restaurants and their knowledge about the possible health risks related to consumption of fast foods from fast foods restaurants.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.343 ^a	5	.000
Likelihood Ratio	49.676	5	.000
N of Valid Cases	348		

Table 2: Relationship between the frequencies of eating in fast foods restaurants and gender

A high significant relationship was observed between the frequencies of eating at fast foods restaurants and the gender of the studied population, 0.00, as male students more frequently eat in these restaurants compared to female students. As male students used to eat at fast foods establishments more frequently (2-7 times per week), compared to female students.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	102.620 ^a	2	.000
Likelihood Ratio	109.625	2	.000
N of Valid Cases	348		

Table 3: The relationship with whom the target population eat in fast foods restaurants and gender

A high significant relation was observed with whom the target group eat at fast foods restaurants $p=0.00$, and the gender, as female students accompany their families (81,25%) for eating in fast foods restaurants, while male students used to eat with their mates or friends (61.53%).

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.368 ^a	12	.025
Likelihood Ratio	23.921	12	.021
N of Valid Cases	348		

Table 4: Effect of advertisements in choosing the type of fast foods by respondents

60% of the respondent's choice of their fast foods is influenced by their friends, while advertisements through the internet that influence the choice of fast foods by respondent's accounts for 8% with a significance of $p = .025$ at .05 level.

4. Discussion

We found that high secondary school students in Hail City, both sexes, were overweight, and more likely to be obese; if their current life style and rate of fast food consumption continued without intervention. This finding also was reached by a similar study conducted by (Azza Abd El Moghny Attia 2013) in Hail City, (2013), (Ng et al. 2011), Who found that in study on Emirates adolescents, 20.5% of females are overweight and 19.7% are obese; 16.2% of adolescent males are overweight and 11.7% are obese. Among Emirati children, 40.7% of female children and 25% of male children are overweight or obese. Overweight and most likely obesity are not uncommon among Saudi adolescents' females. Our study and previous local surveys reported that around 22% to 28% of Saudi girls were overweight.⁶

In Saudi Arabia more than one third of the population is under 18 years, which means that they are in their adolescence. Common unhealthy eating behavior among Arab adolescents contain insufficient consumption of fruits and vegetables, and excessive intake of fast food and cola beverages. (Davis & Carpenter 2009) Fast food intake among students in Hail was (88 %). This is a pretty high percentage. However, many studies revealed that student's fast food consumption was high everywhere. In Bangladesh fast food consumption among students was (98.5%) (Davis & Carpenter 2009). In Riyadh City, the capital of Saudi Arabia, students ate in fast food restaurants (95.4%) (Bipasha & Goon 2013).

In 2011, Americans spent (115) billions of dollars on fast food, more than that spent on higher education. Saudi Arabia consumes about 75% of the total volume of fast food served in Gulf market, and United Arab Emirates (UAE) was second in consumption, and spending 11.1 million dollars in fast food industry. Hence, the culture of fast food consumption has replaced the traditional meal among students, and this is a major public health hazard. We found that what attracted students to fast food was a bundle of characteristics, among which were good taste, affordable prices, proximity to schools, convenience, and quick services that satisfies them on the move nature. Similar studies agreed with our findings (Davis & Carpenter 2009), (Bipasha & Goon 2013) Our study also revealed that male students are more active in visiting fast food premises compared to female students. This is quite understood in the conservative Hail City as boys enjoy freedom to accompany their friends to fast food restaurants. Female students were not allowed to go to fast food restaurant with male friends, if any, usually they go out with families. As a general Islamic rule, separation between women and men is strictly observed. When there is a necessity for social gathering a complete segregation between sexes will be observed. We also found that the effect of media was great on fast food consumption. Social marketing of fast food has a direct bearing on food selection, and consumption. We observed that fast food consumption increased on special days (33.9%), on salary pay day, and on week end when male friends meet (25.7). We found that female students were more over weight than male students. Our finding in this respect was congruent with a study conducted in Riyadh by Nora, published recently in 2015. Our study revealed that a high percentage (92%) of the students were aware of the health risks of fast food, but this high knowledge did not deter them from high consumption rate (88%) of fast food. Which is in accordance with the finding by of other studies where the majority (90%) of the respondents consumed fast-food, and that the consumption of fast-food was most motivated by their taste and convenience. Results from the Heckman model show that household size, education level negatively influenced the probability of fast-food consumption and level of expenditure on fast-food. Studies in social behavior iterated that knowledge alone would not change social behavior. Changing behavioral patterns in eating habits require rigorous work currently not available in changing eating habits for school's students. Gender, age, and to some extent health perception seems to have an effect on frequency of fast food consumption and on attitudes in relation to healthier fast food, where males, younger people, and people with less healthy visions of themselves consume fast food more frequent, and women and people of higher age have more positive attitudes in relation to healthier fast food. (Volhøj 2013). The results found that contextual factors including the price of fast food, median household income, and fast food restaurant outlet densities were significantly associated with fast food consumption patterns among this age group of 5th and 8th graders (Khan et al. 2012). Those with high-frequency fast-food consumption were more likely to be obese, depressed, and stressed and they skipped more meals (Fowles et al. 2011). The study by Emmanuel Nondzor (Emmanuel Nondzor 2015) further revealed that consumers consume fast food because, it saves time, convenient, delicious, provide variety of menu, offers change and they like the environment. These results are in harmony with the findings by this study.

5. Conclusion

Fast food intake is no longer confined to the developed countries. Currently, it started to menace the health of youngsters, and adolescents in developing world. In Saudi Arabia fast food consumption probably, the highest, in the middle east¹⁰. Fast food is high in fats and energy, and other unhealthy constituents, and low in vitamins and fibers. Currently consumption rates of fast foods placed

it at the top public health hazard that threatens the lives of young population with serious diseases, and jumped to the top of concern, and priority for most of the countries.

In this study, we strongly advise for an urgent community-based nutrition education program to encounter and alleviate the expected damage for the health of Saudi adolescents, and young adults who fell a prey to damaging media that portray fast food as the solution for the young, and adolescent's immediate needs for satisfying body and health by consuming healthy, tasty, nutritive food. Also we suggest including nutrition education programs in early life at elementary schools and kindergartens. We also recommend regulating, and scrutinizing the marketing of fast food from wrong beliefs and faulty advertisement. A campaign similar to that released against cigarettes smoking is urgently needed.

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7. References

- i. Aung, P.P. et al., 2012. Knowledge, Attitude, and Practice of Healthy Eating Among the 1st and 2nd Year Students of Universiti Malaysia Sarawak (UNIMAS). 2012 International Conference on Nutrition and Food Sciences IPCBEE, 39, pp.188–194.
- ii. Banegas, E., Gleason, F. & Castro, L.S., 2009. Worcester Foodscape : Analysis of Adolescent Food Choices., pp.1–57.
- iii. Bipasha, M.S. & Goon, S., 2013. Fast food preferences and food habits among students of private universities in Bangladesh., 3(1), pp.61–64.
- iv. Davis, B. & Carpenter, C., 2009. Proximity of Fast-Food Restaurants to Schools and Adolescent Obesity. American Journal of Public Health, 99(3), pp.505–510. Available at: <http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2008.137638>.
- v. Deliens, T. et al., 2014. Determinants of eating behaviour in university students: a qualitative study using focus group discussions. BMC public health, 14(1), p.53. Available at: <http://www.biomedcentral.com/1471-2458/14/53>.
- vi. Emmanuel Nondzor, H., 2015. Consumer Perception and Preference of Fast Food: A Study of Tertiary Students in Ghana. Science Journal of Business and Management, 3(1), p.43.
- vii. Fowles, E.R. et al., 2011. Eating at fast-food restaurants and dietary quality in low-income pregnant women. Western journal of nursing research, 33(5), pp.630–651. Available at: http://bs7xv3ec2w.search.serialssolutions.com/?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&rft_id=info:sid/Ovid:psyc7&rft.genre=article&rft_id=info:doi/10.1177/0193945910389083&rft_id=info:pmid/&rft.issn=0193-9459&rft.volume=33&rft.issue=
- viii. Khan, T., Powell, L.M. & Wada, R., 2012. Fast food consumption and food prices: evidence from panel data on 5th and 8th grade children. Journal of obesity, 2012, p.857697. Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3265116&tool=pmcentrez&rendertype=abstract>.
- ix. Ng, S.W. et al., 2011. Nutrition transition in the United Arab Emirates. European journal of clinical nutrition, 65(12), pp.1328–37. Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3304306&tool=pmcentrez&rendertype=abstract>.
- x. Volhøj, K.T., 2013. Attitude and behaviour in relation to healthier fast food among Danes., (october), pp.1–117. Pagoso et al. Fundamental Statistics for College Students. Rex Books Store. Manila, 1994