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Research Article

Junk and Fast Food Consumption among Obese University Students

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Abstract: Inadequate nutrition awareness and many other risk factors contribute to severe disorders or diseases. Nowadays, individuals are more concerned about better taste and presentation than health. Advertisements and peer pressure play a vital role, and also other factors lead to many diseases related to obesity. The study was conducted to evaluate the fast-food consumption and factors influencing fast food consumption; moreover, to assess health complications related to obesity among university students suffering from obesity. A cross-sectional study was conducted at Fatima Memorial College of Medicine and Dentistry, and The University of Lahore, Lahore, over four months. A total number of 200 adolescent females were selected through a non-probability convenient sampling technique. Data were collected through a self-structured questionnaire. SPSS version 21.0 was used. Out of 200 students, 56% of students preferred to eat fast food over healthy food while 44% of students did not prefer. Moreover, 63% of students consumed fast food daily. 37% of students ate healthy food, 57% of students consume junk food daily, 43% of students preferred to eat junk food daily, while 57% of students liked sugary food daily.
Keywords: Fast food, junk food, consumption, obesity, overweight, students.

INTRODUCTION

According to the World Health Organization, overweight for adults is considered as holding a BMI of ≥25. In contrast, obesity is considered to be holding a BMI of ≥30 [1]. Obesity is a metabolic disorder all over the world. It is one of the main leading causes of death, as it is known to be a threat to the increased incidence of various non-transmittable illnesses, specifically type 2 diabetes [2].

Obesity is a primary risk factor for dyslipidemia development, featuring the way that the more significant part of people with diabetes is overweight or obese [3]. Until today the BMI is as yet used to group overweight and determination. Since decreased mainstream is remarkably pervasive all through the BMI range, the estimation of the body part is recommended [4]. Now Pakistan has been considered at the sixth largest country in the world, and by 2050, it is predictable to be the fourth-largest, according to evaluations by the United Nation (UN) [5].

MATERIAL AND METHODS

A cross-sectional study was done on students from Fatima Memorial College of medicine and dentistry, and The University of Lahore, from November 2018 to February 2019. A total of 200 obese adolescent females aged 17-25 years were selected for this study. Data were analysed with the help of SPSS version 21.0.

RESULTS

Table-1: Socio-demographic profile of the Participants

Sr. No.	Socio-demographic Data	Percentage (%)
1.	**Geographical Location**	
	Urban	90%
	Rural	10%
2.	**Socioeconomic status**	
	Lower class	5%
	Middle Class	84%
	High class	11%
3.	**Residential status**	
	Own	74%
	Rented	26%
4.	**BMI**	
	Overweight (25-29.9)	73%
	Obesity grade1 (35-39.9)	26%
	Obesity grade2 (40-44.9)	1%

According to table 1, out of 200 students, 90% were living in urban areas, while 10% were living in

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rural areas; almost 5% of students belonged to the lower class family. 84% belonged to the middle-class family, while only 11% of students belonged to the high-class family. 74% of students had their own houses while only 26% of students were living in a rented house. Moreover, according to BMI, 73% of students were overweight, 26% had obesity grade 1, while only 1% of students had obesity grade 2.

Table-2: Junk and Fast Food Consumption

Sr. No.	Junk food and Fast Food Consumption		Percentage (%)
1.	Preference for fast food/junk food over healthy food	Yes	56%
		No	44%
2.	Consumption of fast food per day	Yes	63%
		No	37%
3	Consumption of junk food per day	Yes	57%
		No	43%
4.	Sugary food consumption per day	Yes	57%
		No	43%
5.	Fatty food consumption	Yes	72%
		No	28%
6.	Timings of consumption	Before 12 pm	8%
		Between 12-4 pm	37%
		Between 4-8 pm	37%
		10 pm or late hours	18%
7.	Place of consumption	Eat home	44%
		Dine-out	56%

According to table 2, out of 200 students, 56% student preferred to eat junk and fast foods over healthy foods, while 44% of students did not prefer. Moreover, 63% of students consumed fast food daily, while 37% of students did not consume fast food daily. 57% of students consumed junk food daily, while 43% of students did not consume junk food daily. 57% of students liked to eat sugary foods daily, wheres, 43% did not like to eat sugary foods daily. 72% of students consumed fatty food daily, while only 28% of students did not prefer to eat fatty food daily. Furthermore, only 8% students consumed the food before 12 pm, 37% students consumed the food between 12 to 4 pm, while 37% students consumed the food between 4 to 8 pm and 18% students consume the food 10 pm or late hours. Additionally, 44% of students preferred to eat at home, while 56% of students preferred to dine-out.

Table-3: Influencing factors with fast food and junk food consumption

Sr. No.	Factors Influencing Junk food and Fast Food Consumption		Percentage (%)
1.	Eating during stress	Yes	57%
		No	43%
2.	Eating oily foods due to cravings during stress	Yes	48%
		No	52%
3.	Eating out	Yes	69%
		No	31%
4.	Eating snacks while using a laptop	Yes	70%
		No	30%
5.	Fizzy/Soft drinks	Yes	75%
		No	25%
6.	Less nutrition education	Yes	69%
		No	31%
7.	Travelling time on bus or car	2 hour	32%
		3 hours	42%
		≥3 hours	26%
8.	Physically Activity	Yes	41%
		No	59%
9.	Watching TV	1 hour	38%
		2 hours	35%
		≥3 hours	27%

According to the table 3, out of 200 students 57% students liked to eat junk food and fast food during stress while 43% students did not like to eat junk food and fast food during stress. 48% of students ate oily foods due to cravings during stress, while 52% of students did not eat oily foods due to cravings during stress. Moreover, 69% of students preferred to eat-out. In comparison, only 31% of students did not like to eat out. 70% of students ate snacks while using a laptop; however, 30% students did not eat snacks while using

the laptop. 38% students used to watch TV for just 1 hour in a day while 35 % students watched TV for 2 hours in a day and 27 % students watched TV for more than 3 hours in a day; 32% students were travelling for just 2 hours in a day, 42% students were travelling for 3 hours in a day while 26% were travelling for more than 3 hours in a day. 41% of students were physically active while 59% of students were not physically active. 75% of students liked to drink the fizzy drink with food, while only 25% of students did not like to drink the fizzy drink with food intake. Moreover, 69% of students were less aware of nutrition education while 31% of students had nutrition information.

Table-4: Frequency Distribution of Health Issues due to Obesity

	Health Issues		Percentage (%)
1.	Hypercholesterolemia	Yes	55
		No	45
2.	Hypertensive	Yes	66
		No	34
3.	Diabetes	Yes	35
		No	65
4.	CVD	Yes	29
		No	71

According to table 4, out of 200 students, 55% of students were suffering from hypercholesterolemia, while 45% of students had normal cholesterol levels. 66% of students were hypertensive, while 34% of students were not hypertensive. 35% were diabetic, while 65% of students were non-diabetic, 27% of students had heart disease. In contrast, 71% did not have any sort of heart issue.

DISCUSSION

The study was directed to find out the junk and fast food consumption among university students suffering from obesity of age between 17-25 years. Students were selected through non-probability sampling technique. The results of the current data showed that the majority liked to consume sugary foods. A similar study indicated that high consumption of sugar and carbohydrate consumption in the diet caused obesity [6].

Additionally, the present study showed that 75% of students consumed fizzy drinks. A study showed that high energy carbonated drinks consumption leads to obesity, osteoporosis and weak bones [7]. Likewise, a study in 2014, showed that consumption of soft drinks was strongly associated with obesity [7]. According to the study, the students were obese or overweight, and 59% of students were physically inactive. A similar study was done to evaluate the link between physical activity, watching sports on television and the harmful effects of obesity in teenagers. On average participants reported watching TV for four to five hours a day and the study showed an association between less physical activity and high risk of Obesity [8]. The current study showed that the students were spending their time in travelling by bus or car for more than two hours daily. Moreover, a study was conducted, in 2008, which showed that the use of transportation instead of walking for every purpose was one of the major factors that increased the risk of obesity [9].

The current study showed that students preferred to eat snacks as fast/junk foods. Driskell *et al.,* [10] also recorded similar results while conducting a study to evaluate the frequency of eating meals and snacks as fast foods available at restaurants, and factors inducing on food choices. According to the report, almost 84% of men and 58% of women were consuming fast food for lunch at least once a week [10]. Moreover, the results of the current study showed that the students consumed high fatty foods daily. A study indicated the adverse effects on endothelial functions due to the consumption of fatty foods; it also caused health problems like CVD and high cholesterol [11]. Moreover, the current study showed that the majority of university students frequently dinned out. A similar study showed a positive association between take-away food consumption and high BMI among students [12].

The results of the current studies showed that majority of the students were not aware of the nutrition education. Likewise, a study performed in 2012 suggested that insufficient nutrition education promotes weight gain and obesity among adults [13, 14].

CONCLUSION

Conclusively, there was a high consumption rate of fast food and junk food among obese and overweight students. Moreover, fast/junk food consumption and obesity were being affected by stress, screen time, travelling time, physical activity, food cravings, and dining out. Less nutrition information among students was also contributing to the inadequate intake of a healthy diet among the students, resulting in increased BMI.

REFERENCES

1. Abarca-Gómez, L., Abdeen, Z.A., Hamid, Z.A., Abu-Rmeileh, N.M., Acosta-Cazares, B., Acuin, C., Adams, R.J., Aekplakorn, W., Afsana, K.,

Aguilar-Salinas, C.A., & Agyemang, C. (2017). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128· 9 million children, adolescents, and adults. *The Lancet*, *390*(10113), 2627-2642.

2. Raza, Q., Doak, C. M., Khan, A., Nicolaou, M., & Seidell, J. C. (2013). Obesity and cardiovascular disease risk factors among the indigenous and immigrant Pakistani population: a systematic review. *Obesity facts*, *6*(6), 523-535.

3. Stein, C. J., & Colditz, G. A. (2004). The epidemic of obesity. *The Journal of Clinical Endocrinology & Metabolism*, *89*(6), 2522-2525.

4. Yumuk, V., Tsigos, C., Fried, M., Schindler, K., Busetto, L., Micic, D., & Toplak, H. (2015). European guidelines for obesity management in adults. *Obesity facts*, *8*(6), 402-424.

5. Kim, D. M., Ahn, C. W., & Nam, S. Y. (2005). Prevalence of obesity in Korea. *Obesity Reviews*, *6*(2), 117-121.

6. Bowman, S. A., & Vinyard, B. T. (2004). Fast food consumption of US adults: impact on energy and nutrient intakes and overweight status. *Journal of the american college of nutrition*, *23*(2), 163-168.

7. Paeratakul, S., Ferdinand, D. P., Champagne, C. M., Ryan, D. H., & Bray, G. A. (2003). Fast-food consumption among US adults and children: dietary and nutrient intake profile. *Journal of the American dietetic Association*, *103*(10), 1332-1338.

8. Hamer, M., Weiler, R., & Stamatakis, E. (2014). Watching sport on television, physical activity, and risk of obesity in older adults. *BMC Public Health*, *14*(1), 1-4.

9. Bassett, D. R., Pucher, J., Buehler, R., Thompson, D. L., & Crouter, S. E. (2008). Walking, cycling, and obesity rates in Europe, North America, and Australia. *Journal of physical activity and health*, *5*(6), 795-814.

10. Driskell, J. A., Meckna, B. R., & Scales, N. E. (2006). Differences exist in the eating habits of university men and women at fast-food restaurants. *Nutrition research*, *26*(10), 524-530.

11. Rudolph, T. K., Ruempler, K., Schwedhelm, E., Tan-Andresen, J., Riederer, U., Böger, R. H., & Maas, R. (2007). Acute effects of various fast-food meals on vascular function and cardiovascular disease risk markers: the Hamburg Burger Trial. *The American journal of clinical nutrition*, *86*(2), 334-340.

12. Burgoine, T., Forouhi, N. G., Griffin, S. J., Wareham, N. J., & Monsivais, P. (2014). Associations between exposure to takeaway food outlets, takeaway food consumption, and body weight in Cambridgeshire, UK: population based, cross sectional study. *Bmj*, *348*, g1464.

13. Bibeau, W. S., Saksvig, B. I., Gittelsohn, J., Williams, S., Jones, L., & Young, D. R. (2012). Perceptions of the food marketing environment among African American teen girls and adults. *Appetite*, *58*(1), 396-399.

14. Kirkpatrick, S. I., Reedy, J., Kahle, L. L., Harris, J. L., Ohri-Vachaspati, P., & Krebs-Smith, S. M. (2014). Fast-food menu offerings vary in dietary quality, but are consistently poor. *Public health nutrition*, *17*(4), 924-931.