Fast Food Consumption among Teenagers aged between (13 to 25) years old and Their Effect on Health in Derna-Libya

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Abstract

Background: Junk foods are rich in calories, salt and fats. Excess consumption of junk foods would lead rise to wide variety of health disorders.

Objective: the purpose of this study is to find out about the fast food consumption of adolescent in age between 13-25 years old in Derna city and their effect on health

Methods: the sample of this research included 100 adolescents from both sexes, a descriptive cross-sectional study of teenagers was conducted. The questionnaire was divided into two part: first part related to socio-demographic information and part two related to junk food pattern and influencing factors of junk food consumption and their effect on health. Data were analyzed using SPSS version 24. A value of P < 0.05 was interpreted as statistically significant. Results: The findings revealed that more girls (67.0%) consumed fast food than boys and approximately half (49.0%) of Participants were consumed fast food as an alternative to main meal and more than half of participants (63.0%) were consume soft drink every day, furthermore greater proportion of participants (42.0%) had urinary tract infection and that may related to chips and soft drink were the most attractive food items among Participants.

Conclusion: adolescent consumed a greater amount of junk food which led to a majority of ill effects later on. It is recommended that the schools and community conduct and implement awareness programmers on fast food consumption and its ill effects.

Keywords

Nutrition; Fast food; Junk foods; Adolescents; Consumption; Teenagers

Introduction

Junk food term refers to fast foods which are easy to make and quick to consume, Michael Jacobson aptly coins the phrase junk food in 1972 as slang for foods of useless or low nutritional value so called HFSS (High fat, sugar or salt) [1].The junk food advertising is also play a great role in junk food popularity. But it should be avoided, because of lack of energy, high cholesterol and poor concentration. It causes a lot of harmful effect on the body like obesity, diabetes, heart disease and various types of skin cancers. Eliminating the temptation for junk food and developing the awareness for fitness can be helping in avoid the junk food from the healthy diet regimen. They are zero in nutritional value and often high in fat, salt, sugar, and/or calories. Common junk foods include salted snack foods, fried fast food, and carbonated drinks. Junk Food has become a major problem and many countries are taking action-banning junk food advertising in children's programmers, removing it from schools and even imposing a fat tax [2]. Junk Food has become a major problem and many countries are taking action-banning junk food advertising in children programmed, removing it from schools and even imposing a fat tax. Many junk foods also have trans fats. Trans fats behave like saturated fats when they get in the body. They clog up the human arteries and cause plaque to build up contributing to heart disease and stroke symptom [3].

Junk foods have certainly carved up the third World due to globalization; It is an integral part of life in the developed and also the developing world, and coming with it is a massive increase in obesity and associated health problems. It became necessary study and determine adverse effects of junk foods consumption and associated problems.

Materials and Methods

Sample

Ripened fruits of the Saudi pomegranate were obtained from the local market in Taif and Egyptian pomegranate fruits were obtained from the local market in Riyadh city. The entire fruit was squeezed with a juicer and filtered through a 15 μm membrane to remove insoluble residue. Fresh PJ was prepared daily during the entire experimental period.

Place of the study

The random sampling technique was used to choose government schools and colleges.Randomly selected about 15 students from different schools and colleges in Derna city.

Statistical Analysis

Data were first entered in an Excel file and then results were expressed as mean and standard deviation. Chi square, were calculated to analyze data using SPSS version 24. A value of P<0.05 was interpreted as statistically significant.

Result

Junk food consumption was reported by all students in this study.The soic-demographic characteristics of the study participants are shown in (Table 1) of the 100 teenagers who participated in the study, ages of teenagers ranged from 13 to 25 years with a mean age of 19.5±3.4 years. Approximately over half (67.0%) of participates consumed fast food were female and about (33.0%) were male .According to age group 30%of participants were in the age group of 13-17 years , 34% were in the age group of 18-21 years and 36 %were in the age group of 22-25 years . Majority of participants 64% had higher secondary level education, 33% had secondary education and 3 had primary education. Income showed the majority of (50%) from the family had monthly income more than 500 LYD and (6.0%) were belonged from the family had income 250-300 LYD per month. around 36% of participants were consumed junk food as snacks and an half 49% were consumed junk food as an alternative to main meal. Regarding health risks associated with junk food consumption most of participants (64.0%) were believed healthy food and the remaining (36.0%) were believed unhealthy food [4-8].

When data was analyzed by gender we found the proportion of junk food consumption as meal in females were higher than males and when analyzed by different groups of age we found the proportion of junk food consumption of males (58.8%) were higher than that of females in age group 18-21 year old and lower proportion (5.9 %) in males were in age group 22-25 year old.

While the higher proportion (42.6%)of females were in age group 22-25 and lower (25.5%) proportion were in age group 18-21 year old however, the relationship between both age and gender of participates and junk food consumption as meal were not statistically significant (χ^2=9.18 , p value=0.10) as shown in (Table 2).

When data was analyzed by gender we found the proportion of junk food consumption as snack in females were higher than males and When analyzed by different groups of age, the proportion of junk food consumption as snacks of males (43.0%) were higher than that of males in both age group 13-17 and 22-25 year old, lower proportion (12.5%) in age group 18-21 year old.

While the higher proportion of consumption junk food as snacks in females were (40.0%) in age group 22-25 and lower proportion (30.0%) were found in both age group 13-17 and 18-21 year old .however, the relationship between both age and gender of participates and

junk food consumption as snacks were not statistically significant (χ^2=1.7, p value=0.423) as shown in (Table 3).Data presented in table 4 showed that the most common type of junk food consumed every day was; 63.0% consumed soft drink , followed by 54% frequently consumed Chips 6% consumed French fries, 4% consumed Pizza hut, 3% consumed fried chicken,2% consumed hamburger,1% consumed Chocolate. Concerning consumed frequency within 1 or 2 times per week, 17.0% consumed soft drink followed by 23% consumed Chips 10% consumed French fries, 21 consumed Pizza hut, 21% consumed fried chicken, 14% consumed hamburger,17% consumed Chocolate.Regarding the effect consumption junk food on health of pupils under study are illustrated in table 5 around (42.0%) of participates had urinary tract infection, (7.0%) had heart disease and about (5.0%) had anemia

Table 1: Distribution of participants on the basis of Socio-demographic characteristics (n = 100)

Teenager characteristic	No%
Gender	
Male	33 (33%)
Female	67 (67%)
Age	
13-17	30(30%)
18-21	34(34%)
22-25	36(36%)
Education level	
Primary education	3(3%)
Secondary education	33(33%)
Higher secondary level education	64(64%)
Family income	
250-300 LYD	6(6%)
350-400 LYD	10(10%)
450-500 LYD	34(34%)
More than 500 LYD	50(50%)
Consume junk food as	
Meal	64(64%)
Snack	36(36%)

Family member ate junk food	
Yes	80(80%)
No	20(20%)
Junk food healthy or not	
Yes	64(64%)
No	36(36%)
Ate junk food as alternative to main meal	
Yes	39 (39%)
No	12 (12%)
Sometimes	49(49%)

Table 2: Distribution junk food consumption as meal among participants.

	Female		Male			
Age	**No**	**%**	**No**	**%**	**$\chi2$**	**P -value**
13-17	(15)31.9%		(6) 35.3%		9.18	0.10
18-21	(12)25.5%		(10) 58.8%			
22-25	(20)42.6%		(01)5.9%			

Table 3: Distribution junk food consumption as snacks among participants.

	Female		Male			
Age	**No**	**%**	**No**	**%**	**$\chi2$**	**P value**
13-17	(6)30.0%		(7) 43.8%		1.7	0.423
18-21	(6) 30.0%		(2) 12.5%			
22-25	(8)40.0%		(7) 43.8%			

Table 4: Frequency of junk food consumption.

Type of junk food	Every day or nearly every day	3 or 4 times per week	1 or 2 times per week	Rarely	Never
Soft drinks	63 %	7%	17%	10%	3%
French fries	6%	11%	6%	36%	41%

fried chicken	3%	6%	10%	43%	38%
Pizza hut	4%	12%	21%	55%	8%
Chips	54%	15%	23%	6%	2%
Chocolate	1%	2%	17%	13%	2%
hamburger	2%	5%	14%	67%	12%

Table 5: Most common diseases among participants.

Disease	Percentage
Diabetes militias	0.0%
hypertension	3.0%
Urinary tract infection	42.0%
Heart disease	7.0%
Kidney stone	2.0%
Anemia	5.0%

Discussion

In this study done in Derna-Libya consumption Junk food was reported by all participants. The findings revealed that the proportion of junk food consumption in females (67.0%) were higher than males which was similar to the result by Sapkota which said (53.5%) consumed junk food were girls [9-12] that may because girls more likely to be influenced by marketing campaigns that involved giveaways, competitions than males. Also, in this study we corroborated the observation that older teenager tend to eat fast food more frequently than younger teenager this was similar what reported by Fanning in (2002) which said the probability of purchasing fast food increases to about 30 years of age [13].On other hand higher education was correlated with greater frequency of fast food intake which was similar to the result by Hidaka in (2018) which said Fast food consumption is associated with higher education in women, but not men, among older adults in urban [14]i.e. (That may due to higher education correlates with a higher level of job involvement, including more complex work tasks and more responsibility).

Moreover,an annual family income more than 500 LYD was related to an increased fast food consumption of participates compared to an annual family income of (200-300 LYD) that was similar what reported in study by Fanning in (2002) which said probability of increase consuming fast food increase with family income. On other side this study shows

most parents support their families with fast food consumption these parents are usually working long hours and do not have the time for anything else other than running to the nearest Fast Food restaurant and getting food for everyone.Also the finding shows that around 36% of participants were consumed junk food as snacks and an half 49.0% were consumed junk food as an alternative to main meals which was similar to the result of the Larson (2002) in United States which showed the percentage of teenager who skipped breakfast at least one day during the school week [15]. However the relationship between both age and gender of participates and junk food consumption as meals or as snacks were not statistically significant. Furthermore in a study done in Australia by Denney-Wilson(25.0%) of students usually chose soft drinks instead of water or milk in comparison to the same reported by this study whereas more than half of participants (63.0%) were consume soft drink every day [16].And this study was concluded that about 7.0% had heart disease this was similar what reported by Hovenkam (2008) in china which said fried and processed food contains high amounts of trans fats, saturated fats in addition to oxycholesterol . Oxycholesterol is a type of cholesterol which may prove to be a lethal compound to heart health [17].In this study greater proportion of participants were had urinary tract infection and that related to chips and soft drinks are the most attractive food items among Participants .A high sodium level has been clearly implicated as the causative factor for high blood pressure. Sodium is known to affect renin-angiotensin system in kidneys, which produces vasoconstrictive effects on arterioles, leading to development of high blood pressure. Also the salts used for the preparation has an impact of their excretion through kidneys, thus having an effect on renal system [18].

References

1. *Bhaskar R. Junk food: impact on health. J Drug Deliv Ther. 2012;2(3):1-7.*
2. *Driskell JA, Kim YN, Goebel KJ. Few differences found in the typical eating and physical activity habits of lower-level and upper-level university students. J Am Diet Assoc. 2005;105(5):798-801.*
3. *Prentice AM, Jebb SA. Fast foods, energy density and obesity: a possible mechanistic link. Obes Rev. 2003;4(4):187-94.*
4. *Davis B, Carpenter C. (2009). Proximity of fast-food restaurants to schools and adolescent obesity. Am J Public Health. 99(3):505-510.*
5. *Datar A,NicosiaN. Junk food in schools and childhood obesityJ Policy Anal Manage. 2012;31(2),312-337.*
6. *Fister K. Junk food advertising contributes to young Americans' obesity. BMJ. 2005;(7530).*
7. *1426.https://www.researchgate.net/publication/285169531_Fast_foods_and_their_impact_on_health*
8. *Nakayama K, Nakayama M, Terawaki H, Murata Y, Sato T, Kohno M, et al. Carbonated soft drinks and carbonyl stress burden. Toxicol Sci 2009;34:699-702*
9. *Anderson JW, Patterson K. Snack foods comparing nutrition values of excellent choices and junk foods". J Am Coll Nutr. 2005;24:155-6*

10. Strasburger VC, Jordan AB, Donnerstein E. Health effects of media on children and adolescents. Pediatrics. 2010;125(4),756-7.

11. Chapman G,Maclean H. Junk food and healthy food: meanings of food in adolescent women's culture. J Nutr Educ.1993;25(3):108-113.

12. Sapkota SD, Neupane S. Junk Food Consumption Among Secondary Level Students, Chitwan. Journal of Nepal Paediatric Society. 2017;37(2):147-152.

13. Fanning J, Marsh T, Stiegert K. Determinants of fast food consumption. WAEA Selected paper, Long Beach, CA.

14. Hidaka BH, Hester CM, Bridges KM, Daley CM, Greiner KA. Fast food consumption is associated with higher education in women, but not men, among older adults in urban safety-net clinics: A cross-sectional survey. Prev Med Rep. 2018;12:48-151.

15. Larson NI1, Neumark-Sztainer DR, Story MT, Wall MM, Harnack LJ, Eisenberg ME. Fast Food Intake: Longitudinal Trends During the Transition to Young Adulthood and Correlates of Intake. J Adolesc Health. 2008;43(1):79-86.

16. Denney-Wilson E, Crawford D, Dobbins T, Hardy L, Okely AD. Influences on consumption of soft drinks and fast foods in adolescents. Asia Pac J Clin Nutr. 2009;18(3):447-52.

17. Hovenkamp E, Demonty I, Plat J, Lütjohann D, Mensink RP, Trautwein EA. Biological effects of oxidized phytosterols: a review of the current knowledge. Progress in lipid research. 47(1):37-49.

18. Taylor JP, Evers S, McKenna M. Determinants of healthy eating in children and youth. Briefel RR, Johnson CL. Secular trends in dietary intake in the United States. Annu Rev Nutr. 2004;24:401-31.