

Prevalence of junk food consumption in School going children aged 12-16 years old

Kalsoom Siddiq¹, Maryam Ahmad¹, Muhammad Ihsan², Uzma Asif³, Yamin Rashid⁴ and Imad Gul⁵

¹Department Human Nutrition and Dietetics, Women University Mardan Pakistan

²Department Human Nutrition, Agriculture University Peshawar Pakistan

³Department of Biochemistry Batterjee Medical College, Jeddah, Saudia Arabia

⁴Swat Medical College, Swat, Khyber Pakhrunkhwa, Pakistan

⁵Department of Zoology, Govt Post Graduate College Mardan Pakistan

Corresponding Author:

Uzma Asif, Assistant Professor, Department of Biochemistry Batterjee Medical College, Jeddah, Saudia Arabia

Abstract- Junk food refers to foods which are low in nutritional value and are high in calories, saturated fats, added sugar and salts. The current study was carried out to determine the Prevalence of junk food consumption in school going children aged 12-16 years old in District Mardan. A detail information about gender, Height, weight, Daily pocket money, Awareness level of students, fast food consumption, type of fast food consumed, frequency of consumption and the role of advertisements were collected from the students. The overall prevalence of junk food was found to be 90%. The gender wise analysis showed that the prevalence of junk food was dominant in female students (64%) as compared to male students (26%). Majority (45.5%) of the students were in underweight category based on their calculated Body Mass Index (BMI). The results showed that the type of junk food mostly consumed by the students was fast foods (46%) followed by any chips (28%), soft drinks (7%) and candies (9%). 59.5% students agreed to the effect of advertisements in attracting them towards junk food. 37.5% students were aware of the harmful effects of junk foods. 67.5% of the students were consuming junk food because of its taste. 45% of the students were consuming junk food twice and more than 5 times a week while the daily pocket money of majority (45%) of the students was between 41-70 Rs.

Index Terms- Key Words: Junk food, Nutritional Value, Calories, Saturated fats, Added sugar and salt Prevalence, Body Mass Index, fast foods.

I. INTRODUCTION

The term "junk Food" was coined by Michael Jacobson, head of the Institute of Sciences in 1972 with a public outcry that needed to raise public awareness on the issue of food sources which has high calories and low nutritional power. Junk food refers to cheap foods that are not difficult to make and very easy to eat. They have low levels of nutrients and have large amount of fats in them which has a detrimental effect on the consumer's well-being. Unhealthy foods contain refined sugar, white flour, Trans fats, polyunsaturated fats, salt and various food added substances, for example, monosodium glutamate (MSG) and tartrazine, and

deficient in protein, vitamins and fiber (Rajveer and Monica, 2012).

Youngsters quickly appear to have ventured into a universe of fast foods and candy machines, absolutely uninformed of the devastation they are making for themselves and their effect on their well-being. School nutrition survey in Ireland has uncovered that 48.6% of lunch taken by youngsters has been sorted as garbage (Ashakiran and Deepthi, 2012). Teens are the principle focus for any organization of junk food to be their clients. In this way, junk food has become one of their first choice. Numerous sorts of junk food can be purchased from the candy machines; school canteens and the close by grocery shop (Datar and Nicosia, 2009).

Reasons for bad habit of eating fast foods are for enjoyment, comfort, Friends Company or independence and easy accessibility of these foods. This is a very unhealthy habit that has a number of adverse effects on human health (Mandoura *et al.*, 2017). The accessibility of junk food and snacks at low costs and showcasing techniques adjusted by producers of such food sources have created a shift in the consumption of foods that do not require preparation like a proper meal. It appears to have overwhelmed each age; each race and the freshest participants in front are youngsters, school going specifically. Elements of junk food give incredible taste and make them addictive. Fat and sugar in mix is equipped for creating a dopamine-driven flood of exceptional joy in individuals with predisposition to addiction (Ashakiran and Deepthi, 2012). One of the factor prompting gorging on junk food is sitting in front of the TV which seriously increments undesirable dietary propensities among kids (Gopal *et al.*, 2012).

Carbonated drinks, beer, shot, cordials, drinks, bread, dough, cakes, and lollipops are very high in sugar, which makes people fat and causes tooth decay, and even worse for the blood, and this can lead to other health problems. Junk food, such as burgers, pizza, chicken, French fries, potato chips, butter, is enriched in saturated fats that can lead to excess weight gain that it is harmful to heart health and can lead to other diseases (Rajveer and Monica, 2012). School days are brimming with instructive difficulties that require long capacities for focus and endurance. Poor nourishing propensities can sabotage these pre-imperatives of learning, just

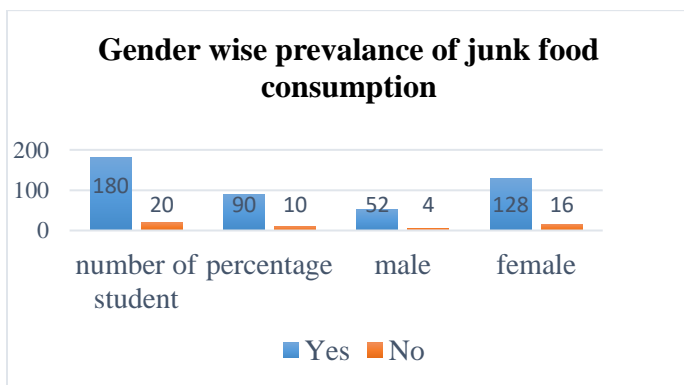
as drain the strength that youngsters need for making companions, cooperating with family, taking an interest in sports and games or essentially having a positive outlook on them. Nutritionists concur that the purpose behind kids with Attention Deficit Hyperactivity Disorder is generally the sort of food children eat (Ashakiran and Deepthi, 2012).

Cheap food use expanded fundamentally in Pakistan. Viewpoints affecting clients food decisions are; fascination for eating out, socialization, urbanization, taste and various other reasons (Baig and Saeed, 2012). In Pakistan Nuclear family framework and joint family framework both burn-through inexpensive food because of its taste. Joint family framework is more cognizant about cost than nuclear family framework. The greater part of individuals like inexpensive food and like to eat outside their homes (Yahya *et al.*, 2013).

III. WRITE DOWN YOUR STUDIES AND FINDINGS

4.1. Overall Gender wise prevalence of junk food consumption in District Mardan

This study included n=200 students aged 12-16 year old from different schools in district Mardan. 180 students (90%) were consuming junk food in which there were 52 males (26%) and 128 females (64%) while the remaining 20 students (10%) were not consuming junk food which included 4 males (2%) and 16 females (8%) as shown in figure 4.1. These results were consistent with a study conducted by Gupta *et al.*, (2018) in 12-18 years old children which showed that majority of the junk food consumers were girls. Similarly these results were also consistent with Younis and Eljamay, (2019) who examined the consumption of fast foods in 13-25 year old students which concluded that the consumption of fast foods was higher in girls as compared to boys. Similarly another study was also in line with this study which was carried out by Agarwal and Makhija, (2019) who demonstrated a study in college students and revealed that most of the female students were consuming junk food relatively to male students.



4.2. Health status of respondents

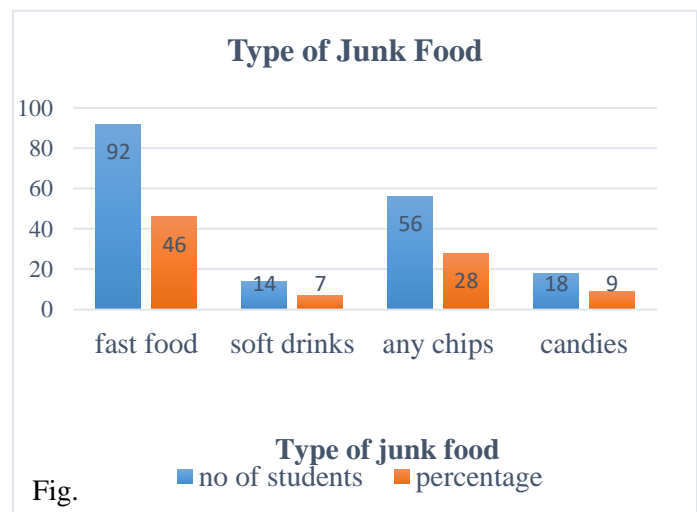
n=91(45.5%) were underweight, n=80(40%) were normal, n=20(10%) were overweight and n=9(4.5%) students were obese. Result shows that BMI of the majority of the students were in underweight category while some students were normal and only few students were overweight and obese as shown in figure 4.2. These findings are in close association with Poudel (2018) who

II. IDENTIFY, RESEARCH AND COLLECT IDEA

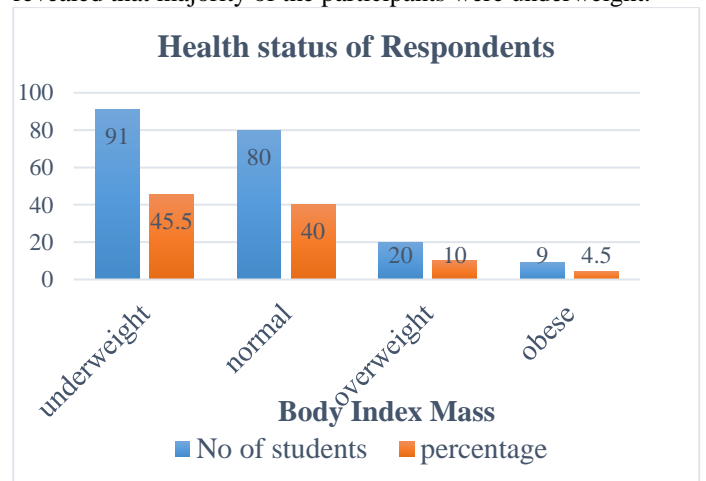
It was a cross sectional study and sample size was n=200. The questionnaire consisting of general information regarding eating behavior of students and level of knowledge regarding fast food consumption and type of food, frequency of consumption, and the role of advertising of fast food consumption was planned by taking assistance from students perspective on junk foods survey (Gopal *et al.*, 2012).. It consisted of 30 questions. The questionnaire also consisted of questions to collect information about students 'demographic and socio-economic information, including gender, age, family income, and parents' level of education. Data was collected in four months. Anthropometric measures such as height, weight were measured for computing BMI.

Statistical Analysis:

All the data was entered into MS Excel version 2013 for analysis.



studied junk food consumption and its association with BMI and revealed that majority of the participants were underweight.



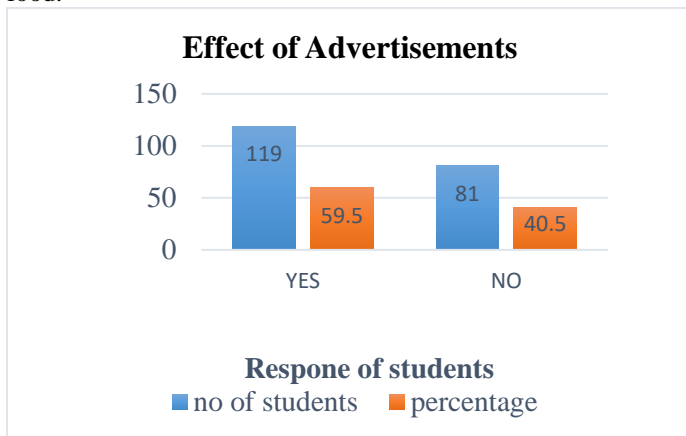
4.3. Type of Junk Food

n=180 students were consuming junk food. Out of these n=180 students, 92(46%) were consuming fast food, 14(7%) were consuming soft drinks, 56(28%) were consuming any chips, and 18(9%) students were consuming candies. Result shows that

majority of the students were consuming fast food and any chips while few were consuming soft drinks and candies as shown in Figure 4.3. These results were consistent with Gopal *et al.*, (2012) who conducted a study on junk food which showed that the type of junk food mostly consumed by the students was fast food followed by snacks, softdrinks and candies. Similarly these findings were consistent with Seo *et al.*, (2011) who carried out a study in school children which indicated that fast foods were the most often consumed by school children.

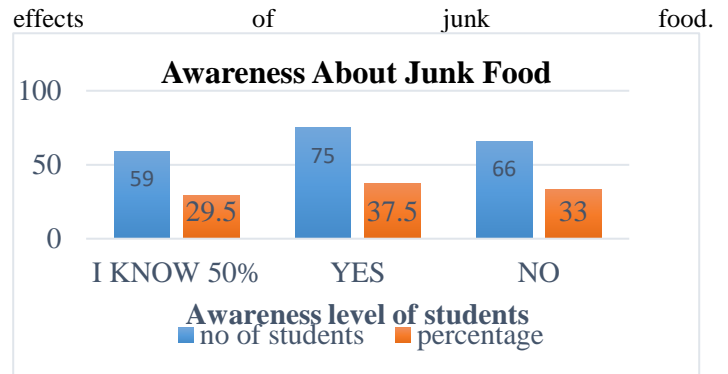
4.4. Effect of Advertisements:

n=119(59.5%) students agreed that advertisements play a role in attracting them towards consuming junk food while the remaining n=81(40.5%) students did not agreed that advertisement has any influence on consumption of junk food. Result shows that majority of the students agreed to the role of advertisement in attracting them to junk food consumption as shown in Figure 4.4. These findings are similar to Gopal *et al.*, (2012) who conducted study on junk food eating habits of students and concluded that television advertisements play an important role in attracting students towards junk food. These results were also similar with Kaushik *et al.*, (2011) who carried out a study on junk food consumption in children, the study showed that attractive junk food advertisements play a role in increased consumption of junk food.



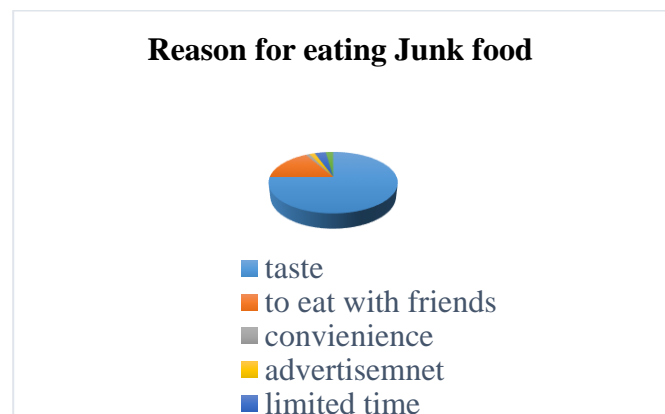
4.5. Awareness about Junk food

75(37.5%) students were aware of the harmful effects of junk food, while n=66(33%) students were not aware of it and the remaining n=59(29.5%) students were 50% aware of the harmful effects of junk food. Result shows that majority of the students were aware of the harmful effects of junk food as shown in Table 4.5. These results were similar with a study conducted by Gopal *et al.*, (2012) which showed that 30% of the students had no idea about the harmful effects of junk foods. The results of the present study were also consistent with a study carried out by Purushothaman *et al.*, (2015) which revealed that 58.3% children were aware of the harmful effects of junk food. Another similar study demonstrated by Antony and Bhatti, (2013) in students also concluded that 46.15% of students were aware of the adverse



4.6. Reason for eating Junk food

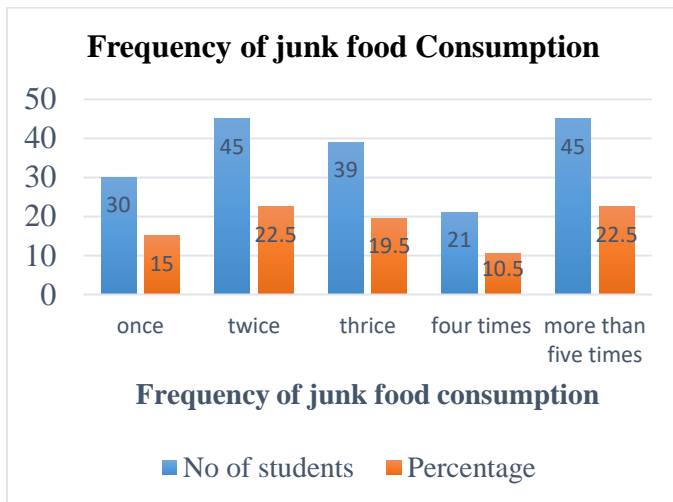
135(67.5%) students were consuming junk food because of its taste, 30(15%) students were consuming in order to eat with friend, 2(1%) students were consuming it because of convenience, 3(1.5%) students were consuming it because of the effect of advertisement, 6(3%) were consuming it because of limited time and 4(2%) students were consuming it because of its price/cost. Result shows that majority of the students were consuming junk food because of its taste as shown in Figure 4.6. These results were consistent with a study conducted by Gopal *et al.*, (2012) which showed that 68% of individuals were consuming junk food because of its taste. The results of the present study were also similar with a study carried out by Sequeira *et al.*, (2014) which concluded that students were consuming junk food because of its taste, price and accessibility. The results of the study carried out by Mandoura *et al.*, (2017) were also in line with the present study which concluded that the students were consuming junk food because of taste and limited time. A study conducted by Vaida *et al.*, (2011) also showed similar results that the participants consumed junk foods because of its flavor, attractive advertisements and availability.



4.7. Frequency of Junk Food Consumption

30(15%) students were consuming junk food once a week, 45(22.5%) students were consuming junk food twice a week, 39(19.5%) students were consuming thrice a week, 21(10.5%) students were consuming 4 times a week and 45(22.5%) students were consuming junk food more than 5 times a week. Result shows that majority of the students were consuming junk food twice and more than 5 times a week as shown in Figure 4.7. The

results of the present study were also consistent with a study carried out by Antony and Bhatti, (2013) which showed that 50% of the participants consumed junk food 3-5 times weekly. Similar results were also shown by Seo *et al.*, (2011) in his study which concluded that 62.5% of students consume fast food more than once a week. Agarwal and Makhija, (2019) in their study also concluded that 37% of participants consumed junk food 3-5 times a week while 18% of students consume fast food 5-7 times in a week. Another study carried out by Li *et al.*, (2020) also concluded that 55.2% of participants consumed fast food once a week while 10.3% consumed fast food fast food 4-7 times a week.



4.8. Pocket money of Students

The pocket money of 50 students was between 20-40 Rs, while the pocket money of 90 students was between 41-70 Rs and the pocket money of the remaining 60 students was between 71-90 RS. Results showed that the pocket money of majority of the students was between 41-70 Rs as shown in Figure 4.8. These results were similar with the results of a study carried out by Kaur (2020) which showed that 88% of the students spent 100-500 Rs on junk food while 12% of students spent more than 1000 Rs weekly on junk food. Similarly Vaida *et al.*, (2011) in her study on junk food in 14-18 year old also revealed that 60% of the students spend their entire pocket money on junk food consumption. Another study carried out by Gupta *et al.*, (2018) also concluded that the consumption of junk food was more in students of high and middle socio economic status. A study carried out by Sahu and Das, (2018) also concluded that 16% of students spend their entire pocket money to buy chips while 13.5% spend it on ice-cream and 6.9% on chocolates.

IV. CONCLUSION

The study concludes that the prevalence of junk food consumption in 12- 16 year old school students was 90% and majority of the junk food consumers were female students. The Body Mass index (BMI) of most of the students was in underweight category. The study also demonstrated that the junk foods mostly consumed by students were fast foods and chips. The study identified several factors that contributes to increased junk food consumption in children like taste/palatability, peer pressure, attractive advertisements, and increased pocket money.

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