Students' Perspective on Junk Food and its effects on Mental Health

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Abstract

Background and Aim: *The consumption of junk food has become a fashionable trait in the globalized era. Teenagers, specifically school goers like to have fast food daily, thereby they are consuming food which has low nutritious value. Regular consumption of junk food can cause health issues, not only the physical health but also the mental health. The aim of this study is to investigate the attitude of graduation level students on junk food and its harmful effects on mental health.* ***Methodology:*** *This is a survey study conducted on 81(45 girls and 36 boys) graduation level students. Convenience sampling technique was used. Data regarding the attitude of students on junk food was collected by using a questionnaire administered by Gopal, Kannabiran, Seenivasan (2012).* ***Results:*** *Result showed that majority of the students(64%) preferred fast food among the different types of junk food. Nearly 45% of the participants use to have junk food once in a week. Taste is the most influencing factor of junk food. 81% of the students considered junk food as unhealthy but only 62% know that regular consumption of junk food can cause mental health problems, no significant frequency difference was found between male and female students regarding this attitude.*

Keywords: junk food, students' attitude, mental health

I. INTRODUCTION

India is the second largest populated country in the world. According to worldometer elaboration of the latest United Nation data the current population of India is 1,382,752,528 as of Monday, September 14, 2020. We have 17.7% population of the world (worldometer, 2020) and day by day India's fast food industry's rate is growing very high, 40% a year. The position of India is 10TH, In per capita spending figures on fast food (Chitnis, 2019), which means large number of people specially students are taking fast food. In china, the fast food was consumed by 97.5% students (Zhu, Ding & Lu, 2008). In India, Lucknow it was 98% (Manjunatha & Mishra, 2014), and by all students in a study done in Jammu Kashmir, India (Vaida, 2013). Nitin et al. (2015) also explored that almost all students (97.3%) were eating fast food in Mangalore City. Not only the urban area but also the people of rural area are eating junk food. According to a study among 425 school going children 36% have eaten junk food during last 24 hours in rural, Himachal Pradesh (Gupta, Kapil & Singh, 2018).

Students/children are like to have junk food because it has great test and very attractive appearance. Advertising has a major role in attracting the people, particularly children toward junk food (Dixon et al., 2007).

Junk food is not good for health, it effects the health of people, specially it causes overweight and obesity. Nitin et al. (2015) stated that frequency of fast food consumption in a week was found to be associated with overweight or obesity among school going children. Fast food consumption also causes diabetes, heart disease, high blood pressure (Arya & Mishra, 2018).

Generally, we think that junk food effect our physical health but most of us are not aware about its harm full effect on mental health. Junk food like unhealthy snacks, fast food, desserts, sugar sweetened beverages, are associated with depression (Hoerster et al, 2016). Jim and Others (2019) conducted a survey among California adults and found that about 17% of adults in California are suffer from mental distress, 13.2% with moderate and 3.7% with serious psychological distress, they also reported that both moderate and serious psychological distress are associated with higher intake of unhealthy foods like, soda, French fries, fast food, sweetened fruit drinks, frozen desserts. Even bipolar disorder and depression are correlated with sugar consumption (Westover & Marangell, 2002). Not only the mental health but junk food also effects the behavior of students, it makes them violent. Zahedi et al. (2014) conducted a study on 13486 student and found that with the psychiatric distress junk food also significantly associated with violent behavior. Nina and Rune (2012) stated that consumption of unhealthy food like sugar- sweetened soft drinks, sweets, chocolate, pizza and hotdogs increased the behavioral problems among students at school. In summer season we like to drink but only few of us may know that carbonated soft drink causes carbonyl stress. Carbonated soft drinks contain methylglyoxal (MG), which strongly associated with human carbonyl stress (Nakayama et al. 2009).

In various way junk food effects, our mental health. But how many people are cautious about those harmful effect of junk food ? study by Gopal, Sriram, Kannabirin and Seenivasan (2012) reported that among 344 university students, 85% has considered junk food as unhealthy, 18% of the sample don't check the quality of food, 33% of the sample don't know that harmful chemical is present in junk food. In case of school students, it was found that no students have good knowledge about junk food and its effect on health (Keshni, 2021). Many studies have been done regarding students' attitude on junk food consumption but very few of them have considered its effect on mental health. Therefore, the present investigators are interested to study the attitude of college going students on junk food consumption and its effect on mental health.

II. OBJECTIVES

1. To study the attitude of graduation level students on junk food consumption and its harmful effect on mental health
2. To compare the attitude between male and female students regarding the harmful effect of junk food on mental health
3. To compare the attitude between urban and rural students regarding the harmful effects of junk food on mental health

III. HYPOTHESES

H_0 1: There is no significant frequency difference in the attitude between male and female students regarding the harmful effects of junk food on mental health.

H_0 2: There is no significant frequency difference in the attitude between rural and urban students regarding the harmful effect of junk food on mental health.

IV. METHODOLOGY

4.1 Population
In the present study all the graduation level students of Hooghly district are considered as the population.

4.2 Sample
Total 81 (36 boys and 45 girls) graduation level students were selected for the present study. Data was collected from two government colleges of Hooghly district through online questionnaire. Convenience sampling technique was used for sample selection.

4.3 Variables

Independent variables

- A. Gender
    1. Male
    2. Female
- B. Living area
    1. Rural
    2. Urban

Dependent variable

- A. Attitude on junk food consumption

4.4 Research design

In the present study the researchers have used survey method as the research design.

4.5 Tool

To collect the relevant data the present investigators have used a questionnaire administered by Gopal, Kannabiran and Seenivasan (2012). This questionnaire is very simple and contains only 10 multiple choice questions and can be used to know the attitude of students on junk food. Present investigators have modified the questionnaire a little bit to include the dimension of mental health. Data was collected in the month of July, 2022.

V. RESULTS

5.1 Demographic characteristics

The total sample size is 81, 36 boys and 45 girls. The average age is 19.5 years. Among the 81 participants, 17 students are from urban area and 64 students are from rural area.

Table 1: Demographic characteristics

Gender	N=81	Living area	N=81
Boys	36	Urban	17
Girls	45	Rural	64

5.2 Favorite junk food

When the students were asked about their favorite junk food then we noted that, nearly 64% of student preferred fast food, snacks were chosen by 18% of student, 15% of students liked soft drink and the rest 3% preferred candy.

Table 2: Respond on favorite junk food

| Junk foods	Number of students(N=81)
Fast food	52
Snacks	15
Soft drinks	12
Candies	2

5.3 Junk food eating habit

To know the eating habit of student, three questions were asked. When they were asked about the factor which influenced them to select junk food, then it was found that 69% of students like to have junk food for taste, 7% opted for time, 15% for changing lifestyle and 9% opted for influence of advertisement (figure 1).

Figure 1: Influencing factors of junk food

6. What are the factors influencing the choice of junk food ?
81 responses

- time
- taste
- changing lifestyles
- influence of advertisement
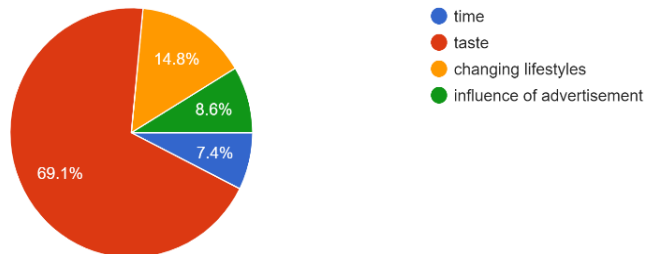
In case of taking junk food as an alternative of breakfast it was found that, nearly 15% of students use to take junk food as an alternative of breakfast, 26% of students inform that sometime they use to have it and 59% of students informed that they don't take junk food as an alternative of breakfast.
the investigators also studied the frequency of junk food consumption rate par week and reported that 45% of students used to take junk food once in a week, 24% twice in a week, 8% three time in a week, 11% four time in a week and 9% for more than 5 time in a week.

5.4 Junk food awareness

There were some questions to check students' awareness about the junk food. The responses of those questions were analyzed and found that, 25% of students check the quality of junk food, 49% of students sometime do it and 26% of students don't check the quality at all. In case of nutrient fact level in junk food, 41% of students reported that they don't check the nutrient facts level, 38% check is sometimes and only 20% participants use to check it. For the question related to chemicals and their safety level, it is noted that 57% of the participants were aware about the chemicals and 43% of the participants were not aware about it.

5.5 Student prospective on junk food's effect on mental health

In this study it was found that 81% of students considered junk food as unhealthy. But when they were asked about the harmful effects of junk food on mental health than it was noted that 38% of students don't know that regular consumption of junk food can causes mental health problems, 62% of participants reported that this fact is known by them.

5.6 Hypotheses testing

H_0 1: There is no significant frequency difference in the attitude between male and female students regarding the harmful effects of junk food on mental health.

Table 3: Comparison the frequency between male and female students

Attitude	Male (N=36)	Female (N=45)	x^2	df	Significance
Effects of junk food on mental health	22(61%)	29(64%)	0.07	1	Not significant at 0.05 level

One out of 10 question was asked to know whether students are aware about the harmful effects of junk food on mental health or not? the responses of the question were analyzed on the basis of gender and it was noted that among 81 participants 36 were male and 45 were female. Among 36 male 22(61%) were aware about harmful effects of junk food on mental health and among 45 girls 29(64%) were aware about this fact. It is notable that the frequency of female students is a little bit higher than male students. To check weather this difference is significant or not x^2 test was administered, but no significant frequency difference was found. So, $H_0 1$ is accepted.

H_0 2 There is no significant frequency difference in the attitude between rural and urban students regarding the harmful effect of junk food on mental health

Table 4: Comparison the frequency between urban and rural students

Attitude	Rural students (N=64)	Urban students (N=17)	x^2	df	Significance
Effects of junk food on mental health	44(69%)	7(41%)	4.37	1	significant at 0.05 level*

*But not significant at 0.01 level

When the responses of the same question were analyzed on the basic of locality then it was found that among 81 participants, 64 were from rural area and only 17 were from urban area. Among 64 rural students 44 (69%) were aware about harmful effects of junk food on mental health and among 17 urban students only 7(41%) were aware about this fact. To check the frequency difference x^2 test was administered and found that it was significant at 0.05 level. Hence, null hypothesis is rejected and can be said that, rural students are more aware about harmful effects of junk food on mental health than the urban students regarding the frequency.

VI. DISCUSSION

In the present study it is noted that among different types of junk foods (fast food, snacks, soft drinks, candies) fast food was preferred by most of the students (64%). The same was reported by Gopal, (2012), they also noted that 53% of their sample liked fast food than the other junk foods. In china, the fast food was consumed by 97.5% students (Zhu, Ding & Lu, 2008). In India, Lucknow it was 98% (Manjunatha & Mishra, 2014), and by all students in a study done in Jammu Kashmir, (Vaida, 2013). Nitin et al. (2015) also explored that almost all students (97.3%) were having fast food in Mangalore City. Bohara, Thapa, Bhatt, Dhami and Wagle (2021) reported that in their study more than half of the students (58.7%) consumed snacks, but in present study it is found that only 18% of the student liked snacks.

Present investigators have found that taste is one of the most influencing factor of junk food, which supports the finding of Gopal et al.(2012). They also noted that majority of their participants (68.1%) like to have junk food for its taste. In their study Majabad et al. (2016) also noted that taste is the main factor which influence the students to have fast food. Sapkota and Neupane (2017) also got the same result. But except the taste, advertising has a major role to attract the people, particularly the children towards junk food (Dixon et al.,2017). The present investigators noted that 9% of their participants have supported this fact.

Present study reported that 45% of the participants use to have junk food once in a week, 20% of them use to have it four to five times in a week. In a study (Gopal et al., 2012) it was found that 14% of the participants used to consume junk food once in a week and 20% of the participants used to consume it 5 times per week. Madan, Verma and Mathur (2021) also reported that 26% of students used to consume fast food once in a week, where 35% of students used to consume several times in a week. In the present study very few numbers of students (25%) have reported that they do check the quality of junk food. In their study Gopal et al. also noted that only 43% of their participants used to check the quality of junk food. But in a study, it is mentioned that Swedish school children are very much aware about the quality of food (Lundmark, 2002).

In present study it is found that 38% of students don't know that regular consumption of junk food can causes mental health problem. Though, we did not find any study which is exclusively based on students' attitude on junk food and its effect on mental health, but study by Keshni (2021) also concluded that majority of

students had below average knowledge about the effect of fast food. Bohara et al.(2021) also found that only 33.5% of students were aware about the harmful effect of junk food on health. Same was found by Madan, Verma and Mathur (2021), only 23% of graduation level students had proper knowledge about harmful effects of junk food on mental health, where 42% students didn't know about ill effects of junk food on health. When the attitude regarding the harmful effect of junk food on mental health was compared between male and female students no significant frequency difference was found. Musaiger (2014) also did not find any significant difference in the attitude between male and female students regarding harmful effects of junk food on health.

VII. CONCLUSION

Due to fast life style of third world junk food industries are growing rapidly. Those low nutritional foods cause different type of psychiatric problems, but most of the students are not aware about the fact. It is very hard to win the war with junk food by healthy food, but not impossible. We should try. Education is the only key of success. Through the education we can make aware the students and parents about harmful effects of junk food. Improvement in eating habits and following healthier diet is helpful for mental health.

REFERENCES

- Arya, G., & Mishra, G.(2013). Effects of Junk Food & Beverages on Adolescent's Health – a Review Article. *Journal of Nursing and Health Science*, 1(6), 26-32.

- Bohara, S.S., Thapa, K., Bhatt, L.D., Dhami, S.S., & Wagle, S. (2021). Determinants of Junk Food Consumption Among Adolescents in Pokhara Valley, Nepal. *Frontiers in Nutrition*, 8.

- Chitnis, S.P.(2019). A Study on Scenario of Fast-Food Industry in India. *International Journal of Trend in Scientific Research and Development*, 88-90.

- Dixon, H.G., Scully, M.L., Wakefield, M.A., White, V.M., & Crawford, DA.(2007). The effects of television advertisements for junk food versus nutritious food on children's food attitudes and preferences. *Soc Sci Med*, 65, 1311-1323.

- Gupta, A., Kapil, U., & Singh, G.(2018). Consumption of junk foods by school-aged children in rural Himachal Prades, India. *Indian Journal of Public Health*, 62(1), 65-67.

- Hoerster, K.D., Wilson, S., Nelson, K.M., Reiber, G.E., & Masheb, R.M. (2016). Diet quality is associated with mental health, social support, and neighborhood factors among Veterans. *Eating Behav*, 23, 168–173.

- Keshni.(2021). A Descriptive study to assess the knowledge and attitude among adolescent regarding effects of fast food on health in selected school of Ludhiana, Punjab. *International Journal of Nursing Education and Research*, 9(2), 161-163.

- Lundmark, B. (2002) Kvalitet som utsaga och praktik: kvalitetsaspekter med fokus på skolmåltiden i Sverige. Licentiate Thesis. Department of Domestic Sciences, Uppsala University, Uppsala, Sweden.

- Madan, S., Verma, R., & Mathur, G. (2021). Junk food consumption pattern by undergraduate students of Dayalbagh educational institute, Agra. *Indian Journal of Public Health Research & Development*, 12(3), 241-246.

- Majabadi, H.A., Solhi, M., Montazeri, A., Shojaeizadeh, D., Nejat, S., Farahani, F.K., & Djazayeri, A. (2016). Factors Influencing Fast-Food Consumption Among Adolescents in Tehran: A Qualitative Study. *Iran Red Crescent Med J*, 18(3).

- Manjunatha, S., & Mishra, S. (2014). Fast food consumption pattern and obesity among school going (9-13) in Lucknow district. *International journal of Science and Research*, 3, 1672-1674.

- Musaiger, A.O.(2014). Consumption, health attitudes and perception toward fast food among Arab consumers in Kuwait: gender differences. *Global Journal of Health Science*, 6(6), 136-143.

- Nakayama, K., Nakayama, M., Terawaki, H., Murata, Y., Sato, T., Kohno, M., & Ito, S.(2009). Carbonated soft drinks and carbonyl stress burden. *The Journal of Toxicological Sciences*, 34(6), 699-702.

- Nina, O., & Rune, H. (2012). Diet and behavioral problems at school in Norwegian adolescents. *Food & Nutrition Research*, 56(1).

- Nitin, J., Maira, N., Rai, S., Babu, R., Kotian, S.M., & Singh, M. (2015). Fast food consumption pattern and its association with overweight among high school boys in Mangalore city of southern India. *Journal of Clinical & Diagnostic Research*, 9(5), 13-17.

- Sapkota, S.D., & Neupane, S. (2017). Junk Food Consumption Among Secondary Level Students, Chitwan. *J Nepal Paediatr Soc*, 37(2), 147-152.

- Vaida, N. (2013). Prevalence of Fast Food intake among urban adolescent students. *The International Journal of Engineering and Science*, 2, 353-359.

- Westover, A.N., & Marangel,l L.B.(2002). A cross-national relationship between sugar consumption and major depression? *Depress Anxiety*, 16, 118–120.

- Zahedi, H., & 0thers. (2014). Association between junk food consumption and mental health in a national sample of Iranian children and adolescents: The CASPIAN-IV study. *Applied nutritional investigation*, 30, 1391-1397.

- Zhu, S.P., Ding, Y.J., Lu, X.F.(2008). Study on factors related to top 10 junk food consumption at 8 to 16 years of age at Haidian district of Beijing. *Zhonghura Liu Xing Bing Xue Za Zhi, 29,757-762.*

- https://www.worldometers.info/world-population/india-population