DOI: https://doi.org/10.53350/pjmhs211581942

ORIGINAL ARTICLE

Fast Food Intake Affecting Physical and Mental Well-Being of Medical Students in Lahore

SANA NOOR[1], AEMUN SHAUKAT KAYANI[2], NOOR SHAHID[3], ALAROZIA IHSAN[4], SARA RASHEED[5], MASOOD NIZAM TABASSUM[6]

[1] Assistant Professor, Department of Community Medicine, Avicenna Medical and Dental College, Lahore.
[2] Research Student, Avicenna Medical and Dental College, Lahore.
[3] Research Analyst, Curiato Inc.
[4] Demonstrator, Department of Community Medicine, Avicenna Medical and Dental College, Lahore.
[5] Senior Demonstrator, Department of Pathology, Avicenna Medical and Dental College, Lahore.
6 Professor, Department of Community Medicine, Avicenna Medical and Dental College, Lahore.
Correspond to Dr. Sana Noor, Email; dr.sanajamal@gmail.com

ABSTRACT

Background: Fast food consumption is being significantly affecting physical and mental health of children and adolescent. Unhealthy diet is designated as the major cause of various medical illness. Among these most common is obesity. This also leads to anxiety, sleep disorder, verbal abuse and hence responsible for mental issues as well.
Aim: To observe factors affected by fast food consumption among youngsters.
Methodology: A cross-sectional study design was used to conduct a study for factor analysis of physical and mental health issues related to fast food consumption at a private medical college in Lahore, Pakistan. The data was collected using self-designed questionnaire to collect information about the physical health, mental health, routine exercise, workout and fast -food consumption attitude.
Results: Exploratory Factor Analysis (EFA) was used to access the total explained variation through varimax rotation. Kaiser-Meyer Olkin (KMO) and Bartlett test of sphericity was seen to have a p-value 0.000 which is significant. Significant results of KMO and Bartlett test allows for EFA. It has been seen that thirteen factors contributed to explain more than 70% of the variation
Conclusion: Most commonly affected factors were physical and mental well-being that explained maximum variation. These factors comprised minor mental issues like emotional health, anger, mood swings and anxiety and physical health such as worse effect on health, less physical activity/ inactivity and irregular exercise. Major
Keywords: Fast food, Mental Health, Obesity, Physical Health, Risk.

INTRODUCTION

Fast food is considered as a junk food which is enriched in saturated fats, less in iron and calcium and is unhealthy to health[1]. Fast food consumption plays a significant role in maintaining physical health. Consumption of fast food has been tremendously increasing over the last few decades[2]. It has been affecting and increasing the odds of poor physical and mental health due to unhealthy dietary patterns[3].

Unhealthy diet and poor nutrient contents are major cause of various medical illness such as high blood pressure, high cholesterol level, ischemic heart disease, obesity, skin diseases and hormone disbalance. Fast food, energy drink with high carbonated volume were found in the literature as a leading cause of obesity among children and adolescent[4,5]. The emerging issue of child obesity and other non-communicable diseases is common in developing countries due to more fast food consumption[5]. It also has a poor impact on the growth of the children. Children usually were obese and used to have fatty body structure due to huge consumption of fast food with low mental sharpness.

About 20% of the children and adolescents experienced poor mental health and nearly half of them leads toward severe mental disorders[6]. Not just the physical illness but also the mental issues are emerging due to unhealthy dietary patterns. These mental issues include unhealthy sleep, anxiety and different mood swings which directly or indirectly affecting physical well-being of children[7]. A study conducted in the Kaski district of Nepal highlighted the issue that prevalence of obesity was increasing with various risky mental issues such as sleep disorder, watching television for long time, verbal abuse, insufficient physical activities, low healthy content in diet etc. All these factors lead towards poor health[7-10].

The major factors contributing toward fast food consumption among adolescent is when they are outside the home. The incidence of fast-food consumption was higher in friend's company and on trip[11]. Lack of time and lifestyle were the least factors for fast-food consumption[11]. Globally the incidence of fast-food consumption ranges from 60 to 70%[11,12]. Food has also been replaced by ready-made canned food[13]. Inappropriate fruits and vegetables have been considered as a cause of worldwide mortality[14].

Fast food seems attractive to children mostly but is nothing more than low quality ingredients, added sugar and flavors to make more preservative and high sodium salt[15,16].

The main objective of this research was to observe the major factors affected by fast food consumption and the associated risk.

METHODOLOGY

A cross-sectional and qualitative study design was used to conduct a study for factor analysis of physical and mental

Received on 14-03-2021
Accepted on 24-06-2021

health issues related to fast food consumption at a private medical college in Lahore, Pakistan after permission from ethical committee. The data was collected from 200 medical students using simple random sampling. The data was collected using self-designed questionnaire to collect information about the physical and mental health, routine exercise, workout and fast -food consumption attitude. The physical health related factors were health issues, illness and lack of exercise included and mental health related factors which were included anxiety, mood swings and depression.

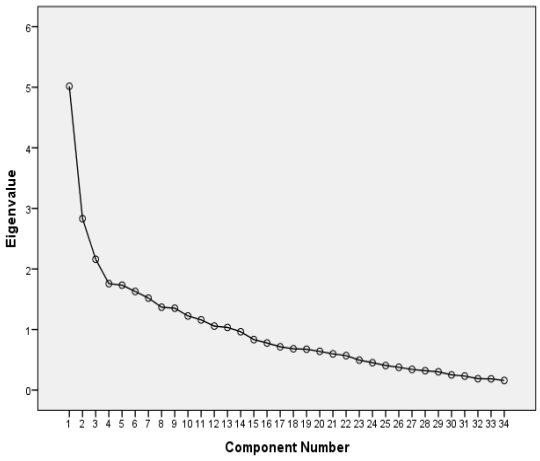
Exploratory Factor Analysis (EFA) was used to access the total explained variation through varimax rotation. Questionnaire was designed to collect information on 33 factors. Significant Bartlett test of sphericity and Kaiser Meyer Olkin (KMO) test suggested to continue the analysis. EFA was conducted to assign the variables to those factors for which it had higher factor loadings. To test the internal consistency of each factor, reliability test was performed.

RESULTS

It was realized that 94% of the medical students consumed fast food and 30% of the students mentioned that they consumed fast food regularly. Approximately 76% of the students confirmed that they had fast food once in a day. About 66% of the students stated that fast food was detrimental factor to their health.

Kaiser-Meyer Olkin (KMO) and Bartlett test of sphericity was seen to have a p-value 0.000 which is significant. Significant results of KMO and Bartlett test allows for EFA. The extracted factors should account for at least 60% of the variation. It has been seen that thirteen factors contributed to explain more than 70% of the variation (Table1). Scree plot also supported thirteen extracted factors (Figure 1)

Figure 1: Scree Plot for the Extracted Factors



EFA extracted thirteen factors and out of which the Factor 1 (Physical and Mental Wellbeing) accounted for approximately 15% of the variation Factor
2 (Physical Abnormality) accounted for more than 8% of the variation, Attitude and abnormalities each contributed to 5% of the explained variation.

Table 1: Extracted factors along with percentage of variations explained

Factors Variables	Factor loadings	Eigen value	%age of variation
Factor 1 (Physical and mental well being)		5.017	14.756
Fast food Regularly	0.338		
How often	0.540		
Preprocessed/ Frozen	0.266		
Worsen mental health	0.380		
Progress in worsen mental health	0.477		
Experienced negative feelings	0.532		
Frequently eating out	0.448		
Physical wellbeing	0.626		
Play role in physical wellbeing	0.606		
Daily working	0.606		
Bouts of anger	0.355		
Daily moods	0.420		
Fast food helps in healing	0.545		
Emotional health	0.449		
Manage anxiety	0.365		
Increased anxiety	0.357		
Regular ordeal	0.591		
Effect academics	0.537		
Factor 2 (Physical Abnormality)		2.830	8.325
Weight gain/ obesity	0.596		
Tired sleep	0.350		
Morbid illness	0.261		
Experienced morbid illness	0.496		
Leads to morbid illness	0.516		
Experienced weight gain	0.523		
Detrimental to health	0.319		
Role in academics	0.457		
Factor 3		2.161	6.355
Factor 4 (Habits)		1.758	5.171
Prefer to eat alone	0.356		
Factor 5 (Abnormalities)		1.733	5.096
Negative feelings	0.405		
Worsen sleep	0.527		
Factor 6 (Consumption Behavior))		1.629	4.790
Fast food consumption	0.338		
Exertion on physical wellbeing	0.266		
Factor 7 (Environmental Factors)		1.519	4.469
Global Warming	0.449		
Factor 8		1.368	4.023
Factor 9 (Physical Workout)		1.352	3.978
Regularly Exercise	0.462		
Factor 10 (Living)		1.224	3.600
Fashion	0.435		
Factor 11		1.159	3.410
Factor 12		1.056	3.107
Factor 13		1.035	3.043

DISCUSSION

Fast food consumption had been found for being associated with various health problems reported in past literature of last few decades[5]. Several Socio-economic and demographic factors affected fast food consumption[17]. Eating habits were also governed by the taste, distance and availability of fast food shops[18,19]. Social factors such as promotive activities in society for fast food consumption were also observed as significant push for increasing consumption[20].

In this study, we observed factors those were being affected by the consumption of fast food. Various confounding factors were also affecting physical and mental well-being along with fast food consumption. Such confounding factors included irregular exercise, physical inactivity, global warming and work load etc.

In this study, most common factors were dominated with fast food consumption, physical and mental well-being. Those factors included mental illness, worsen mental health, emotional health, mood swings, anger, anxiety,

daily working, physical activity and eating habits. Consumption of fast food upsurged the probability of psychiatric disorders and violent attitude among adolescents and children[21]. Another study indicated the connection of high risk of mental health problems with fast food consumption[22,23]. Other mental issues like dizziness, worthless attitude and anxiety were significant for poor mental health[24].

Obesity has been found to be associated with consumption of fast food[25]. Several other studies in the past literature indicated that they found high prevalence of weight gain and obesity among fast food consumers[26,27,28]. We should publicize the harmful effects of fast-food consumption at colleges and school level to avoid mental or physical instability among children and adolescents from the early phases of their lives.

CONCLUSION

The incidence of fast-food consumption was accessed among medical students. Most commonly affected factors were physical and mental well-being. The comprised factors were related with minor mental issues like emotional health, anger, mood swings and anxiety while, as far as physical health is concerned, such as worse effect on general health, less physical activity/ inactivity and irregular exercise. Major variation in fast-food consumption was explained by these factors. Overall, thirteen factors explained more than 70% of the variation.

Recommendations: There should be emphasis on awareness campaigns about the harmful effects of fast-food consumption at colleges and school levels to avoid mental or physical instability among children and adolescents from the early phases of their lives.

Acknowledgement: The authors are acknowledged to all the reviewers for their valuable comments that enhance the quality of manuscript.

Conflict of interest: Nil

REFERENCE

1. Mandoura N, Al-Raddadi R, Abdulrashid O, Shah HB, Kassar SM, Hawari AR, Jahhaf JM. Factors associated with consuming junk food among Saudi adults in Jeddah City. Cureus. 2017 Dec;9(12).
2. World Health Organization. Obesity: preventing and managing the global epidemic.
3. Nielsen SJ, Siega- Riz AM, Popkin BM. Trends in energy intake in US between 1977 and 1996: similar shifts seen across age groups. Obesity research. 2002 May;10(5):370-8.
4. Cook T, Rutishauser IH, Seelig M. Comparable data on food and nutrient intake and physical measurements from the 1983, 1985 and 1995 national nutrition surveys. Canberra, ACT: Health and Aged Care; 2001 Jan 1.
5. Mohiuddin AK, Nasirullah M. Fast food addiction: a major public health issue. J. Nutrition and Food Processing. 2020;3(1).
6. Belfer ML. Child and adolescent mental disorders: the magnitude of the problem across the globe. Journal of child psychology and psychiatry. 2008 Mar;49(3):226-36.
7. Pandey A, Sapkota S. Prevalence and knowledge on obesity among school going adolescents of Kaski, Nepal. J Nepal Paediatr Soc. 2018;38(2):63-8.
8. Gurung LM, Bhatt LD, Karmacharya I, Yadav DK. Dietary practice and nutritional status of tuberculosis patients in Pokhara: a cross sectional study. Frontiers in nutrition. 2018 Aug 16;5:63.
9. Ranabhat K, Thapa K, Shahi S, Rana H. Risky behaviours among adolescent students of Pokhara valley: a school-based cross-sectional survey. J Nepal Health Res Counc. 2020 Nov 14;18:453-8.
10. Piryani S, Baral KP, Pradhan B, Poudyal AK, Piryani RM. Overweight and its associated risk factors among urban school adolescents in Nepal: a cross-sectional study. BMJ open. 2016 May 1;6(5):e010335.
11. Bohara SS, Thapa K, Bhatt LD, Dhami SS, Wagle S. Determinants of Junk Food Consumption Among Adolescents in Pokhara Valley, Nepal. Frontiers in Nutrition. 2021;8.
12. Gupta N, Goel K, Shah P, Misra A. Childhood obesity in developing countries: epidemiology, determinants, and prevention. Endocrine reviews. 2012 Feb 1;33(1):48-70.
13. Mukhopadhyay S, Goswami S, Mondal SA, Dutta D. Dietary fat, salt, and sugar: a clinical perspective of the social catastrophe. InDietary Sugar, Salt and Fat in Human Health 2020 Jan 1 (pp. 67-91). Academic Press.
14. World Health Organization. Global health observatory.
15. Gulati S, Misra A. Abdominal obesity and type 2 diabetes in Asian Indians: dietary strategies including edible oils, cooking practices and sugar intake. European journal of clinical nutrition. 2017 Jul;71(7):850-7.
16. Young Men's Health. Fast Food Facts. Health Guides. Available online at: https://youngmenshealthsite.org/guides (accessed November 17, 2020).
17. Pinho LD, Silveira MF, Botelho AC, Caldeira AP. Identification of dietary patterns of adolescents attending public schools☆. Jornal de pediatria. 2014 May;90:267-72.
18. Cutumisu N, Traoré I, Paquette MC, Cazale L, Camirand H, Lalonde B, Robitaille E. Association between junk food consumption and fast-food outlet access near school among Quebec secondary-school children: findings from the Quebec Health Survey of High School Students (QHSHSS) 2010–11. Public health nutrition. 2017 Apr;20(5):927-37.
19. jyoti Dowarah L, Bhowmick DR, Chakraborty S. Fast Food Consumption Behaviour among College Students-A Case Study in Tinsukia. Current Research in Nutrition and Food Science Journal. 2020 Aug 25;8(2):371-9.
20. Majabadi HA, Solhi M, Montazeri A, Shojaeizadeh D, Nejat S, Farahani FK, Djazayeri A. Factors influencing fast-food consumption among adolescents in tehran: a qualitative study. Iranian Red Crescent Medical Journal. 2016 Mar;18(3).
21. Sadat zh, kelishadi r, heshmat r, motlagh m, hasani rs, ardalan g. Association of junk food consumption with mental health in a national sample of iranian children and adolescents: the caspian-iv study.
22. Zahra J, Ford T, Jodrell D. Cross- sectional survey of daily junk food consumption, irregular eating, mental and physical health and parenting style of B ritish secondary school children. Child: care, health and development. 2014 Jul;40(4):481-91.
23. Jacka FN, Rothon C, Taylor S, Berk M, Stansfeld SA. Diet quality and mental health problems in adolescents from East London: a prospective study. Social psychiatry and psychiatric epidemiology. 2013 Aug 1;48(8):1297-306.
24. Øverby N, Høigaard R. Diet and behavioral problems at school in Norwegian adolescents. Food & nutrition research. 2012 Jan 1;56(1):17231.
25. Xue H, Wu Y, Wang X, Wang Y. Time trends in fast food consumption and its association with obesity among children in China. PLoS One. 2016 Mar 14;11(3):e0151141.
26. Jeffery RW, Baxter J, McGuire M, Linde J. Are fast food restaurants an environmental risk factor for obesity?. International Journal of Behavioral Nutrition and Physical Activity. 2006 Dec;3(1):1-6.
27. Rosenheck R. Fast food consumption and increased caloric intake: a systematic review of a trajectory towards weight gain and obesity risk. Obesity reviews. 2008 Nov;9(6):535-47.
28. Fung C, McIsaac JL, Kuhle S, Kirk SF, Veugelers PJ. The impact of a population-level school food and nutrition policy on dietary intake and body weights of Canadian children. Preventive medicine. 2013 Dec 1;57(6):934-40.