Original Article

Vol. 11, No. 2, 74-81
https://doi.org/10.15280/jlm.2021.11.2.74

Journal of Lifestyle Medicine

Poor Dietary Habits: A Function of Online Food Delivery Fad among Medical and Dental College Students in India

Roomani Srivastava[1], Mansi Atri[1,*], Sonia Pareek[2], Minni Chadha[3], Abhimanyu Sharma[4]

[1]Department of Public Health Dentistry, ESIC Dental College & Hospital, Delhi, [2]Department of Public Health Dentistry, Government Dental College and Hospital, Jaipur, [3]Department of Periodontology, ESIC Dental College & Hospital, Delhi, [4]Centre for Scientific and Industrial Research, New Delhi, India

Background: Globalization has impacted our food choice and the booming online food industry has made it available at the click of a button. Students staying away from home often fail to maintain a healthy diet and lifestyle, impacting their health.

Methods: A survey was conducted amongst interns of medical and dental colleges in Delhi. Simple Random Sampling was done to select every alternate intern as per the list provided by the colleges. The survey included questions on dietary, fitness and food hygiene habits and dental history. Demographic details such as height weight and living arrangements were collected. Dietary habits score and Fitness & Food hygiene score was calculated based on pre-set criteria. Association of poor dietary habits and hygiene with BMI, living conditions and dental history was determined.

Results: One-fourth of the population was either overweight or obese. Poor, fair and good dietary habits was seen in 8.9%, 69.8% and 21.4% respectively. Poor, fair and good fitness and food hygiene was seen in 56.3%, 39.6% and 4.2% respectively. Obesity was significantly associated with poor fitness scores and with tendency to order junk food. Consumption of sugary food was associated with positive dental history, and those living with parents displayed good dietary habit score.

Conclusion: Students with high stress levels and living away from home are susceptible to poor dietary routine which impacts both their health and academic performance. Identifying these problems and triggers which induce such unhealthy lifestyle behaviour can go a long way in controlling the resultant health problems.

Key Words: Lifestyle, Food fads, Diet, Obesity

INTRODUCTION

Globalization has impacted a host of things in our lifestyle, our food choices is no exception to this phenomenon. Scientific literature is replete with the evidence of the effect of globalization on diet and how it has impacted various nations. While the developed countries have shown a steep rise in obesity, the low- and middle-income countries have seen a rise in both ends of the spectrum that is undernutrition and obesity [1,2]. The import of sugar and processed foods have a major role to play in increasing the average Body Mass Index (BMI) of any country [3]. The result of such policies has lead to a boom in the food industry resulting in processed and refined food is available at the

Received: May 6, 2021, Accepted: June 22, 2021

*Corresponding author: Mansi Atri
Department of Public Health Dentistry, ESIC Dental College & Hospital, Rohini, Delhi 110089, India
Tel: 91-8800724341
E-mail: drmansiatri@gmail.com

click of a button. The India online food delivery market reached a value of US$ 4.35 Billion in 2020 and according to the estimates it is expected to witness a Compound Annual Growth Rate of 30.11% from 2021 to 2026. Easy access to internet and smartphones coupled with growing population of those living away from home for school and work has majorly contributed to this growth [4]. Off late the busy lifestyle of most individuals has taken a toll on their dietary habits and resorting to ordering unhealthy food online is a common occurrence. Moreover, staying away from home in Hostels or Paying Guest accommodations, such that is mostly seen with college going population, further makes obtaining a balanced diet difficult.

The group most affected by this is the young adults' group which is in the age group of 15-30 years and comprises of nearly 20-30% of India's population [5]. In recent years, higher education enrolment rates have increased and as per the All-India Survey on Higher Education total enrolment in higher education has been estimated to be 34.6 million with 18.6 million boys and 16 million girls. Girls constitute 46.2% of the total enrolment. Gross Enrolment Ratio (GER) in Higher education in India is 24.5%, which is calculated for 18-23 years of age group. GER for male population is 25.4% and for females, it is 23.5% [6]. More often than not these individuals are staying away from home for the purpose of education. Especially so when it comes to the professional courses of Medical and Dental fields. The stress of daily assignments and exams contributes further to poor dietary habits.

Adding to the improper meal schedules is the latest fad of ordering food online. Having food available at the click of a button round the clock has the potential to further worsen food habits of students [7]. Poor dietary habits have been linked with numerous systemic conditions such as being overweight, obesity, tiredness, stress, hypertension, diabetes and heart disease. A study on dietary risks across 195 countries found that in 2017, 11 million deaths and 255 million Disability Adjusted Life Years (DALYs) were attributable to dietary risk factors. High intake of sodium (3 million DALYs), low intake of whole grains (3 million deaths and 82 million DALYs), and low intake of fruits (2 million deaths and 65 million DALYs) were the leading dietary risk factors for deaths and DALYs globally and in many countries [8].

In addition to systemic health, oral health is also affected by poor dietary habits. It was established in 1967 that "Sucrose is the arch criminal of dental caries" [9]. Various hard tissue and soft tissue oral lesions are a result of poor dietary habits [10,11]. Poor diet is a common risk factor for general health and oral health hence addressing this common risk factor can prevent adverse health effects altogether [12].

Students and the young workforce form the future of any nation, thus preserving and promoting their health is of utmost priority. The looming risks of poor dietary habits amongst this population calls for further research to identify the triggers of indulging in such habits and to determine its effect more specifically. Hence a Survey was planned to determine dietary habits and diet related lifestyle amongst college students and its effects on their general and oral health. The aim of this survey was to explore dietary habits of medical and dental college students and to determine its association with their BMI, living arrangements and dental history.

MATERIALS AND METHODS

An online survey was conducted amongst medical and dental college students of NCT of Delhi. This resulted in a total of 10 colleges. All colleges were included in the study. Only interns of all colleges were invited to participate in the study. Simple random sampling was followed and every alternate intern (as per college list) was sent the questionnaire. This resulted in the questionnaire being sent to approximately 420 interns. Required permissions were sought from the concerned institutions. Informed consent of participants was obtained.

The questionnaire was pre validated and Cronbach's alpha was reported to be acceptable. The questionnaire consisted of four parts, Demographic data such as Age, Sex, Weight, Height, living arrangements, Dietary Habits, Dental History and Fitness & Food Hygiene consciousness. Body Mass Index was calculated using the Weight and Height information and based on this the participants were classified as normal (< 25), overweight (25-30) and obese (> 30). A scoring System was established for the section of Dietary

Table 1. Frequency distribution of responses to questions on dietary, fitness and food hygiene related habits

How many times in a week you order food online	Frequency	%
more than 7 times a week	24	6.3
5-7 times a week	18	4.7
3-4 times a week	56	14.6
Once a week	286	74.5
Which time of the day you mostly order your food	**Frequency**	**%**
Anytime/whenever hungry	142	37.0
Mid evening snacking	82	21.4
Breakfast/lunch/dinner i.e. at meal times	160	41.7
How often do you order drinks along with food	**Frequency**	**%**
Always	62	16.1
Sometimes	106	27.6
Rarely	110	28.6
Never	106	27.6
Which type of beverage do you usually order	**Frequency**	**%**
Alcohoolic drinks	6	1.6
Sugary drinks such as fruit juice, aerated drinks, caffienated drinks, energy drinks	340	88.5
Diet cola	38	9.9
Which is the most frequently ordered food item	**Frequency**	**%**
Junk food - burgers, pizza, french fries	148	38.5
Fried snacks	30	7.8
Meals (Indian/Chinese/South Indian)	184	47.9
Diet food	22	5.7
How many times do you usually eat sugary or sweet food such as cakes, cookies, chocolates, sweetened drinks	**Frequency**	**%**
Everyday	58	15.1
Once a week	106	27.6
2-3 times a week	76	19.8
Rarely	144	37.5
How often do you check the type and amount of fat used for preparation before ordering food	**Frequency**	**%**
Never	166	43.2
Sometimes	130	33.9
Often	46	12.0
Every time	42	10.9
Do you check for the calorie intake	**Frequency**	**%**
No	192	50.0
Sometimes	92	24.0
Yes	100	26.0
Do you have any calorie counter/tracker app in your smartphone?	**Frequency**	**%**
No	288	75.0
Yes	96	25.0
How often do you involve yourself in workout	**Frequency**	**%**
Never	232	60.4
Once a week	86	22.4
2-4 times a week	66	17.2

Table 1. Continued

Do you prefer to order healthy options available	Frequency	%
No	78	20.3
Sometimes	76	19.8
Yes	230	59.9
Do you check for whether the food provider is approved by any regulatory agency	Frequency	%
No	164	42.7
Yes	186	48.4
Always	34	8.9
Do you check for the packaging/use of biodegradable cutlery?	Frequency	%
No	164	42.7
Yes	220	57.3
Have you ever encountered any food allergy/reaction after consuming ordered food	Frequency	%
Yes	94	24.5
No	290	75.5
Do you think contamination of food by microrganisms is a serious food safety problem?	Frequency	%
No	38	9.9
Yes	346	90.1

Habits and Fitness & Food Hygiene Consciousness. Highest score for Dietary Habits was 22 and lowest was 6, score 6 to 12 was considered poor dietary habits, 13-17 was considered fair and 18-22 was considered good. Highest score for Fitness and Food Hygiene Consciousness was 23 and lowest was 8, grading was as follows; 8-14 - poor, 15-19 – fair and 20-23 was considered good. The variables of dental history were considered as categorical variables.

Data was compiled using Microsoft Office Excel and analysed using Statistical Package for Social Sciences (Version 20). Frequency of responses was determined for all questions. Population's distribution for BMI and Good, Fair and Poor habits was also determined. Chi square test was done to determine association of poor dietary habits and hygiene with BMI, living conditions and dental history.

RESULTS

The present study was conducted with an aim to determine the impact of poor dietary habits on the general and oral health of medical and dental interns living in NCT of Delhi. Questionnaire was sent to about 420 interns of which 384 responded, that is a response rate of 91.4%. The mean age of the study population was 21.89 (1.99) years; 50.5% of the participants were male and 49.5% were females. More than 50% of the study population stayed away from home. The BMI was determined using the height and weight mentioned by them. The distribution of Underweight, Normal. Overweight and Obese persons as per BMI was 12.5%, 61.5%, 20.3% and 5.7% respectively. This meant that nearly one fourth of the participants were either overweight or obese.

Table 1 illustrates the various dietary, fitness and food hygiene related habits of the study population. About 75% of the population ordered food at least once a week and nearly 88% of them ordered sugary drinks with their meals. However, it was noted that the percentage of those ordering junk food and fried food was lower than those ordering regular meals. Based on the Scoring criteria it was noted that 8.9% of individuals had poor dietary habits, 69.8% fell in the category of fair and only 21.4% reported good dietary habits. Majority of the study population did not check for amount of fat in their food, or kept a record of calories consumed, however nearly 60% did prefer to opt for healthy alternative if available. It was noted that about 56.3% had poor fitness and food hygiene score, 39.6% had

Table 2. Association of BMI and dietary and fitness habits

Body mass index		Fitness & food hygiene score			Total	p-value	Which is the most frequently ordered food item				Total	p-value
		Poor	Fair	Good			Junk food	Fried snacks	Full meals	Diet food		
Underweight	n	34	12	2	48	0.035*	18	4	26	0	48	0.018*
	%	70.8	25.0	4.2	100.0		37.5	8.3	54.2	0.0	100.0	
Normal	n	120	106	10	236		98	16	106	16	236	
	%	50.8	44.9	4.2	100.0		41.5	6.8	44.9	6.8	100.0	
Overweight	n	44	30	4	78		28	4	42	4	78	
	%	56.4	38.5	5.1	100.0		35.9	5.1	53.8	5.1	100.0	
Obese	n	18	4	0	22		4	6	10	2	22	
	%	81.8	18.2	0.0	100.0		18.2	27.3	45.5	9.1	100.0	
Total	n	216	152	16	384		148	30	184	22	384	
	%	56.2	39.6	4.2	100.0		38.5	7.8	47.9	5.7	100.0	

*Statistically significant Chi square test.

Table 3. Association between consumption of sugary snacks & dental history

Frequency of consuming sugary snacks/beverages		History of dental health problems			p-value
		Yes	No	Total	
Everyday	n	30	28	58	0.014*
	%	51.7	48.3	100.0	
Once a week	n	40	66	106	
	%	37.7	62.3	100.0	
2-3 times a week	n	44	32	76	
	%	57.9	42.1	100.0	
Rarely	n	56	88	144	
	%	38.9	61.1	100.0	
Total	n	170	214	384	
	%	44.3	55.7	100.0	

*Statistically significant Chi square test.

Table 4. Association between living arrangements and dietary habits

Living arrangements		Dietary score				p-value
		Poor	Fair	Good	Total	
Living with parents	n	6	114	42	162	0.029*
	%	3.7	70.4	25.9	100.0	
Living in Hostel	n	15	92	20	127	
	%	11.8	72.4	15.7	100.0	
Living in PG with roommates	n	6	20	6	32	
	%	18.8	62.5	18.8	100.0	
Living alone	n	7	42	14	63	
	%	11.1	66.7	22.2	100.0	
Total	n	34	268	82	384	
	%	8.9	69.8	21.4	100.0	

*Statistically significant Chi square test.

a fair score and only 4.2% displayed good fitness and food hygiene consciousness.

An association between BMI and Fitness score was found, wherein 81% of those who were obese showed poor fitness score, and this difference was found to be statistically significant (Table 2). In addition to this those who were obese were seen to be more likely to order junk food or fried food (Table 2). It was also noted that those who regularly consumed sugary sweets were more likely to have dental problems in the past (Table 3). Living arrangements also showed an impact on dietary habits wherein 25.9% of those living with parents showed good dietary score which was higher than the other categories (Table 4).

It is also noteworthy that about 34.4% had history of dental decay, 22.7 % and 10.9% had history of pain in tooth or gums and bleeding gums respectively.

The results demonstrate the clear impact of poor diet on general and oral health of the study population.

DISCUSSION

The present study was conducted to determine the dietary habits of medical and dental interns and its impact on their general and oral health. Local effects of diet on oral cavity and dental caries are well known in literature and proved time and again [13]. The present study was no different and

it was seen that those who frequently consumed sweets, suffered from dental issues. However, in this study the authors aim to highlight the less explored aspect of poor diet, stress eating and food fads as a precursor of long-term oral health problems by first impacting the systemic condition.

Overweight and Obesity are problems that our quite prevalent in India today. An upward trend has been seen in obesity among both men and women over the years. A comparison of National family health survey India-3 (NFHS-3) in 2005-06 and NHFS-4 in 2015-2016 showed an increased in prevalence of obesity among women aged 15-49 years from 13% to more than 20% and among men of same age group from 9% to 19.6%. Overweight prevalence was higher in urban areas than rural areas [14,15]. The present study was in concurrence with findings as 20.3% of these individuals were overweight and about 5.7% were obese. The relation between consumption of junk food and obesity is well noted, a study conducted by Mohammadbeigi et al. [16] revealed that consumption of fast food was associated more with Waist to Hip ratio than with general obesity. It is noteworthy that 38.5% of the present population preferred to order fast food and nearly one-fourth of them were either obese or overweight. Of those who were obese nearly 50% preferred to order either junk food or fried snacks. Obesity, as lifestyle disease has been postulated as a major risk factor for periodontal disease [17]. The latest paradigm in epidemiology of periodontal disease is that the disease is a result of interaction between commensal microbiota of the oral cavity and host defence mechanisms. Host defence mechanisms are in turn affected by systemic conditions such as obesity [18,19]. whole branch of studies on periodontal disease called Periodontal Medicine is dedicated to the study of such phenomena. Early onset obesity as seen in the present study can severely affect periodontal disease outcomes later in life. When speaking of periodontal disease another important systemic aspect to consider is diabetes. Early onset obesity is also a high-risk factor for developing diabetes which in turn has been proven to worsen periodontal disease [20,21]. It is prudent to note that in the present study about 22.7% and 10.9% had history of pain in tooth or gums and bleeding gums respectively. These are early indicators of periodontal disease in the future.

Good dietary and fitness habits were seen only in 21.4% and 4.9% of individuals respectively. As postulated earlier this could be mainly due to work related stress and staying away from home or living alone. In 2019 AlJaber et al. [22] conducted a study on dietary habits of medical students in Saudi Arabia and used a scale namely "Academic Stress Scale" to determine stress levels among these students. It was proven in their study that high stress levels resulted in over eating and eating unhealthy food. Other studies conducted among medical students have also reported unhealthy dietary habits reiterating the stress eating narrative which is likely to affect medical and dental students. A study reported by Alzamil et al. [23] stated that consumption of sugary foods among medical students was about 60% which was found to be high in the present study as well. Another study closer to home reported that only 10% of medical students consumed fruits and vegetables on a daily basis, proving unhealthy dietary habits [24]. Living alone or away from home was another contributing factor to unhealthy diet and lifestyle among college students, this finding was in accordance with a study reported by Alzahrani et al. [25] among medical students in Saudi Arabia.

The present study also focused on fitness and hygiene consciousness of the students; it was noted that only 17.2% indulged in physical activity 2-4 times a week. This pattern is in concurrence with the trends seen among youth today. A study reported by Kumar et al. [26] reported that only 29% of adolescent students indulged in vigorous physical activity. A large scale study by Indian Council of Medical Research (ICMR) in 2014 also highlighted the poor prevalence of physical activity among Indians, where more than 50% of the population showed poor physical activity [27].

To the best of our knowledge none of the studies reviewed had explored food ordering habits among medical and dental students, however a study reported by Fatima et al. [28] among nutrition students reported similar trends as what were seen in the present study. Thirty-Four percent of the students in their study preferred junk food which was found to be about 38% in the present study. Majority of the participants in both studies reported preference towards ordering full meals such as South Indian/ Chinese or Indian. Another aspect worth exploring is the scale of nutritional deficiencies that may be a function of poor dietary habits. The present study reported that 43.2% of re-

spondents never checked for fat content in the food they ordered. Nutritional deficiencies stemming from the compulsive food ordering habit may be worth exploring.

The significance of such a study may be found in the fact that such an unhealthy lifestyle among students can adversely affect their academic performance. A study reported by Hou et al. [29]. Among Chinese students reported that regular exercise and healthy diet was associated with positive academic performance.

Going forward the present study can further be expanded by analysing other psychometric properties that influence poor dietary habits, so as to point out the root cause and act upon it. Such findings when correlated with outcomes such as academic performance may prove to be an educational tool for the population in question and instil corrective behaviour among them. Association of poor dietary habits with systemic health and in turn its impact on dental health needs to be highlighted and students must be educated regarding this from a very young age for best results.

CONFLICTS OF INTERESTS

None to declare.

REFERENCES

1. Cuevas García-Dorado S, Cornselsen L, Smith R, Walls H. Economic globalization, nutrition and health: a review of quantitative evidence. Global Health [Internet]. 2019;20:15 [cited 2021 May 1]. Available from: https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-019-0456-z.
2. Goryakin Y, Lobstein T, James WP, Suhrcke M. The impact of economic, political and social globalization on overweight and obesity in the 56 low and middle income countries. *Soc Sci Med* 2015;133:67-76.
3. Lin TK, Teymourian Y, Tursini MS. The effect of sugar and processed food imports on the prevalence of overweight and obesity in 172 countries. Global Health [Internet]. 2018;14(1):35 [cited 2021 May 1]. Available from: https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-018-0344-y.
4. IMARC Group: India Online Food Delivery Market: Industry Trends, Share, Size, Growth, Opportunity and Forecast 2021-2026 [Internet]. Uttar Pradesh, India: IMARC Group; [cited 2021 May 2]. Available from: https://www.imarcgroup.com/india-online-food-delivery-market#:~:text=What%20is%20the%20India%20online%20food%20delivery%20market%20growth%3F,30.11%25%20from%202021%20to%202026.
5. Office of the Registrar General & Census Commissioner, India: Age Structure and Marital Status. [Internet]. New Delhi: Ministry of Home Affairs, Government of India; [cited 2021 May 1]. Available from: https://censusindia.gov.in/Census_And_You/age_structure_and_marital_status.aspx.
6. Department of Higher Education: All India Survey on Higher Education. Ministry of Human Resource Development [Internet]. New Delhi: Government of India; [cited 2021 May 1]. Available from: https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/AISHE2015-16.pdf.
7. Stephens J, Miller H, Militello L. Food Delivery Apps and the Negative Health Impacts for Americans. Front Nutr [Internet]. 2020;7:14 [cited 2021 May 1]. Available from: https://www.frontiersin.org/articles/10.3389/fnut.2020.00014/full.
8. GBD 2017 Diet Collaborators: Afshin A, Sur PJ, Fay KA, Cornaby L, Ferrara G, Salama JS, Mullany EC, Abate KH, Abbafati C, Abebe Z, Afarideh M, Aggarwal A, Agrawal S, Akinyemiju T, Alahdab F, Bacha U, et al. Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2019;393(10184):1958–72.
9. Newbrun E. Sucrose, the arch criminal of dental caries. *Odontol Revy* 1967;18(4):373-86.
10. Nizel AE, Papas AS. Nutrition in clinical dentistry. (3rd ed). W.B. Saunders Company; Philadelphia PA. 1989.
11. Rugg-Gunn AJ, Nunn JH. Nutrition and Dental Health. Oxford University Press; London. 1999.
12. Sheiham A. Oral health, general health and quality of life. *Bull World Health Organ* 2005;83(9):644.
13. Harris NO, Garcia-Godoy F, Nathe CN. Primary Preventive Dentistry (7th ed) Pearson. United States of America. 2009. pp300-2.
14. International Institute for Population Sciences (IIPS) and Macro International [Internet]. 2007. National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Mumbai: IIPS. Availablefrom: https://www.google.com/url?sa=t&source=web&rct=j&url=https://dhsprogram.com/pubs/pdf/frind3/frind3vol1andvol2.pdf&ved=2ahUKEwiR0LybkfbxAhVPwTgGHXUBDS0QFjABegQIBhAC&usg=AOvVaw36MkcpUivImXL-FUyHgdI1.
15. International Institute for Population Sciences (IIPS) and ICF [Internet]. 2017. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS. Available from: https://www.google.com/urlsa=t&sour-

ce=web&rct=j&url=https://dhsprogram.com/pubs/pdf/FR339/FR339.pdf&ved=2ahUKEwi1vtjLkvbxAhVb4zgGHd1JDDcQFjAAegQIBRAC&usg=AOvVaw2NQQUuaJdez6KjxIrSOLpm.

16. Mohammadbeigi A, Asgarian A, Moshir E, Heidari H, Afrashteh S, Khazaei S, Ansari H. Fast food consumption and overweight/obesity prevalence in students and its association with general and abdominal obesity. *J Prev Med Hyg* 2018;59(3):E236-40.
17. Nishida N, Tanaka M, Hayashi N, Nagata H, Takeshita T, Nakayama K, Morimoto K, Shizukuishi S. Determination of smoking and obesity as periodontitis risks using the classification and regression tree method. *J Periodontol* 2005;76:923–8.
18. Dahlen G, Fejerskov O, Manji F. Current concepts and an alternative perspective on periodontal disease. BMC Oral Health. [Internet]. 2020;20:235. [cited 2021 May 1]. Available from: https://bmcoralhealth.biomedcentral.com/track/pdf/10.1186/s12903-020-01221-4.pdf.
19. Baelum V, Lopez R. Periodontal disease epidemiology - learned and unlearned? *Periodontol 2000* 2013;62(1):37–58.
20. Chapple IL, Genco R; working group 2 of the joint EFP/AAP workshop. Diabetes and periodontal diseases: consensus report of the Joint EFP/AAP Workshop on Periodontitis and Systemic Diseases. *J Periodontol* 2013;84(4 Suppl):S106-12.
21. Al-Goblan AS, Al-Alfi MA, Khan MZ. Mechanism linking diabetes mellitus and obesity. *Diabetes Metab Syndr Obes* 2014;7:587-91.
22. Mohammed I. AlJaber, Abdullah I. Alwehaibi, Hamad A. Algaeed, Abdulrahman M. Arafah, Omar A. Binsebayel. Effect of academic stressors on eating habits among medicalstudents in Riyadh, Saudi Arabia. *J Family Med Prim Care* 2019;8(2):390–400.
23. Alzamil HA, Alhakbany MA, Alfadda NA, Almusallam SM, Al-Hazzaa HM. A Profile of Physical Activity, Sedentary Behaviors, Sleep, and Dietary Habits of Saudi College Female Students. *J Family Community Med* 2019;26(1):1-8.
24. Vibhute NA, Baad R, Belgaumi U, Kadashetti V, Bommanavar S, Kamate W. Dietary habits amongst medical students: An institution-based study. *J Family Med Prim Care* 2018;7(6):1464-6.
25. Alzahrani SH, Saeedi AA, Baamer MK, Shalabi AF, Alzahrani AM. Eating Habits Among Medical Students at King Abdulaziz University, Jeddah, Saudi Arabia. *Int J Gen Med* 2020;13:77-88.
26. Kumar S, Ray S, Roy D, Ganguly K, Dutta S, Mahapatra T, Mahapatra S, Gupta K, Chakraborty K, Das MK, Guha S, Deb PK, Banerjee AK. Exercise and eating habits among urban adolescents: a cross-sectional study in Kolkata, India. *BMC Public Health* 2017;17(1):468.
27. Anjana RM, Pradeepa R, Das AK, Deepa M, Bhansali A, Joshi SR, Joshi PP, Dhandhania VK, Rao PV, Sudha V, Subashini R, Unnikrishnan R, Madhu SV, Kaur T, Mohan V, Shukla DK; ICMR–INDIAB Collaborative Study Group. Physical activity and inactivity patterns in India - results from the ICMR-INDIAB study (Phase-1) [ICMR-INDIAB-5]. *Int J Behav Nutr Phys Act* 2014;11(1):26.
28. Neha Fatima, Avanti Rao. A Study to Assess the Online Food Ordering Practices of Nutrition Students. *Int J Sci Res (IJSR)* 2019;8(6):1154-8.
29. Hou Y, Mei G, Liu Y, Xu W. Physical Fitness with Regular Lifestyle Is Positively Related to Academic Performance among Chinese Medical and Dental Students. Biomed Res Int. [Internet]. 2020;5602395. [cited 2021 May 1]. Available from: https://downloads.hindawi.com/journals/bmri/2020/5602395.pdf.