ACQUAINT PUBLICATIONS ...Disseminate your Research

Journal of Community Medicine and Public Health Reports ISSN: 2692-9899

Research Article Volume 4 Issue 07

Knowledge and Practice of Healthy Lifestyle and Dietary Habits In Medical Students: A Study From Oman

Firdous Jahan[1*], Muhammad Siddiqui[2], Joseph Francis[3], Hawriaa Al Fatlawi[3], Kimia Majid Askari[3]

[1]Department of Family Medicine College of Medicine and Health Sciences (COMHS) National University Science and Technology

[2]Population Health, Saskatchewan Health Authority, Regina, Canada

[3]Medical Student, College of Medicine and Health Sciences (COMHS) National University Science and Technology

***Corresponding Author**: Firdous Jahan, Department of Family Medicine College of Medicine and Health Sciences (COMHS) National University Science and Technology.

Received date: 10 September 2023; **Accepted date:** 26 September 2023; **Published date:** 30 September 2023

Citation: Jahan F, Siddiqui M, Francis J, Al Fatlawi H, Askari K (2023) Knowledge and Practice of Healthy Lifestyle and Dietary Habits In Medical Students: A Study From Oman. J Comm Med and Pub Health Rep 4(07): https://doi.org/10.38207/JCMPHR/2023/SEP040503110

Abstract

Background

The lifestyle of medical students is reasonable. One of the hardest things to do while in medical school is to be physically active; similarly, to others with busy schedules, medical students can need extra time to engage in regular exercise. The primary purpose of this study was to assess the healthy lifestyle, knowledge, and practice of a balanced diet and physical activity among medical students.

Methods

A questionnaire-based cross-sectional study was conducted in the College of Medicine and College of Pharmacy. The pre-tested, structured questionnaire was used. All medical students were invited to participate by completing an online questionnaire. The study questionnaire consists of three parts. The first part includes demographics. The second part relates to exercising, personal dietary habits, and other factors influencing a healthy lifestyle. An electronic survey link was sent out via email. Statistical analysis was performed in SPSS 25 software.

Results

A total of 98 students participated, of which 93 % were aged between 20 to 25 years. More than half (55 %) of the study participants perform physical activity. The common reason for physical activity was to stay physically active (35 %), for proper health (28 %), and for fun (25 %). Most study participants (72 %) do not have a balanced diet. Lack of time (43 %) and unavailability of a balanced diet (34 %) were the familiar study participants' responses regarding lack of balanced diet intake. 90 % of student consumes tea or coffee, and 48 % diet or skip meal due to lack of accessibility. Lack of time (70 %) is one of the significant barriers to performing physical activity, whereas poor time management (36 %) and work-related stress (49 %) is the other contributing factor.

Conclusion

Medical students in their final year are aware of healthy lifestyles. However, there are some barriers to practice. The study findings help raise awareness of healthy living behaviors that can be encouraged among students who will serve as fit role models for society in the future. The College of Medicine's decision to build a fitness center and incorporate nutrition-related lectures and clinical experiences throughout the curriculum is noteworthy.

Keywords: Undergraduate, medical students, healthy lifestyle, physical activity, balanced diet

Introduction

Medical students better understand healthy diets and lifestyles; however, their practices may need to be revised to maintain good health. The world is facing an epidemic of non-communicable diseases, and lack of physical activity is found to be one of the significant risk factors for these diseases **[1-2]**. Cardiovascular disease, obesity, and diabetes are now among the most prevalent and preventable health problems. These diseases have been strongly associated with unhealthy lifestyle habits, including inappropriate nutrition, lack of exercise, smoking, alcohol consumption, overuse of caffeine, and improper sleeping **[3-4]**. A balanced diet and regular physical activity are the most important practices a person can do to stay healthy; they can also help control body weight and reduce risks for cardiovascular disease, type 2 diabetes, metabolic syndrome, and some cancers **[5-6]**. Regular exercise strengthens bones and muscles, prevents falls among older adults, and improves mental health **[7-8]**. Medical students come under the vulnerable group because of a long college study schedule, clinical postings, and other curriculum activities. Their living in the hostel or as day scholars away from parents and families reflected upon their diet habits and significantly reflected the prevalence of non-communicable diseases **[9-10]**.

Encouraging healthy lifestyle practices among medical students who will be future doctors would facilitate the cadre of healthy physicians who are more likely to provide proper health counseling **[11-12]**.

Medical students have an appropriate lifestyle. Staying physically active during medical school is one of the hardest things; as with busy schedules, medical students may need more time to exercise regularly. The primary purpose of this study was to assess the healthy lifestyle, knowledge, and practice of a balanced diet and physical activity among medical students.

Methodology

The College of Medicine and Health Sciences conducted a questionnaire-based cross-sectional study. Study participants were selected based on a convenient nonprobability sampling technique. All students in clinical year were invited to participate. An online questionnaire was used to minimize face-to-face interactions and facilitate participation. The administrative time for the filling was about 30 minutes. The study questionnaire consists of three parts. The first part includes demographics; the second is related to exercising and dietary habits; the third is related to other factors influencing a healthy lifestyle. The questionnaire was pilot tested with 20 students to ensure fluency and ease of understanding of inquiry points.

A favorable ethical opinion was obtained from the National University Science and Technology Research Ethics Board before the commencement of the study. Written informed consent was obtained from the study participants. Before conducting the survey, the study's purpose was explained at the beginning of the electronic survey. The respondents were allowed to ask questions via a dedicated email address for the survey. All information about you, the students, collected during the study was kept confidential, secure, and accessible only to the research team members. All data was anonymized as much as possible, and students were not identifiable from any data collected. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 20. Descriptive analyses were expressed in terms of percentages.

Results

A total of 98 students participated, of which 93 % were aged between 20 to 25 years and 7 % were between 25 to 30 years. Two-thirds (71 %) of the participants were Omani, and 29 % were non-Omani students. Nearly half of the students had normal BMI (18.5-22.9 kg/m2), and 8 % were underweight (<18.5 kg/m2) **(Table 1)**. Most of the students were nonsmokers (98 %).

Table 1: Selected study participant's characteristics

	Frequency	***Percent***
Age		
20-25	91	92.9
25-30	7	7.1
Nationality		
Non- Omani	28	28.6
Omani	70	71.4
Residence		
Home/ Day Scholar	15	15.3
Hostel	83	84.7
BMI		
Underweight (<18.5)	8	8.2
Normal (18.5-22.9)	51	52.0
Pre-obese (23-27.4)	29	29.6
Obese class I (27.5-34.9)	10	10.2
Smoking		
Currently smoker	2	2.0
Ex-smoker	2	2.0
Never smoked	94	96

Study participants were asked multiple questions about their physical activity. More than half (55 %) of the study participants perform physical activity. The common reason for physical activity was to stay physically active (35 %), for proper health (28 %), and for fun (25 %). The most prevalent motivation for exercise was to keep themselves healthy (45 %) and smart (25 %) **(Table 2)**.

Table 2: Physical Activity of study participants

	Frequency	***Percent***
Perform Physical Activity		
No	44	44.9
Yes	54	55.1
Preferred type(s) of exercise, games, sports		
Badminton	3	3.1
Basketball	1	1.0
Football	3	3.1
Jogging	15	15.3
Others	15	15.3
Swimming	9	9.2
Tennis	1	1.0
Walking	51	52.0
Reason for Physical Activity		
For fun	25	25.5
Fun and physically fit	2	2.0
No exercise	3	3.1
Others	3	3.1
Physically fit	34	34.7
Proper health	27	27.6
Missing	4	4.1
Reason for lack of Physical Activity		
Laziness	25	25.5
No time	60	61.2
Missing	13	13.3
How do you feel after exercise?		
Energetic	19	19.4
Fulfilled	6	6.1
Refreshed	39	39.8
Relaxed	13	13.3
Tired	15	15.3
Missing	6	6.1
What motivates you to exercise		
Appearance	24	24.5
Friends	10	10.2
Health	44	44.9
No exercise	2	2.0
Others	4	4.1
Self-esteem	11	11.2
Missing	3	3.1

Students' dietary habits and food intake are shown in **Table 3**. Most study participants (72 %) do not have a balanced diet. Lack of time (43 %) and unavailability of a balanced diet (34 %) were the familiar study participants' responses regarding lack of balanced diet intake. More than half (59 %) of students eat cafeteria foods, whereas 35 % have homemade food. Most students take two (40 %) or three (48 %) meals daily ay. Sixty percent of students consumed junk food, 33 % drank carbonated cold drinks, and 47 % consumed sweets (halwa/sweets/pastries) thrice in the past week.

Table 3: Study participants' dietary habits and food intake

	Frequency	***Percent***
Do you have a balanced diet?		
No	71	72.4
Yes	27	27.6
I eat a balanced diet to maintain a good body image.		
No	37	37.8
Yes	61	62.2
I am not following a balanced diet.		
Lack of time	42	42.9
Non-availability of a balanced diet	33	33.6
Peer pressure	1	1.0
Poor taste	3	3.1
Missing	19	19.4
Consumption of full breakfast on weekdays		
At least three times a week	44	44.9
Consume everyday	23	23.5
Skip everyday	31	31.6
Consumption of full breakfast on weekends		
Consume everyday	74	75.5
Skip every weekend	24	24.5
What type of food do you eat most days?		
Cafeteria foods	58	59.2
Homemade foods	34	34.7
Both Homemade and Cafeteria foods	6	6.1
How many meals do you take per day?		
1	5	5.1
2	39	39.8
3	47	48.0
>3	7	7.1
Whole grain serving per day		
0	24	24.5
1	42	42.9
2	27	27.6
3	5	5.1
Serving of milk per day		
0	45	45.9
1	48	49.0
2	3	3.1
3	2	2.0
Servings of eggs per day		
0	53	54.1
1	35	35.7
2	8	8.2
3	2	2.0
Fish or chicken servings per day		
0	7	7.1
1	59	60.2

2	28	28.6
3	4	4.1
Beef and mutton per day		
0	46	46.9
1	46	46.9
2	4	4.1
3	2	2.0
Vegetables/ Green leafy vegetable per day		
0	23	23.5
1	51	52.0
2	20	20.4
3	4	4.1
Water consumption in a day		
>1 L	18	18.4
1-2 glasses	11	11.2
3-6 glasses	52	53.1
7-10 glasses	17	17.3
Consumption of junk food in the past week		
At least three times a week	58	59.2
Consume everyday	16	16.3
None	24	24.5
Consumption of carbonated drinks in the past week		
At least three times a week	32	32.7
Consume everyday	10	10.2
None	56	57.1
Consumption of halwa/sweets/pastries in the past week		
At least three times a week	46	46.9
Consume everyday	18	18.4
None	34	34.7

Students were asked about barriers to a healthy lifestyle (Table 4). Most study participants (62 %) sleep for 4-6 hours at night, and 51 % take naps during the daytime. 90 % of students consume tea or coffee, and 48 % diet or skip meals due to lack of accessibility. Lack of time (70 %) is one of the major barriers to performing physical activity, whereas poor time management (36 %) and work-related stress (49 %) is the other contributing factor.

Table 4: Barriers to a Healthy Lifestyle

	Frequency	***Percent***
Use of mobile phone		
< 3 hours	15	15.3
3-6 hours	39	39.8
>6 hours	44	44.9
Use of laptop		
< 3 hours	21	21.4
3-6 hours	34	34.7
>6 hours	43	43.9
Nap(sleep) time during the day		
<1 hour	25	25.5

1-2 hours	50	51.0
>2 hours	23	23.5
Sleep time at night		
<4 hours	9	9.2
4-6 hours	61	62.2
>6 hours	28	28.6
Time for sitting in a room		
<2 hours	21	21.4
2-4 hours	21	21.4
>4 hours	56	57.1
Use of Tea and Coffee		
No	10	10.2
Yes	88	89.8
Diet/ Skipping meals		
Lack of Accessibility	47	48.0
Lack of motivation	3	3.1
Lack of time	18	18.4
Not in the habit	14	14.3
Stress	5	5.1
Taste preference	1	1.0
Weight Control	10	10.2
Exercise		
Lack of facility	6	6.1
Lack of Motivation	12	12.2
Lack of time	69	70.4
No barriers	11	11.2
Healthy lifestyle choices		
Anxiety/Depression	1	1.0
Friends and Company	8	8.2
Health issues	4	4.1
Media influences	2	2.0
Poor time management	35	35.7
Work-related Stress	48	49.0

Discussion

Generally, medical students tend to adopt undesirable lifestyle habits. For the mental and physical fitness of the students, they have to follow a balanced diet and healthy eating habits. Scientific data proves that unhealthy eating habits lead to many disorders in all age groups. Many students confront changes in living conditions and health-promoting/damaging adjustments to lifestyle and environment **[13]**. A recent study noted that the average weight gain of freshmen during the first term of university was 1.3-3.1 kg **[14]**. It is a well-established fact that healthy lifestyles not only prevent disease but also promote a sense of well-being **[15]**.

Obesity is a known risk factor for cardiovascular disease and heart failure (HF) **[16]**, including in Asia **[17]** indicating high BMI. The majority of the study participants in our study have shown pre-obesity and obesity categories of BMI [Table 1]. This study shows that 34.7 % of students are physically active for physical fitness, and 27.6 % are physically active for proper health **[Table 2]**.

A healthy lifestyle of a person depends upon personal behavioural choices. A health-promoting lifestyle has a multidimensional pattern of self-initiation and perceptions. Health-promoting behaviours include health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management **[18]**. Al Qahtani Regardless of their academic standing, most medical students have low physical activity and harmful eating habits. Medical scholars require **[19]**.

Most of our study participants (72 %) do not have a balanced diet. Lack of time (43 %) and unavailability of a balanced diet (34 %) were the familiar study participants' responses regarding lack of balanced diet intake. Literature has reported that improving students' self-

awareness, self-efficacy, and motivation to serve as role models for healthy behaviour for their patients may be to implement such curriculum initiatives that target fundamental lifestyle habits **[20-21]**. More than half (59 %) of students eat cafeteria food, whereas 35 % have homemade food. Most students take two (40 %) or three (48 %) meals daily. Sixty percent of students consumed junk food, 33 % drank carbonated cold drinks, and 47 % consumed sweets (halwa/sweets/pastries) thrice in the past week **[Table 3]**. Vibhuti et al. reported that consuming high-quality meals is as important as getting the right portions and amounts. There is growing evidence from studies and publications across the globe that a regular diet of fruits and vegetables is beneficial. As future doctors, good eating habits are even more crucial for medical students, and those who don't prioritize them personally will be less inclined to support patient health promotion initiatives **[22-23]**.

The majority of students in this study consume tea or coffee, and half of them skip meals due to lack of accessibility. Lack of time (70 %) is one of the significant barriers to performing physical activity, whereas poor time management (36 %) and work-related stress (49 %) are the other contributing factors **[Table 4]**. Mckerrow et al. reported that although students may show improved wellness, concerns remained about emotional difficulties, such as anxiety and irritability, and feeling a lack of control **[24]**.

Study limitations: This study relied on the self-reported questionnaire and only clinical year students, which might result in missing information. Sample size of the study is relatively small, which may restrict generalizability.

Conclusion

Study results will be helpful in awareness regarding healthy lifestyle practices that can be promoted among students who would become fit future role models for society. It is significant that the College of Medicine has added a fitness center and has integrated lectures and clinical experiences relating to nutrition throughout the curriculum. Additionally, incorporating behavioral counseling into the didactic and experiential components of the program may improve students' abilities to practice preventive counseling. Such educational initiatives may result in healthier lifestyles and better health outcomes for aspiring doctors and their patients.

References

1. Ignarro LJ, Balestrieri ML, Napoli C (2007) Nutrition, physical activity, and cardiovascular disease: an update. Cardiovasc Res. 73(2): 326-40.
2. Likus W, Milka D, Bajor G, Jachacz-Łopata M, Dorzak B (2013) Dietary habits and physical activity in students from the Medical University of Silesia in Poland. Rocz Panstw Zakl Hig. 64(4): 317-24.
3. Kelishadi R, Ardalan G, Gheiratmand R, Gouya MM, Razaghi EM, et al. (2007) Association of physical activity and dietary behaviors in relation to the body mass index in a national sample of Iranian children and adolescents: CASPIAN Study. Bull World Health Organ. 85(1): 19-26.
4. Chhaya S, Jadav P (2012) Dietary and lifestyle pattern in relation to overweight and obesity among the medical and nursing students. IJRRMS. 2: 9-12.
5. Wengreen HJ, Moncur C (2009) Change in diet, physical activity, and body weight among young-adults during the transition from high school to college. Nutr J. 8: 32.
6. Nisar N, Qadri MH, Fatima K, Perveen S (2008) Dietary habits and lifestyle among the students of a private Medical University Karachi. J Pak Med Asso. 58(12): 687-690.
7. Saranya SV, Rao CR, Kumar SC, Kamath V, Kamath A (2016) Dietary habits and physical activity among medical students of a teaching hospital in South India: A descriptive analysis. Trop J Med Res. 19(2): 172-7.
8. Sajwani RA, Shoukat S, Raza R, Shiekh MM, Rashid Q, et al. (2009) Knowledge and practice of healthy lifestyle and dietary habits in medical and non-medical students of Karachi, Pakistan. J Pak Med Assoc. 59(9): 650–5.
9. Ing-Arahm R, Suppuang A, Imjaijitt W (2010) The Study of Medical Students' Attitudes toward Exercise for Health Promotion in Phramongkutklao College of Medicine. J Med Assoc Thai. 93(Suppl 6): S173–8.
10. El-Gilany AH, El-Masry R (2011) Physical Inactivity among Egyptian and Saudi Medical Students. TAF Prev Med Bull. 10: 35–44.
11. Al-Asousi M, El-Sabban F (2016) Physical Activity among Preclinical Medical Students at the University of Malaya, Page 3 of 8 Malaysia. J Nutrition Health Food Sci. 4(2): 1-8.
12. Rao CR, Darshan B, Das N, Rajan V, Bhogun M, et al. (2012) Practice of physical activity among future doctors: A cross sectional analysis. Int J Prev Med. 3(5): 365-9.
13. Roberts S, Golding J, TowellT, Reid S, Woodford S, et al. (2000) Mental and physical health in students: the role of economic circumstances. Mar. Br JHealth Psychol. 5(3): 289–297.
14. Behavior change and the freshman 15: tracking physical activity and dietary patterns in 1st -year university women. Jung ME, Bray SR, Ginis KAM. J Am Coll Health. 56: 523–530.
15. Alissa EM (2015) Knowledge, attitude and practice of dietary and lifestyle habits among medical students at King Abdulaziz University, Saudi Arabia. Int J Nutr Food Sci. 4(6): 650.
16. Kenchaiah S, Evans JC, Levy D, Wilson PW, Benjamin EJ, et al. (2002) Obesity and the risk of heart failure. N Engl J Med. 347(5): 305–13.

17. Chandramouli C, Tay WT, Bamadhaj NS, Tromp J, Teng TK, et al. (2019) Association of obesity with heart failure outcomes in 11 Asian regions: a cohort study. PLoS Med. 16(9): e1002916.
18. Haddad LG, Al-Ma'aitah RM, Cameron SJ, Armstrong-Stassen M (1998) An Arabic language version of the health promotion lifestyle profile. Public Health Nursing (Boston, Mass). 15(2): 74–81.
19. Al-Qahtani MH (2016) Dietary Habits of Saudi Medical Students at the University of Dammam. Int J Health Sci (Qassim). 10(3): 353-62.
20. Sanne I, Bjørke-Monsen AL (2023) Dietary behaviors and attitudes among Norwegian medical students. BMC Med Educ. 23: 220.
21. El-Gilany AH, Abdel-Hady DM, El Damanawy R (2016) Consumption and knowledge of fast/junk foods among medical students, Mansoura university, Egypt. TAF Prev Med Bull. 15(4): 440.
22. Vibhute NA, Baad R, Belgaumi U, Kadashetti V, Bommanavar S, et al. (2018) Dietary habits amongst medical students: An institution-based study. J Family Med Prim Care. 7(6): 1464-1466.
23. Brehm BJ, Summer SS, Khoury JC, Filak AT, Lieberman MA, et al. (2016) Health Status and Lifestyle Habits of US Medical Students: A Longitudinal Study. Ann Med Health Sci Res. 6(6): 341-347.
24. McKerrow I, Carney PA, Caretta-Weyer H, Furnari M, Miller Juve A (2020) Trends in medical students' stress, physical, and emotional health throughout training. Med Educ Online. 25(1): 1709278.