

Lifestyle of health sciences students at Majmaah University, Saudi Arabia

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RESEARCH

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ABSTRACT

Background

We all want to live a long, happy and healthy life with an abundance of energy and vitality to perform well both mentally and physically. A healthy lifestyle is a valuable resource for reducing the incidence and impact of health problems, enabling you better to cope with life stressors, as well as improving your quality of life.

Aims

The study was aimed to assess the lifestyle (eating habits and physical activity) of health sciences students studying at Majmaah University.

Methods

This cross-sectional institutional based study was conducted from 25th November 2014-3rd May 2015. A total of 450 students (370 males and 80 females) aged between 18-28

years were randomly chosen. Self-reported questionnaire was used for data collection from the College of Medicine, College of Applied Medical Sciences and College of Dentistry.

Results

Majority of the students, 62.4 per cent, were physically inactive. Students from the College of Medicine, 40.4 per cent, were the most physically active. The most common reason that restrained the students from being active was time limitation. In addition to that, many of the participants, 29.6 per cent, have never had breakfast at home. Also, most of the participants, 42.7 per cent, were not satisfied with their eating habits. Almost one quarter of students were consuming soft drinks more than four times a day.

Conclusion

There is a high prevalence of sedentary lifestyle, physical inactivity and unhealthy dietary habits among health sciences students studying at Majmaah University. There is an urgent need for arranging health education programs for promoting healthy and active living among health sciences students of Majmaah University in Saudi Arabia.

Key Words

Physical activity, dietary habits, lifestyle

What this study adds:

1. What is known about this subject?

Eating habits and physical activity of health sciences students varies from country to country and from region to region intra country. Lifestyles of students have been well studied in the gulf region but still the literature is limited.

2. What new information is offered in this study?

This study is the first of its kind from Majmaah University that has reported the lifestyle (eating habits and physical activity) of health sciences students.

3. What are the implications for research, policy, or practice?

There is an urgent need for arranging health education programs for promoting healthy and active living among health sciences students of Majmaah University in Saudi Arabia.

Background

A healthy lifestyle is defined as a combination of healthy lifestyle characteristics (HLCs) (i.e., non-smoking, healthy weight, fruit and vegetable consumption, and leisure time physical activity [LTPA]).¹ Nowadays, lifestyle is an influential factor in managing a healthy life including physical activity and eating habits. Furthermore, a healthy diet and adequate exercise are important factors in preventing significant medical conditions.² The health benefits of engaging in regular physical activity are well established for adults. The prevalence of achieving physical activity recommendations declines rapidly between the ages of 18 and 24.³ University is often associated with students having more autonomy over their dietary choices (e.g., food purchasing and preparation) specifically, factors such as cost, skipping meals, inadequate variety of foods, snacking, and frequent consumption of fast foods may increase students' risk of poor health.⁴ Along with these dietary behaviours, physical activity participation also declines in university and college students, which may be due to increased sedentary time when studying and during examination periods.⁵

Nevertheless, many students who overeat and do not get enough exercise are susceptible to energy imbalance which eventually leads to obesity and abnormal health conditions.⁶ According to a cross-sectional study conducted among 240 undergraduate medical students about 62 per cent were performing exercise.⁷ Although behaviors of students are considered a temporary part of college life, unhealthy habits picked up at this level generally persist in adult life. University and college arenas, therefore, represent an important opportunity for health and nutritional education.⁸ According to a study done among 785 second-year medical students in seven different medical schools in Great Britain reported that 41.3 per cent of male and 54.5 per cent of female students were doing daily, twice weekly or weekly sports or vigorous exercise. While the rest, 58.7 per cent of men and 45.5 per cent of women, exercised only monthly or 'hardly ever'.⁹ In another study conducted amongst sixth semester medical undergraduate students it showed that only 9.3 per cent of the students were aware of the recommended level of the physical activity.¹⁰ Moreover, a study conducted in Karachi

University, Pakistan reported that Physical therapy students achieved the highest level of physical activity, with 33 per cent performing high level of physical activity compared to medicine 18 per cent, pharmacy 12 per cent, dentistry 28 per cent and nursing 28 per cent.¹¹

In addition, a study done at Malaysian University showed that 59.1 per cent of student avoided eating fatty food while 40.9 per cent ate fatty food.¹² In another study conducted at Baqai Medical University¹³ nearly 97 per cent of students reported consumption of junk food while 60 per cent reported use of whole grain food in their diet. No significant difference was found among male and female students when dietary habits and Lifestyle were compared. A study conducted among Saudi male adolescents in Riyadh, Saudi Arabia showed that the prevalence of overweight was 13.8 per cent and obesity was 20.5 per cent. Family history and lack of physical activity were associated with adolescent obesity.¹⁴ The results from another local study conducted at King Abdul-Aziz University among medical student showed that there were alarmingly high prevalence of different coronary heart disease (CHD) risk factors.¹⁵ Furthermore, a study done in United Arab Emirates (UAE) among medical students showed that 14 per cent of students were underweight while 24 per cent of students were overweight or obese; the majority believed their activity levels were insufficient 77 per cent, and their diet unhealthy (50 per cent); 33 per cent were not sufficiently active to meet minimum recommended levels.¹⁶ Generally, breakfast skipping was significantly related to fatigue and poor attention during clinical sessions.¹⁷ One study conducted in Lebanese university showed that female students showed healthier eating habits compared to male students in terms of daily breakfast intake and meal frequency.¹⁸ Another study conducted in Saudi Arabia among school children showed that many of the students skipped breakfast; 29.6 per cent. Skipping breakfast was more marked among students with poor school performance as compared to those with very good or excellent results.¹⁹ Study conducted in Tabuk, Saudi Arabia about nutritional status among medical students showed that about 15.7 per cent of students ate meals regularly, while 48 per cent rarely did so. Regarding fast food consumption, more than 58 per cent of the students stated that they consume fast foods, the proportion of females was more than the males; 64.9 per cent versus 51.4 per cent and the difference was statistically significant ($p < 0.05$).²⁰ Therefore, this study was planned keeping in view the utmost importance of assessing the lifestyle that included eating habits pattern and physical activity among health sciences students at Majmaah University, Saudi Arabia.

Method

This was an observational cross-sectional institutional based study conducted at Majmaah University among health sciences students (college of medicine, college of dentistry and college of applied medical sciences). The study was conducted from 25th November 2014 to 3rd May 2015. The target population was students of either gender studying in all three health sciences colleges. The data was collected from 450 students (370 males and 80 females) aged between 18–28 years using stratified random sampling technique, the three health sciences colleges were considered as strata and a proportion allocation was done i.e., from each strata 60 per cent of students were selected. The data was collected through directed investigation method. The questionnaire was designed to study the Lifestyle of health sciences students including eating habits, and physical activity. Prior to filling out the questionnaire, the students were informed about the study and given instructions on how to fill out the questionnaire completely and truthfully. The questionnaire was adapted from study of “Lifestyle Practice among Malaysian University Students.”²¹ The Cronbach Alpha was (0.67). Ethical Review Committee of Majmaah University approved the study. An informed consent was obtained from each participant. Participants were informed about the purpose of the study and that their participation would be voluntary and their anonymity would be assured. The data was entered and analysed using SPSS 23.0. Mean±S.D is reported for quantitative variables like age etc. Frequencies and percentages are reported for qualitative variables. Pearson Chi-square and Fisher Exact test were applied to observe associations between qualitative variables. A p-value of <0.05 was considered as statistically significant.

Results

A total of 450 students, 370 males and 80 females aged between 18–28 years participated in this study. The mean age of the participants was 22.34±1.76 years. Majority of the students were from college of applied medical sciences 58.9 per cent, followed by college of medicine 30.2 per cent and college of dentistry 10.9 per cent. The bulk of the students were males 82.2 per cent as compared to female students. When physical activity information was analysed it was found that 37.6 per cent of students were exercising regularly and 62.4 per cent were not performing any physical activity. However, no significant association was observed between physical activity and colleges ($p=0.706$) Table 1. Almost one-fifth of the students were playing football, followed by jogging 12.9 per cent, body building 4.2 per cent, swimming 2.2 per cent, and other physical activities 1.8 per cent. The frequency of doing exercise was

three times per week in 9.3 per cent of students, 8 per cent of students were exercising four times per week, 7.3 per cent of students exercised five times per week, while the majority of the students 62.4 per cent were physically inactive. Almost one-fifth 18.7 per cent of students were exercising at night, followed by 13.8 per cent students who were exercising in the evening, while 3.1 per cent and two per cent of students were exercising in the afternoon and morning respectively. Most of the students who exercised; 16.4 per cent, exercised in order to be healthy, 10.4 per cent of students exercised for entertainment purpose, 8.9 per cent of students exercised for the possibility of losing weight, while 1.8 per cent exercised for challenging and competition purpose. On the other side, majority of the students 31.3 per cent were limited from being more active because of time limitation. However, 62.4 per cent students did not perform any exercise at all.

Regarding eating habits of students, the results showed that 78 per cent of students had a good understanding of the principles of healthy eating, while 22 per cent did not. In addition, students from the college of dentistry and college of medicine had a good understanding regarding principles of healthy eating ($p<0.001$) Table 1. Almost one-quarter of students were usually eating fruits and vegetables on daily basis, while 29.8 per cent of the students were eating protein rich food on a daily basis. Grain products and calcium rich food was consumed by 23.6 per cent and 15.1 per cent students respectively on daily basis. Almost half of the students 42.7 per cent were not satisfied with their eating habits, whereas 41.4 per cent of the students were partially satisfied with their eating habits. However, 16 per cent were completely satisfied with their eating habits. In addition to that, 29.6 per cent of the students have never had breakfast at home while 21.8 per cent have had their breakfast at home four times and more during the last week. The results of this study showed that students from the college of medicine were the most frequent having breakfast four times and more in a week 33.8 per cent, whereas, college of applied medical sciences students were the most frequent in never having a breakfast at home in a week; 28.3 per cent ($p<0.001$) (Table 1).

Majority of the students 37.8 per cent were consuming soft drinks more than four times a day, followed by 15.8 per cent who were consuming soft drinks for three times a day. Regarding consumption of energy drinks, almost 72 per cent of the students were not consuming it. However, no significant association was observed between consumption of soft drinks, energy drinks and eating fast food among all three colleges ($p>0.05$).

Discussion

The change during studies from school level to college or university often results in decrease in physical activity and increase in poor dietary choices either because of personal preferences or because of busy schedule of studies and examination causing an increase in health risk.²² In this study, more than half of the students 62.4 per cent were physically inactive; this result is not much different when compared to a local study conducted at King Abdul-Aziz University¹⁵ that showed that physical inactivity among students was 57.9 per cent. Another study conducted at Malaysian University¹² also showed somewhat similar results i.e., physical inactivity was observed in 53.7 per cent of students. In our study, students from the college of medicine were the most physically active; 40.4 per cent, the result when compared with a medical university of Silesia,²⁶ where it was observed that students studying in physiotherapy were the most physically active 70 per cent. This could be explained by lack of time for medical students to perform physical exercise due to burden of study.

Regarding eating habits, the current data demonstrated that 50 per cent of the medical students were not satisfied with their eating habits. In addition to that, many students skipped breakfast; 29.6 per cent. The result of skipping breakfast when compared with studies conducted in Abha²⁷ showed that a high number of students 46 per cent skipped breakfast. This could be explained by awareness of health sciences' students about healthy eating habits and sociocultural status. In our study, many of the students, 37.8 per cent consumed soft drinks four times a week. Previous local study¹⁴ reported a proportion of daily consumption of soft drinks by Saudi adolescents ranging from as little as 33.4 per cent to as high as 62.4 per cent. In terms of fast food, our study showed that 35.1 per cent students ate fast food four times and more per week, while 22.2 per cent ate it three times per week. These percentages are lower than the rate of fast-food intake reported in Emirati adolescents²⁸. Also in comparison with Baqai Medical University¹³, nearly 97 per cent students reported consumption of junk food. Overall, according to both studies, students tend to consume junk food excessively (Table 2).

Many studies successfully targeted self-efficacy to improve health behaviours of university students. Universities and colleges are an ideal setting for implementation of health promotion programs as they support a large student population, who are going to be the leaders in the community. This university period is a key time for the

development of lifestyle skills and behaviours for themselves and for the whole community.²²⁻²⁴

The limitation of the study was that it was conducted among health sciences students studying in Majmaah University. A study with a larger sample may be required to generalize the results by sampling students from other disciplines studying in Majmaah University.

Conclusion

There is a high prevalence of sedentary lifestyle, physical inactivity and unhealthy dietary habits among health sciences students at Majmaah University. There is an urgent need for health education programmes and awareness lectures for promoting active living and healthy eating habits among students studying in health sciences colleges in Saudi Arabia.

References

1. Mathew J, Reeves, Ann P, Rafferty, Healthy Lifestyle Characteristics among Adults in the United States. *Arch Intern Med.* 2005;165:854-857.
2. Ángyán L, Térczely T, Mezey B, et al. Selected Physical Characteristics of Medical Students. *Med Educ Online.* [serial online] 2003;8:1.
3. Plotnikoff RC, Costigan SA, Williams RL, et al. Effectiveness of interventions targeting physical activity, nutrition and healthy weight for university and college students: a systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity.* 2015 Apr 1;12(1):45.
4. Cavallo DN, Tate DF, Ries AV, et al. A social media-based physical activity intervention: a randomized controlled trial. *Am J Prev Med.* 2012;43:527-32.
5. Buckworth J, Nigg C. Physical activity, exercise, and sedentary behavior in college students. *J Am Coll Health.* 2004;53:28-34.
6. Kaila A, Kristen J, Barbara E, et al. Exercise behaviour and attitudes among fourth-year medical students at the University of British Columbia. *Can Fam Physician.* 2013;59:e26-32.
7. Rao CR, Darshan BB, Das N, et al. Practice of physical activity among future doctors: A cross sectional analysis. *Int J Prev Med.* 2012;3:365-9.
8. Bin Zaal AA, Musaiger AO, D'Souza R. Dietary habits associated with obesity among adolescents in Dubai, United Arab Emirates. *Nutr Hosp.* 2009;24(4):437-444.
9. Webb E, Ashton CH, Kelly P, et al. An update on British medical students' lifestyles. *Medical Education.* 1998, 32: 325-331.

10. Anand T, Tanwar S, Kumar R, et al. Knowledge, attitude, and level of physical activity among medical undergraduate students in Delhi. *Indian J Med Sci.* 2011 Apr 1;65(4):133.
11. Rubina A, Sana S, Rushna R, et al. Knowledge and practice of healthy lifestyle and dietary habits in medical and non-medical students of Karachi, Pakistan. *J Pak Med Assoc.* 2009;Vol. 59, No. 9.
12. Al-Naggar RA, Bobryshev YV, Mohd N, et al. Lifestyle practice among Malaysian university students. *Asian Pac J Cancer Prev.* 2013;14(3):1895–903.
13. Nisar N, Qadri MH, Fatima K, et al. Dietary habits and Lifestyle among the students of a private medical university Karachi. *J Pak Med Assoc.* 2009 Feb;59(2):98–101.
14. Al-Rukban MO. Obesity among Saudi male adolescents in Riyadh, Saudi Arabia. *Saudi Med J.* 2003;24(1):27–33.
15. Ibrahim NK, Mahnashi M, Al-Dhaheer A, et al. Risk factors of coronary heart disease among medical students in King Abdulaziz University, Jeddah, Saudi Arabia. *BMC Public Health.* 2014 Apr 28;14(1):1.
16. Carter AO, Elzubeir M, Abdulrazzaq YM, et al. Health and lifestyle needs assessment of medical students in the United Arab Emirates. *Medical Teacher.* 2003 1;25(5):492–6.
17. El-Qudah JM, Al-Omran H, Abu-Alsoud B, et al. Nutritional status among a sample of Saudi college students. *Current Research Journal of Biological Sciences.* 2012;4(5):557–62.
18. Yahia N, Achkar A, Abdallah A, et al. Eating habits and obesity among Lebanese university students. *Nutrition journal.* 2008;7(1):1.
19. Abalkhail B, Shawky S. Prevalence of daily breakfast intake, iron deficiency anaemia and awareness of being anaemic among Saudi school students. *Int J Food Sci Nutr.* 2002;53(6):519–28.
20. Allam AR, Taha IM, Al-Nozha OM, et al. Nutritional and health status of medical students at a university in Northwestern Saudi Arabia. *Saudi Med J.* 2012 28;33(12):1296–303.
21. Al-naggar Ra, Bobryshev Yv, Mohd Noor Na. Lifestyle practice among Malaysian university students. *Asian Pac J Cancer Prev.* 2013;14(3):1895–903.
22. Lachausse RG, Lachausse RG. My student body: effects of an internet-based prevention program to decrease obesity among college students. *J Am Coll Health.* 2012;60:324–30.
23. Magoc D, Tomaka J, Bridges-Arzaga A, et al. Using the web to increase physical activity in college students. *Am J Health Behav.* 2011;35:142–54.
24. Wadsworth DD, Hallam JS, Wadsworth DD, et al. Effect of a web site intervention on physical activity of college females. *Am J Health Behav.* 2010;34:60–9.
25. Ali SH, Rizvi SA, Naqvi M. Physical activity level in medical students of the Ziauddin University, Karachi. *Pak. J Rehabil.* 2013;2(1):46–52.
26. Likus W, Milka D, Bajor G, et al. Dietary habits and physical activity in students from the Medical University of Silesia in Poland. *Roczniki Państwowego Zakładu Higieny.* 2013;64(4).
27. Farghaly NF, Ghazali BM, Al-Wabel HM, et al. Lifestyle and nutrition and their impact on health of Saudi school students in Abha, Southwestern region of Saudi Arabia. *Saudi Med J.* 2007;28(3):415–21.
28. Bin Zaal AA, Musaiger AO, D’Souza R. Dietary habits associated with obesity among adolescents in Dubai, United Arab Emirates. *Nutr Hosp.* 2009;24(4):437–44.

PEER REVIEW

Not commissioned. Externally peer reviewed.

CONFLICTS OF INTEREST

No competing interests.

ETHICS COMMITTEE APPROVAL

This study was approved by the Ethical Review Committee of Majmaah University.

Table 1: Socio – demographic and Lifestyle characteristics of study participants

	n	%
Gender		
Male	370	82.2
Female	80	17.3
College		
Applied Medical Sciences	265	58.9
Medicine	136	30.2
Dentistry	49	10.9
Physical Activity		
Yes	169	37.6
No	281	62.4
Principles of eating habits		
Good understanding	351	78.0
Not good understanding	99	22.0
Satisfaction from eating habits		
Not satisfied	192	42.7
Partially	186	41.3
Satisfied	72	16.0

Table 2: Association between physical activity and eating habits among health sciences students

	Health sciences			
	Medicine n (%)	Applied Medical Sciences n (%)	Dentistry n (%)	p-value
Physical Activity				
Yes	55 (40.4%)	96 (36.2%)	18 (36.7%)	0.706
No	81 (59.6%)	169 (63.8%)	31 (63.3%)	
Principles of Healthy Eating				
Yes	119 (87.5)	188(70.9)	44(89.8)	<0.001
No	17(12.5)	77 (29.1)	5(10.2)	
Having breakfast at home				
Never	41 (30.1)	75 (28.3)	17 (34.7)	<0.001
Once	17(12.5)	66(24.9)	6(12.2)	
Twice	21(15.4)	50(18.9)	5(10.2)	
Three time	11 (8.1)	34(12.8)	9(18.4)	
≥4 times	46(33.8)	40(15.1)	12(24.5)	