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LIFESTYLE PATTERN ASSESSMENT AMONG TAIF UNIVERSITY MEDICAL STUDENTS

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ABSTRACT: *Introduction: Medical school is stressful throughout all courses of practicing which may contribute to the student's unhealthy lifestyle patterns. The primary goal of the study is to assess the healthy habits practice among Taif University medical students and its relation to academic level. Methods: A cross-sectional study of the medical students from the second to sixth year at Taif University School of Medicine, Taif, Saudi Arabia that was conducted between December 2015 and January 2016. We used a Lifestyle Assessment Inventory questionnaire to assess the healthy habits. Each positive healthy response from each participant was counted as 1 point with a maximum score of 24 points. Those scored≥18 points were considered to have very healthy lifestyle. Result: A total of 204 student with a mean age of 22.1 years, and majority of them were 5th year student. 52.9% reports unhealthy lifestyle patterns. Compared to the junior medical students, senior medical students were more likely to be older (p <0.001), more likely to reports very healthy lifestyle (p <0.011), walk more than junior (p 0.454), play less sport (p 0.856), find it easier to relax (p 0.331), more able to cope with daily stress (p 0.713), less likely to use seat belt (p 0.226), less likely to over speed (p 0.648), more likely to report optimal sleep (p 0.568), reports less family support (p 0.006), less likely to have close friends (p 0.009), less likely to smoke (p <0.001),less likely to reports eating 3 balanced meals per day (p 0.0403) (Table 2). Conclusion: Overall, 52.9% of the screened students reports unhealthy lifestyle patterns. Seniors were significantly less likely to report social support, smoke and to use tobacco products.*

KEYWORDS: Lifestyle, medical, student, Taif.

INTRODUCTION

Medical school is stressful throughout all courses of practicing. The amount of material to be studied, social isolation, pressure of exams, along with discrepancies between expectation and reality can all anticipated bringing psychological stress [(1)]. Of the factors attributing to obesity, stress thought to be particularly important as stressful condition leads to irregularity in diet, lack of exercise and addiction, and with each being considered different factors that increase risk of been obese[(2)]. Breakfast known to be a major source of energy, recent study found that many of medical students skip their breakfast, which may affect their performance during the day [(3)]. Health research survey of adults in the USA has reported that people who skipped their breakfast became were five times more likely to be obese when compared to people who ate their breakfast regularly [(6)]. Exercise found to be a major preventive factor to many

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diseases includingtype II diabetes and cardiac disease. In Canada Frank et alreported that physically active primary care physicians are generally counsel patients to exercise more than inactive physicians [4].Recent study showed that physical activity practice among medical studentshas been positively correlated with their attitudes about exercise prescription[5].

Sleep is a physiological process that is essential to life and poor sleeping habits has been correlated with several health hazards [9]. Good sleep quality is related to psychological and physical health and other measures of well-being [7]. Sleep in itself is in short supply for young physicians in their formative years as they stay up late to prepare for exams in medical schooland postgraduate training along with the long duty hours at the hospital[8].There is a lack in the study to show the influence of medical knowledge on medical studentspractice and lifestyle habits. The primary goal of the study is to assess the healthy habits practice among Taif University medical students and its relation to academic level.

METHODOLOGY

A cross-sectional study of the medical students from the second to sixth year at Taif University School of Medicine, Taif, Saudi Arabia that was conducted between December 2015 and January 2016. Ethical approval was obtained from Taif University School of Medicine research unit.We includedmale medical students and students with incomplete response were excluded. We considered those in the 5th and 6th (clinical years) as senior medical student and those in the 4th year or less (basic years) as junior medical student.All students were approached to participate in the surveyduring their classrooms. The study goal was explained to students and a covering letter on the questionnaire provided additional details. Questionnaires were handed out and students were given adequate time to complete the questionnaire duringclass time. Investigators were present in the classroom toassist any student and to answer any questions. Completed questionnaireswere returned anonymously at the end of the allotted classtime. No personal identifying information was collected.

The questionnaire was written in English, the language ofinstruction in the medical school. The questioner consisted of questions about the demographic data including age, gender, academic year, and marital status. We used a Lifestyle Assessment Inventory questionnaire to assess the healthy habits and practice that is consisting of a total of 29 questions. It includes questions about physical fitness, body fat, stress level, car safety, sleep habits, social relationships, diet, tobacco use, and legal drug abuse. Due to cultural reasons, we excluded 5 questions that are related to alcohol and sexual behaviors outside marriage. Each positive healthy response from each participant was counted as 1 point with a maximum score of 24 points. Those scored$\geq$18 points were considered to have very healthy lifestyle, 17-12 points were considered to have an average healthy lifestyle, while those scored $\leq$11 points were considered to have unhealthy lifestyle and needs improvement. Responses to the questionnaire were coded and entered into the tables using the Statistical Package for the Social Sciences (SPSS) version 20.0. Frequencies and percentages were used for each variable; The Chi squared test was used to study the relationship between variables and the T-test was used to compare between means.

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RESULT

A total of 204 student with a mean age of 22.1 years, and majority of them were 5th year student. Most of the student have unhealthy lifestyle (Table1).Student who walk were more than the student who play sport or exercise with 52.9% of them were not satisfied with their body appearance. Most of the students were able to cope with daily stress and 46.1% find it easy to relax where 44.6% rarely feel tense. Most of the student do not use seat belt while driving and only 40.2% drive below the speed limit. Majority of the students do not wake up during sleep and report optimal sleep 7-9 hours per night and do not have insomnia. Almost half of them rarely eat meal high in fat and sweat and 48.5% of them eat three balanced meals per day. Only 31.9% of the student report no smoking and 48% exposed to second hand smoke. 22.1% of the student never abuses the legal drug.

Compared to the junior medical students, senior medical students were more likely to be older (p <0.001), more likely to reports very healthy lifestyle (p <0.011), walk more than junior (p 0.454), play less sport (p 0.856), find it easier to relax (p 0.331), more able to cope with daily stress (p 0.713), less likely to use seat belt (p 0.226), less likely to over speed (p 0.648), more likely to report optimal sleep (p 0.568), reports less family support (p 0.006), less likely to have close friends (p 0.009), less likely to smoke (p <0.001),less likely to reports eating 3 balanced meals per day (p 0.0403) (Table 2).

DISCUSSION

This study showed that 52.9% of the student reports unhealthy lifestyle. The results of our study showed that cigarette smoking is a real problem among medical students as 55.4% were active smokers. This is more than other reported results that showed that 33% of medical students at King Saud University in Riyadh are smokers. Much older study among medical students in Saudi showed that 13% were active smokers [10-11]. This variation in national smoking prevalence was also observed among medical students worldwide, with prevalence ranging from 3-58% [12-14]. Our study also showed that only 41.6% of the students exercise for a minimum of 20-30 minutes for at least 3 days a week and 36.6% play sports routinely (2-3 times per week). Previous study found that 60.6% of the participants were physically active [15]. Highest percent of our student's reports walking might be because of the long distance between the classrooms and parking area in the college and given the busy study schedule, majority of student do not participate in group exercise.

Obtaining more than 7 hours of sleep per night for adults is essential for optimum health and well-being [16]. Inadequate sleep is a public health problem and getting adequate sleep was deemed critical enough to be an objective by Healthy People 2020 to improve national health [17] .Our study showed that only 55.5% of the student gets 7-9 hours' sleep. A study done among pharmacist found that 54.7% get less than 7 hours of sleep [18].Our strength includes using a validated questioner and involving different level of medical students. Our weakness includes a small sample size and involving single university.

CONCLUSION

Overall, 52.9% of the screened students reports unhealthy lifestyle patterns. Seniors were significantly less likely to report social support, smoke and to use tobacco products.

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Table 1.Baseline characteristics of the whole cohort.

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Variables	Senior	Junior	P value
Total number of participants (%)	49.5	50.5	n/a
Mean age (yrs)	23.5±0.9	20.8±1.0	<0.001
Total Lifestyle Assessment Inventory score	12.1±3.2	10.8±2.5	0.001
Very healthy lifestyle (%)	7	0.0	0.011
Average healthy lifestyle (%)	46.5	40.8	
Unhealthy lifestyle (%)	46.5	59.2	
Married (%)	3	1	0.303
Physical fitness			
Exercise for a minimum of 20-30 minutes at least 3 days a week (%)	41.6	44.7	0.657
Play sports routinely (2-3 times per week) (%)	36.6	37.9	0.856
Walk for 15-30 minutes (3 to 7 days per week) (%)	63.4	58.3	0.454
Body fat			
There is no place on my body where I can pinch more than 1 inch of fat (%)	56.4	67.0	0.121
I am satisfied with the way my body appears (%)	53.5	52.4	0.882
Stress level			
Find it easy to relax (%)	49.5	42.7	0.331
Rarely feel tense or anxious (%)	38.6	50.5	0.088
Able to cope with daily stresses better than most people (%)	71.3	68.9	0.713
Car safety			
Have not had an auto accident in the past 4 years (%)	47.5	47.6	0.995
Always use a seat belt when I drive (%)	31.7	39.8	0.226
Rarely drive above the speed limit (%)	38.6	41.8	0.648
Sleep			
Always get 7 to 9 hours of sleep (%)	55.5	51.5	0.568
Do not have trouble going to sleep (%)	35.6	37.9	0.741
Generally do not wake up during the night (%)	31.7	25.2	0.308
Social relationships			
Have a lot of close friends (%)	70.3	85.4	0.009
Have a great deal of family love and support (%)	83.2	95.2	0.006
Diet			
Generally eat three balanced meals per day (%)	51.5	45.6	0.403
Rarely overeat (%)	38.6	43.7	0.461
Rarely eat large quantities of fatty foods and sweets (%)	52.5	59.2	0.332
Tobacco use			
Never smoke (cigarettes, pipe, cigars, etc.) (%)	44.6	19.4	<0.001
Not exposed to second-hand smoke on a regular basis (%)	44.6	51.5	0.324
Not use smokeless tobacco (%)	21.8	1.0	<0.001
Drug use			
I never use illicit drugs (%)	43.6	1.0	<0.001
I never abuse legal drugs such as diet or sleeping pills (%)	38.6	5.8	<0.001

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Table 2: Comparison of the lifestyle habits based on medical school academic year

Baseline characteristics (N=204)	
Mean age (yrs)	22.1±1.7
Mean total Lifestyle Assessment Inventory score	11.4±3.0
Very healthy lifestyle (%)	3.5
Average healthy lifestyle (%)	43.6
Unhealthy lifestyle (%)	52.9
Married (%)	2
Academic years	
Senior medical student (%)	49.5
Junior medical student (%)	50.5
6^{th} year medical student (%)	22.1
5^{th} year medical student (%)	27.5
4^{th} year medical student (%)	12.3
3^{rd} year medical student (%)	14.1
2^{nd} year medical student (%)	24.0
Physical fitness	
Exercise for a minimum of 20-30 minutes at least 3 days a week (%)	43.1
Play sports routinely (2-3 times per week) (%)	37.3
Walk for 15 to 30 minutes (3 to 7 days per week) (%)	60.8
Body fat	
There is no place on my body where I can pinch more than 1 inch of fat (%)	61.8
I am satisfied with the way my body appears (%)	52.9
Stress level	
Find it easy to relax (%)	46.1
Rarely feel tense or anxious (%)	44.6
Able to cope with daily stresses better than most people (%)	70.1
Car safety	
Have not had an auto accident in the past 4 years (%)	47.5
Always use a seat belt when I drive (%)	35.8
Rarely drive above the speed limit (%)	40.2
Sleep	
Always get 7 to 9 hours of sleep (%)	53.4
Do not have trouble going to sleep (%)	36.8
Generally do not wake up during the night (%)	28.4
Social relationships	
Have a lot of close friends (%)	77.9
Have a great deal of family love and support (%)	89.2
Diet	
Generally eat three balanced meals per day (%)	48.5
Rarely overeat (%)	41.2
Rarely eat large quantities of fatty foods and sweets (%)	55.9
Tobacco use	
Never smoke (cigarettes, pipe, cigars, etc.) (%)	31.9
Not exposed to second-hand smoke on a regular basis (%)	48.0
Not use smokeless tobacco (%)	11.3
Drug use	
I never use illicit drugs (%)	22.1
I never abuse legal drugs such as diet or sleeping pills (%)	22.1

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