

Gender Differences in Habits for a Healthy Lifestyle among Medical Students in Jazan University, Saudi Arabia

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Abstract — Background: healthy life style is mandatory for having nearest area to optimal health. Students at the medical field should be on the way of healthy behaviors which should be equal in both males and females. Aim: ascertain gender differences in healthy habits if they exist. Methodology: A random sample of 444 medical students (243 males and 201 females) was selected from faculty of medicine, Jazan University, Jazan, Saudi Arabia. Using a descriptive cross sectional approach. The sample was selected using one stage stratified cluster sampling technique with stratification based on student gender. A self-administered questionnaire containing the socio-demographic data of the respondent and their different lifestyle aspects (nutrition, smoking habits, physical activities and sleeping data) was used for data collection. Results: The study included 444 medical students whose ages ranged from 17 to 26 years old with mean age of 21.6 ± 1.8 years while 54.7% of the included students were males. 98.8% of the male students believe in importance of having healthy life style compared to 98.5% of the females. Also 82% of the male students agreed in differences between males and females regarding concept towards healthy life style compared to 75.6% of the female. Conclusions & recommendations: The current research proved that there is generally shortage in adopting healthy life style among medical students especially for smoking and nutritional behaviors and also there is significant differences between male and female students regarding many aspects of healthy behaviour.

Index Terms — Gender, Habit, Sleep disturbance, Smoking, Physical Activity, Cross-sectional studies, Healthy, Lifestyle, Medical students, Jazan University, Jazan, Saudi Arabia.

1 INTRODUCTION

HEALTH is defined by physical, social, cultural and economic environment where people live and work. [1, 2]

Healthy behaviors are activities and efforts that individuals practice to stay on healthy status, to reduce disease risk, and live happy and fulfilled life. [3,4] For developing healthy lifestyle, persons should develop and adhere to healthy eating habits, responsibility for health, regular and sufficient physical activity, satisfactory relationships, effective stress management and appropriate sense of self-realization. [5,6]

Drugs including drug consumption, especially tobacco and alcohol, unhealthy diet and lack of physical activity constitutes an important portion of the deaths and illnesses that occur in many regions including the European region of the World Health Organization. These lifestyles are largely modifiable through planned actions, and it is interesting for public health to know their evolution and trends in different communities and population groups. [7] Among these groups, the health habits of university students are a special concern, since they represent a major segment of the young population and they are at a stage of their lives during which important lifestyle modifications take place. [8] If these changes become fixed routines, they are likely to determine the person's future health. [9, 10]

A widespread perception is that medical students, being future physicians, would have healthier lifestyle and dietary habits as compared to their non-medical counterparts. Studies

have reported high prevalence of physical inactivity, mental stress, tobacco and alcohol use among a considerable proportion of medical students. [11-15] In a survey in a college population, 36% respondents revealed that time constraints posed a barrier to adoption of healthy practices. Initiation of unhealthy behaviour in medical students may be ascribed to peer pressure, mental stress, performance anxiety in a competitive academic environment, socio-cultural adjustment problems, inadequate parental supervision, home sickness after leaving their parental homes, and greater financial autonomy as compared to their earlier years. [16, 17]

Finally, to the author's knowledge, it seems that scientific research aimed to compare and identify healthy habits among university students, taking into account their gender and chosen academic discipline, are less frequent [18,19], especially in Saudi Arabia. Thus, the aim of the present study is to assess the lifestyle of university students in order to: (a) ascertain gender differences in healthy habits if they exist and (b) determine whether the academic discipline that the selected students take part in are related to those behaviour.

2 METHODOLOGY

A random sample of 444 medical students (243 males and 201 females) was selected from faculty of medicine, Jazan

University, Jazan, Saudi Arabia. Using a descriptive cross sectional approach. The sample was selected using one stage stratified cluster sampling technique as students were stratified according to their gender and then from each strata a sample was selected from at the different grades using systematic random sample depending on students' names list with proportional allocation technique. A self-administered questionnaire containing the socio-demographic data of the respondent and their different lifestyle aspects (nutrition, smoking habits, physical activities and sleeping data) was used for data collection. The questionnaire was distributed to the selected students in a random way by paper form and for privacy was put inside closed folder, with involvement of all college levels.

3 DATA ANALYSIS

After data were collected it was revised, coded and fed to statistical software IBM SPSS version 20. All statistical analysis was done using two tailed tests and alpha error of 0.05. P value less than or equal to 0.05 was considered to be statistically significant. Descriptive statistics was done by showing frequencies and percentages for each lifestyle domain items by respondents' gender. Chi-square or exact tests were used to test for significance of differences between students gender regarding all covered lifestyle domains.

4 RESULTS

The study included 444 medical students whose ages ranged from 17 to 26 years old with mean age of 21.6 ± 1.8 years while 54.7% of the included students were males and nearly all of them 99.5% were Saudi. As for residence, 60.8% were from rural areas and nearly 50% need 15-145 minutes to reach university. About 94% were single and 6.3% were married with having four children or more among 58.1% of them (Table 1).

Regarding health related believes among the sampled students (Table 2), 98.8% of the male students believe in importance of having healthy life style compared to 98.5% of the females. Also 82% of the male students agreed in differences between males and females regarding concept towards healthy life style compared to 75.6% of the female students with statistical significance.

As for sleeping habits, table (3) illustrates that there was significant difference between male and female students in rate of sleeping disturbances as 8.6% of the males recorded having sleeping disturbances usually compared to 17.9% of the females ($P < 0.05$). Also 8.7% of the male students sleep only 1-2 hours on day time compared to 2.5% of the females while 44% of the males sleep 7 hours or more compared to 48.4% of the female students ($P < 0.05$). All other sleeping habits including daily sleeping hours, sleep difficulties and using hypnotics to sleep were nearly the same in both genders with no statistical significance.

On asking about smoking habits (Table 4) it was clear that 8.2% of the male were current smokers compared to 3.5% of females with statistical significance ($p=0.05$) and also smoking rate with exams was significantly higher among male

students (48.1%) than among female students (10% only). Shisha smoking was recorded among 14% of male students compared to 5% of female students with statistical significance ($P < 0.05$). All other smoking habits were nearly similar among male and female students with no statistical differences.

With consideration to physical activities (Table 5), 32.1% of the male students practice exercises regularly in comparison to 27.9% of female students (27.9%) with no statistical significance ($P > 0.05$). Regarding the cause of not practicing, having no time was recorded among 60.6% of males compared to 44.8% of females with statistical significance ($P < 0.05$). Also 62.8% of the male students practiced traditional sports compared to 78.6% of female and body built exercises were significantly higher among males. Also duration of practicing exercises was significantly higher among males who practice than among female students as 37.2% of the males do exercises for more than 60 min daily compared to 16.1% of females. Also watching TV hours daily was significantly higher among males than females as 63.8% of males do it for less than 3 hours daily compared to 75.6% of females. Duration of using mobile daily was significantly higher among females than males as 59.2% of the females use it for 7 hours or more daily compared to 40.3% of male students.

Considering nutritional habits (Table 6), the rate of having breakfast daily was nearly the same among both groups of students while the difference was at the timing of having breakfast as 48.9% of the male students had it before 8 AM compared to 34.4% of females ($P < 0.05$). Regarding rate of having outdoor meals, it was significantly higher among male students than among females as it was recorded among 60% of males compared to 45% of females ($P < 0.05$). Also water drinking daily was significantly higher among male students than among females as drinking 1 liter or more daily was recorded among 85.6% of male students compared to 59.7% of the females with statistical significance ($P < 0.05$). Having between meals snacks was significantly higher among female students than males as 37.8% of them usually have it compared to 17.7% of males. Also daily frequency of having fast food was significantly higher among male students than among females as it was recorded for 4 times or more daily among 32.9% of males compared to 18.9% of females ($P < 0.05$). Other nutritional items including having healthy food and number of daily meals were nearly the same among the two groups with statistical significance.

Table (1): Socio-Demographic characteristics of sampled students in Jazan University, Saudi Arabia 2017

Socio-Demographic characteristics		No	%
Age in years	<20 years	70	15.8%
	20-24	346	77.9%
	25+	28	6.3%
Gender	Male	243	54.7%
	Female	201	45.3%
Nationality	Saudi	442	99.5%
	Non Saudi	2	.5%
Residence	Urban	174	39.2%
	Rural	270	60.8%
Duration between home and university	< 15 min	58	13.1%
	15-30	108	24.3%
	31-45	107	24.1%
	46-60	97	21.8%
	> 60 min	74	16.7%
Marital status	Single	413	93.0%
	Married	28	6.3%
	Divorced	2	.5%
	Widow	1	.2%
No. of children	None	13	41.9%
	1-3	0	0.0%
	4+	18	58.1%

Table (2): Health related believes recorded by sampled students by their gender at Jazan University, Saudi Arabia 2017

Believes		Gender				P
		Male		Female		
		No	%	No	%	
Believe in healthy life style	Yes	240	98.8%	198	98.5%	0.815
	No	3	1.2%	3	1.5%	
There is gender differences in life style	Yes	199	81.9%	152	75.6%	0.106
	No	44	18.1%	49	24.4%	

Table (3): Sleeping lifestyle as recorded by sampled students by their gender at Jazan University, Saudi Arabia 2017

Sleeping		Gender				P
		Male		Female		
		No	%	No	%	
Daily sleep- ing hours	Less than 5 hours	14	5.8%	9	4.5%	0.599
	5-6	67	27.6%	50	24.9%	
	7-8	108	44.4%	87	43.3%	
	9+	54	22.2%	55	27.4%	
Have sleep difficulties	Usually	24	9.9%	21	10.4%	0.979
	Mostly	40	16.5%	31	15.4%	
	Sometimes	131	53.9%	107	53.2%	
	No	48	19.8%	42	20.9%	
Have sleep disturbances	Usually	21	8.6%	36	17.9%	0.002*
	Mostly	24	9.9%	29	14.4%	
	Sometimes	129	53.1%	101	50.2%	
	No	69	28.4%	35	17.4%	
Have diffi- culty in wake up morning	Usually	37	15.2%	38	18.9%	0.384
	Mostly	66	27.2%	48	23.9%	
	Sometimes	88	36.2%	63	31.3%	
	No	52	21.4%	52	25.9%	
Afternoon sleeping	Yes	81	33.3%	71	35.3%	0.660
	No	162	66.7%	130	64.7%	
Day time sleeping	Yes	138	56.8%	122	60.7%	0.406
	No	105	43.2%	79	39.3%	

Hours of day time sleeping	1-2	12	8.7%	3	2.5%	0.023*
	3-4	32	23.2%	18	14.8%	
	5-6	33	23.9%	42	34.4%	
	7+	61	44.2%	59	48.4%	
Use hypnotics	Yes	10	4.1%	5	2.5%	0.345
	No	233	95.9%	196	97.5%	

* P < 0.05 (significant)

Table (4): Smoking habits as recorded by sampled students by their gender at Jazan University, Saudi Arabia 2017

Smoking habits		Gender				P
		Male		Female		
		No	%	No	%	
Smoking	Current	20	8.2%	7	3.5%	0.050*
	Non smoker	216	88.9%	191	95.0%	
	Ex-smoker	7	2.9%	3	1.5%	
Duration of smoking	Less than 1 year	4	14.8%	4	40.0%	0.316
	1-3	12	44.4%	4	40.0%	
	4-6	3	11.1%	0	0.0%	
	7+	8	29.6%	2	20.0%	
No. of cigarettes per day	1-4	10	37.0%	5	50.0%	0.194
	5-10	7	25.9%	3	30.0%	
	11-15	6	22.2%	0	0.0%	
	16-20	3	11.1%	0	0.0%	
	21+	1	3.7%	2	20.0%	
More smoking with exams	Yes	13	48.1%	1	10.0%	0.034*
	No	14	51.9%	9	90.0%	
Home smoking	Yes	13	48.1%	3	30.0%	0.322
	No	14	51.9%	7	70.0%	
Shisha smoking	Yes	34	14.0%	10	5.0%	0.002*
	No	209	86.0%	191	95.0%	
Duration of shisha smoking	Less than 1 year	7	20.6%	3	30.0%	0.262
	1-3	16	47.1%	3	30.0%	
	4-6	5	14.7%	0	0.0%	
	7+	6	17.6%	4	40.0%	
Home smoking of shisha	Yes	7	20.6%	3	30.0%	0.532
	No	27	79.4%	7	70.0%	
Chewing tinpack	Yes	3	1.2%	2	1.0%	0.119
	No	235	96.7%	199	99.0%	
	Previously	5	2.1%	0	0.0%	
Duration	Less than	3	37.5%	2	100.0%	0.475

of chewing tinpack	1 year				
	1-3	3	37.5%	0	0.0%
	4-6	1	12.5%	0	0.0%
	7+	1	12.5%	0	0.0%

* P < 0.05 (significant)

Table (5): Physical activities as recorded by sampled students by their gender at Jazan University, Saudi Arabia 2017

Physical activities			Gender				P
			Male		Female		
			No	%	No	%	
Do regular exercises	Yes	78	32.1%	56	27.9%	0.333	
	No	165	67.9%	145	72.1%		
If no, yes	No time	100	60.6%	65	44.8%	0.016*	
	No need	62	37.6%	74	51.0%		
	Unfit	3	1.8%	6	4.1%		
If yes, type of exercises	Traditional	49	62.8%	44	78.6%	0.050*	
	Body built	29	37.2%	12	21.4%		
Days of exercises / week	1-2	10	12.8%	13	23.2%	0.290	
	3-5	46	59.0%	29	51.8%		
	6-7	22	28.2%	14	25.0%		
Duration of exercises daily(min)	< 30 min	5	6.4%	12	21.4%	0.004*	
	30-60	44	56.4%	35	62.5%		
	> 60 min	29	37.2%	9	16.1%		
Duration of watching TV daily	Not watching	0	0.0%	0	0.0%	0.042*	
	< 1 hour	155	63.8%	152	75.6%		
	1-3	60	24.7%	37	18.4%		
	4-6	21	8.6%	8	4.0%		
	7+	7	2.9%	4	2.0%		
Duration of using mobile daily	Not using	0	0.0%	0	0.0%	0.001*	
	< 1 hour	6	2.5%	2	1.0%		
	1-3	54	22.2%	21	10.4%		
	4-6	85	35.0%	59	29.4%		
	7+	98	40.3%	119	59.2%		

* P ≤ 0.05 (significant)

Table (6): Nutritional habits as recorded by sampled students by their gender at Jazan University, Saudi Arabia 2017

Nutritional habits		Gender				P
		Male		Female		
		No	%	No	%	
Have break-fast	Usually	88	36.2%	66	32.8%	0.676
	Mostly	79	32.5%	61	30.3%	
	Sometimes	70	28.8%	68	33.8%	
	No	6	2.5%	6	3.0%	
Time of having break-fast	Before 8 AM	116	48.9%	67	34.4%	0.001*
	8-11 AM	114	48.1%	106	54.4%	
	After 11 AM	7	3.0%	22	11.3%	
Rate of having outdoor meals	0-25%	98	40.3%	111	55.2%	0.016*
	25-50%	88	36.2%	59	29.4%	
	51-75%	40	16.5%	22	10.9%	
	76-100%	17	7.0%	9	4.5%	
Have healthy food	Yes	117	48.1%	107	53.2%	0.286
	No	126	51.9%	94	46.8%	
Water liters / day	< 1 L	35	14.4%	83	41.3%	0.001*
	1-3 L	183	75.3%	109	54.2%	
	> 3 L	25	10.3%	9	4.5%	
Have between meals snacks	Usually	43	17.7%	76	37.8%	0.001*
	Mostly	61	25.1%	34	16.9%	
	Sometimes	112	46.1%	74	36.8%	
	No	27	11.1%	17	8.5%	
No. of snacks daily	One	109	50.5%	63	34.2%	0.003*
	2-3	94	43.5%	100	54.3%	
	4+	13	6.0%	21	11.4%	
No. of fast food meals / week	None	29	11.9%	36	17.9%	0.007*
	1-3	134	55.1%	127	63.2%	
	4-6	52	21.4%	26	12.9%	
	7+	28	11.5%	12	6.0%	
No. of daily meals	One	13	5.3%	17	8.5%	0.206
	2-3	201	82.7%	153	76.1%	
	4+	29	11.9%	31	15.4%	

* P ≤ 0.05 (significant)

5 DISCUSSION

6 CONCLUSIONS AND RECOMMENDATIONS

The current research proved that there is generally shortage in adopting healthy life style among medical students especially for smoking and nutritional behaviors and also there is significant differences between male and female students regarding many aspects of healthy behaviour. The researchers recommend that more health education sessions are required to improve all non-medical and medical students' awareness regarding importance and benefits of adopting healthy life style with more concern on male students. Also healthy life style should be studied for students before the university grade for early prevention of being embedded in unhealthy behavior specially drug utilization and addiction.

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