Original Article

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An Evaluation of Healthy Lifestyle Behaviors of Medical School Students

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ABSTRACT

Objective: The aim of the present study was to evaluate healthy lifestyle behaviors of medical school students attending Recep Tayyip Erdoğan University during academic year 2016-2017.

Methods: Among 510 students attending Recep Tayyip Erdoğan University during academic year 2016-2017, 285 were enrolled as volunteers in this study. A questionnaire form that was developed through literature information including sociodemographic characteristics as well as Healthy Lifestyle Behaviors Scale (HLBS) was used for data collection. Data analysis was performed through t-test, variance analysis, Mann-Whitney U, Kruskal-Wallis variance analysis. **Results:** Average age of the participants was 21-23 years. Mean scale score of the students was at moderate level with 127.38±19.28. The title of the subtopic with the highest score was "Self-realization" (25.19±4.89), whereas the lowest score was detected on "Physical Activity" (18.88±4.49). Female sex and improved awareness on health status were found to be associated with a healthy lifestyle attitude.

Conclusion: The improvement of health developing attitudes of medical school students who are future healthcare professionals as well as role models for the community is important for public health. In line with these outcomes, planning and implementation of training programs regarding the topics that the students found unsatisfying in terms of health behaviors are essential.

Keywords: Healthy lifestyle behaviors scale, medical school student, healthcare responsibility

Introduction

A healthy lifestyle is defined as the individual's ability to choose appropriate behaviors according to his / her health status and to control the conditions that may affect his / her health while organizing daily activities (1).

According to the data of the World Health Organization, 70-80% of death causes, especially in developed countries, include cancer, diabetes and cardiovascular diseases which are related to lifestyle factors such as malnutrition, substance use and stress (2).

Health protection and the prevention of diseases depend on the proper implementation of healthy lifestyle behaviors. Therefore, it is important to implement training programs to improve life styles (3, 4).

As in all areas, educator should primarily be an example in health, otherwise it will be difficult for patients to change their lifestyles (5). Health professionals affect the community in terms of health service due to their social and occupational status (4).

University period, which is one of the most important change processes especially in the lives of young people, introduces innovations in many areas, such as leaving the family, living in a new city, and meeting different people by taking the first steps in the profession. When the medical students who will be

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responsible for the health of the community are considered, the importance of our study has increased even more.

The aim of this study is to investigate the healthy lifestyle behaviors (HLB) of the students at Recep Tayyip Erdoğan School of Medicine and the affecting factors.

Methods

The population of this descriptive study consisted of all medical faculty students studying at Recep Tayyip Erdoğan Faculty of Medicine during 2016-2017 academic year. The sample group was not selected and 285 students were reached on a voluntary basis.

The data of the study were collected by using a questionnaire in a one-to-one interview method. The questionnaire form consisted of sociodemographic characteristics of the students and the 52-item Healthy Lifestyle Behavior Scale (HLBS).

Ethics committee approval was obtained for this study from the ethics committee of Recep Tayyip Erdoğan Faculty of Medicine with protocol number 58. Informed consents were also obtained from those who participated in the study.

Healthy Lifestyle Behavior Scale HLBS

It was first created by Waker et al. (6) and named as HLBS-II after being updated in 1996. It has been adapted to our country by Bahar et al. (7). It was compiled under six sub-headings as health responsibility, interpersonal communication, nutrition, physical activity, stress management, and spiritual development.

Statistical analysis

The data on the descriptive characteristics of the students were evaluated as number, percentage and mean. The data were evaluated in IBM SPSS 20.0 (IBM Statistical Package for the Social Sciences Corp.; Armonk, NY, ABD). In the evaluation of the data; t test, Anova, Kruskal Wallis Variance Analysis and Mann-Whitney U tests, and correlation analysis were used for descriptive statistics. P value less than 0.05 was considered statistically significant.

Results

Of 554 students who were receiving education in 2016-2017, 314 voluntarily participated in this descriptive study, and 29 incomplete responders were excluded (s = 285).

The mean age of the students included in the study was 21,23. Of the students, 56.84% were female, 88.77% were living with their family and 64.92% of them had good or very good health perception. Other descriptive findings are presented in Table 1.

The average scale score of the students is 127,38 ± 19,28, which indicates the medium level. While the sub-heading with the highest score was spiritual development (25,19 ± 4,89), the sub-heading with the lowest score was physical activity (18,88 ± 4,49) (Table 2).

When healthy lifestyle behavior scores were examined by gender, the total score of female students was found to be significantly higher than that of male students ($p < 0.05$). When the sub-groups were examined, male students were seen to have higher scores than females only in the sub-heading of physical activity.

When the relationship between the place where the students lived and the HLBS scores was examined, the sub-heading of nutrition was remarkable. The scores of nutrition in those who lived with their families were significantly higher than those who lived apart from their families ($p < 0.05$). No significant difference was found in other sub-headings. There was a similar picture also between the students with and without a chronic disease. The sense of responsibility for nutrition and health in the students with chronic disease was significantly higher than in the students without disease ($p < 0.05$).

Table 1: Sociodemographic characteristics of students

Characteristics	n	%
Gender		
Male	123	43.16
Female	162	56.84
Place where they lived		
With family	32	11,23
Apart from family	253	88.77
Mother's educational status		
High school or below	225	78.95
University	60	21.05
Father's educational status		
High school or below	142	49,92
University	143	50.08
Health status perception		
Very good	185	64.92
Medium	95	33.33
Poor	5	1.75
Economical situation		
Below 1500 TL	24	8.42
1500-3000 TL	108	37.89
Above 3000 TL	153	53.68
Chronic disease status		
Yes	32	11.23
No	253	88.77
Grade		
1st term	50	17.54
2nd term	62	21.75
3rd term	74	25.97
4th term	50	17.54
5th term	26	9.13
6th term	23	8.07

Table 2: Distribution of mean scores of students according to HLBS and subscales

Subgroups	Average scores (lowest and highest scores obtained)	lowest and highest scores
Spiritual development	25.19±4.89 (14-36)	9-36
Health responsibility	22.25±4.65 (16-36)	9-36
Physical activity	18.88±4.49 (8-30)	8-32
Nutrition	20.56±4.06 (16-34)	9-36
Interpersonal relations	22.33±4.05 (12-36)	9-36
Stress management	18.96±3.86 (10-30)	8-32
Scale total	127.38±19.28 (90-196)	52-208

Table 3: Comparison of some characteristics of students with HLBS subgroups and total score

Characteristics	Health Responsibility	Physical activity	Spiritual development	Nutrition	Interpersonal communication	Stress management	Total
Gender							
Male	18.78+4.43	17.92+4.25	24.98+4.89	18.87+4.01	23.56+4.45	17.89+3.98	122+9.24
Female	21.23+4.54	15.98+3.89	25.87+4.77	21.78+4.56	23.89+4.56	18.08+3.77	126.83+9.31
p	0.01	0.01	0.065	0.01	0.071	0.024	0.017
Place where they lived							
With family	21.19+4.02	17.98+4.25	25.72+4.68	23.65+4.87	23.48+4.39	19.89+3.89	131.91+10.21
Apart from family	20,89+3,98	16.89+4.06	25.68+4.46	19.89+4.21	22.89+4.74	19.01+3.78	125.25+9.12
P value	0.016	0.227	0.896	0.039	0.89	0.447	0.052
Mother's educational status							
High school or below	22.26+4.05	21.98+3.98	24.45+4.08	20.89+3.78	22.89+4.11	19.78+3.68	132.25+9.73
University	22.45+4.09	21.87+4.05	24.41+4.11	20.65+3.49	22.96+4.24	19.97+3.89	132.31+9.23
p	0.548	0.654	0.569	0.589	0.489	0.789	0.695
Father's educational status							
High school or below	20.15+3.77	18.89+3.54	24.48+4.12	20.46+3.87	22.56+4.56	19.74+3.41	126.28+8.97
University	20.76+3.96	19.01+3.69	24.45+4.25	20.89+3.78	22.78+4.25	19.54+3.69	127.43+9.32
p	0.897	0.789	0.989	0.658	0.711	0.896	0.691
Health status perception							
Good	22.76+4.75	19.89+3.78	25.87+4.78	21.89+3.87	22.22+4.25	19.99+3.87	132.62+10.08
Medium	20.78+4.15	18.98+3.87	25.84+4.56	20.98+3.85	21.96+4.11	19.56+3.78	128.1+9.56
Poor	19.98+3.87	17.98+3.65	24.98+4.09	20.99+3.89	22.01+3.98	17.08+3.41	123.02+8.78
p	0.021	0.123	0.545	0.654	0.598	0.036	0.046
Economical situation							
1500 TL altı	21.12+4.15	18.98+3.77	25.01+4.12	19.89+3.69	20.06+3.74	17.65+3.54	123.01+9.02
1500-3000 TL	21.65+4.16	19.01+4.01	24.96+4.21	19.78+3.87	20.89+3.88	18.05+3.66	124.34+9.12
Above 3000 TL	22.01+4.25	18.77+3.98	25.22+4.09	20.01+4.06	21.78+4.12	19.22+3.77	127.01+10.11

Table 3 contiuned

p	0.056	0.256	0.312	0.065	0.015	0.024	0.061
Chronic disease status							
Yes	22.89+4.15	19.25+3.87	25.45+4.45	21,02+4.03	22.58+4.16	18.56+3.68	129.75+10.78
No	20.56+4.12	18.79+3.84	25.22+4.25	18.87+3.87	22.48+4.06	19.01+3.82	124.93+9.15
p	0,012	0.325	0.696	0.014	0.714	0.064	0.089
Grade							
1-2-3	20.12+3.85	18.89+3.65	25.65+4.65	19.68+3.69	21.56+4.12	18.56+4.12	124.46+8.91
4-5-6	22.98+4.01	18.78+3.59	25.23+4.1	19.96+3.87	21.45+4.18	18.78+3.89	127.18+9.32
p	0.025	0.878	0.978	0.912	0.789	0.696	0.369
	21.25	18.88	25.19	20.56	22.33	18.96	127.38

Another feature affecting the total HLBS score was the perception of health status of the students. The students with a good perception of health status had significantly higher HLBS scores than the others ($p < 0.05$). The most important factor for this situation was the sub-headings of health responsibility and stress management.

As the grade of the students who attended the research increased, their health responsibility scores were increasing. The relation between the other characteristics of the students and the HLBS scores is presented in Table 3.

Discussion

In our study, the average of healthy lifestyle behaviors of the medical faculty students was 127.38 and it was found to be medium level. Similar results were also found in the studies conducted in Turkey by Cihangiroglu et al. (8) and Altun (9). In studies conducted with the same scale in the abroad literature, the mean score of HLBS was lower (10, 11).

When the gender and HLBS mean scores were examined in our study, it was found that the total HLBS score was significantly higher in male students and this situation was found to be consistent with many studies in the literature (12-14). It is observed that the most important sub-headings affecting the total score are health responsibility and nutrition. In this area, the sub-heading which is in favor of the males is exercise, which is similar to the study of Ünalan et al. (15).

When the sub-sections of healthy lifestyle behavior scores are examined, it is seen that the sub-heading of spiritual development has the highest score and the sub-heading of physical development has the lowest score. This was consistent with the study conducted by Diez SMU et al. in Mexico (16). The high score of spiritual development sub-heading can be related to cultural structure and belief system; physical activity being in the last place may be due to the lack of a gym within the faculty and to the fact that the students spend most of their time at school. When we considered the grade of the students, the mean score of the health responsibility sub-heading was found to be significantly higher in students in the 4th, 5th and 6th terms than in the students in the 1st and 3rd terms ($p < 0.05$). This shows similar characteristics with the study that Nuss et al. (17) conducted with medical students. Health responsibility lessons taken by the students of the medical faculty may be shown as the factors for this situation.

No significant difference could be found between the education level of the parents of the students and the HLBS scores. There are different results on this subject in the literature (13, 14). This situation can be explained by the regional differences that the students experience.

When the data were examined in terms of the status of living with family, the nutrition sub-heading of HLBS was found significantly higher in those who lived with their families than in those who did not, and this revealed similar results with the study conducted in İzmir (3). This may be due to the fact that the family is an extremely helpful factor for the students in terms of regular nutrition. In addition, the intensive pace of study at medical school may have disrupted the diet of the students.

As the income level of the families increased, HLBS scores were increasing, and this was consistent with the study conducted by Koçoğlu et al. (18). Interpersonal communication and stress management were significantly higher in those with higher economic income ($p < 0.05$).

It has been stated that having chronic disease increases health responsibility in health promotion model (19). In our study, it was found that health responsibility and nutrition sub-heading were significantly higher in patients with chronic disease than those without disease ($p < 0.05$).

It has been stated in the study of Pender et al. (20) that the most important factor in the application and development of the healthy lifestyle behavior is the level of health perception of an individual. Therefore, people who perceive themselves as healthy apply more healthy lifestyle behaviors. In our study, it was found that the total HLBS scores were significantly higher in the students with a good level of health perception.

Conclusion

Female gender and a good level of health perception were found to be related to healthy lifestyle behavior. Health promotion behaviors need to be increased in the medical faculty students who are the guiding group for the society in the field of health.

Ethics

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Recep Tayyip Erdoğan University School of Medicine (Date: 31.3.2017; No: 52).

Informed Consent: Written informed consent was obtained from students who participated in this study.

Peer-review: Externally peer-reviewed.

Conflict of Interest: The author have no conflicts of interest to declare.

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