



## Factors affecting healthy lifestyle behaviors of nursing students

Hemşirelik öğrencilerinin sağlıklı yaşam biçimi davranışlarını etkileyen faktörler

Gül Dural<sup>1</sup>, Ümmühan Aktürk<sup>2</sup>

<sup>1</sup>Fırat University, Faculty of Health Sciences, Department of Nursing, Elazığ, Turkey

<sup>2</sup>İnönü University, Faculty of Nursing, Department of Nursing, Malatya, Turkey

### ABSTRACT

**Aim:** This descriptive study was conducted to determine nursing students' healthy lifestyle behaviors and the factors affecting them.

**Methods:** The population of the research consisted of 1st, 2nd, 3rd and 4th grade students enrolled in a nursing program at a university in the fall semester of the 2021-2022 academic year. The research was completed with 500 students who agreed to participate. The research data were collected using the Personal Information Form and the Healthy Lifestyle Behaviors II Scale. Number, percentage, mean, t-test, and analysis of variance (ANOVA) tests were used to evaluate the data.

**Results:** Students' Healthy Lifestyle Behaviors II Scale mean total score was 127.85±24.02 (min: 52, max: 208) and it was seen to be at a moderate level. It was determined that the variables including class, education type, income level, current residence, and health center visiting frequency affect the scale's total score.

**Conclusion:** In the study, it was seen that the healthy lifestyle behaviors of nursing students were at a moderate level. It may be suggested to make arrangements to bring healthy lifestyle behaviors to nursing students' education.

**Keywords:** healthy lifestyle behaviors; nursing; health behavior; nursing student.

### ÖZET

**Amac:** Bu araştırma, hemşirelik öğrencilerinin sağlıklı yaşam biçimi davranışlarının ve etkileyen faktörlerin belirlenmesi amacıyla tanımlayıcı tipte yapılmıştır.

**Yöntem:** Araştırmanın evrenini 2021-2022 eğitim öğretim yılı güz yarısında bir üniversitede hemşirelik programına kayıtlı olan 1, 2, 3 ve 4. sınıf öğrencileri oluşturmuştur. Araştırma katılmayı kabul eden 500 öğrenci ile tamamlanmıştır. Araştırmada veriler Kişisel Bilgi Formu ve Sağlıklı Yaşam Biçimi Davranışları II Ölçeği kullanılarak toplanmıştır. Verilerin değerlendirilmesinde sayı, yüzde, ortalama, t-testi ve varyans analizi (ANOVA) testleri kullanılmıştır.

**Bulgular:** Öğrencilerin Sağlıklı Yaşam Biçimi Davranışları II Ölçeği toplam puan ortalaması 127.85±24.02 (min: 52, max: 208) olup orta düzeyde olduğu görülmüştür. Sınıf, öğrenim türü, gelir durumu, şu ana yaşanılan yer ve sağlık merkezine gitme sıklığı değişkenlerinin ölçek toplam puanı üzerinde etkili olduğu saptanmıştır.

**Sonuçlar:** Çalışmada öğrencilerin sağlıklı yaşam biçimi ölçeği puan ortalamalarının orta düzeyde olduğu görülmüştür. Hemşirelik öğrencilerinin eğitimine sağlıklı yaşam biçimi davranışları kazandırılmasına yönelik düzenlemeler yapılması önerilebilir.

**Anahtar kelimeler:** hemşirelik; öğrenci hemşire; sağlık davranışı; sağlıklı yaşam biçimi davranışları

### Introduction

Health has always had a central place in people's lives (Bostan Akmeşe & Beşer, 2017). All individuals need to adopt positive health behaviors and develop healthy lifestyles to protect and improve their wellness (Aksoy & Uçar, 2014). A healthy lifestyle is individuals' controlling all situations that may affect their health and regulating their daily activities to enhance their wellness (Aksoy & Uçar, 2014; Bostan Akmeşe & Beşer, 2017). Healthy lifestyle behaviors are all behaviors that individuals apply to maintain a healthy life and protect themselves from disease (Akkuş, Türk & Aydemir, 2019; Pınar, Çelik & Bahçecik, 2009; Yalçınkaya, Gök Özer & Karamanoğlu, 2007). The first steps in promoting these behaviors are taken in society and family. Then it grows and changes with education (Yalçınkaya et al., 2007). Chronic diseases can be prevented, and healthy aging can be achieved with the acquisition of these behaviors (Aksoy & Uçar, 2014).

To bring healthy lifestyle behaviors to people, these behaviors should be perceived and identified by the individuals first (Aksoy & Uçar, 2014). The individual, making healthy lifestyle behaviors a part of his/her life, not only maintains his

health status but also improves it (Ertop, Yılmaz & Erdem, 2012). Healthcare professionals bear significant responsibilities in this regard. Healthcare professionals are in charge of the development and maintenance of these behaviors (Yalçınkaya et al., 2007). Due to their professional responsibilities, healthcare professionals can guide other individuals with their lifestyle and influence the group they serve with their educative roles (Ertop et al., 2012). However, first, healthcare workers should gain these behaviors (Yalçınkaya et al., 2007). Among healthcare professionals, nurses, whose roles in protecting, maintaining, and improving society's health are constantly increasing, should be active and experts in healthy lifestyle behaviors (Kaçan & Örsal, 2019).

Nursing education is a critical process in shaping students' personal health behaviors and healthy lifestyle behaviors. As future healthcare providers, nursing students are job candidates who will guide society in protecting and promoting health. To provide efficient care to other people, a nursing student must first gain behaviors to protect their individual health (Kaçan & Örsal, 2019; Yılmazel, Çetinkaya & Naçar, 2013).

Nurses have a significant place among healthcare professionals. Nursing students must acquire healthy lifestyle behaviors to become expert and competent nurses in the future. This research was conducted to determine the healthy lifestyle behaviors of nursing students and the influencing factors.

## Methods

### Study Design

The study was conducted as descriptive research to determine the factors affecting healthy lifestyle behaviors of nursing students

### Sampling and Participants

The Research was carried out with the nursing department students of a university in the Eastern Anatolia region of Turkey. The study universe consisted of 1st, 2nd, 3rd, and 4th-grade students enrolled in the nursing program in the fall semester of the 2021-2022 academic year.

In the sample selection, all students in the universe were tried to be reached. The 500 students who volunteered to participate in the study made up the sample. Students who were not willing to participate and absentees were excluded from the study.

### Data collection tools

The study data were collected using the Personal Information Form, Healthy Lifestyle Behaviors Scale-II (HLBS-II).

### Personal Information Form

This form includes twelve questions created by the researcher through a literature review.

### Healthy Lifestyle Behaviors Scale-II

HLBS-II was first developed in 1987 by Pender et al. Bahar et al (2008) conducted the Turkish validity and reliability study of the HLBS-II scale. HLBS-II is a 52-item Likert-type scale with the options of "never," "sometimes," "often," and "regularly." The scale consists of six subscales under the headings of "health responsibility," "physical activity," "nutrition," "spiritual development," "interpersonal support," and "stress management." The lowest total score on the scale is 52, and the highest total score is 208. It is accepted that the higher the total score, the more healthy lifestyle behaviors of the student (Bahar, Beşer, Gördes, Ersin & Kıssal 2008).

### Statistical analysis

The SPSS statistics program was used to evaluate the data. Skewness and kurtosis tests were used to determine the data conformity to a normal distribution, and the data were observed in a normal distribution. Number, percentage, mean, t-test, and variance analysis (ANOVA) tests were used to evaluate the data. The significance level of the tests was accepted as  $p < 0.05$ .

### Ethical considerations

Written permission was obtained from the Nursing Department of the University before collecting the study data. The participant students consented after being provided with the information on the research purpose. Besides, İnönü University Health Sciences Non-Interventional Clinical Research Ethics Committee granted ethical approval for the study (Approval No: 2021/1684, date: 23/02/2021).

## Result

The informative characteristics of the nursing students are shown in Table 1. It was observed that, of the students, the average age was  $20.4 \pm 1.66$ , 71% were female, 38.8% were in the first grade, 69.9% were formal education student, 57.4% had middle income, 68.8% mostly grew up in urban areas, 44.4% were living with their family, 66.4% applied to healthcare centers only in case of serious illness, 86.2% were not smoking, 92% were not using alcohol, 93.6% had no chronic disease, and 46% had a chronic disorder in their family.

Table 1. Informative features of nursing students

Informative Features	Number	%
<b>Gender</b>		
Female	355	71.0
Male	145	29.0
<b>Grade</b>		
1.	194	38.8
2.	101	20.2
3.	155	31.0
4.	50	10.0
<b>Education type</b>		
Formal education	346	69.2
Evening education	154	30.8
<b>Income status</b>		
Bad	141	28.8
Middle	287	57.4
Good	72	14.4
<b>The place she/he spends most of her/his life</b>		
Homestay	222	44.4
Friend house	60	12.0
Student dormitory	218	43.6
<b>The frequency of healthcare visits</b>		
Whenever she/he gets sick	143	28.6
In case of a severe illness	332	66.4
For a check every six months	25	5.0
<b>Smoking</b>		
Yes	69	13.8
No	431	86.2
<b>Alcohol Use</b>		
Yes	40	8.0
No	460	92.0
<b>Chronic Illness</b>		
Yes	32	6.4
No	468	93.6
<b>Chronic disease in the family</b>		
Yes	230	46.0
No	270	54.0
<b>Age (mean±SD)</b>	20.4±1.66	

In Table 2, the students' average scores in the HLBS-II scale and its sub-dimensions are given. The students' total score average on the HLBS-II scale was  $127.85 \pm 24.02$ . The students scored  $20.79 \pm 4.91$  on the health responsibility sub-dimension,  $16.74 \pm 5.16$  on the physical activity sub-dimension,  $20.14 \pm 5.05$  on the nutrition sub-dimension,  $25.76 \pm 5.42$  on the spiritual development sub-dimension,  $24.88 \pm 5.17$  on the interpersonal support sub-dimension, and  $19.53 \pm 4.28$  on the stress management sub-dimension.

Table 2. Distribution of nursing students' HLBS-II total and sub-dimension mean scores.

HLBS-II Sub-dimensions	Min-Max	mean±SD
Health responsibility	9-36	20.79±4.91
Physical activity	8-32	16.74±5.16
Nutrition	9-70	20.14±5.05
Spiritual development	9-36	25.76±5.42
Interpersonal support	9-36	24.88±5.17
Stress management	8-32	19.53±4.28
Total score	52-208	127.85±24.02

Table 3. Average scores of the HLBS-II scale according to nursing students' informative characteristics

Informative characteristics	Health Responsibility	Physical Activity	Nutrition	Spiritual Development	Interpersonal Support	Stress Management	Total score
<b>Gender</b>							
Female	20.81±4.54	16.15±4.88	20.23±5.09	25.88±5.13	25.18±4.96	19.53±3.98	127.80±22.45
Male	20.73±5.74	18.19±5.52	19.92±4.97	25.47±6.07	24.14±5.61	19.52±4.95	127.99±27.57
	t= 0.171 p= 0.864	t= -4.069 p= 0.000	t= 0.615 p= 0.539	t= 0.765 p= 0.445	t= 2.040 p= 0.042	t= 0.020 p= 0.984	t= -0.081 p= 0.935
<b>Grade</b>							
1.	20.11±4.98	16.11±5.20	19.70±4.51	25.13±5.66	24.33±5.49	19.11±4.47	124.52±24.82
2.	21.13±5.25	18.01±5.00	20.64±4.86	26.00±5.60	24.86±5.12	19.39±4.01	130.05±24.36
3.	20.99±4.36	16.33±5.06	19.66±4.19	26.18±4.98	25.34±4.72	19.73±4.06	128.25±21.38
4.	22.08±5.32	17.90±5.08	22.30±8.36	26.42±5.28	25.62±5.31	20.76±4.56	135.08±26.28
	F= 2.655 p= 0.048	F= 4.266 p= 0.005	F= 4.391 p= 0.005	F= 1.486 p= 0.217	F= 1.471 p= 0.221	F= 2.137 p= 0.095	F= 3.086 p= 0.027
<b>Education type</b>							
Formal education	20.54±4.80	16.34±5.13	19.63±4.28	25.65±5.43	24.71±5.11	19.36±4.31	126.25±23.28
Evening education	21.33±5.13	17.64±5.11	21.29±6.33	26.01±5.39	25.24±5.31	19.90±4.21	131.44±25.31
	t= -1.644 p=0.101	t= -2.627 p= 0.009	t= -3.428 p=0.001	t= -0.697 p= 0.486	t= -1.051 p= 0.294	t= -1.321 p= 0.187	t= -2.240 p= 0.026
<b>Income status</b>							
Bad	20.37±5.52	15.87±5.32	19.53±4.53	24.68±5.61	24.29±5.59	19.07±4.62	123.82±25.56
Middle	20.88±4.62	16.94±5.16	20.31±5.42	26.08±5.33	25.00±5.01	19.66±4.11	128.89±23.52
Good	21.20±4.80	17.66±4.62	20.65±4.43	26.69±5.10	25.54±4.91	19.90±4.24	131.61±22.06
	F= 0.817 p= 0.442	F= 3.370 p= 0.035	F= 1.561 p= 0.211	F= 4.297 p= 0.014	F= 1.590 p=0.205	F= 1.219 p= 0.296	F= 3.154 p= 0.044

Table 3 shows the comparison of the HLBS-II scale's total and sub-dimension mean scores with the students' informative characteristics. When the HLBS-II scale total and sub-dimension mean scores were examined according to the students' gender, it was observed that the difference between genders was statistically significant in physical activity and interpersonal support sub-dimension mean scores ( $p < 0.05$ ). When the students' HLBS-II total and sub-dimension averages were investigated considering their classes, there was a statistically significant difference in the students' health responsibility, physical activity, nutrition sub-dimensions averages, and scale's total score average ( $p < 0.05$ ). When the students' HLBS-II total and sub-dimension averages were examined according to the type of education, there was a statistically significant difference in the physical activity and nutrition sub-dimensions averages and scale's total average score ( $p < 0.05$ ). When the students' HLBS-II total and sub-dimension mean scores were investigated according to the students' income status, it was seen that there was a statistically significant difference in physical activity and

spiritual development sub-dimensions averages and scale's total mean score ( $p < 0.05$ ) (Table 3).

Table 4 shows the comparison of the HLBS-II scale and sub-dimension mean scores according to some informative features of the students' lifestyle. The differences in the HLBS-II total scale averages and sub-dimension average scores regarding where the students spent most of their lives were not statistically significant ( $p > 0.05$ ). It was observed that the difference in the health responsibility, physical activity, nutrition, spiritual development sub-dimensions mean scores, and scale's total mean scores related to the students' current living place was statistically significant ( $p < 0.05$ ). The difference in the health responsibility, nutrition, spiritual development sub-dimension average scores and scale's total average score regarding the students' health-center visit frequency was statistically significant ( $p < 0.05$ ). It was observed that the difference within the mean scores of the students' spiritual development, interpersonal support, stress management sub-dimensions related to smoking was statistically significant ( $p < 0.05$ ).

Table 4. Average scores of the HLBS-II scale according to nursing students' some introductory features respecting their lifestyle

Informative Characteristics	Health Responsibility	Physical Activity	Nutrition	Spiritual Development	Interpersonal Support	Stress Management	Total Score
<b>The place she/he spent most of her/his life</b>							
City	20.83±4.83	16.81±5.07	20.11±5.16	25.96±5.35	24.94±4.98	19.37±4.21	128.05±23.67
District	20.84±5.39	16.52±5.35	20.52±5.08	25.52±5.63	25.05±5.89	20.15±4.73	128.63±26.16
Village	20.27±4.33	16.72±5.41	19.36±4.09	24.84±5.37	23.93±4.72	19.18±3.49	124.31±21.01
	F= 0.266 p= 0.766	F= 0.136 p= 0.873	F= 0.849 p= 0.429	F= 0.975 p= 0.378	F= 0.829 p= 0.437	F= 1.562 p= 0.211	F= 0.547 p= 0.579
<b>The place where she/he lives at the moment</b>							
Homestay	21.33±4.65	17.18±5.02	20.67±4.57	26.23±5.21	25.18±5.07	19.78±4.13	130.39±22.79
Friend house	21.55±5.40	18.11±5.83	20.68±4.81	26.63±5.38	25.55±5.06	20.10±4.57	132.53±25.40
Student dormitory	20.02±4.95	15.92±4.98	19.48±5.52	25.04±5.57	24.38±5.29	19.11±4.33	123.98±24.38
	F= 4.819 p= 0.008	F= 5.758 p= 0.003	F= 3.330 p= 0.037	F= 3.573 p= 0.029	F= 1.868 p= 0.155	F= 1.952 p= 0.143	F= 5.305 p= 0.005
<b>Frequency of healthcare visits</b>							
Whenever she/he gets sick	21.97±5.44	17.41±5.61	21.02±6.31	26.15±5.43	25.23±5.35	20.11±4.54	131.93±26.72
In case of a severe illness	20.31±4.64	16.45±4.89	19.75±4.45	25.77±5.33	24.79±5.08	19.36±4.17	126.46±22.60
For a check every six months	20.32±4.18	16.72±5.70	20.24±4.00	23.40±6.11	24.38±5.29	18.40±3.88	123.04±23.96
	F= 5.971 p=0.003	F= 1.741 p= 0.176	F= 3.207 p= 0.041	F= 2.768 p= 0.064	F= 0.776 p= 0.461	F= 2.492 p= 0.084	F= 3.153 p= 0.044
<b>Smoking</b>							
Yes	20.07±5.14	17.60±5.50	19.26±4.04	24.36±6.24	23.37±5.52	18.30±4.26	122.98±24.62
No	20.90±4.87	16.60±5.09	20.28±5.19	25.99±5.25	25.12±5.08	19.72±4.26	128.63±23.85
	t= -0.757 p=0.449	t= 2.283 p= 0.023	t= -0.576 p= 0.565	t= -2.434 p= 0.015	t= -2.117 p= 0.035	t= -2.601 p= 0.010	t= -1.251 p= 0.211

In Table 5, the comparison of the total and sub-dimension mean scores of the HLBS-II scale is given according to the status of having a chronic disease and the presence of a chronic disease in the family. Relating to the presence of chronic diseases in the students, the difference in the HLBS-II total mean scores and sub-dimensions mean score was not statistically significant ( $p>0.05$ ). The difference in the total and sub-dimension average scores of the HLBS-II scale was not statistically significant regarding the presence of a chronic illness in students' families ( $p>0.05$ ).

## Discussion

In the research, nursing students' HLBS-II average total score is 127.85 (Table 2). The highest score on the scale is 208, and the students can be argued to have reached a moderate-level score. The students' average score is 124.11 in the Kocaakman et al. study, 122.09 in the Tambağ study, 136.12 in the Aksoy et al. study, 128.97 in the Özyazıcıoğlu et al. study, 129.61 in the Erzincanlı et al. study, 128.16 in the Al-Kandari and Vidal study (Aksoy & Uçar, 2014; Al-Kandari & Vidal, 2007; Kocaakman, Aksoy & Eker, 2010; Özyazıcıoğlu, Kılıç, Erdem, Yavuz & Afacan, 2011; Tambağ, 2011). In general, it has been observed that the nursing students' healthy lifestyle behaviors are at a moderate level. The results of the current study are similar to the results of the researches in the literature. This situation can be explained with the rationales that these behaviors are not sufficiently gained in the family environment, that these issues are not covered enough in the school, and the university curriculum is mostly disease-oriented.

In the current study, the students have reached the highest score in the spiritual development sub-dimension (25.76) (Table 2). In the literature review, the spiritual development sub-dimension has been observed at the highest sub-dimension score in the studies of Erzincanlı et al. (25.46) and Aksoy et al. (27.90) (Aksoy & Uçar, 2014; Erzincanlı et al. 2015). There is a similarity between the current research and the results of these studies. It can be said that the reason for this stems from the students' cultural structures and belief systems.

In the study, the students have reached the lowest score in the physical activity sub-dimension (16.74) (Table 2). This result shows resemblance with the studies of Karaahmetoğlu et al. (9.72), Tambağ (10.67), Aksoy (16.86) & Özyazıcıoğlu et al. (16.60) (Aksoy & Uçar, 2014; Özyazıcıoğlu et al., 2011; Tambağ & Turan, 2012; Ulaş Karaahmetoğlu, Soğuksu &

Kaçan Softa, 2014). As a result, it can be said that students' spending more time at school and not spending too much time on physical activities have become effective in emerging this situation.

When students' HLBS-II scores have been analyzed according to gender, it is seen that male students have higher average physical activity subscale scores and the difference between groups is statistically significant ( $p<0.005$ ). In female students, the interpersonal support sub-dimension mean scores are higher, and the difference between the groups is statistically significant ( $p<0.05$ , Table 3). In the Tambağ study, it has been observed that male students' physical activity sub-dimension average score is higher than female students, and the mean scores of health responsibility and nutrition are higher in female students, and the difference between groups is statistically significant (Tambağ & Turan, 2012). In the Hacıhasanoğlu study, male students obtain higher scores in the physical activity sub-dimension, and female students in the health responsibility and nutrition sub-dimensions, and the difference between the groups is statistically significant (Hacıhasanoğlu, Yıldırım, Karakurt & Sağlam, 2011). In their study, also Alkandari and Vidal have found male students' physical activity sub-dimension average score is higher, and the difference between the groups is statistically significant (Al-Kandari & Vidal, 2007). The result of the study is generally similar to the literature. The differences between the literature and the current research may emerge from the women's different duties and responsibilities in distinct societies and the participants' cultural variations in the study. In the study, it has been observed that the difference between the health responsibility, physical activity, nutrition, and scale total scores of the students according to their classes was statistically significant ( $p<0.05$ , Table 3). It has been seen that the fourth-grade students reached the highest scores in the total score of HLBS-II, as well as the health responsibility and the nutrition sub-dimensions. The second-grade students achieved the highest score in the physical activity sub-dimension. The Tambağ study has reported that the difference between students' health responsibility, physical activity, and scale's total scores is statistically significant according to the students' classes (Tambağ, 2011). Karaahmetoğlu et al. have found that the difference in the scale total and sub-dimension mean scores according to students' classes is statistically insignificant (Ulaş Karaahmetoğlu et al., 2014). The higher scores of the upper classes, in general, can be reasoned with the more courses and applications taken by the students.

Table 5. The average score of the HLBS-II Scale regarding the presence of chronic diseases in nursing students and their families

Informative Characteristics	Health Responsibility	Physical Activity	Nutrition	Spiritual Development	Interpersonal Support	Stress Management	Total Score
<b>Presence of chronic illness</b>							
Yes	21.00±3.88	17.46±5.88	19.37±4.10	24.15±5.43	24.75±4.87	18.68±4.58	125.43±21.72
No	20.77±4.98	16.69±5.11	20.19±5.11	25.87±5.40	24.89±5.20	19.58±4.26	128.02±24.18
	t= -0.588	t= 0.819	t= -0.886	t= -1.740	t= -0.149	t= -1.150	t= -0.588
	p= 0.557	p= 0.413	p= 0.376	p= 0.082	p= 0.882	p= 0.251	p= 0.557
<b>Presence of chronic illness in family</b>							
Yes	20.46±4.87	16.47±5.08	19.64±4.11	25.87±5.23	24.80±5.16	19.25±4.26	126.52±22.95
No	21.06±4.94	16.97±5.22	20.56±5.71	25.67±5.58	24.94±5.19	19.76±4.29	128.99±24.87
	t= -1.364	t= -1.088	t= -1.022	t= 0.427	t= -0.309	t= -1.339	t= -1.147
	p= 0.173	p= 0.277	p= 0.064	p= 0.670	p= 0.757	p= 0.181	p= 0.252

In the research, it has been observed that the difference in physical activity, spiritual development, and scale total scores regarding the students' income level are statistically significant, and the average scores increase as the income level increases. In the Karaahmetoğlu study, it has been found that the difference in scale averages is insignificant in terms of income level, but as the income level increases, the mean scores increase (Ulaş Karaahmetoğlu et al., 2014). Özyazıcıoğlu et al. also have found that considering the income level, the difference in nutrition sub-dimension is statistically significant (Özyazıcıoğlu et al., 2011). In their research, Aksoy et al. have found that as the income level increases, the scale score increases, and the difference is statistically significant (Aksoy & Uçar, 2014). The study results are usually similar to the literature. The reason why the healthy life scores increase as the income level increases can be explained as high income improves living conditions and thus contributes positively to a healthy lifestyle.

According to the place where the student spent her/his life in research, it was observed that the difference in the HLBS-II total and sub-dimensions mean scores was insignificant ( $p>0.05$ , Table 4). The literature review results were also similar to the current research (Ulaş Karaahmetoğlu et al., 2014).

In the study, the difference in health responsibility, physical activity, nutrition, spiritual development, and scale's total score is significant according to the place students stay during university education ( $p<0.05$ , Table 4). It was observed that the mean scores are higher in students staying in the house of friends. As a result of a study, the difference in healthy lifestyle behaviors is statistically significant considering the place the students live during the university (Aksoy & Uçar, 2014).

In the current study, according to the frequency of going to the health center, the difference in the HLBS-II total score mean scores, health responsibility, and nutrition sub-dimension is statistically significant ( $p<0.05$ , table 4) and supports the study results in the literature (Aksoy & Uçar, 2014). According to these results, it can be said that students take their health responsibilities sufficiently. In the study, respecting smoking, the difference in the HLBS-II stress management sub-dimension score is statistically significant ( $p<0.05$ , Table 4). Ulaş Karaahmetoğlu et al. have found a statistically significant correlation between smoking and exercise sub-dimension score (Ulaş Karaahmetoğlu et al., 2014).

In the study, the correlation between the presence of chronic disease in herself/himself or her/his family and the total score average of HLBS-II was found insignificant ( $p> 0.05$ , Table 5). In his study, Tambağ has found that the correlation between having a chronic disease and healthy lifestyle behaviors is not significant (Tambağ, 2011). In their research, Aksoy et al. have found that the correlation between having a chronic disease in themselves or their family members and healthy lifestyle behaviors is statistically insignificant (Aksoy & Uçar, 2014). According to these results, it can be said that students do not perceive diseases as threats, and their healthy lifestyle behaviors are not affected.

### Conclusion and recommendations

In the study, the healthy lifestyle behaviors of nursing students have been observed at a moderate level. While students have the highest mean scores in spiritual development and interpersonal support sub-dimensions, they have the lowest average score in exercise and stress

management sub-dimensions. Nursing students' healthy lifestyle behaviors are affected by gender, class, income status, place of residence, frequency of visits to health centers, smoking, having chronic illnesses, and chronic diseases in the family.

It may be suggested to define the nursing students' deficiencies in protecting and improving their health, create education programs in this direction, make arrangements to provide nursing students' with healthy lifestyle behaviors.

### Conflict of interest

There is no conflict of interest.

### Sources of funding

The author did not receive any financial support for the review article, authorship and/or publication of this article.

### Ethics Committee Approval

This study was approved by Ethics committee of Inonu University (Approval No: 2021/1684, date: 23/02/2021).

### Informed Consent

Informed consent was obtained from nursing students who participated in this study.

### Peer-review

Externally peer-reviewed.

### Author Contributions

G.D.: Concept, Materials, Data Collection and/or Processing, Analysis and/or Interpretation, Writing Manuscript  
Ü.A.: Literature Search, Design, Supervision, Critical Review, Writing Manuscript.

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