Ankara Sağlık Bilimleri Dergisi
Journal of Ankara Health Sciences

Ankara Üniversitesi Sağlık Bilimleri Fakültesi Yayın Organıdır
https://dergipark.org.tr/tr/pub/ausbid
e-ISSN: 2618-5989

Examination of Healthy Lifestyle Behaviors of 60+ Refreshment University Students: The Case of Muğla Refreshment University and Its Campuses

60+ Tazelenme Üniversitesi Öğrencilerinin Sağlıklı Yaşam Biçimi Davranışlarının İncelenmesi: Muğla Tazelenme Üniversitesi ve Kampüsleri Örneği

Meliha GÜÇLÜ SAZ[1*], Yaşar AY[2], Tuğçe SÖZER AYDIN[2]

[1]*Muğla Sıtkı Koçman University, Fethiye Faculty of Health Sciences, Department of Gerontology, Muğla, Türkiye*
[2]*Akdeniz University, Faculty of Health Sciences, Department of Gerontology, Antalya, Türkiye*

Article Information

Received:
22.10.2024

Accepted:
23.12.2024

ABSTRACT

Aim: The aim of this study was to examine the relationship between the sociodemographic characteristics and healthy lifestyle behaviors of individuals studying at Muğla Refreshment University and its affiliated campuses in Köyceğiz, Milas and Marmaris. **Subjects and Methods:** Quota sampling technique, which is a non-probability sampling method, was used to determine the sample of the study. Half of the number of people actively attending the course in each campus was determined as a quota and 130 people constituted the sample. Correlational survey model was used in the study. To collect the data, questions about the socio-demographic characteristics of the participants and some issues related to their health and the Healthy Lifestyle Behaviors-II (HLSB-II) scale were applied. **Results:** It was observed that 93 (71.5%) of the participants were female and 37 (28.5%) were male. The average age of the participants was 66 (minimum-maximum= 60-79). The mean score of the participants from the Healthy Lifestyle Behaviors-II (HLSB-II) scale was 140.45. Among the demographic variables, gender was found to have a significant difference on health responsibility (p:0.042) and income on stress management (p:0.018). Medicine use was found to have a significant difference on spiritual development (p:0.033), smoking on nutrition (p:0.039), and alcohol use on physical activity, nutrition and healthy lifestyle behaviors total score (p:0.047; p:0.002; p:0.033, respectively**). Conclusion:** In the research, no significant effect of age, education level, marital status, living situation, social security, or chronic disease on healthy lifestyle behaviors was found. The mean total score of the participants' SDL-II is at "moderate" level and it can be said that they generally show healthy lifestyle behaviors. It can be said that the healthy lifestyle behaviors of the students at Refreshment University who participated in the study play an important role in maintaining and promoting health.

Keywords: Aging**,** healthy lifestyle behaviors, 60+ Refreshment University

Makale Bilgisi

Geliş Tarihi:
22.10.2024

Kabul Tarihi:
23.12.2024

ÖZ

Amaç: Bu çalışmanın amacı, Muğla Tazelenme Üniversitesi ve Köyceğiz, Milas ve Marmaris'teki bağlı kampüslerinde öğrenim gören bireylerin sosyodemografik özellikleri ile sağlıklı yaşam biçimi davranışları arasındaki ilişkiyi incelemektir. **Örneklem ve Yöntem:** Çalışmanın örneklemini belirlemek için olasılık dışı örnekleme yöntemlerinden kota örnekleme tekniği kullanılmıştır. Her kampüste derse aktif olarak katılan kişi sayısının yarısı kota olarak belirlenmiş ve 130 kişi örneklemi oluşturmuştur. Çalışmada ilişkisel tarama modeli kullanılmıştır. Verileri toplamak için katılımcıların sosyodemografik özellikleri ve sağlıklarıyla ilgili bazı konularla ilgili sorular ve Sağlıklı Yaşam Biçimi Davranışları-II (SYBDÖ-II) ölçeği uygulanmıştır. **Bulgular:** Katılımcıların 93'ünün (%71.5) kadın, 37'sinin (%28.5) erkek olduğu görülmüştür. Katılımcıların yaş ortalaması 66'dır (minimum-maksimum= 60-79). Katılımcıların Sağlıklı Yaşam Biçimi Davranışları-II ölçeğinden aldıkları ortalama puan 140.45'tir. Demografik değişkenler arasında cinsiyetin sağlık sorumluluğu (p:0.042) ve gelirin stres yönetimi (p:0.018) üzerinde anlamlı bir farka sahip olduğu bulunmuştur. İlaç kullanımının ruhsal gelişim (p:0.033), sigara içmenin beslenme (p:0.039) ve alkol kullanımının fiziksel aktivite, beslenme ve sağlıklı yaşam biçimi davranışları toplam puanı (sırasıyla p:0.047; p:0.002; p:0.033) üzerinde anlamlı bir farka sahip olduğu bulunmuştur. **Sonuç:** Araştırmada yaş, eğitim düzeyi, medeni durum, yaşam durumu, sosyal güvenlik veya kronik hastalığın sağlıklı yaşam biçimi davranışları üzerinde anlamlı bir etkisi bulunmamıştır. Katılımcıların SYBDÖ-II toplam puanının ortalaması "orta" düzeydedir ve genel olarak sağlıklı yaşam biçimi davranışları gösterdikleri söylenebilir. Araştırmaya katılan Tazelenme Üniversitesi öğrencilerinin sağlıklı yaşam biçimi davranışlarının sağlığı koruma ve geliştirmede önemli bir rol oynadığı söylenebilir.

Anahtar Kelimeler: Yaşlanma, sağlıklı yaşam biçimi davranışları, 60+ Tazelenme Üniversitesi

doi: 10.46971/ausbid.1571677 Research article (Araştırma makalesi)

To cite/ Atıf vermek için: Güçlü Saz, M., Ay, Y., & Sözer Aydın, T. (2024). Examination of healthy lifestyle behaviors of 60+ Refreshment University students: The case of Muğla Refreshment University and its campuses. *Ankara Sağlık Bilimleri Dergisi, 13*(2), 79-93. https://doi.org/10.46971/ausbid.1571677

[*]**Corresponding Author/ Sorumlu yazar:** Meliha Güçlü Saz, melihagcl@gmail.com

Introduction

Aging is the distance that every living thing travels over time, and the end of this distance is death. The dictionary defines ageing as the appearance of the effects of old age. It is a process of change and transformation of the biological functions of living beings from the end of the reproductive period until death. The most important of these changes is the decline in the birth rate and the increase in the death rate. Aging is a process that must be evaluated in its physical, psycho-social and social dimensions. While the physiological dimension refers to the changes associated with chronological age, the psychological dimension refers to the changes associated with chronological age in the person's adaptability in terms of perception, learning, psychomotor skills, problem solving and personality traits. From a sociological perspective, ageing is related to the behaviors expected of a particular age group in a society and the values that society places on that group (Beğer & Yavuzer, 2012).

The proportion of the elderly population is increasing in the world and in Türkiye. According to the latest data, the number of elderly people in Turkey is 8 million 722 thousand 806 and their share of the total population has exceeded 10% for the first time. It is expected that the proportion of the elderly population will reach 23.1% in 2050, 31.7% in 2075 and 33.6% in 2100. According to these scenarios, the proportion of the older population is expected to increase further in the future (TÜİK, 2023). In addition to the numerical data, aging under current conditions is a complex phenomenon. Many bio-psycho-social changes and problems arise when people are confronted with stress problems in old age. Although the problems in the biological sense can be seen in the cellular, tissue and organ systems of the body, problems such as personality changes, changes in activities, social and living environment and social isolation can be seen as key issues in the psychological realm. Although changes in physical characteristics are most pronounced in old age, health problems, life after retirement and grieving processes related to the loss of loved ones are also on the agenda (Danış & Günay, 2019). One of the problems that arise in old age due to the changes in the aging process is the health problems of the elderly. Health problems resulting from biological and physiological changes affect the quality of life of older people and can reduce their life satisfaction. Health protection and promotion are important to ensure life satisfaction and active aging in older people (Ulutaşdemir, 2019).

One of the most important factors in protecting and promoting health is an individual's lifestyle. A healthy lifestyle encompasses all behaviors that affect an individual's health and includes the selection of appropriate behaviors in the individual's daily activities. In this context, a healthy lifestyle includes various dimensions such as a balanced diet, regular physical activity, protection against bad habits and responsibility for healthy behavior. Developing a healthy lifestyle in adults offers factors such as reducing dependency, self-actualization, maintaining skills and increasing cognitive well-being. It can potentially contribute to healthy and successful aging (Tambağ, 2013). 60+ Refreshment University was launched on May 14, 2016 by Prof. Dr. İsmail Tufan at the Department of Gerontology of Akdeniz University as a social responsibility project that provides educational and training opportunities for people aged 60 and over. 60+ Refreshment University is a kind of intervention in aging processes. This type of intervention focuses on the concept of “lifelong learning”. Refreshment University aims to meet the educational needs of ageing people, to inform them about what is happening outside and inside the social system and to prevent their obligations and abandonments resulting from ignorance (Tufan, 2022). The establishment of Refreshment University is influenced by processes such as the increase of the elderly population in our country and their withdrawal from social life. The reintegration, reactivation and integration of this population into society requires important socio-political measures. This training aims to eliminate the social problems that increase with age and to prevent the appearance of mental and physical health problems resulting from the decrease in activity of the elderly population. For this reason, refreshment universities for the over-60 population are of great importance (Tuna, 2022). The

campuses affiliated to Muğla Refreshment University are Köyceğiz, Milas and Marmaris. At these locations, courses are offered to support the healthy ageing of people in line with the mission and vision of 60+ Refreshment University.

According to Nutbeam (1998), lifestyle is a way of life based on patterns of behavior determined by the interaction between a person's personal characteristics and socioeconomic and environmental living conditions. In this sense, lifestyle includes all behaviors that affect health, such as smoking, alcohol and medicine use, overeating, eating harmful foods, physical activity, sexual activity, stress management, oral and dental health, personal hygiene, and use of health services. Health behavior is becoming increasingly important in health promotion and disease prevention. In this context, healthy lifestyle behavior is defined as the individual's control of behaviors that affect health and acting in accordance with health status in activities of daily living (Başarır & Çınar Pakyüz, 2015). Since lifestyle can play a role in the development of disease, it is important to pay attention to lifestyle in the prevention and management of chronic disease. A healthy lifestyle increases the quality of life by reducing the individual's morbidity and mortality. Various behaviors such as taking responsibility for health-related issues, regular and balanced diet, physical activity, stress management, interpersonal relationships and spiritual development form the content of a healthy lifestyle (Savucu, 2020). Physical, social and psychological changes in the aging process can lead to the onset of chronic diseases and a decline in quality of life. In this context, the active implementation of a healthy lifestyle in the daily life of people in the aging process can effectively prevent physical and mental health problems that may occur in old age and improve the quality of life of older people (Tambağ, 2013). The relationship between self-efficacy perceptions and healthy lifestyle behaviors in older people receiving home care services from the Department of Health was examined, and a positive relationship between self-efficacy perceptions and healthy lifestyle behaviors was found. Self-efficacy was found to be an important factor in healthy lifestyle behaviors (Besleyici, 2019). A positive relationship was discovered in a study that looked into the connection between healthy lifestyle habits and adjustment to old age. The study found that as adaptation to old age increased, so did healthy lifestyle behaviors. The results suggest that when preparing a care plan for the elderly, it's important to consider adaptation to old age and healthy lifestyle behaviors (Kütmeç Yılmaz, 2020).

The study aimed to explore the relationship between sociodemographic characteristics and healthy lifestyle behaviors among individuals studying at Muğla Sıtkı Koçman University and its affiliated campuses in Köyceğiz, Milas, and Marmaris.

Subjects and Methods

Population and Sample

The population of the study consists of 570 individuals studying at Muğla Refreshment University and its affiliated campuses. A quota sampling technique, which is a non-probability sampling method, was used to determine the study's sample. A quota was established as half the number of people actively attending classes on each campus, with the inclusion criterion being an age of 60 or older. The study's sample consisted of 130 individuals.

Research Model

A correlational survey model was used in this study, which investigated healthy lifestyle behaviors among students of Refreshment University. The correlational research model aims to explore the relationship between two or more variables without intervening in them. Relational research can be employed for descriptive and predictive purposes, allowing researchers to make predictions about related variables. Accordingly, this study aimed to investigate the factors affecting healthy lifestyle behaviors among Refreshment University students.

Variables of the Study

The dependent variables were the healthy lifestyle behaviors scale score and its sub-dimensions, which include physical activity, stress management, health responsibility, nutrition, spiritual development, and interpersonal relationships. The independent variables were the sociodemographic characteristics of the individuals, including age, gender, educational status, marital status, income level, and with whom individuals live.

Hypotheses of the Study

H1: There is a significant difference between participants' sociodemographic characteristics and their healthy lifestyle behaviors.

H2: There is a significant difference between participants' sociodemographic characteristics and the health responsibility sub-factor.

H3: There is a significant difference between participants' sociodemographic characteristics and the physical activity sub-factor.

H4: There is a significant difference between participants' sociodemographic characteristics and the nutrition sub-factor.

H5: There is a significant difference between participants' sociodemographic characteristics and the spiritual development sub-factor.

H6: There is a significant difference between participants' sociodemographic characteristics and the stress management sub-factor.

H7: There is a significant difference between participants' sociodemographic characteristics and the interpersonal relationships sub-factor.

Data Collection Tools

Personal Information Form

The personal information form, prepared to determine the demographic characteristics of elderly individuals who received training at Refreshment University, included questions to gather information such as participants' age, gender, education, marital status, and income level. Additionally, questions regarding the presence of chronic diseases, with whom individuals live, and subjective health perception—factors thought to be related to a healthy lifestyle—were also included.

Healthy Lifestyle Behaviors Scale

The Healthy Lifestyle Behaviors Scale was first developed by Walker in 1987 and was revised and redesigned in 1996 (Walker & Hill-Polerecky, 1996). The second version of this scale consists of 52 items divided into 6 sub-dimensions: health responsibility (9 items), physical activity (8 items), nutrition (9 items), spiritual development (9 items), interpersonal relationships (9 items), and stress management (8 items). All items on the scale are positive, and responses are rated on a 4-point Likert scale: never (1), sometimes (2), often (3), and regularly (4). The minimum possible score for the entire scale is 52, and the maximum is 208. The scale's alpha reliability coefficient is 0.94, with the alpha values of the sub-factors ranging between 0.79 and 0.87. The validity and reliability study of the Healthy Lifestyle Behaviors Scale II in our country was conducted by Bahar et al. (2008). It was found that the questions were appropriate for the cultural structure of our country in terms of content validity and expert opinion, confirming the scale's validity (Bahar et al., 2008). Regarding reliability, the total Cronbach's Alpha coefficient of the scale was found to be 0.92, indicating high reliability, while the reliability coefficients of the scale's sub-dimensions ranged between 0.64 and 0.80.15 In the study, the questions were created using Google Forms and collected online. Before data collection, an informative video explaining how to use the platform was shared. No obstacles were encountered during the data collection phase.

Statistical Analysis

The data obtained were analyzed using descriptive statistics, T-tests for two independent groups, One-Way ANOVA for multiple comparisons, and correlation tests to examine relationships between groups. A significance level of $p < 0.05$ was considered statistically significant.

Ethical Approval of the Study

Ethics Committee approval was obtained from the Muğla Sıtkı Koçman University Medical and Health Sciences ethics committee for the conduct of this study (2024/06-13). In addition, the questionnaire and scale were applied after obtaining consent from the participants who agreed to participate in this research using Google Forms. The names and private information of the participants were kept confidential.

Results

Table 1 presents the sociodemographic characteristics of the participants. Of the 130 participants, 71.5% were female and 28.5% were male. The average age of the participants was 66 years (range = 60-79). When analyzing the education levels of the participants, it was found that the majority (70%) were university or higher education graduates, 26% were high school graduates, and 4% were middle school graduates. Marital status revealed that 76 participants (58.5%) were married, 26 (20%) were separated or divorced, 22 (16.9%) were widowed, and 6 (4.6%) had never married. The average income of the participants was 15.057 TL (range = 4.000-50.000 TL). To determine the relationship between income status and healthy lifestyle behaviors, income was divided into two groups based on the average income. Participants with an income below 15.057 TL were categorized as having below-average income, while those with an income above 15.057 TL were categorized as having above-average income. It was found that 70% of the participants had below-average income. Regarding with whom individuals live, 62 participants (48%) lived with their spouses, 45 (34%) lived alone, 13 (10%) lived with their spouses and children, and 10 (8%) lived only with their children.

Table 2 presents that 50.8% of the participants had at least one chronic disease, and 68.5% were on regular medication. Additionally, 15% of the participants smoked, and 35% consumed alcohol.

Table 1. Sociodemographic Characteristics of Participants

		Number	**%**
Gender	Female	93	72
	Male	37	28
Educational Status	Middle School	5	4
	High School	34	26
	College	91	70
Marital Status	Single	6	4.6
	Married	76	58.5
	Separated/Divorced	26	20
	Widowed	22	16.9
Income Status	Those with below average income	91	70
	Those with above average income	39	30
	Average	15057.9538	
	Std. Deviation	6732.43493	
	Minimum	4000	
	Maximum	50000	
Age	Mean	66.3077	
	Standard Deviation	4.81896	
	Minimum	60	
	Maximum	79	
With whom individuals live	Alone	45	34
	With Spouse	62	48
	With Children	10	8
	With Spouse and Children	13	10

Table 2. Participants' Chronic Disease Status, Medication Use, Smoking and Alcohol Use Status

	Chronic Disease		Medication Use		Smoking		Alcohol Use	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	66	50.8	89	68.5	20	15.4	46	35.4
No	64	49.2	41	31.5	110	84.6	84	64.6
Total	130	100	130	100	130	100.0	130	100

Participants' Healthy Lifestyle Behaviors and Relationship with Demographic Variables

1. Reliability Level of the Healthy Lifestyle Behaviors Scale

Reliability analysis was conducted to determine the reliability level of the Healthy Lifestyle Behaviors Scale used to measure the healthy lifestyle behaviors of the participants in the study, specifically within a sample group consisting of Refreshment University students. There are different classifications of reliability values; if $\alpha < 0.40$, the scale is not reliable; if α is between $0.40 \leq \alpha \leq 0.50$, the scale has low reliability; if α is between $0.50 \leq \alpha \leq 0.60$, the scale is moderately reliable; if α is between $0.60 \leq \alpha \leq 0.75$, the scale is generally considered reliable; if α is between $0.75 \leq \alpha \leq 0.85$, the scale is highly reliable; and if $\alpha \geq 0.85$, the scale is perfectly reliable. According to this classification, the reliability of the scale used to measure the healthy lifestyle behaviors of Refreshment University students was found to be within acceptable limits for the sample of the study, both in terms of the total score and the sub-dimensions.

2. General Status of Healthy Lifestyle Behaviors

Table 3 presents the scores of Refreshment University students regarding healthy lifestyle behaviors. Considering the scores obtained from the Healthy Lifestyle Behaviors Scale, it was found that the minimum score was 98, the maximum score was 193, the mean score was 140.45, and the standard deviation of the scores was 17.56. When examining the sub-dimensions of healthy lifestyle behaviors, it was found that the mean score for the spiritual development sub-dimension was higher than the other sub-dimensions.

Table 3. Participants' Scores on the Healthy Lifestyle Behaviors Sub-dimensions

Dimensions	N	Minimum	Maximum	Mean	Standard Deviation
Health Responsibility	130	12.00	32.00	21.55	4.17
Physical Activity	130	8.00	31.00	19.17	4.72
Nutrition	130	14.00	32.00	23.40	3.80
Spiritual Development	130	18.00	36.00	28.10	4.50
Interpersonal Relationships	130	17.00	35.00	26.58	3.79
Stress Management	130	14.00	30.00	21.62	3.62
Healthy Lifestyle Behaviors	130	98.00	193.00	140.45	17.56

3. Findings on the Relationship between Demographic Variables and Healthy Lifestyle Behaviors

Table 4 presents the relationships between basic demographic variables such as gender, age, education level, income, marital status, and with whom they live, and the healthy lifestyle behaviors of Refreshment University students participating in the study were analyzed using difference tests. As a result of the analysis, a significant difference was found between gender and income status in relation to healthy lifestyle behaviors. It was found that age, education level, marital status, and living arrangements did not have a statistically significant impact on healthy lifestyle behaviors. When the findings

obtained from the analyses were examined, a statistically significant difference was observed between gender and the health responsibility sub-dimension (t = 2.05; p = 0.042). Analysis of the mean scores in the health responsibility sub-dimension revealed that women had a higher mean health responsibility score compared to men (Female: 22.02; Male: 20.37). This finding indicates that women participating in the study exhibited more health responsibility behaviors than men. In the analysis conducted to determine how healthy lifestyle behaviors vary according to income, a statistically significant difference was found between income group and the stress management sub-dimension (t=-2.40; p=0.018). Analysis of the mean stress management scores showed that participants with above-average income (mean income: 15.057 TL) had higher stress management scores. Accordingly, elderly individuals with above-average income were more successful in stress management compared to those with below-average income (Above-average income mean: 22.76; Below-average income mean: 21.13). Additionally, a statistically significant relationship was found between income and stress management (r=0.25; p=0.003). This indicates that as income increases, stress management scores also increase (Table 4).

In addition to basic demographic variables such as gender, age, education, and income status, the participants' chronic disease status, medicine use, smoking, and alcohol consumption were also evaluated, considering their potential relationship with healthy lifestyle behaviors. When the relationship between these variables and healthy lifestyle behaviors was examined, it was found that medicine use, smoking, and alcohol consumption significantly affected healthy lifestyle behaviors, while the presence of chronic disease did not.

Table 5 presents the analysis of how healthy lifestyle behaviors vary with medicine use, a statistically significant difference was found in the spiritual development sub-dimension (t =-2.15; p=0.033). It was observed that individuals who did not use medication had higher spiritual development scores (medication user mean: 27.53; non-medication user mean: 29.34). Similarly, the analysis of how healthy lifestyle behaviors differ with smoking revealed a statistically significant difference in the nutrition sub-dimension (t =-2.14; p=0.039). Non-smokers had higher nutrition scores compared to smokers (smoker mean: 22.15; non-smoker mean: 23.63).

Regarding alcohol use, the analysis showed statistically significant differences in the physical activity and nutrition sub-dimensions, as well as in the total score of healthy lifestyle behaviors (t=-2.007; p=0.047; t=-3.13; p=0.002; t=-2.16; p=0.033, respectively). Non-alcohol users had higher physical activity scores (non-alcohol users: 19.78; alcohol users: 18.06) and higher nutrition scores (non-alcohol users: 24.15; alcohol users: 22.04). Additionally, the total score of healthy lifestyle behaviors was higher for non-alcohol users compared to alcohol users (non-alcohol users mean: 142.88; alcohol users mean: 136.02).

In conclusion, the findings from the analyses indicate that, among demographic variables, gender had a significant impact on health responsibility, and income influenced stress management. When examining other variables, medicine use was found to significantly affect spiritual development, smoking impacted nutrition, and alcohol use had a significant effect on physical activity, nutrition, and the total score of healthy lifestyle behaviors. Age, educational status, marital status, cohabitant status, and chronic disease did not significantly influence healthy lifestyle behaviors.

Table 4. Relationship between Healthy Lifestyle Behaviors and Demographic Variables

Demographic characteristics	Health Responsibility (X, T/F, P)	Physical Activity (X, T/F, P)	Nutrition (X, T/F, P)	Spiritual Development (X, T/F, P)	Interpersonal Relationships (X, T/F, P)	Stress Management (X, T/F, P)	Healthy Lifestyle Behaviors (X, T/F, P)
Gender	*						
1.Female	22.02	19.37	23.79	28.19	26.67	21.90	141.96
2.Male	20.37	18.67	22.43	27.89	26.35	20.91	136.64
Statistics	T:2.05; P:0.042	T:0.76; P:0.44	T:1.86; P:0.065	T:0.34; P:0.73	T:1.40; P:0.66	T:1.40; P:0.16	T:1.56; P:0.12
Age							
1.Young-aged-60-74	21.38	19.14	23.45	28.21	26.57	21.63	140.41
2.Middle-aged-75-84	23.77	19.55	22.77	26.66	26.77	21.44	141
Statistics	T:-1.66; P:0.097	T:-0.24; P:0.19	T:0.51; P:0.60	T:0.99; P:0.32	T:-0.15; P:0.87	T:0.15; P: 0.87	T:-0.09; P:0.92
Education level							
1.Middle school	22.80	21.40	21.60	25.40	24	20.80	136
2.High school	21.82	17.97	23.17	28.02	27.02	20.58	138.61
3.University	21.38	19.50	23.59	28.28	26.56	22.05	141.38
Statistics	F:0.36; P:0.69	F:1.90; P:0.15	F:0.73; P:0.48	F:0.98; P:0.37	F:1.40; P:0.24	F:2.19; P:0.11	F:0.47; P:0.62
Income status							
1. <15057	21.32	18.68	23.12	27.98	26.38	21.13	138.63
2. >15057	22.07	20.33	24.07	28.38	27.05	22.76	144.69
Statistics	T:-0.93; P:0.35	T:-1.84; P:0.06	T:-1.31; P:0.19	T: -0.45. P:0.64	T:-0.91; P:0.36	T:-2.40; P:0.018	T:-1.81; P:0.07
Marital status							
1.Single	22	16.33	22.50	28.50	27.66	20.50	137.50
2.Married	21.43	19.15	23.07	27.89	26.38	21.23	139.18
3.Separated/Divorced	21.26	20.42	23.65	28.03	25.96	22.84	142.19
4.Widow	22.18	18.54	24.50	28.81	27.72	21.81	143.59
Statistics	F:0.24; P:0.86	F:1.47; P:0.22	F:0.94; P:0.42	F:0.25; P:0.86	F:1.13; P:0.33	F:1.50; P:0.21	F:0.50; P: 0.68
with whom individuals live							
1.Alone	21.88	19.71	23.91	28.40	26.88	22.11	142.91
2.Spouse	21.48	19.06	22.85	27.75	26.37	21.40	138.93
3.Child/s	21	16.60	24	27.70	26.70	21.90	137.90
4.Spouse and child	21.15	19.84	23.84	29.07	26.46	20.76	141.15
Statistics	F:0.19; P:0.89	F:1.28; P:0.28	F:0.83; P:0.47	F:0.41; P:0.74	F:0.16; P:0.91	F:0.60; P:0.61	F:0.52; P:0.66

Table 5. Relationship of Healthy Lifestyle Behaviors with Other Variables

Other Variables	Health Responsibility (X, T/F, P)	Physical Activity (X, T/F, P)	Nutrition (X, T/F, P)	Spiritual Development (X, T/F, P)	Interpersonal Relationships (X, T/F, P)	Stress Management (X, T/F, P)	Healthy Lifestyle Behaviors (X, T/F, P)
Chronic disease							
1. Yes	22.10	18.54	23.21	27.39	26.56	21.03	138.84
2. No	20.98	19.82	23.60	28.84	26.60	22.23	142.10
Statistics	T:1.54; P:0.12	T:-1.55; P:0.12	T:-0.59; P:0.55	T:-1.85; P:0.06	T:-0.07; P:0.94	T:-1.91; P:0.058	T:-1.05; P:0.29
Medication Use							
1. Yes	21.97	18.92	23.46	27.53	26.42	21.37	139.69
2. No	20.63	19.73	23.29	29.34	26.92	22.17	142.09
Statistics	T:1.71; P:0.08	T:-0.90; P:0.36	T:0.23; P:0.81	T:-2.15; P:0.033	T-0.69; P:0.48	T:-1.17; P:0.24	T:-0.72; P:0.47
Smoking							
1. Yes	20.40	17.35	22.15	28.100	26.55	21.30	135.85
2. No	21.76	19.50	23.63	28.109	26.59	21.68	141.29
Statistics	T:-1.34; P:0.18	T:-1.89; P:0.06	T:-2.14; P:0.039	T:-0.008; P:0.99	T:-0.04; P:0.96	T: -0.43; P:0.66	T:-1.27; P:0.20
Alcohol use							
1. Yes	20.60	18.06	22.04	27.56	26.60	21.13	136.02
2. No	22.07	19.78	24.15	28.40	26.57	21.89	142.88
Statistics	T:-1.93; P:0.056	T:-2.007; P:0.047	T:-3.13; P:0.002	T:-1.01; P:0.31	T:0.05; P:0.95	T:-1.14; P: 0.25	T:-2.16; P:0.033

Discussion

In this study, the relationship between the demographic characteristics and healthy lifestyle behaviors of individuals over the age of 60 who received education at Muğla Refreshment University—a social responsibility project within the university—and its affiliated Köyceğiz, Milas, and Marmaris campuses was investigated. Studies have shown that lifestyle-related behaviors exhibited by individuals are crucial for maintaining health and aging healthily. Therefore, identifying and examining healthy lifestyle behaviors has gained importance.

The average score of the scale obtained in the study was 140.45. When the overall scale average was evaluated, it was determined to be at a medium level. There are also studies with similar medium-level average scores (Dağdeviren, 2010; Aksungur et al., 2011; Cürcani et al., 2011; Tambağ & Turan, 2012; Açıksöz et al., 2013; Bostan, 2013; Bulut et al., 2016; Çelik et al., 2017). The highest average score obtained by the participants from the Healthy Lifestyle Behaviors Scale-II (HLBS-II) sub-dimensions was 28.10 in the Spiritual Development sub-dimension. Similar results were observed in a study conducted by Değerli & Yiğit (2020) with 510 people over the age of 18.

The average scores of the other sub-dimensions are as follows: Interpersonal Relations (26.58), Nutrition (23.40), Stress Management (21.62), Health Responsibility (21.55), and Physical Activity (19.17). When the evaluations of the HLBS-II sub-dimensions were examined according to the gender of the participants, a statistically significant difference was found between gender and the health responsibility sub-dimension ($p < 0.05$). Similar results were observed in Eryiğit Günler's (2023) study titled Examination of Social Gender and Healthy Lifestyle Behaviors, where the average health responsibility score of women was found to be higher than that of men. In this study, it was also found that the average health responsibility score of women was higher than that of men (Women: 22.02; Men: 20.37). No significant difference was found between the gender variable and the other sub-dimensions. These findings are consistent with some studies in the literature (Yalçınkaya et al., 2007; Özyazıcıoğlu et al., 2011; Yüksel, 2012; Bostan, 2013; Kafkas et al., 2015; Gürsel et al., 2016; Özcan & Bozhüyük, 2016; Çıtak Bilgin et al., 2019).

When examining the studies, it is evident that healthy lifestyle behaviors are positively influenced by increased income levels (Softa et al., 2016; Yılmaz & Çağlayan, 2016). A statistically significant difference was found between income status and the stress management sub-dimension in the study ($p < 0.05$). When the stress management score averages of the participants were examined, it was found that those with an income above the average (average income: 15.057 TL) had higher stress management scores. Accordingly, participants with an income above the average were more successful in stress management than those with an income below the average. Similar results were found by Özpulat & Bilgen Sivri (2013), who identified a weak positive relationship between income level and healthy lifestyle behaviors.

Considering their potential relationship with healthy lifestyle behaviors, the chronic disease status, medication use, smoking, and alcohol consumption of the participants were also examined. It was found that medicine, cigarette, and alcohol use significantly impacted healthy lifestyle behaviors, while the presence of chronic disease did not. The study found a statistically significant difference between medicine use and the Spiritual Development sub-dimension of healthy lifestyle behaviors ($p<0.05$), with non-medication users having higher Spiritual Development scores than medication users. In the literature, the relationship between the Spiritual Development sub-dimension and medicine use has not been previously examined in healthy lifestyle behavior studies.

Today, it is well known that healthy lifestyle behaviors positively effect the mortality and morbidity of diseases. Studies have reported that individuals who engage in unhealthy behaviors such as smoking, alcohol consumption, physical inactivity, and poor diet are at higher risk of death, chronic diseases, and poor cognitive function (Sabia et al., 2015). In this study, a statistically significant difference was found between smoking and the Nutrition sub-dimension ($p < 0.05$), with non-smoking participants having higher scores. No differences were found between thed Nutrition sub-dimension and other factors. When the literature was examined, the relationship between the Nutrition sub-dimension and smoking was not previously measured. Additionally, a statistically significant difference was found between alcohol use and the Physical Activity sub-dimension ($p<0.05$), with non-alcohol users scoring higher than alcohol users.

Conclusions and Recommendations

When the results of the findings obtained from the study are examined, it is determined that the average score of the participants on the Healthy Lifestyle Behaviors Scale-II is at a "medium" level. A high score on the scale indicates that individuals pay attention to healthy lifestyle behaviors and exhibit more positive health behaviors in their daily lives. Accordingly, it can be said that the participants in this study generally display healthy lifestyle behaviors.

A significant difference was found between gender, income status, and healthy lifestyle behaviors. Specifically, a significant difference was observed in the "health responsibility" sub-dimension according to gender, while no significance was found in the "nourishment," "spiritual development," "interpersonal relations," "stress management," and "physical activity" sub-dimensions. The average health responsibility score of female participants in the study was higher than that of male participants. This suggests that women are more aware of their health responsibilities than men. Regarding income status, a significant difference was found in the "stress management" sub-dimension, but no significance was found in the "spiritual development," "interpersonal relations," "health responsibility," "physical activity," and "nourishment" sub-dimensions. Participants with above-average income levels were found to be better at managing stress, suggesting that they can handle stressful situations more effectively.

The study also revealed a significant difference in the "spiritual development" sub-dimension in relation to medication use, with participants who did not use medication scoring higher in spiritual development than those who did. A significant difference was found between smoking and the "nourishment" sub-dimension, with non-smokers having higher nutrition scores than smokers. This indicates that smoking negatively affects the nutrition sub-dimension. Similarly, a significant difference was found between alcohol use and the "physical activity" sub-dimension, with non-alcohol users scoring higher in physical activity than alcohol users. This suggests that alcohol use negatively impacts the physical activity sub-dimension.

In the research, no significant effect of age, education level, marital status, living situation, social security, or chronic disease on healthy lifestyle behaviors was found. These factors did not appear to influence healthy lifestyle behaviors. In conclusion, it can be said that the healthy lifestyle behaviors of the students at Refreshment University who participated in the study play an important role in maintaining and promoting health. The course content at Refreshment University could be enriched to help participants sustain and improve these results. More informative content on healthy aging could be included, and efforts could be made to introduce more individuals over the age of 60 to this educational program. Additionally, individuals who are not students at Refreshment University should be encouraged to receive training on the importance of healthy lifestyle behaviors and how to apply them in daily life. At this point, it is important for local governments to take action to support these initiatives.

Ethical Approval of the Study ▪ Etik Kurul Onayı
This study was approved by the University of Muğla Sıtkı Koçman Medical and Health Sciences Ethics Committee (Date: 13.06.2024, Number: 230161). ▪ Bu çalışma Muğla Sıtkı Koçman Üniversitesi Tıp ve Sağlık Bilimleri Etik Kurulu tarafından onaylanmıştır (Tarih: 13.06.2024, Etik Kod No: 230161).

Informed Consent ▪ Bilgilendirilmiş Onam
Written and verbal consent was obtained from the participants participating in the study. ▪ Çalışmaya katılan katılımcılardan yazılı ve sözlü onam alınmıştır.

Peer-review ▪ Hakem Değerlendirmesi
Externally peer-reviewed. ▪ Dış bağımsız.

Author Contributions ▪ Yazar Katkıları
Concept- MGS, YA, TSA; Design-MGS; Supervision-MGS, SD; Materials MGS, YA, TSA; Data Collection and/or Processing- MGS; Analysis and/or Interpretation- MGS, YA; Literature Search- MGS, YA, TSA; Resources- MGS, YA, TSA; Writing Manuscript- MGS; Critical Review- MGS, YA, TSA. ▪ Fikir- MGS, YA, TSA; Tasarım-MGS, YA; Denetleme MGS; Malzemeler- MGS, YA, TSA; Veri Toplanması ve/veya işlenmesi- MGS; Analiz ve/ veya yorum- MGS, YA; Literatür taraması- MGS, YA, TSA; Kaynaklar- MGS, YA, TSA; Makaleyi yazan –MGS; Eleştirel inceleme- MGS, YA, TSA.

Declaration of Interests ▪ Çıkar Çatışması
The authors declare that there is no conflict of interest. ▪ Yazarlar arasında herhangi bir çıkar çatışması bulunmamaktadır.

Funding ▪ Finansal Destek
This research did not receive support from any funding agency/industry. ▪ Bu araştırma herhangi bir finansman kuruluşundan/sektörden destek almamıştır.

Acknowledgements ▪ Teşekkür
The authors of this study would like to thank Muğla Refreshment University Coordinator Muammer Tuna, campus coordinators, and valuable Refreshment University students. ▪ Bu çalışmanın yazarları Muğla Tazelenme Üniversitesi Koordinatörü Muammer Tuna'ya, kampüs koordinatörlerine ve değerli Tazelenme Üniversitesi öğrencilerine teşekkür eder.

References

Açıksöz, S., Uzun, Ş. & Arslan, F. (2013). Hemşirelik öğrencilerinin sağlık algısı ile sağlığı geliştirme davranışları arasındaki ilişkinin incelenmesi. *Gülhane Tıp Dergisi, 55*(3), 181-187. https://dergipark.org.tr/tr/download/article-file/396731

Aksungur, A., Göktaş, B., Önder, Ö. R. & Cankul, İ. H. (2011). Öğrencilerin sağlıklı yaşam davranışlarının değerlendirilmesi. *Ankara Üniversitesi Dikimevi Sağlık Hizmetleri Meslek Yüksekokulu Dergisi, 10*(1), 1- 12. https://dergipark.org.tr/en/download/article-file/653070

Bahar, Z., Beşer, A., Gördes, N., Ersin, F., & Kıssal, A. (2008). Sağlıklı yaşam biçimi davranışları ölçeği-II'nin geçerlik ve güvenilirlik çalışması. *C.Ü.Hemsirelik Yüksekokulu Dergisi*, 12(1), 1- 13. https://toad.halileksi.net/wp-content/uploads/2022/07/saglikli-yasam-bicimi-davranislari-olcegi-ii-toad_0.pdf

Başarır, S., & Çınar Pakyüz, S. (2015). Hemodiyaliz hastalarının sağlıklı yaşam biçimi davranışlarının değerlendirilmesi. *Nefroloji Hemşireliği Dergisi, 10*(1), 19-31. https://dergipark.org.tr/tr/download/article-file/292261

Beğer, T., & Yavuzer, H. (2012). Yaşlılık ve yaşlılık epidemiyolojisi. *Klinik Gelişim Dergisi*, *25*(3), 1-3. https://www.klinikgelisim.org.tr/kg_25_3/1.pdf

Besleyici, N. (2019). *Evde bakım hizmeti alan yaşlı bireylerin öz-etkililik algıları ve sağlıklı yaşam biçimi davranışları arasındaki ilişkinin incelenmesi.* [Yayınlanmamış Yüksek Lisans Tezi], Harran Üniversitesi, Sağlık Bilimleri Enstitüsü, Şanlıurfa. http://acikerisim.harran.edu.tr:8080/xmlui/handle/11513/3794?locale-attribute=tr

Bostan, N. (2013). *Hemşirelerin sağlıklı yaşam biçimi davranışlarını etkileyen faktörler.* [Yayınlanmamış Yüksek Lisans Tezi], Dokuz Eylül Üniversitesi, Sağlık Bilimleri Enstitüsü, İzmir. https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=jBKK-jwvam2cmZ1LnAoG3A&no=CNiBG9u-onCjYNA1rH8WRQ

Bulut, A., Bulut, A. & Erçim, R. E. (2016). Sağlık meslek lisesi öğrencilerinin sağlıklı yaşam biçimi davranışlarının incelenmesi. *FNG & Bilim Tıp Dergisi, 2*(2), 105-112. https://doi.org/10.5606/fng.btd.2016.020

Cürcani, M., Tan, M., & Küçükoğlu, S. (2011). Hemşirelik bölümü öğrencilerinin sağlıklı yaşam biçimi davranışlarını etkileyen faktörler. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi, 14*(1). https://dergipark.org.tr/tr/pub/ataunihem/issue/2652/34079

Çelik, A., Kardaş Kin, Ö., & Karadakovan, A. (2017). Huzurevinde yaşayan yaşlı bireylerde yalnızlık durumu ve sağlıklı yaşam biçimi davranışları. *İzmir Kâtip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi, 2*(3), 17-23. https://dergipark.org.tr/tr/download/article-file/387556

Çıtak Bilgin, N., Ak, B., Cerit, B., Ertem, M., & Çıtak Tunç, G. (2019). Üniversite öğrencilerinin sağlıklı yaşam biçimi davranışlarının belirlenmesi. *Kastamonu Sağlık Akademisi, 4*(3), 188-210. https://doi.org/10.25279/sak.525847

Dağdeviren, Z. (2010). *Şanlıurfa il merkezindeki lise öğrencilerinin sağlığı geliştirme davranışları ve ilişkili faktörler.* [Yayınlanmamış Yüksek Lisans Tezi], Harran Üniversitesi, Sağlık Bilimleri Enstitüsü, Şanlıurfa. http://acikerisim.harran.edu.tr:8080/jspui/bitstream/11513/1047/1/298840.pdf

Danış, M. Z. & Günay, G. (2019). Yaşlılık döneminde karşılaşılan psikososyal sorunlar. İçinde Yanardağ, U. & Zubaroğlu Yanardağ (Editör), *Yaşlılık ve Sosyal Hizmet Dergisi* (s. 43-66), Nika Yayınevi.

Değerli, H., & Yiğit, A. (2020). Sağlığın korunması ve geliştirilmesinde bireylerin sağlıklı yaşam biçimi davranış düzeyinin belirlenmesi. *Süleyman Demirel Üniversitesi Vizyoner Dergisi, 11*(27), 573-586. https://doi.org/10.21076/vizyoner.656563

Eryiğit Günler, O. (2023). Toplumsal cinsiyet ile sağlıklı yaşam biçimi davranışları arasındaki ilişki. *Gaziantep University Journal of Social Sciences, 22*(3), 736-752. https://doi.org/10.21547/jss.1249907

Gürsel, N., Özbey, S. & Güzel, P. (2016). Öğretim elemanlarının sağlıklı yaşam biçimi davranışları ve yaşam kalitesi. *International Journal of Social Science Research, 5*(2), 10-25. https://dergipark.org.tr/tr/download/article-file/382022

Kafkas, M. E., Kafkas, A. Ş., & Acet, M. (2015). Beden eğitimi öğretmenlerinin sağlıklı yaşam biçimi davranış düzeylerinin incelenmesi. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, *32,* 47-56. https://dergipark.org.tr/tr/download/article-file/55769

Kütmeç Yılmaz, C. (2020). Yaşlı bireylerin yaşlılığa uyum düzeyi ile sağlıklı yaşam biçimi davranışları arasındaki ilişkinin değerlendirilmesi. *Mersin Üniversitesi Sağlık Bilimleri Dergisi, 13*(3), 305-317. https://doi.org/10.26559/mersinsbd.736812

Nutbeam, D. (1998). Health promotion glossary. *Health Promotion International, 13*(4), 349–364. https://doi.org/10.1093/heapro/13.4.349

Özcan, S., & Bozhüyük, A. (2016). Çukurova üniversitesi sağlık bilimleri öğrencilerinin sağlıklı yaşam davranışları. *Cukurova Medical Journal , 41*(4), 664-674. https://doi.org/10.17826/cutf.254191

Özyazıcıoğlu, N., Kılıç, M., Erdem, N., Yavuz , C., & Afacan, S. (2011). Hemşirelik öğrencilerinin sağlıklı yaşam biçimi davranışlarının belirlenmesi. *Uluslararası İnsan Bilimleri Dergisi, 8*(2), 277-289. https://www.researchgate.net/profile/Cemil-Yavuz-2/publication/291003626_Hemsirelik_orencilerinin_salIklI_yasam_bicimi_davranIslarInIn_belirlenmesi/links/651a8afbb0df2f20a2070abf/Hemsirelik-oerencilerinin-salIklI-yasam-bicimi-davranIslarInIn-belirlenmesi.pdf

Özpulat, F., & Bilgen Sivri, B. (2013). Birinci basamak sağlık hizmetlerine başvuran 55 yaş ve üstü kadınların sağlıklı yaşam biçimi davranışları. *Süreli Tıp Eğitimi Dergisi, 22*(3), 80-89. https://www.researchgate.net/publication/300124079

Sabia, S., Cogranne, P., Van Hees, V. T., Bell, J. A., Elbaz, A., Kivimaki, M. & Singh-Manoux, A. (2015). Physical activity and adiposity markers at older ages: accelerometer vs questionnaire data. *JAMDA,16* (5), 438.e7e438.e13. https://pmc.ncbi.nlm.nih.gov/articles/PMC4417049/pdf/main.pdf

Savucu, Y. (2020). Sağlıklı yaşam biçimi davranışları. *Spor ve Rekreasyon Araştırmaları Dergisi, 2*(1), 34-43. https://dergipark.org.tr/tr/download/article-file/1116906

Softa, H., Bayraktar, T., & Uğuz, C. (2016). Yaşlı bireylerin algılanan sosyal destek sistemleri, sağlıklı yaşam biçimi davranışları ve etkileyen faktörler. *Yaşlı Sorunları Araştırma Dergisi, 9*(1), 1-12. http://dergipark.ulakbim.gov.tr/yasad/

Tambağ, H. & Turan, Z. (2012). Öğrencilerin sağlıklı yaşam biçimi davranışlarına halk sağlığı hemşireliği dersi'nin etkisi. *Hemşirelikte Araştırma Geliştirme Dergisi, 14*(1), 46-55. https://dergipark.org.tr/tr/download/article-file/985154

Tambağ, H. (2013). Yaşlılarda sağlıklı yaşam biçimi davranışları ve yaşam doyumu. *Mustafa Kemal Üniversitesi Tıp* Dergisi, 4(16), 23-31. https://dergipark.org.tr/tr/download/article-file/183662

Tufan, İ. (2022). *Türkiye'de yaşlı eğitimi 60+ Refreshment üniversitesinin ilk dört yılı: değerlendirme ve öneriler*. (1. baskı). Nobel Akademik Yayıncılık.

Tuna, M. (2022). COVID-19 Pandemisi koşullarında yaşlıların toplumsal dayanışması: Muğla taü örneği. *Sosyoloji Araştırmaları Dergisi, 25*(3). https://doi.org/10.18490/sosars.1196581

TÜİK (Türkiye İstatistik Kurumu). (Şubat, 2024). *Sanayi üretim endeksi,* Erişim adresi https://data.tuik.gov.tr/Bulten/Index?p=Adrese-Dayal%C4%B1-N%C3%BCfus-Kay%C4%B1t-Sistemi-Sonu%C3%A7lar%C4%B1-2023-49684&dil=1

Ulutaşdemir, N. (2019). Yaşlı bireylerde sağlığın korunması ve geliştirilmesi. İçinde Ü. Sevil, & V. Bayram (Editör), Geriatriye disiplinler arası yaklaşım (s. 5-25). Güven Plus Grup A.Ş. Yayınları.

Yalçınkaya, M., Gök Özer, F., & Yavuz Karamanoğlu, A. (2007). Sağlık çalışanlarında sağlıklı yaşam biçimi davranışlarının

değerlendirilmesi. *TSK Koruyucu Hekimlik Bülteni Dergisi, 6*(6), 409-420. https://hdl.handle.net/11499/41205

Yılmaz, F., & Çağlayan, Ç. (2016). Yaşlılarda sağlıklı yaşam tarzının yaşam kalitesi üzerine etkisi. *Türkiye Aile Hekimliği Dergisi, 20*(4), 129-140. https://dx.doi.org/10.15511/tahd.16.04129

Yüksel, H. (2012). Üniversite öğrencilerinin sağlığı geliştirici yaşam biçimi davranışlarına etki eden sosyal faktörler. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi, 34*, 137-150. https://dergipark.org.tr/tr/download/article-file/55822

Walker, S. N., & Hill-Polerecky, D. M. (1996). Psychometric evaluation of the health-promoting lifestyle profile II. Unpublished Manuscript, University of Nebraska Medical Centre. https://www.scirp.org/reference/referencespapers?referenceid=1372571