



Health-promoting Lifestyle Behavior and Determinants among Religious Officials during the COVID-19 Pandemic in Türkiye

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ABSTRACT

Objective

As influential figures, religious officials often serve as role models for their communities. This study was conducted to determine the healthy lifestyle behaviors and associated factors of religious officials in Turkey during the COVID-19 pandemic.

Methods

This cross-sectional study was conducted on 414 religious officials in the provinces of the Lakes Region of Turkey. Health-promoting lifestyle profile II assessment (HPLP-II) and demographic characteristics form were used to assess health behaviors and participants' profiles. Data analysis was performed by independent t-test, one-way ANOVA, and multiple linear regression models with SPSS version 22.

Results

The study reveals that Islamic religious officials exhibit a significantly higher level of health-promoting lifestyle behaviors compared to other occupational groups, making them potential catalysts for health promotion. Our findings demonstrate that the group's overall health-promoting lifestyle score surpasses that of the general population, underlining their potential as examples for society in

health-promotion efforts. Notably, religious officials excel in spiritual growth, although physical activity remains an area that requires improvement. Men in this group tend to outperform women in physical activity and stress control ($p < 0.001$ and $p < 0.001$, respectively), emphasizing the role of gender in healthy living behaviors. Allocating adequate personal time is the most critical factor affecting overall health-promoting behaviors ($p = 0.008$), especially in physical activity ($p = 0.016$), stress control ($p = 0.001$), and interpersonal relations ($p = 0.035$).

Conclusions

The findings of this study revealed that male gender and personal time management are important predictors of healthy lifestyle behaviors among religious officials during the COVID-19 pandemic in Turkey. Future studies should encompass more diverse populations and employ longitudinal designs for in-depth causative exploration.

Keywords

Health-promoting lifestyle profile; health behaviors; health promotion; religious officials; Türkiye.

Türkiye'de Covid-19 Salgını Sırasında Din Görevlileri Arasında Sağlıklı Yaşam Biçimi Davranışları ve Belirleyicileri

ÖZ

Amaç

Din görevlileri genellikle toplumları için etkili kişiler olarak rol model teşkil ederler. Bu çalışma, COVID-19 pandemisi sırasında Türkiye'deki din görevlilerinin sağlıklı yaşam biçimi davranışlarını ve ilişkili faktörleri belirlemek amacıyla gerçekleştirilmiştir.

Metot

Bu kesitsel çalışma, Türkiye'nin Göller Bölgesi illerindeki 414 din görevlisi üzerinde yürütülmüştür. Sağlık davranışlarını ve katılımcı profillerini değerlendirmek için sağlıklı yaşam biçimi davranışları profili II değerlendirmesi (HPLP-II) ve demografik özellikler formu kullanılmıştır. Veri analizi SPSS versiyon 22 ile bağımsız t-testi, tek yönlü ANOVA ve çoklu doğrusal regresyon modelleri ile gerçekleştirilmiştir.

Bulgular

Bu çalışma, İslam din görevlilerinin diğer meslek gruplarına kıyasla anlamlı derecede daha yüksek düzeyde sağlığı geliştirici yaşam tarzı davranışları sergilediğini ve bu durumun onları sağlığın geliştirilmesi için potansiyel katalizörler haline getirdiğini ortaya koymaktadır. Bulgularımız, grubun genel sağlığı geliştirici yaşam tarzı puanının genel nüfusun puanını aştığını göstermekte ve sağlığı geliştirme çabalarında toplum için örnek olma potansiyellerinin altını çizmektedir. Özellikle, din görevlileri ruhsal gelişim konusunda üstünlük sağlarken, fiziksel aktivite iyileştirilmesi gereken bir alan olmaya devam etmektedir. Bu gruptaki erkekler fiziksel aktivite ve stres kontrolünde kadınlardan daha iyi performans gösterme

eğilimindedir ($p<0.001$ and $p<0.001$, respectively) ve bu da sağlıklı yaşam davranışlarında cinsiyetin rolünü vurgulamaktadır. Yeterli kişisel zaman ayırmak, özellikle fiziksel aktivite ($p=0.016$), stres kontrolü ($p=0.001$) ve kişiler arası ilişkiler ($p=0.035$) olmak üzere genel sağlığı geliştirici davranışları etkileyen en kritik faktördür ($p=0.008$).

Sonuçlar

Bu çalışmanın bulguları, erkek cinsiyetinin ve kişisel zaman yönetiminin, Türkiye'deki COVID-19 salgını sırasında din görevlileri arasında sağlıklı yaşam tarzı davranışlarının önemli belirleyicileri olduğunu ortaya koymuştur. Gelecekteki çalışmalar daha çeşitli popülasyonları kapsamalı ve derinlemesine nedensel keşif için boyamsal tasarımlar kullanmalıdır.

Anahtar kelimeler

Sağlıklı yaşam biçimi davranışları; sağlık davranışları; sağlığın geliştirilmesi; din görevlileri; Türkiye.

INTRODUCTION

The COVID-19 pandemic has not only posed an unprecedented global health crisis (World Health Organisation 2020) but has also highlighted the significance of health-promoting lifestyles among diverse populations (Jeong et al. 2023). On March 11, 2020, the Turkish Ministry of Health reported the first case of the COVID-19 outbreak in Turkey. Since then, the country has recorded 17,052,695 cases and mourned the loss of 101,511 lives (Republic of Turkey Ministry of Health 2022). Like many other nations, Turkey has grappled with profound social, economic, political, and cultural consequences triggered by the pandemic. This study hones in on a specific segment of the population: religious officials in Turkey, and explores how they have adopted health-promoting lifestyles during the pandemic. At its core, this research endeavors to answer a pivotal question: How have religious officials in Turkey adapted their lifestyles to promote health during the COVID-19 pandemic?

This inquiry bears both theoretical and practical significance. On a theoretical plane, it contributes to our comprehension of the intersection between religious identity, public health, and lifestyle choices during a crisis. From a practical perspective, the findings of this study hold the potential to inform tailored public health strategies and interventions for this specific group. Examining how religious officials, who exert significant influence in their communities, navigate health practices during the pandemic may offer broader insights for health promotion efforts in similar contexts worldwide.

Religious officials play influential roles in society, serving as exemplars and guides (Mülayimov 2015). People often look up to them and may emulate their lifestyles. Therefore, understanding the health behaviors of religious officials is crucial as their actions set an example for their communities.

Health promotion efforts are crucial for extending life, reducing disease and disability, and enhancing the quality of life. Healthy lifestyle behaviors include a balanced diet, physical activity, health responsibility, spiritual development, stress management, and interpersonal relations. The WHO states that 70-80% of deaths in developed countries and 40-50% in underdeveloped countries are linked to lifestyle factors (Dickey and Janick 2001). By adopting healthy lifestyle behaviors, diseases can be mitigated, fostering a healthier society. These behaviors, such as dietary habits, exercise, social support, and stress management, significantly impact health (Walker et al. 1987; Bidlack 1996). Poor physical activity, diet, and substance use contribute to many chronic diseases and deaths (Curtin 2019). Preventable risk factors cause about 34.1 million deaths worldwide (GBD 2017 Risk Factor Collaborators 2017). According to the CDC, even one healthier lifestyle behavior can increase life expectancy (Ford et al. 2011). Measuring these behaviors helps guide health promotion practices and evaluate program efficacy (Bahar et al. 2008).

This research highlights religious officials' particular role in promoting health-related practices in their communities. Healthy living choices have become even more vital during the COVID-19 epidemic. Because of their unique position, we wanted to determine how clergy maintain healthy lifestyle behaviors, particularly during the COVID-19 pandemic, and to fill a gap in the literature by examining a topic that has not previously been studied in this professional group that constantly sets an example for society and revealing the results. The study's hypothesis is that religious officials' healthy lifestyle habits during the COVID-19 pandemic are superior to those of the general population, and that certain sociodemographic traits may be predictive of these behaviors.

The aim of this study is to identify religious officials' health-promoting lifestyles and predictors of these behaviors during the COVID-19 pandemic.

MATERIAL AND METHODS

Study design

This cross-sectional study was conducted in 2021 in the provinces of the Lakes Region of Turkey, which included Afyonkarahisar, Isparta, Burdur, Antalya, Konya, and Denizli. The Lakes Region is important because of its proximity to Antalya, one of the most important tourism centers in Turkey. "In the G Power program, taking the effect size $d=0.35$, alpha 0.05 and power 0.95, the adequate sample size was calculated as 356. The size of the research population is not known. However, in cases where the size of the universe is unknown, it can be said that the sample size calculated was above 356 ($n=414$), so it can be said that the sample is representative of the universe. Religious officials from mosques and Imam Hatip Schools in these provinces were selected using convenience sampling. Data was collected by administering a questionnaire to 414 religious officials who consented to participate in the study.

Data collection

The questionnaire consisted of two parts: a demographic characteristics form prepared by the researchers and the Health-Promoting Lifestyle Profile Scale II (HPLP-II). The demographic characteristics form comprised 12 questions that gathered information about age, sex, marital status, professional, educational level, place of residence, family type, chronic health conditions, self-perceived health status, total monthly income, income perception, and personal free time.

The HPLP-II is a scale developed by Walker et al. in 1986, which was later revised and finalized in 1996. It comprises 52 items and encompasses six factors (Walker et al. 1987). The most recent validity and reliability study in Turkey was conducted by Pinar et al. (2009). The scale includes the

following six components: health responsibility, physical activity, nutrition, spiritual growth (spirituality), interpersonal relationships, and stress control. The total score for the scale ranges from 52 (minimum) to 208 (maximum). Similarly, the subscale scores range from 9 to 36 for spiritual development, 9 to 36 for health responsibility, 8 to 32 for physical activity, 9 to 36 for nutrition, 9 to 36 for interpersonal relationships, and 8 to 32 for stress management. Higher scores indicate a higher level of adherence to the specified health behaviors.

Data analyses

The data were subjected to analysis using SPSS version 17 software (SPSS Inc., Chicago, IL). To assess the normality of variable distributions, the Kolmogorov–Smirnov test, skewness, and kurtosis were employed. Descriptive statistics for participants' characteristics and health-promoting lifestyle profiles were presented using frequency, percentage, and mean (SD). Independent t-tests or one-way ANOVA tests were utilized to compare the means of HPLP-II total scores and component scores with respect to participant characteristics.

Multiple linear regression models were constructed to examine the predictability of the Health Supporting Lifestyle Profile based on the variables. To evaluate the appropriateness of the models, the multiple coefficient of determination (R^2) values were assessed and reported for each model. The Durbin Watson test was conducted to assess model fit, with values close to 2 indicating well-constructed models.

During model development, multicollinearity was assessed, and Variance Inflation Factors (VIF) were examined. All VIF values (ranging from 1.1 to 1.9) were below 3, indicating the absence of variables causing multicollinearity issues in the models. A two-tailed p-value less than 0.05 was considered statistically significant.

RESULTS

In this study, 414 religious officials participated, with 52.7% being male and 47.3% being female. The mean age of the group was 33.6±6.7 years, with 50.7% of participants being

under 35 years of age. Among the participants, 41.8% were religious teachers, 33.1% were Quran course teachers, and 25.1% were Imams (Table 1).

Table 1. *The demographic characteristics of the participants*

Demographic characteristics	<i>n</i>	%
Total	414	100.0
Age		
<35	210	50.7
≥35	204	49.3
Sex		
Female	218	52.7
Male	196	47.3
Marital status		
Married	317	76.6
Single	97	23.4
Professional		
Teacher	173	41.8
Imam	104	25.1
Quran educator	137	33.1
Educational level		
Secondary or high school	33	8.0
University	381	92.0
Place of residence		
City	238	57.5
District	101	24.4
Village	75	18.1
Family type		
Nuclear family	344	83.1
Extended family	39	9.4
Living alone	31	7.5
Chronic health conditions		
No	352	85.0
Yes	62	15.0
Self-perceived health status		
Not good or moderate	149	36.0
Good	265	64.0
Total monthly income		
<1000 \$	152	36.7
≥1000 \$	262	63.3
Income perception		
Not good or moderate	274	66.2
Good	140	33.8
Personal free time		
Few	95	22.9
Adequate	319	77.1

The mean (standard deviation, SD) of the HPLP-II score was 150.5 (24.6), ranging from 53 to 208. The best performance was in the aspect of spiritual growth, while physical activity

was rated the lowest. The mean (SD) of HPLP-II components is detailed in Table 2.

Table 2. Health-promoting lifestyle profile (HPLP-II) and HPLP-II components in study group

HPLP-II	<i>M</i>	<i>SD</i>	<i>LL</i>	<i>UL</i>
Total	150.5	26.8	53	208
Components				
Health responsibility	25.7	5.7	9	36
Physical activity	19.2	6.4	8	32
Nutrition	23.8	5.2	9	36
Spiritual growth	30.1	4.8	9	36
Interpersonal relationships	29.6	5.0	9	36
Stress control	22.3	5.1	8	32

The relationship between HPLP-II total, HPLP-II components, and participants' demographic characteristics are outlined in Table 3. HPLP-Total score, physical activity, and stress control component means (SD) were significantly higher in males than in females ($p < 0.01$, $p < 0.001$, and $p < 0.001$, respectively). Physical activity and stress control component means (SD) were significantly lower in Quran educators than in other professionals (religious teachers and Imams) ($p < 0.01$, and $p < 0.05$, respectively). Physical activity and stress control component means (SD) were significantly lower in patients with chronic health conditions than in those without ($p < 0.05$ and $p < 0.05$, respectively). The spiritual growth and stress control component means (SD) were significantly higher in those with a good health perception than in those with a moderate or not good perception ($p < 0.05$ and $p < 0.05$, respectively). HPLP-II total, physical activity, spiritual growth, interpersonal relationships, and stress control component means (SD) were significantly higher in those who allocated time for themselves than in those who did so less frequently ($p < 0.01$, $p < 0.001$, $p < 0.05$, $p < 0.05$ and $p < 0.001$, respectively). The only demographic variable associated with the interpersonal relationship was personal free time ($p < 0.05$). No significant relationships were observed between the health responsibility and nutrition components and demographic variables.

Table 3. The compare means of health-promoting lifestyle profile (HPLP-II) with participants' demographic characteristics

Demographic characteristics	HPLP-II components													
			Health		Physical		Nutrition		Spiritual		Interpersonal		Stress	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age														
<35	150.5	24.6	25.5	5.2	19.1	6.4	27.3	5.2	30.1	4.1	29.9	4.1	22.2	5.0
≥35	150.5	28.9	25.8	6.1	19.2	6.4	23.9	5.3	30.0	5.5	29.3	5.7	22.3	5.3
<i>t</i>	0.009		-0.519		-0.077		-0.430		0.128		1.217		-0.149	
<i>p</i>	0.993		0.604		0.939		0.668		0.898		0.224		0.882	
<i>Cohen's d</i>	0.000		0.052		0.015		0.038		0.020		0.120		0.019	
Sex														
Female	146.9	26.2	25.4	5.6	17.7	6.2	23.5	5.2	29.8	5.0	29.3	4.9	21.3	5.2
Male	153.7	26.9	26.0	5.7	20.5	6.3	24.0	5.3	30.4	4.6	29.8	5.1	23.1	4.9
<i>t</i>	-2.618		-1.086		-4.628		-0.979		-1.285		-0.938		-3.723	
<i>p</i>	0.009		0.278		<0.001		0.328		0.200		0.349		<0.001	
<i>Cohen's d</i>	0.256		0.106		0.447		0.095		0.124		0.099		0.356	
Marital status														
Single	151.4	27.1	25.8	5.8	19.7	6.5	23.4	5.5	30.1	4.6	29.8	4.7	22.6	5.2
Married	150.2	26.8	25.6	5.6	19.0	6.3	23.9	5.1	30.1	4.9	29.5	5.1	22.1	5.1
<i>t</i>	-0.377		-0.233		-0.933		0.837		-0.029		-0.614		-0.786	
<i>p</i>	0.706		0.816		0.351		0.433		0.977		0.540		0.432	
<i>Cohen's d</i>	0.044		0.035		0.109		0.094		0.000		0.061		0.097	
Professional														
Religion teacher	152.7	26.4	26.1	5.6	19.8	6.6	23.8	5.3	30.3	5.2	29.9	5.1	22.7	5.3
Imam	151.4	27.3	25.5	5.7	20.0	6.3	24.0	5.1	29.9	4.5	29.3	4.8	22.8	5.0
Quran educator	147.1	26.8	25.3	5.8	17.8	6.0	23.6	5.3	29.9	4.9	29.3	4.8	21.3	5.0
<i>F</i>	1.773		0.953		5.146		0.225		0.365		0.779		3.888	
<i>p</i>	0.171		0.386		0.006		0.799		0.694		0.460		0.021	
η^2	0.009		0.005		0.024		0.001		0.002		0.004		0.019	
Educational level														
Secondary/high	149.5	35.4	25.4	6.4	19.9	8.1	23.3	6.4	28.4	6.2	29.1	5.8	22.7	5.4
University	150.6	26.0	25.7	5.6	19.1	6.2	23.8	5.1	30.2	4.7	29.6	4.9	22.2	5.2
<i>t</i>	-0.163		-0.330		0.587		-0.581		-1.653		-0.592		1.194	
<i>p</i>	0.871		0.742		0.561		0.561		0.107		0.554		0.240	
<i>Cohen's d</i>	0.035		0.049		0.110		0.086		0.327		0.093		0.094	
Place of residence														
City	150.9	26.1	26.0	5.4	19.2	6.3	23.0	5.1	30.1	4.7	29.6	5.0	22.3	5.0
District	150.4	28.8	25.5	5.9	19.3	6.7	24.2	5.6	29.9	5.6	29.4	5.5	22.1	5.5
Village	149.3	26.6	24.9	6.1	19.0	6.3	23.0	5.2	30.2	4.0	29.7	4.3	22.4	5.2
<i>F</i>	0.104		1.102		0.059		1.031		0.083		0.080		0.072	
<i>p</i>	0.902		0.333		0.943		0.358		0.920		0.923		0.931	
η^2	0.001		0.005		<0.001		0.005		<0.001		<0.001		<0.001	

HPLP-II= Health-promoting lifestyle profile II, *M*= mean, *SD*= standard deviation

Table 3. (continue) The compare means of health-promoting lifestyle profile (HPLP-II) with participants' demographic characteristics

Demographic characteristics			HPLP-II components											
			Health		Physical		Nutrition		Spiritual		Interpersonal		Stress	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Family type														
Living alone	152.7	35.5	25.7	6.4	20.8	7.1	23.9	6.6	29.7	6.0	29.5	6.4	23.1	6.4
Nuclear family	150.1	26.2	25.6	5.6	19.0	6.3	23.7	5.1	30.1	4.8	29.5	4.9	22.2	4.9
Extended family	152.2	24.8	26.0	5.6	19.2	6.2	24.1	5.1	30.6	4.3	30.3	4.1	22.1	5.5
<i>F</i>	0.222		0.072		1.127		0.097		0.328		0.430		0.499	
<i>p</i>	0.801		0.930		0.325		0.908		0.721		0.651		0.608	
η^2	0.001		<0.001		0.005		<0.001		0.002		0.002		0.002	
Chronic health														
No	151.5	27.2	25.7	5.8	19.5	6.4	23.9	5.3	30.2	4.8	29.6	4.9	22.5	5.2
Yes	144.8	23.8	25.4	5.2	17.3	6.0	23.1	4.7	29.2	4.9	29.1	5.2	20.8	4.5
<i>t</i>	1.822		0.411		2.566		1.197		1.617		0.728		2.457	
<i>p</i>	0.069		0.682		0.011		0.232		0.107		0.467		0.014	
<i>Cohen's d</i>	0.262		0.054		0.354		0.159		0.206		0.098		0.349	
Self-perceived health														
Not good or	148.0	25.5	25.7	5.5	18.7	6.2	23.5	5.3	29.4	4.7	29.3	4.6	21.5	5.0
Good	151.9	27.4	25.7	5.8	19.5	6.5	23.9	5.2	30.5	4.8	29.7	5.2	22.7	5.2
<i>t</i>	-1.425		0.22		-1.207		-0.769		-2.277		-0.749		-2.347	
<i>p</i>	0.155		0.982		0.228		0.442		0.023		0.454		0.019	
<i>Cohen's d</i>	0.147		0.000		0.125		0.076		0.231		0.081		0.235	
Total monthly income														
<1000 \$	153.8	28.8	26.1	5.9	20.0	7.0	23.9	5.8	30.5	4.5	30.1	4.7	23.2	5.2
≥1000 \$	148.6	25.4	25.4	5.6	18.7	6.0	23.7	4.9	29.8	5.0	29.2	5.1	21.7	5.0
<i>t</i>	1.944		1.100		1.898		0.342		1.536		1.807		2.938	
<i>p</i>	0.053		0.272		0.059		0.732		0.125		0.072		0.003	
<i>Cohen's d</i>	0.191		0.121		0.199		0.037		0.147		0.183		0.294	
Income perception														
Not good or	152.0	27.7	26.0	5.7	19.3	6.7	24.1	5.4	30.4	4.8	29.8	4.9	22.5	5.4
Good	147.5	24.9	25.1	5.5	19.0	5.8	23.1	4.7	29.1	5.2	29.1	5.2	21.8	4.6
<i>t</i>	1.704		1.553		0.503		2.030		1.684		1.473		1.373	
<i>p</i>	0.089		0.121		0.615		0.043		0.093		0.142		0.171	
<i>Cohen's d</i>	0.170		0.160		0.047		0.197		0.259		0.138		0.139	
Personal free time														
Few	142.3	22.8	25.0	5.2	16.7	5.5	23.1	5.0	29.0	4.6	28.6	4.5	19.9	4.6
Adequate	152.9	27.5	25.9	5.8	19.9	6.4	24.0	5.3	30.4	4.8	29.8	5.1	23.0	5.0
<i>t</i>	-3.789		-1.283		-4.350		-1.437		-2.585		-2.113		-5.237	
<i>p</i>	<0.001		0.200		<0.001		0.151		0.010		0.035		<0.001	
<i>Cohen's d</i>	0.419		0.163		0.536		0.174		0.297		0.249		0.645	

HPLP-II= Health-promoting lifestyle profile II, *M*= mean, *SD*= standard deviation

Table 4. Summary of the regression models for predicting health-promoting lifestyle profile II (HPLP-II) and HPLP-II components

Models and variables	B	SE	β	95%CI		p
				LL	UL	
Model 1-HPLP-II (Total)						
Constant	141.54	2.76		136.12	146.97	<.001
Sex ^a	4.12	2.80	0.08	1.48	9.62	0.141
Personal free time ^b	8.79	3.32	0.14	2.26	15.32	0.008
Model 2						
Constant	18.59	1.78		15.10	22.09	<0.001
Sex ^a	1.99	0.83	0.14	0.36	3.63	0.017
Professional ^c	-0.15	0.87	-0.01	-1.85	1.55	0.861
Chronic health conditions ^d	-1.49	0.90	-0.08	-3.27	0.28	0.097
Self-perceived health status ^e	-0.14	0.68	-0.01	-1.47	1.20	0.840
Total monthly income ^f	-0.91	0.64	-0.07	-2.16	0.34	0.153
Personal free time ^b	1.96	0.81	0.13	0.37	3.54	0.016
Model 3						
Constant	27.72	0.87		26.01	29.43	<0.001
Self-perceived health status ^e	0.87	0.50	0.09	-0.12	1.85	0.860
Personal free time ^b	1.21	0.57	0.11	0.08	2.34	0.360
Model 4						
Constant	28.61	0.51		27.61	29.61	<0.001
Personal free time ^b	1.22	0.58	0.10	0.09	2.36	0.035
Model 5						
Constant	21.49	1.41		18.71	24.27	<0.001
Sex ^a	0.87	0.66	0.09	-0.43	2.18	0.187
Professional ^c	-0.22	0.69	-0.02	-1.57	1.14	0.751
Chronic health conditions ^d	-0.79	0.72	-0.06	-2.20	0.62	0.272
Self-perceived health status ^e	0.51	0.54	0.05	-0.55	1.57	0.344
Total monthly income ^f	-1.24	0.51	-0.12	-2.23	-0.24	0.015
Personal free time ^b	2.17	0.64	0.18	0.91	3.43	0.001

Model 1 Adjusted R²=0.033 (p=0.001); Durbin Watson=1.999. Model 2 Adjusted R²=0.080 (p<0.001); Durbin Watson=2.125. Model 3 Adjusted R²=0.023 (p=0.008); Durbin Watson=1.893. Model 4 Adjusted R²=0.008 (p=0.035); Durbin Watson=2.003. Model 5 Adjusted R²=0.092 (p<0.001); Durbin Watson=1.933. B= Unstandardized regression coefficient; SE= Standard error; β = Standardized regression coefficient; 95%CI= 95% of Confidence interval; LL = lower limit; UL = upper limit.

^a 0= female, 1= male. ^b 0=few, 1=adequate. ^c 0=religion teacher/Imam, 1= Quran educator. ^d 0=no, 1=yes. ^e 0= not good/moderate, 1= good. ^f 0= <1000 \$, 1= \geq 1000 \$.

DISCUSSION

This study delves into the health-promoting lifestyles of religious officials in Turkey during the COVID-19 pandemic, aiming to provide valuable insights that can inform public health strategies tailored to religious communities and leaders. The study revealed that Islamic religious officials

exhibit a significantly higher level of health-promoting lifestyle behaviors compared to other occupational groups, suggesting that they are particularly conscious of developing and maintaining healthy lifestyles. This finding is significant as it highlights the potential of religious officials to act as role models for health promotion within their communities.

Previous research on health-promoting behaviors during the COVID-19 pandemic primarily centered on the general population, healthcare workers, and specific demographic groups (Krause 2011; Turner 2015; Ashgar et al 2021; Capodilupo and Miller 2021; de Brito Sena et al. 2021; Xu et al. 2021; Cummings et al. 2022; Yusefi et al. 2022; Lee et al. 2023). While these studies have provided valuable insights, there is a notable gap in understanding the health-promoting lifestyle choices of religious officials in Turkey. The existing literature has underscored the influential role of religious leaders within their communities (Health Communication Capacity Collaborative (HC3) 2023), but their specific roles and practices concerning health promotion during a global pandemic have not been comprehensively explored. This study aims to address this gap by examining the behaviors, attitudes, and determinants of health-promoting lifestyles among chaplains and shedding light on how they have adapted their roles in response to a public health crisis. Furthermore, this research also contributes to the broader theoretical understanding of the interplay between religious identity, leadership, and public health. While some studies have explored the relationship between religious beliefs and health behaviors, the distinctive role of religious officials as conduits for health information and behavior change remains largely unexamined (Gartner et al. 1991; Idler and Kasl 1992; Larson et al. 1992; Ellison and Levin 1998; Reindl Benjamins and Brown 2004; Corsentino et al. 2009; Hurlbut et al. 2011; Park et al. 2015; Kendall 2019).

While healthy lifestyle behaviors have been studied extensively in various occupational groups in Turkey (Nacar et al. 2014; Kolac et al. 2018; Ilbars and Ozkan 2019). This study is unique in its focus on religious officials. There is a notable lack of prior studies that specifically concentrate on this group in the existing literature. This study's distinct perspective offers a fresh understanding of health-promoting lifestyles within the context of religious officials,

providing insights that can be applied to enhance health promotion strategies.

Given the absence of prior studies on religious officials in the literature for direct comparison, we sought to contextualize our findings by comparing them with studies conducted in other occupational groups. This approach allowed us to illuminate the distinctions in the health-promoting lifestyle behaviors of religious officials. In our study, the overall score (total and components) for health-promoting lifestyles among religious officials (150.5) was significantly higher than that reported in various occupational groups (121.0-137.7) (Nacar et al. 2014; Mehri et al. 2016; Kolac et al. 2018; Ilbars and Ozkan 2019). This discrepancy underscores the unique commitment of this group to cultivating a healthy lifestyle, positioning them as potential role models for society in health promotion initiatives. There is a compelling case for community-based initiatives designed to provide support for health-promoting behaviors among religious officials and facilitate the development of a healthy lifestyle within this community. Our research indicates that religious officials exhibit a notably higher level of awareness and dedication to developing a healthy lifestyle compared to other occupational groups. This finding underscores their influential role, as they possess the potential to inspire health-promoting behaviors among both individuals and society at large.

In univariate analyses, we observed that the HPLP-II total score was significantly higher in males in our study. This finding aligns with similar studies in the literature where the HPLP-II total score was also reported to be significantly higher in males (Lee and Loke 2005; Al-Kandari et al. 2008; Wei et al. 2012).

Among the health-promoting lifestyle components, the spiritual development component yielded the highest scores among the religious officials, while the lowest scores

were associated with the physical activity component. These results are consistent with previous findings in the literature (Nacar et al. 2014; Chiou et al. 2016; Kucuk 2016; Mehri et al. 2016; Kolac et al. 2018; Ilbars and Ozkan 2019), which indicate that, in general, the spiritual development component tends to rank higher compared to the physical activity component in health-promoting lifestyle assessments. Furthermore, our HPLP-II component scores, across all categories, were notably higher than those reported in previous studies (Chiou et al. 2016; Kucuk 2016; Kolac et al. 2018; Ilbars and Ozkan 2019).

The spiritual growth component of HPLP-II measures the development of an individual's internal resources (Bahar et al. 2008). Within this context, spiritual growth reflects the progress individuals make in understanding their existence and striving to reach their desired life goals. Components of spirituality within the literature encompass beliefs (religion), anxiety, hope, and a sense of relatedness or belonging (Kelly 2004). Given their roles, it is expected that religious officials would exhibit higher levels of spiritual development. Consistent with studies conducted in other occupational groups (Cihangiroglu and Deveci 2011; Simsek et al. 2012; Kolac et al. 2018; Ilbars and Ozkan 2019), our findings indeed identified this as the area with the highest scores among religious officials.

In various studies examining healthy lifestyles, it has been consistently observed that the physical activity component tends to score the lowest (Chiou et al. 2016; Kucuk 2016; Mehri et al. 2016; Kolac et al. 2018; Ilbars and Ozkan 2019). Our study aligns with this trend, as we found the physical activity score to be the least impressive among the health-promoting lifestyle components for religious officials. The reasons behind this phenomenon were further explored in a previous study, where factors such as demanding work schedules, challenging living conditions, the absence of established fitness routines, and inadequate access to public fitness facilities were cited as primary contributors to the lack of physical activity (Ilbars and Ozkan 2019). Our

study indicates that religious officials face a similar challenge in achieving satisfactory physical activity levels, possibly due to similar factors. Therefore, it is imperative that improvement initiatives aimed at enhancing physical activity be undertaken to address these underlying issues.

Efforts should focus on enhancing individuals' understanding of the importance of physical activity and creating environments that facilitate exercise. These environments should be designed to be both physically and economically accessible to individuals. It is crucial to recognize that these improvements will have far-reaching effects, not only contributing to overall health but also proving to be cost-effective measures with significant benefits (World Health Organization and World Economic Forum 2023).

The results of our multivariate analysis identified the male gender and having sufficient personal time as significant predictors for the physical activity component. In other words, men and those who allocate ample time for themselves tend to perform better in the physical activity dimension. Our findings are consistent with numerous other studies where the physical activity component scores of men have been reported to be higher than those of women (Al-Kandari et al. 2008; Mehri et al. 2016; Yetgin and Agopyan 2017).

It is worth noting that while our univariate analysis suggested a significant relationship between gender and stress control, further investigation revealed that gender does not serve as a predictor for stress control. This finding is in line with a body of research that has demonstrated gender differences in stress management, with some studies reporting men as better stress managers (Al-Kandari et al. 2008; Yetgin and Agopyan 2017), while others find no gender-based distinctions or even suggest that women may excel in this aspect (Cihangiroglu and Deveci 2011; Simsek et al. 2012).

Many factors influence healthy living behaviors, with gender being just one piece of the puzzle. Our results underscore the gender-related disparities observed in the physical activity and stress control components. Men tend to outperform women in these dimensions, potentially attributable to traditional gender roles prevalent in Turkish society. Men typically spend more time outdoors and have greater opportunities for socializing, contributing to increased physical activity. On the other hand, women in Turkey often dedicate more of their time to household chores and childcare, leaving them with limited opportunities for physical activity.

Ultimately, the most significant predictor for overall healthy living behavior and four of its core components, including physical activity, spiritual growth, interpersonal relationships, and stress control, is the allocation of sufficient personal time. Religious officials who managed to set aside ample time for themselves exhibited higher levels of physical activity, spiritual development, and interpersonal interactions, thereby demonstrating better health behaviors.

LIMITATIONS

The findings of this study are constrained by several limitations. Firstly, it is crucial to recognize that our research solely focused on religious officials in a particular geographical region, and we employed a convenience sampling method. Consequently, the generalizability of our results to the broader population and other regions may be limited, and variations across different demographic groups or geographic areas should be acknowledged.

Secondly, our study's cross-sectional design inherently carries the typical limitations associated with this research approach, particularly with regard to establishing causal relationships. While we have revealed associations between variables, the cause-and-effect relationships should be approached with caution. In some cases, it can be challenging to determine the direction of causality and

meet the temporality criterion, which hampers definitive conclusions about causation.

These limitations underscore the need for future research endeavors that encompass more diverse and representative samples, encompassing various regions and demographics, and utilize longitudinal study designs to unravel complex causative relationships with a stronger temporal dimension.

CONCLUSION

Our study notably highlights that the health-promoting behaviors of religious officials stand out positively compared to the general society and other professional groups. While it's encouraging to witness excellent scores in sub-components like interpersonal relationships and the expected high performance in spiritual growth among religious officials, our findings underscore a significant gap in the realm of physical activity. As a fundamental component of a healthy lifestyle, its low levels within our study group raise concerns. Notably, the allocation of adequate personal time emerged as a pivotal factor significantly influencing physical activity, stress management, interpersonal relationships, and, ultimately, overall healthy lifestyle behaviors. This finding emphasizes the need to cultivate an understanding of the importance of personal time and its profound impact on health. Future studies focusing on larger sample sizes and considering a broader range of variables to evaluate health behaviors among religious officials are warranted to build upon these insights.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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Informed consent

Informed consent was obtained from all individual participants included in the study.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. All procedures were in accordance with the ethical standards of the institutional research committee (Ethics Committee of Turkey, Suleyman Demirel University, Date April 26, 2021/No 181).

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