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Original Article

Do health professionals apply behaviors of the healthy life style?

Yildirim Yilgin[1], Ismail Kasim[2], Duygu Ayhan Baser[3], Irfan Sencan[2], Rabia Kahveci[2], Adem Ozkara[2]

[1]Department of Family Medicine, Ankara Numune Training and Research Hospital, Ankara, Turkey
[2]Department of Family Medicine, Ankara City Hospital, Ankara, Turkey
[3]Department of Family Medicine, Faculty of Medicine, Hacettepe University, Ankara, Turkey

Abstract

Aim: The aim of this study was to evaluate health-promoting behaviors of health professionals in our hospital and to determine the demographic characteristics that influence these behaviors.

Materials and Methods: This study was carried out on 1679 health professionals who served as specialist doctors, assistant doctors, midwives, nurses and health technicians. Data was collected by questionnaire and Health-Promoting-Lifestyle-Profile-II (HPLP-II). On the days of data collection, 331 health care workers working in polyclinics, services and laboratories were reached ;the response rate was 96.6% (N=320).

Results: 60.6% of health workers were women. The mean age was 33 ± 4.71 (17-59) years. Health promotion behavior of the health workers is at a moderate level (125.0 ±18.4) and the highest score was for spiritual growth subscale and the lowest score was for physical activity subscale. Nutrition subscales 40 for years and over age group were found to be significantly higher (p=0.005). Women received higher scores from overall scale and all subscales except physical activity and health responsibilities (p <0.05). Midwives-nurses recieved higher scores then assistant doctors in overall scale and health responsibilities subscale (p<0.001). Health professionals who perceived their health status excellent and very well recieved higher overall scale score than others (p<0.05). There was no significant difference by the presence of chronic illness in themselves or in their families of health workers in overall health improvement behaviors scale scores. Specialist and assistant doctors had a higher rate to cure themselves than the other occupations (p = 0.001).

Conclusion: Health workers and hospital management whose primary task is to improve the health are role models for community and they should be encouraged to improve the level of health-promoting lifestyle.

Keywords: Health personnel; healthy life style; health promotion

INTRODUCTION

In 1974, the World Health Organization (WHO) described health as "a state of complete well-being, not only in the absence of illness or disability, but physically, spiritually and socially"(1). Healthy lifestyle is defined as the ability of the individual to control his / her behaviors that may affect his / her health and to choose the behaviors that are appropriate for his / her health condition while organizing his / her daily activities (2). From this point of view, in order to make the concept of health applicable in daily life, the definition of healthy lifestyle and its transformation into a behavior becomes very important. Healthy lifestyle is a broad concept with many components such as compliance with general hygiene rules, healthy eating habits, smoking and addictive substance use, exercise, productive sleep, coping with stress, and social environment feeding interpersonal relationships.

Individuals who have made healthy lifestyle behaviors as a part of their lives will be able to protect themselves from diseases and maintain their well-being as well as improve their health status. Healthy lifestyle behaviors include not only physical activity or exercise, but also include concepts such as healthy eating attitudes, maintaining psychological well-being, healthy relationships, and thus include physical, mental and social well-being expressions of WHO.

Health professionals are role models of healthy lifestyle behaviors in society; therefore, they have the ability to influence society with these behaviors.

In addition to displaying healthy lifestyle behaviors by health workers themselves, they should also be able to identify unhealthy behaviors and raise awareness in the society in terms of these behaviors and encourage people

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Corresponding Author: Duygu Ayhan Baser, Department of Family Medicine, Faculty Of Medicine, Hacettepe University, Ankara, Turkey
E-mail: duyguayhan@outlook.com

to avoid these behaviors (3). In a study, it was reported that if the physicians did not follow the recommendations themselves, their patients showed less compliance with the recommendations they received from their physicians (4).

The aim of this study was to determine the healthy lifestyle behaviors of specialist physicians, assistant physicians, nurses and health technicians, to examine the relationship between these behaviors and sociodemographic variables, and to provide recommendations to healthcare professionals about healthy lifestyle behaviors.

Publications and studies on health of healthcare workers have increased considerably. In fact, in 2012, the international congress slogan of physician health, organized by the medical organizations of America, Canada and the United Kingdom, has been defined as "from awareness to action", in order to explain that the aim now goes beyond creating awareness. It is thought that our findings will raise awareness in terms of improving the health promotion behaviors of health workers, mobilize the responsible managers of the relevant units and guide the programs and projects to be planned in this regard.

MATERIALS and METHODS

Type of Research
Our study is a descriptive study.

Place of Research
The study was conducted in Ankara Numune Training and Research Hospital and three district polyclinics of this hospital.

The Universe of Research
The study population consisted of 240 specialist doctors, 358 assistant doctors, 771 midwives-nurses and 310 health technicians working in this Hospital.

Sample Selection
320 of the health care workers who participated in the study were included in the study. Sample size was calculated with Raosoft Sample Size Calculator, which can be used web-based. When the frequency of developing healthy behaviors was taken as 50%, the minimum sample size representing the health workers working in our hospital with 95% reliability was found to be 313.

On the days of data collection, 331 health care workers working in polyclinics, services and laboratories were reached. However, the research sample consisted of 320 healthcare workers because 3 people refused to participate in the study and 8 people filled out the data form incomplete (Table 1).

Permissions Received
Ethical permission was obtained from Ankara Numune Training and Research Hospital with protocol number E-15-580 and the study was conducted in accordance with the Helsinki Declaration Principles.

Data Collection Tools
The data were collected by a questionnaire questioning sociodemographic characteristics and health status of health workers and Healthy Lifestyle Behaviors-II (HPLP-II) scale.

Healthy Lifestyle Behavior Scale
Healthy Lifestyle Behaviors-II (HPLP-II) scale developed by Walker et al. (1987) and revised in 1996 (5). The validity and reliability of the scale to Turkey made by Z.Bahar et al. in 2008 (6).The scale measures health-promoting behaviors in relation to an individual's healthy lifestyle.

The scale consists of 52 items and has 6 sub-factors. Subgroups, health responsibility (3, 9, 15, 21, 27, 33, 39, 45, 51), physical activity (4, 10, 16, 22, 28, 34, 40, 46), nutrition (2, 8) , 14, 20, 26, 32, 38, 44, 50), spiritual development (6,12,18,24,30,36,42,48,52), interpersonal relations (1,7,13,19,25) 31,37,43,49) and stress management (5,11,17,23,29,35,41,47). The general score of the scale gives the score of healthy lifestyle behaviors. Rating 4-likert; never (1), sometimes (2), often (3), regularly (4) is presented as. The lowest score was 52 and the highest score was 208 for the whole scale. Alpha reliability coefficient of the scale was 0.94. Alpha coefficient reliability value of the sub-factors ranged between 0.79-0.87.

Data Collection
A pilot study was conducted on 10 trainee nurses other than the working sample in our hospital using a questionnaire and scale. After the pilot study, necessary arrangements were made in the form and the data collection tools were finalized and the data were collected between September and October 2015.

Table 1. Percentage of health care workers entering the research sample by occupation

	Current health worker	Health worker participating in the study	Proportion of health workers participating among their colleagues (%)	Proportion of health workers participating in total (%)
Specialist. doctor	240	54	22.5	16.9
Assistant doctor	358	106	29.6	33.1
Midwives and nurses	771	88	11.4	27.5
Health technician	310	72	23.2	22.5
Total	**1679**	**320**	**19**	**100**

Evaluation of Data

The independent variables of the study were; age, sex, occupation, marital status, BMI, personal and familial chronic disease status, general health status, whether or not he regularly used drugs, the number of seizures, how to follow a pathway in case of a health or psychiatric problem, and smoking behavior.

Data on the descriptive characteristics of health workers were evaluated with number, percentage and mean. Chi-square test was used to evaluate the relationship between descriptive characteristics and age, gender and occupations. For the analysis of the difference between the independent variables and the mean scores of the HPLP-II scale and subgroups, arithmetic mean, student-t test and variance analyzes (ANOVA and Kruskal Wallis) were used, and Bonferoni method was used to determine the source of the difference between the groups. P value less than 0.05 was considered statistically significant.

RESULTS

Sociodemographic and Familial Characteristics of Health Workers Participating in the Research

The mean age of the health workers participating in the study was 33 ± 5.61 (17-59) years. Health workers; 73.7% were under 40 years of age, 60.6% were women, 57.5% were married, 33.1% were residents (Table 2).

Some of the characteristics of health workers related to their health status, responses to HPLP-II scale and their seizure status

33.1% of health workers defined general health status as good. 46.6% of health workers reported that they never smoked.

20% of the health workers participating in the study stated that they had a disease diagnosed by the physician and 75% stated that they had a chronic illness requiring the use of drugs in their families. Hypertension (4.1%), diabetes mellitus (2.8%) and thyroid diseases (2.5%) were the first three among the health care workers who were diagnosed by the physician. It was seen that hypertension (44.7%), diabetes (36.3%) and cardiovascular diseases (25.3%) shared the first three places in physician-diagnosed chronic diseases in parents, siblings of healthcare workers.

When body mass indexes were evaluated, 50.9% of health workers were evaluated as normal weight.

Table 3 shows the average scores and the lowest and highest scores obtained by the healthcare workers participating in the research from the HPLP-II scale and its sub-scales.

When the average scores obtained from the subscale groups were ranked from highest to lowest; spiritual development of the rankings (25.2 ± 4.0), interpersonal relationship (24.8 ± 3.8), nutrition (21.4 ± 4.2), health responsibility (19.8 ± 4.5), stress management (18.3 ± 3.6) and physical activity (15.6 ± 5.1).

The mean score of the health care workers was 125 ± 18.4, the lowest score was 78 and the highest score was 196.

The mean score of the scale was 2.35. The lowest physical activity was determined as the spiritual development subscale with 1.98 and the highest 2.82.

When the item score averages of the responses given to each item of the HPLP-II scale were examined;

Items with the lowest score

• I participate in training programs on individual health care (Article 45 (1,68 ± 0,79))

• I do muscle strengthening exercises at least 3 times a week. (Article 28 (1.77 ± 0.93))

• Watch health promotion programs on television and read books on these topics (Article 9 (1,80 ± 0,82))

• I practice for 15-20 minutes to relax and relax (Article 41 (1.83 ± 0.85))

Items with the highest scores

• I admire people for their success. Item 7 (3,08 ± 0,66)

• I believe that there is a purpose for my life. Article 12 (3,08 ± 0,82)

• I have breakfast. 50th item (3,06 ± 0,95)

• I am open to new experiences and situations (Article 52 (3,06 ± 0,74))

• I resolve conflicts by talking and reconciling '. (Article 49 (3.01 ± 0.74))

Table 2. Distribution of health workers according to sociodemographic characteristics

Sociodemographic data		N	%
Age group	Under 40 yeasr old	236	73.7
	Over 40 years old	84	26.3
Gender	Man	126	39.4
	Woman	194	60.6
Profession	Specialist doctor	54	16.9
	Assistant doctor	106	33.1
	Midwives and nurses	88	27.5
	Health technician	72	22.5
Marital status	Married	184	57.5
	Single	117	36.6
	Widow	19	5.9

Table 3. Mean scores obtained from healthy lifestyle behaviors scale and subscales. lower and upper scores and item mean scores

	Mean ±SD	Lower and upper point values received by healthcare professionals	Item score averages
Healthy lifestyle behaviors	125.0±18.4	78-196	2.35
Health responsibility	19.8±4.5	9-35	2.20
Physical activity	15.6±5.1	8-32	1.98
Nutrition	21.0±4.2	10-35	2.33
Spiritual development	25.2±4.0	13-36	2.82
Interpersonal relationship	24.8±3.8	14-36	2.53
Stress management	18.3±3.6	9-32	2.29

Table 4. Scale score averages by gender

	Men mean ±SD	Women mean ±SD	p
Healthy lifestyle behaviors	127.5±19.6	127.2±17.2	0.007
Health responsibility	19.5±4.8	20.1±4.4	0.279
Physical activity	15.7±5.3	15.5±4.9	0.781
Nutrition	20.0±4.1	21.6±4.1	0.001
Spiritual development	24.6±4.3	25.7±3.7	0.019
Interpersonal relationship	24±3.8	25.4±3.6	0.002
Stress management	17.5±3.8	18.8±3.5	0.002

The relationship between the mean scores of the health care workers participating in the study and the sociodemographic characteristics, health status and seizure numbers

It was seen that health workers who were aged 40 and over had higher scores in all subscales and total scale scores than the group under 40 years of age. However, only the nutrition subscale score was higher in the 40-year-old and older group. (P <0.05)

When the mean scores of the health care workers' HPLP-II and its subscales were examined; it was observed that women scored higher in all subscales except physical activity and in the scale mean score, and scored statistically significant (p <0.05) more than the other subscales except for the health responsibility subgroup (Table 4).

When the mean scores of the health care workers and their subscales were examined according to their occupations, a statistically significant difference was found between the groups in terms of health responsibility and total scale (p <0.001). This difference was found to be due to the difference between midwife-nurse (21.2 ± 4.4) and assistant doctors (18.4 ± 4.5).

When the mean scores of the health care workers' HPLP-II and its subscales were examined; The average score of the single group was higher in the other subscales except the nutrition subgroup. But only the physical activity subgroup was found to be statistically significant. This difference arises from the fact that the single group scored higher than the widow group (p <0.05).

No statistically significant difference was found between the groups in the mean scores of the HPLP-II scale and all subscales according to the presence of chronic disease in health care workers (p> 0.05). However, it was noteworthy that the total score of the health workers with a chronic disease was higher than the non-disease group.

No statistically significant difference was found between the groups in the mean scores of the HPLP-II scale and all subscales according to the presence of chronic disease in the families of health workers (p> 0.05).

According to the perception of health status, the scale total score averages of those who perceived health status as excellent and very good were found to be higher than those who perceived health status as moderate. (p = 0.047, p = 0.047) Physical activity subscale mean score was found to be higher in the group who perceived their health as excellent (p = 0.025). The mean score of the spiritual development subscale was found to be higher in the group who felt very good health status compared to the groups who felt good and moderate (p = 0.011, p = 0.028). The mean score of the stress management subscale of the health care workers with excellent health perceptions was higher than the health perceptions group. (P = 0.005)

The occasional group according to smoking status had the highest mean score from physical activity (p = 0.016), stress management (p = 0.026) subscales, and total scale (p = 0.009), and this difference was statistically significant. It was found that this difference was caused by the difference between the group that drank every day and the group that drank occasionally.

No statistically significant difference was found between the BMI scores of the health care workers participating in the study (p> 0.05). However, total scale scores were higher in patients with normal BMI.

It was found that health care workers had 1 to 3 seizures per month in physical activity (p = 0.006), nutrition (p = 0.028), spiritual development (p = 0.006), stress management (p <0.001) subscales, and scale total (p = 0.005). and the difference was statistically significant.

DISCUSSION

In this study, healthy lifestyle behaviors of health personnels working at a Hospital (specialist physician, assistant physician, midwife-nurse, health technician) were evaluated by using HPLP-II scale. There are studies conducted using this scale in our country and abroad. It was determined that the healthcare professionals applied healthy lifestyle behaviors at a moderate level. The average score of E. Geckil et al.'s study with the 48-item HPLP-II-I scale for adolescents was 117.43 ± 19.53 (7). T. Pasinlioğlu et al. conducted a study on health workers working in family medicine with the SYDB-I scale and found that the mean score was 117.5 ± 17.1 (8). In the study conducted by E. Turkol et al. in Malatya, the mean SDQ-I scale of the research assistants was 116.31 ± 17.80 (9). The average of the 52-item SYDB-II scale that Bozhöyük conducted for students studying at the health sciences departments of Çukurova University is 124.30 ± 17.92 (10). In the study conducted by K. D. Beydag et al. In a foundation university in Istanbul with the SYDB-II scale, the mean score of the scale was 130.43 ± 17.19 (11). In these studies, when the scale's full score is divided into 25%, it is seen that there are similar results to our study.

As a result of our study, the ranking of the healthcare workers from highest to lowest according to the scores given to the answers given to HPLP-II scale and subscales; spirituality took the first place and physical activity took the last place. Ertop, Tokuc and Bozhuyuk's studies were similar to our study (10,12,13). However, in the study conducted by Geçkil and Yıldız on adolescents and Yalcinkaya et al. Health workers, the highest score was obtained from the interpersonal relations subscale (7,14). In the study of Pasinlioglu et al., the highest mean score was reported to be nutrition and the lowest mean score was related to physical activity subscale (9). The common finding of our study and other studies on this subject is that physical activity subscale score is the last. In our country, the level of physical activity that protects against disease and improves health is low in all age groups. In this context, it should not be surprising that the level of physical activity is low in all studies performed in our country, including health workers, who are expected to be role models.

In our study, it was seen that health workers aged 40 years and over were higher in all subscales and total score of the scale than the group under 40 years of age. However, only a statistically significant difference was found in the nutrition subscale score. Yalcinkaya's study with health personnel also presented parallel results with the results of our study (14). In the study of Ayaz et al., while the responsibility for health increased with age, it was reported that stress management decreased with age (15). Contrary to our findings, Pasinlioglu and Gozum reported that age and nutritional habits were adversely affected by health workers (16). In the study conducted by Tokuc and Berberoglu with teachers, no significant result was found about age (13). Based on the results of our study, it was thought that the positive increase in healthy lifestyle behaviors with age may be related to gaining more professional experience with age and taking precautions against age related health problems.

In the present study, when the HPLP-II scale and subscale scores were compared by gender, it was found that women had higher scores in all subgroups except physical activity and in the total score average, and this difference was statistically significant. The same results were obtained in the study conducted by Tokuc and Berberoglu with teachers and in Bozhuyuk's study (10,13). The reason why physical activity is higher in males; It can be said that men have more time to devote to sports, and participate in activities organized for socializing. On the other hand, women from the groups other than the physical subscale scored higher. This result can be interpreted as the fact that women apply their healthy lifestyle behaviors more because they give more importance to body image and are more affected by the social environment.

When the mean scores of the health care professionals according to their occupations were examined, it was found that the midwife-nurse occupational group generally scored higher. However, statistically significant differences were found only between health responsibility and total scale scores between the groups. This difference was caused by the difference between midwife-nurse and assistant doctors. Yalcinkaya's study stated that nurses applied the nutrition subscale better than other healthcare staff (14). In our study, the female group was higher than all the subscales except the physical activity subscale. This connection between the two variables can be thought to be due to the fact that the majority of the midwife-nurse group (86.3%) is female.

When the mean scores of the HSSI and its subscales are examined according to the marital status of health workers; the single group was generally higher. But only the physical activity subgroup was found to be statistically significant. This difference arises from the fact that the single group scored higher than the widow group. In the study of Turkan and Aksoy, the mean score of the SCQI score of the single group was found to be statistically significantly higher (17). However, there are also studies that find contradictory results with our study. Guler et al and Zincir et al reported that married women applied healthy lifestyle behaviors more than single people (18,19). However, in the work of Pasinlioglu and Gozum; no statistical significance was found between marital status and mean HPLP-II scale score (16).

Although there was no statistically significant difference between the groups in terms of the mean scores of HPLP-II scale and all subscales according to the presence of chronic disease in health care workers, it was seen that

those with chronic disease generally scored higher than total scale and subscale groups. Similarly, in the study conducted by Turkan and Aksoy to nursing students and in Tuygar and Arslan study, the scores obtained by the patients with chronic disease from the whole scale were found to be higher than those without a chronic disease (17,20). In Cihangiroglu and Deveci's research, it was stated that having a chronic disease does not affect healthy lifestyle behaviors (21).

No statistically significant difference was found between the groups in the mean scores of healthy lifestyle behaviors scale according to the presence of chronic illness in their families. Similar results were obtained in the study of Celik et al. and in the studies of Aksoy and Ucar (17, 22).

In our study; according to the perception of health status, the scale total score averages of those who perceived health status as excellent and very good were found to be higher than those who perceived health status as moderate. The mean score of physical activity subscale of the group who perceived their health as excellent was found to be higher than the group who felt good. The mean score of the spiritual development subscale was found to be higher in the group who felt very good health status compared to the groups who felt good and moderate. Stress management subscale mean score of health workers with excellent health perception was higher than the group with moderate health perception. It is stated that Tuygar and Arslan and Bozhuyuk have similar results in our studies (10,20). It can be said that health workers who perceive themselves as healthy are more likely to apply healthy lifestyle behaviors.

It is a known fact that tobacco use is widespread and has dangerous consequences that affect the whole population (23). 27.1% of the population of our country uses tobacco products (24). In our study, it was found that 23.4% said daily and 16.9% occasionally said. Similar to this result, smoking rate was found to be 24.1% in the study conducted by Erdem and Keklik with healthcare workers (25). In our study, non-smokers were generally higher than the total score and subscales of daily smokers, but this was not statistically significant. The occasional group received the highest mean score from physical activity, stress management subscales, and the total scale, and this difference was statistically significant. It was found that this difference was caused by the difference between the group that drank every day and the group that drank occasionally. In the study conducted by Yalcinkaya with health workers and Guler et al. in their study, it was found that non-smokers applied healthy lifestyle behaviors more than the smokers (14,18). Therefore, it is concluded that smokers do not pay due attention to healthy lifestyle behaviors even if they are health workers.

No statistically significant difference was found when the scale mean scores of the healthcare workers participating in the study were examined according to the BMI. However, total scale scores were higher in patients with normal BMI. The average BMI of health workers was 24.7 kg / m^2. According to TurkStat data obesity rate in Turkey is 19.9%, while the proportion of overweight 33.7%; over 35.3% of our study, overweight health care workers, 10.6% were found to be obese (26). In the study conducted by Cihangiroglu and Deveci for health school students, Ozkan and Yilmaz did not find a relationship between HPLP-II scale and BMI (21,27). Arslan and Ceviz's study with housewives and working women found that the prevalence of obesity decreased as healthy lifestyle behaviors and exercise habits increased (28).

The group having 1-3 seizures per month in health care workers scored higher than healthy lifestyle behaviors scale and this difference was statistically significant. The results of the studies conducted with occupations are generally the opposite of the results of our study (10,29,30) The most important factor in the result of this study in our study is that the population who is on duty is single and the singles are generally higher than the scale. Nevertheless, in order to make a more accurate interpretation, further studies are needed in a group with broad participation and the ability to represent all health workers.

Looking at the answers to the question, “what would you do if you had any health problems", it was seen that the rate of doctors going to the outpatient clinic was less than nurses and health technicians. This difference was also statistically significant. Doctors are known to conceal and / or cure their own health problems. The main reason for this can be thought to be the concerns of doctors about stigmatization. In our culture, this understanding is expressed with the phrase doktor will not get sick.

LIMITATION

The major limitation of this study was that the study was a descriptive study and the evaluation was done at a cross sectional vision. If the prospective designed studies were planned, it will be more knowledgeble to observe the changes of the health-promoting behaviors of health professionals.

The strengths of the study were the number of sample and the distribution of health personel groups. It will be increased the importance of this study.

CONCLUSION

In the present study, we aimed to evaluate the health promotion behaviors of health care workers and to determine sociodemographic characteristics affecting these behaviors. Health professionals and hospital management, whose primary role is to promote and improve health, are role models for the community, should be more sensitive to healthy lifestyle behaviors and be encouraged by senior authorities. It is very important that healthcare professionals are given more frequent training on healthy lifestyle behaviors and that they are given the necessary opportunities. In the future, it is recommended to investigate the relationship between the knowledge and behavior levels of health personnel about health behaviors and the reasons why information does not turn into behavior.

Competing Interests: The authors declare that they have no competing interest.

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Ethical Approval: Ethical permission was obtained from Ankara Numune Training and Research Hospital with protocol number E-15-580 and the study was conducted in accordance with the Helsinki Declaration Principles.

REFERENCES

1. Oskay U. Some conceptual explanations in medical sociology. Ege University Faculty of Letters Publications 1993;4:90-132.
2. Ocakci A. The role of nursing services in the protection and improvement of health. J Health and Society 2003;10:1-7.
3. Pender NJ, Barkauskas VH, Hayman L, et al. Health promotion and disease prevention: toward excellence in nursing practice and education. Nursing Outlook 1991;40:106-12.
4. Hash RB, Munna RK, Vogel RL, et al. Does physician weight affect perception of health advice? Preventive Med 2003;36:41-4.
5. Walker SN, Hill-Polerecky DM. Psychometric evaluation of the health-promoting lifestyle profile II. Unpublished manuscript, University of Nebraska Medical Center 1996;120-6.
6. Bahar Z, Beser A, Gordes N, et al. Validity and reliability study of the healthy lifestyle behaviors scale II. J Cumhuriyet University School of Nurs 2008;12:1-13.
7. Geckil E, Yildiz S. The effect of nutrition and stress coping education for adolescents on health promotion. J Cumhuriyet University School of Nurs 2006;10:19-28.
8. Pasinlioglu T, Gozum S. The effect of nutrition and stress coping education for adolescents on health promotion. J Cumhuriyet University School of Nurs 1998;2:60-8.
9. Turkol E, Gunes G. Healthy lifestyle behaviors of residents specializing in İnönü University Medical Faculty Hospital. J Inonu University Medical Faculty 2012;19:159-66. .
10. Ozcan S, Bozhuyuk A. Healthy lifestyle behaviors of Cukurova University health science students. Cukurova Med J 2016;41:664-74.
11. Beydag KD, Yurugen B. The effect of health and lifestyle habits on healthy lifestyle behaviors of university students. Gumushane University J Health Sciences 2014;3:599-609.
12. Ertop NG, Yilmaz A, Erdem Y. Healthy lifestyles of university students. J KU Faculty of Med 2012;14:1-7.
13. Tokuc B, Berberoglu U. Health promoting behaviors of teachers working in Edirne central district primary schools. TAF Preventive Med Bulletin 2007;6:421-6.
14. Yalcinkaya M, Yavuz FGO, Karamanoglu A. Evaluation of healthy lifestyle behaviors in healthcare workers. TAF Preventive Medicine Bulletin 2007;6:409-20.
15. Ayaz S, Tezcan S, Akinci F. Health promotion behaviors of nursing school students. J Cumhuriyet University School of Nurs 2005;9:26-34.
16. Pasinlioglu T, Gozum S. Health behaviors of health personnel working in primary health care services. J CU School of Nurs 1998;2:60-8.
17. Aksoy T, Ucar H. Healthy lifestyle behaviors of nursing students. J Hacettepe University Faculty of Nurs 2014;1:53-67.
18. Guler G, Guler N, Kocatas S, et al. Healthy lifestyle behaviors of lecturers working at a university. Cumhuriyet University J Nurs 2008;12:18-26.
19. Zincir H, Ege E, Aylaz R, et al. Investigation of healthy lifestyle behaviors of working and non-working women. J Society and Social Work 2003;14:77-84.
20. Tuygar SF, Arslan M. Investigation of healthy lifestyle behaviors of health services vocational school students. SDU J Health Sciences 2015;6:59-66.
21. Cihangiroglu Z, Deveci SE. Healthy lifestyle behaviors of Irat University Elazig Health School students and affecting factors. Fırat J Med 2011;16:78-83.
22. Celik G, Malak AT, Bekta M, et al. Investigation of factors affecting health promotion behaviors of health school students. AJCI 2009;3:164-9.
23. Erguder T. Tobacco control concept and World Health Organization approach. Turkiye Klinikleri J Pulmonary Medicine Special Topics 2012;5:11-5.
24. Kutlu R, Oksuz A. The effect of smoking on metabolic syndrome and plasma atherogenicity index: a case-control study. Med Bull Haseki 2018;56:50-7.
25. Erdem I, Keklik B. How does smoking affect the personal images of hospital staff? Hacettepe J Health Administration 2015;18:161-82.
26. Erem C, Yildiz R, Kavgaci H, et al. Prevalence of diabetes, obesity and hypertension in a Turkish population (Trabzon city). Diabetes Res Clin Pract Suppl 2001;54:203-2.
27. Ozkan S, Yilmaz E. Healthy lifestyle behaviors of nurses working in the hospital. Fırat J Health Services 2008;3:89-102.
28. Aslan D, Boztas G, Kilic E, et al. The views of women registered in a sports center about the concepts of health and illness and the factors affecting their health-seeking behaviors. Erciyes Univ Health Bil J2004;13:30-8.
29. Cetinol T, Ozvurmaz S. Investigation of sleep quality of nurses. Maltepe University J Nurs Science and Art 2011;4:29-38.
30. Erol A, Saricicek A, Gulseren S. Burnout in resident doctors: Its relationship with job satisfaction and depression. Anatolian J Psychiatry 2007;8:241-7.