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Healthy Lifestyle Behaviors and Self-Efficacy Levels of Health Care Professionals Working at Primary Health Care Institutions*

Birinci Basamak Sağlık Kurumlarında Çalışan Sağlık Personelinin Sağlıklı Yaşam Biçimi Davranışları ve Öz-Etkililik Düzeyleri

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Original Research

Abstract

Objective: The present study was performed to identify the healthy lifestyle behaviors and self-efficacy levels of health professionals working at primary healthcare institutions.
Method: The study was descriptive and relational. All health professionals working at various primary care units of a city were invited to the study (428 health professionals), and the study was conducted with 379 health professionals who accepted to participate (participation rate was 88.5%). Turkish version of The Healthy Lifestyle Behaviors Scale which was validated and Self Efficacy Scale were used.
Results: Of the health professionals, who were included in the study, 68.3% were women; mean age was 32.30±4.65 years, 33.2% were midwives; 23.7% were doctors; 22.2% were nurses; and 20.8% were from other professional groups. Average score of health personnel of The Healthy Lifestyle Behaviors Scale was 128.55±21.3 and total average score of the Self Efficacy Scale was 66.53±14.80. Among the individuals included in the study, average scale scores were higher in those ≥35 years old, living in an extended family, working for at least 16 years, and not suffering from any chronic diseases.

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Conclusion: It was determined that the scores of The Healthy Lifestyle Behaviors Scale were higher and the score of Self Efficacy Scale were lower in primary care health professionals compared to some of the studies conducted in similar groups. According to the result, it is recommended that in-service training programs should be organized for health professionals to improve their self-efficacy levels.

Keywords: Healthy lifestyle behaviors, self-efficacy, health professionals

Öz

Amaç: Bu çalışma birinci basamak sağlık kurumlarında çalışan sağlık personelinin sağlıklı yaşam biçimi davranışları ve öz-etkililik-yeterlik düzeylerini belirlemek amacıyla yapılmıştır.
Yöntem: Araştırma tanımlayıcı ve ilişkisel tiptedir. Bir ilin çeşitli birinci basamak birimlerinde çalışan 428 sağlık personelinin tümü araştırmaya davet edilmiş, katılmayı kabul eden 379 sağlık personeli (katılım %88,5) ile gerçekleştirilmiştir. Türkçe geçerliği yapılmış olan Sağlıklı Yaşam Biçimi Davranışları Ölçeği, Öz-Etkililik-Yeterlik Ölçeği formları kullanılmıştır.
Bulgular: Araştırmaya alınan sağlık personelinin %68,3'ü kadındır; yaş ortalaması 32,3±4,65, %33,2'si ebe, %23,7'si doktor, %22,2'si hemşire ve %20,8'i ise diğer meslek gruplarındandır. Sağlık personelinin Sağlıklı Yaşam Biçimi Davranışları Ölçeği puan ortalaması 128,55±21,3, Öz-Etkililik-Yeterlik Ölçeği toplam puan ortalaması ise 66,53±14,80 bulunmuştur. Araştırma kapsamına alınan bireylerden yaşı ≥35 olanlarda, geniş aile tipinde, 16 yıldan fazla çalışanlarda, kronik hastalığı olmayanlarda ölçek puan ortalamaları yüksek bulunmuştur.
Sonuç: Birinci basamakta çalışan sağlık personelinin Sağlıklı Yaşam Biçimi Ölçeği puanlarının benzer gruplarda yapılmış çalışmaların bir kısmına göre yüksek, öz-etkililik-yeterlik düzeyi puanlarının ise düşük olduğu belirlenmiştir. Bu sonuca göre, öz-etkililik-yeterlik düzeylerini geliştirmeye yönelik hizmet içi eğitim programlarının düzenlenmesi önerilmiştir.

Anahtar Kelimeler: Sağlıklı yaşam biçimi davranışları, öz-yeterlilik, sağlık personeli

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Introduction

Today, ischemic cardiac diseases, cerebrovascular diseases and terminal diseases such as COPD are caused mostly by preventable problems in both sexes and are based more on lifestyle-related factors.[1-3] The prevention of these behaviours and a long and healthy life are thought to be associated with healthy lifestyle behaviours defined by Pender as self-realization, health responsibility, exercise, nutrition, interpersonal support and stress management.[1,2] Because healthy lifestyle, according to Pender's health promotion model to control all behaviours that can affect the health of the individual and the selection of appropriate behaviour to own health status.[2] Achieving long and healthy life standards requires an individual to assume their own responsibility in terms of protective, preventive and health promotion behaviours with relation to their own health.[3,4]

Health promotion activities, which aim to enable people to achieve sufficiency in improving and controlling their own health, lead a longer and higher-quality life by internalizing a healthy lifestyle that encompasses healthy nutrition, maintenance of normal body weight and the ability of coping with stress.[5-10] Factors that affect the healthy lifestyle behaviours are known to include the physical and psychological attributes, motivation and environmental attributes, attitude-related attributes, health status and individual causes of individuals.[2] The perceived self-efficacy is an important determinant on health promotion behaviours and influence a healthy lifestyle.[11] Individuals with a high level of perceived self-efficacy are in a tendency to initiate and maintain more difficult tasks, put forth greater efforts to learn and maintain a new behaviour when compared to those with a low perception of self-efficacy.

The perception of self-efficacy is one of the important cognitive perception factors and has an influenceable and modifiable nature as it is essentially individual perception. Therefore, it is a concept that is of utmost interest for health professionals. Health personnel and nurse who is a member of the team plays a key role in enabling the society to internalize health-promotion and healthy lifestyle behaviours. This team should demonstrate healthy behaviours and be role model to direct individuals and community and inform the about healthy behaviors.[2,9-11] Thus, the nurses, the healthy lifestyles affect society in a positive way with. If nurses are high levels of self-efficacy, and they continue to adopt positive health behaviours. Because of the high individual's perception of self-sufficiency, it would lead to a positive health behaviors.[12]

High levels of self-efficiency and a healthy lifestyle is a nurse, gave health education to individuals in the community will be more effective. Therefore an individual and also a professional member of the health workers, what is known to be at a level of self-efficacy levels and healthy lifestyle behaviours is important. In this line of thought, the study was performed in a descriptive manner to identify the healthy lifestyle behaviours and self-efficacy levels of health personnel working at primary healthcare institutions.

Study Questions

Is there a statistically significant difference between socio demographic characteristics of health personnel and healthy lifestyle behaviours?

Is there a statistically significant difference between socio demographic characteristics of health personnel and self-efficacy levels?

Will self-efficacy level of health personnel affect the of healthy lifestyle behaviours?

Material and Method

Design

The present study was carried out as descriptive and relational.

Study Sample

The research study was conducted in primary healthcare in Sivas province. (19 Family Health Center, Tuberculosis Dispensary, Mother and Child Health Center and Health Directorate). To test the validity of the preliminary application forms it was done on 10 people. Unclear questions were revised according to the results obtained by the researchers. All health personnel working at those units were invited to study (428 health personnel), 379 of them accepted to participate (The participation rate is 88.5%). The remaining participants refused to participate the study or they were at their maternity leave, Data were collected through face-to-face interviews by researcher between June and September 2007 during their working time.

Data Collection

Personal Information Form (11 question) developed by the authors, Healthy Lifestyle Behaviours Scale (HLBS) developed by Walker et al.[13] and reported as validity and reliability scale by Esin[14], Self-

Efficacy Scale (SES) developed by Sherer et al.[15] and reported as validity and reliability scale by Gözüm and Aksayan[16] have been used as means of data collection.

1. The Personal Information Form: The Personal Information Form developed by researchers include the age, sex, marital status, family type, number of children and health personnel introductory questions.[2,10,14] This form comprised 11 questions.

2. Healthy Lifestyle Behaviours Scale (HLBS): HLBS subgroups consisting of 48 items are: self-actualization (13-52), health responsibility (10-40), exercise (5-20), nutrition (6-24), interpersonal support (7-28) and stress management (7-28). The lowest score is 48 and the highest score is 192 for the entire scale. Total scale and subscale scores reaching the upper limit indicates that the individual has a healthy lifestyle behaviors.[14]

3. Self-Efficacy Scale (SES): SES subgroups consisting of 23 items are: behaviour initiation (8-40) continue the behaviour (7-35), completion of the behaviour (5-25) and coping with obstacles (3-15). The lowest score 23 and the highest score is 115 for the entire scale. Total scale and subscale scores reaching the upper limit indicates that the self-efficacy of individual is high.[16]

Data Analysis

The normality of data was assessed in line with the Kolmogorov-Simirnov value, histogram and Q-Q Plots graph. Independent *t* test, One-way ANOVA and correlation analysis (pearson) were used for data analysis. When analysis of one-way ANOVA was made Tukey as a post-hoc test was used.

Ethical Aspect of the Study

For the performance of the study, institutional permissions were obtained from Cumhuriyet University and Sivas Provincial Directorate of Health and verbal informed consent permissions from the health personnel in the sample. There was no Ethics Committee on the date of the survey.

Limitations of the Study

In the scope of the present study, the defined healthy lifestyle behaviours and self-efficacy levels of the healthcare personnel are limited to the data obtained from the relevant scales. The inability to evaluate the healthcare personnel that were on leave or had been appointed to another position at the time of the study constituted a limitation.

Results

Among the health personnel that participated in the study, 68.3% were women; 71.8% were in the age of ≤34 (mean age 32.30±4.65); 84.4% were married; 55.7% had two or more children; 94.5% have been living in a nuclear family; 33.2% were midwives; 23.7% were doctors; 22.2% were nurses; and 20.9% were from other professional groups. 42.2% of the health personnel were found to have been working for 6-10 years (The average work year was 10.58±4.81); approximately one third of nurses and midwifes have graduated from medical vocational high schools; 68.1% defined their economic status as middle income; and 21.1% suffered from a chronic disease (Table1).

Table 1. Distribution of Descriptive Characteristics of Health Personnel Working at Primary Healthcare Institutions (n = 379)

Descriptive Attributes		*n*	*%*
Age	≤ 34 age	272	71.8
	≥35 age	107	28.2
Sex	Male	120	31.7
	Female	259	68.3
Marital Status	Single	59	15.6
	Married	320	84.4
Family Type	Nuclear Family	358	94.5
	Extended Family	21	5.5
Presence of Children	Yes	271	60.3
(n = 320)	No	49	39.7
Number of Children	One child	120	44.3
(n = 271)	Two children	133	49.0
	Three children or more	18	6.7
Occupation	Nurse	84	22.2
	Doctor	90	23.7
	Midwife	126	33.2
	Other*	79	20.9
School of Graduation	Health Professions High School (HPHS)	121	31.9
	Vocational School of Health Services (VSHS)	95	25.1
	Health High School (HHS)	14	3.7
	Nursing High School (NHS)	30	7.9
	Faculty of Medicine (FM)	90	23.7
	Other †	29	7.7
Years of Experience	1 - 5 years	49	12.9
	6 - 10 years	160	42.2
	11 - 15 years	113	29.8
	More than 16 years	57	15.1
Economic Status	Good	103	27.2
	Average	258	68.1
	Bad	18	4.7
Chronic Diseases	Yes	80	21.1
	No	299	78.9

*Dentist, X-ray Technician, Lab Technician

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The mean score of health personnel in HLBS was 128.55±21.31 (Table 2), the mean subscale score of self-actualization was the 37.25±6.33 and the mean subscale score of exercise was 9.48±3.49.

Mean total score of SES was 66.53±14.80 (Table 3), the mean subscale score of self-actualization behavior initiation was 20.35±8.16 and the mean subscale score of coping with obstacles was 8.9±2.48.

The average scores in HLBS were found to be higher among those that were men, in the age range of ≥35, married, living in an extended family, had three or more children, more than 16 years of experience and not suffering from any chronic disease (Table2). With relation to SES scores, on the other hand, higher scores were represented by those that were in the age range of ≥35, women, single, living in an extended family, without children, had more than 16 years of experience, defining their economic status as middle income and not suffering from any chronic disease (Table3). When occupational groups compared, the doctors had the highest the HLBS score and the midwives had the highest SES score, but there was no statistical significant differences between groups (r=0.047 p=0.363). According to the results of this research there was not a significant correlation between self-efficacy-sufficiency scale with healthy lifestyle behaviours scale. There was negative way, small and weak correlation between HLBS subscale scores with behaviour initiation and

Table 2. Distribution of Some Characteristics and Mean Scores of HLBS of Health Personnel Working at Primary Healthcare Institutions (n=379)

ATTRIBUTES		Self-Realization (13-52)	Test (p)	Health Responsibility (10-40)	Test (p)	Exercise (5-20)	Test (p)	Nutrition (6-24)	Test (p)	Interpersonal Support (7-28)	Test (p)	Stress Management (7-28)	Test	HLBS (48-192)	Test (p)
Age	≤ 34	36.68± 6.45	0.03	26.05 ± 5.53	0.02	9.13 ± 3.44	0.01	17.04 ±3.78	0.07	20.59 ±3.72	0.62	17.91± 4.29	0.02	126.42 ± 21.07	0.02
	≥35	38.71 ±5.80		27.54 ± 5.87		10.39 ± 3.45		18.18 ± 3.62		20.79 ±3.46		18.33± 3.79		133.96 ± 21.05	
Sex	Female	37.04 ± 6.40	0.35	26.60 ± 5.56	0.52	9.17 ± 3.49	0.10	17.85 ± 3.76	<0.01	20.65 ±3.69	0.98	17.19± 4.22	0.40	128.52 ± 21.06	0.97
	Male	37.70 ± 6.17		26.20 ± 5.89		10.16 ± 3.39		16.30 ± 3.56		20.65 ±3.55		17.58± 4.15		128.60 ±21.93	
Marital	Single	36.82 ± 6.08	<0.01	26.09 ± 5.63	<0.01	9.32 ± 3.43	0.03	17.43 ± 3.73	0.39	20.53 ±3.50	0.19	17.12± 4.10	0.03	127.33 ± 20.90	<0.01
Status	Married	39.57 ± 7.14		28.52 ± 5.41		10.38± 3.66		16.98 ± 3.97		21.30 ±4.31		18.37± 4.59		135.15 ± 22.43	
Family	Nuclear F.	37.20 ± 6.32	0.63	26.50 ± 5.73	0.80	9.52 ± 3.47	0.22	17.35 ± 3.77	0.68	20.62 ±3.70	0.46	17.26 ±4.12	0.59	128.48± 21.38	0.59
Type	Extended F.	38.04 ± 6.49		26.04 ± 4.35		8.80 ± 3.70		17.47 ± 3.76		21.19 ±2.46		18.14 ±5.43		129.71 ± 20.42	
Number	Not Child	37.29 ±6.35		27.33 ±5.17		10.01 ±3.36		17.12 ±3.57		21.00 ±3.94		17.53 ±4.13		130.96±19.60	
of Children	1 Child	36.73 ± 6.97	0.61	26.14 ± 6.29	0.32	9.06 ± 3.56	0.18	16.93 ± 4.33	0.17	20.20 ± 3.80	0.36	16.89± 4.61	0.61	125.96±24.16	0.41
(n=271)	2 Children	37.51 ± 5.41		26.12 ± 5.31		9.36 ± 3.46		17.90 ± 3.34		20.71 ± 3.19		17.48 ± 3.86		129.09±19.14	
	3 or more	38.55 ± 8.05		26.16 ± 6.39		10.05 ± 3.73		17.66 ± 3.62		21.11 ± 3.84		17.61± 4.17		131.16±25.86	

***Table 2.** Continued*

ATTRIBUTES		Self-Realization (13-52)	Test (p)	Health Responsibility (10-40)	Test (p)	Exercise (5-20)	Test (p)	Nutrition (6-24)	Test (p)	Interpersonal Support (7-28)	Test (p)	Stress Management (7-28)	Test (p)	HLBS (48-192)	Test (p)
	Nurse	36.47±6.54	0.06	25.72±5.76	0.24	9.47±3.44	0.05	17.48±3.98	<0.01	20.60±3.71	0.01	17.17±4.10	0.97	126.95±22.10	0.39
	Doctor	37.87±6.42		27.05±5.97		9.65±3.50		16.70±3.41		20.41±3.21		17.37±3.50		129.07±20.02	
Occupation	Midwife	36.50±5.99		26.11±5.24		8.89±3.44		18.22±3.73		20.15±3.69		17.27±4.52		127.16±21.13	
	Other[a]	38.55±6.36		27.18±5.79		10.25±3.48		16.62±3.73		21.78±3.78		17.45±4.55		131.86±22.14	
	HPHS[b]	36.93 ± 6.27		25.96 ± 5.61		9.23 ± 3.63		17.82±3.70		20.45 ± 3.97		17.01 ±4.04		127.43±22.09	
	VSHS	36.92 ± 5.98		26.58 ± 5.96		9.40± 3.49		17.13±3.95		20.41 ± 3.61		17.57 ±5.17		128.04±22.38	
School of	FM	37.82 ± 6.42	0.65	27.05 ± 5.97	0.80	9.65 ±3.50	0.46	16.70 ±3.41	0.19	20.41 ± 3.21	0.28	17.37 ±3.50	0.07	129.07±20.02	0.62
Graduation	NHS	37.46 ± 6.53		26.73 ± 5.23		9.36 ±2.84		18.20± 4.10		21.63 ± 2.93		17.40 ±3.71		130.80±20.68	
	HHS	39.28 ± 7.22		26.85 ± 5.58		11.28±3.14		18.14± 1.74		21.85± 3.00		20.14 ±2.87		137.57±17.24	
	Other[c]	36.51 ± 6.33		25.96 ± 4.46		9.55 ±3.57		17.00± 4.55		21.44 ± 4.34		16.06 ±3.83		126.55±21.07	
	1-5 years	38.22 ± 7.05		27.57 ± 5.82		9.48± 3.01		16.81±3.43		21.36 ± 3.99		17.77± 4.04	0.01	131.24± 20.75	
Years of	6-10 years	35.87 ± 6.19	0.01	25.66 ± 5.61	0.06	9.21± 3.60	0.03	16.76 ±3.71	<0.01	20.30 ± 3.43	0.23	16.79± 4.31		124.61 ± 21.33	<0.01
Experience	11-15 years	37.69 ± 6.06		26.16 ± 5.56		9.25± 3.24		17.27±3.94		20.61 ± 4.01		16.85± 4.02		127.87 ± 21.00	
	More than16 years	39.40 ± 5.83		28.42 ± 5.39		10.70±3.84		19.68±2.96		21.10 ± 3.08		18.28± 3.81		138.61 ± 19.17	
Chronic	No	37.56 ± 6.34	0.62	26.81 ± 5.62	0.54	9.42± 3.11	0.85	17.96±3.79	0.11	20.51 ±3.81	0.69	18.01± 4.20	0.09	130.28 ± 21.75	0.41
Diseases	Yes	37.17 ± 6.33		26.38 ± 5.68		9.50± 3.58		17.20±3.75		20.69 ± 3.60		17.13± 4.18		128.08 ± 21.20	
	Good	38.17±5.63	0.22	27.29±5.74	0.21	9.64±3.23	0.03	17.14±3.75	0.21	21.23±2.83	0.16	17.50±3.66	0.26	130.99±18.35	0.21
Economic	Average	36.91±6.49		26.13±5.59		9.29±3.53		17.34±3.74		20.43±3.89		17.14±4.29		127.26±21.91	
Status	Bad	36.88±7.48		26.61±6.02		11.44±3.85		18.83±4.11		20.55±4.03		18.72±5.52		133.05±27.03	
Total Sub-Scale Scores		37.25 ± 6.33		26.47 ± 5.66		9.48 ± 3.49		17.36 ± 3.76		20.65 ± 3.64		17.31 ± 4.20		128.55±21.31	

[a] Dentist, Health Officer, X-ray Technician, Lab Technician , [b] Health Professions High School (HPHS), Vocational School of Health Services (VSHS), Health High School (HHS), Nursing High School (NHS), Faculty of Medicine (FM), [c]Faculty of Dentistry, Veterinary, Business, History, Economics, Government, Communication,

Table 3. Distribution of Some Characteristics and Mean Scores of SES of Health Personnel Working at Primary Healthcare Institutions (n=379)

ATTRIBUTES		Behaviour Initiation (8-40)	Test (p)	Behaviour Maintenance (7-35)	Test (p)	Behaviour Completion (5-25)	Test (p)	Coping with Obstacles (3-15)	Test (p)	SES (23-115)	Test (p)
Age	≤ 34	20.52±8.07	0.51	18.18± 7.23	0.68	18.58± 4.22	0.04	8.69± 2.49	0.01	65.98±14.16	0.25
	≥35	19.92± 8.38		18.52± 8.11		19.86± 3.79		9.58± 2.34		67.90±16.28	
Sex	Female	20.70 ± 8.26	0.22	18.23 ± 7.53	0.86	19.04 ± 4.24	0.48	8.72 ± 2.40	0.01	66.71 ± 14.83	0.72
	Male	19.61 ± 7.92		18.37 ± 7.39		18.72 ± 3.92		9.42 ± 2.58		66.14 ± 14.78	
Marital Status	Single	19.62 ± 8.80	0.45	19.03 ± 7.80	0.39	20.15 ± 3.97	0.01	9.88 ± 2.29	<0.01	68.69 ± 15.41	0.22
	Married	20.49 ± 8.04		18.13 ± 7.42		18.72 ± 4.14		8.77 ± 2.48		66.13 ± 14.67	
Family Type	Nuclear F,	20.29 ± 8.22	0.35	18.16 ± 7.51	0.12	18.97 ± 4.22	0.13	8.98 ± 2.45	0.31	66.42 ± 14.88	0.33
	Extended F,	21.38 ± 7.04		20.23 ± 6.76		18.38 ± 2.47		8.38 ± 2.95		68.38 ± 13.39	
Presence of	Yes	20.48 ± 8.08	0.62	18.19 ± 7.49	0.73	18.80 ± 4.04	0.31	8.88 ± 2.44	0.42	66.37 ± 14.89	0.74
Children	No	20.03 ± 8.37		18.48 ± 7.47		19.28 ± 4.39		9.11 ± 2.58		66.91 ± 14.62	
Number of	Not Child	20.03±8.37	0.88	18.48±7.47	0.73	19.28±4.39	0.60	9.11±2.58	0.09	66.91±14.62	0.97
Children	(1) Child	20.71±7.47		18.10±7.59		18.65±4.30		8.70±2.51		66.19±14.05	
(n=271)	(2)Children	20.42±8.68		18.50±7.55		18.83±3.96		8.86±2.30		66.63±15.99	
	(3) or more	19.38±7.73		16.50±6.47		19.61±2.70		10.22±2.66		65.72±12.42	

Tablo 3. Contunied

ATTRIBUTES		Behaviour Initiation (8-40)	Test (p)	Behaviour Maintenance (7-35)	Test (p)	Behaviour Completion (5-25)	Test (p)	Coping with Obstacles (3-15)	Test (p)	SES (23-115)	Test (p)
Occupation	Nurse	19.61 ± 7.86	<0.01	17.39 ± 7.02	0.51	18.22 ± 4.59	0.17	8.54 ± 2.48	0.25	63.78 ± 13.79	0.06
	Doctor	20.05 ± 8.29		17.95 ± 7.34		19.61 ± 3.43		9.24 ± 2.16		66.78 ± 15.41	
	Midwife	22.25 ± 8.27		18.87 ± 7.59		19.03 ± 4.10		8.88 ± 2.31		69.03 ± 14.60	
	Other[d]	18.46 ± 7.64		18.63 ± 7.94		18.81 ± 4.38		9.15 ± 3.00		65.06 ± 15.02	
School of Graduation	VHS[e]	20.65±8.38	0.80	18.75±7.29	0.76	18.73±3.93	0.08	9.08±2.27	0.10	67.22±14.37	0.80
	VCH	20.71±8.06		18.14±7.26		18.04±4.13		8.53±2.94		65.44±15.17	
	MF	20.05±8.29		17.95±7.34		19.61±3.43		9.24±2.16		66.86±15.41	
	NC	18.36±9.27		17.00±7.91		19.23±5.24		9.26±2.37		63.86±15.20	
	CH	20.71±6.61		17.28±7.16		20.14±5.69		9.71±3.22		67.85±12.76	
	Other[f]	20.79±6.76		19.51±9.21		19.82±4.61		8.13±2.03		68.27±14.63	
Years of Experience	1-5 years	18.36 ± 7.37	0.11	17.73 ± 6.76	0.80	19.81 ± 3.21	0.56	9.42 ± 2.50	0.30	65.34 ± 13.02	0.54
	6-10 years	21.35 ± 7.88		18.62 ± 7.33		18.46 ± 4.25		8.60 ± 2.48		67.04 ± 14.35	
	11-15 years	19.79 ± 8.35		17.87 ± 7.93		18.76 ± 4.24		8.91 ± 2.31		65.35 ± 15.61	
	16 or more	20.38 ± 8.93		18.56 ± 7.66		19.89 ± 4.17		9.59 ± 2.63		68.43 ± 15.88	
Chronic Diseases	No	20.47 ± 7.95	0.58	18.48 ± 7.38	0.30	18.88 ± 4.21	0.57	8.86 ± 2.46	0.18	66.70 ± 14.35	0.68
	Yes	19.91 ± 8.92		17.51 ± 7.84		19.17 ± 3.89		9.27 ± 2.52		65.87 ± 16.42	
Economic Status	Good	20.30 ± 8.55	0.93	18.39 ± 7.77	0.90	18.94 ± 4.12	0.95	8.87 ± 2.74	0.24	66.51 ±14.73	0.94
	Average	20.42 ±8.02		18.18 ± 7.43		18.96 ± 4.23		9.04 ± 2.36		66.61 ± 15.05	
	Bad	19.72 ± 8.20		18.94 ± 6.70		18.66 ± 3.04		8.05 ± 2.43		65.38 ± 11.85	
Total Sub-Scale Scores		20.35 ± 8.16		18.27 ± 7.48		18.94 ± 4.14		8.9 ± 2.48		66.53 ± 14.80	

[d]Dentist, Healthcare Officer, X-Ray Technician, Laboratory Technician, [e]Health Professions High School (HPHS), Vocational School of Health Services (VSHS), Health High School (HHS), Nursing High School (NHS), Faculty of Medicine (FM), [f]Faculty of Dentistry, Veteri nary, Business, History, Economics, Government, Communications.

behaviour maintenance. Likewise there was positive way, small and weak insignificant correlation between HLBS subscale scores with behaviour completion and coping with obstacles (Table 4).

Table 4. Correlation Coefficients of HLBS and SES Scores of Health Personnel Working at Primary Healthcare Institutions (n=379)

SES HLBS	Behaviour Initiation	Behaviour Maintenance	Behaviour Completion	Coping with Obstacles	Total SES
Self-Realization	r = - 0.164 p = 0.001	r = - 0.061 p = 0.239	r = - 0.399 p = 0.001	r = - 0.382 p = 0.001	r = - 0.055 p = 0.287
Health Responsibility	r = - 0.129 p = 0.012	r = - 0.030 p = 0.564	r = - 0.356 p = 0.001	r = - 0.400 p = 0.001	r = - 0.081 p = 0.117
Exercise	r = - 0.154 p = 0.003	r = - 0.058 p = 0.262	r = - 0.273 p = 0.001	r = - 0.308 p = 0.001	r = - 0.014 p = 0.786
Nutrition	r = - 0.235 p = 0.001	r = - 0.216 p = 0.001	r= 0.420 p =0.001	r = - 0.325 p = 0.001	r = - 0.067 p = 0.193
Interpersonal Support	r = - 0.083 p = 0.105	r = - 0.016 p = 0.752	r= 0.304 p =0.001	r = - 0.200 p =0.001	r = - 0.081 p = 0.115
Stress Management	r = - 0.203 p = 0.001	r = - 0.154 p = 0.003	r= 0.488 p =0.001	r = 0.463 p = 0.001	r = 0.025 p = 0.633
Total HLBS Score	r =- 0.204 p = 0.001	r =- 0.101 p = 0.049	r= 0.480 p =0.001	r = 0.453 p = 0.001	r = 0.047 p = 0.363

Discussion

Nowadays, WHO and a lot of health organisations, suggest nurses as basic human power in the application of health protecting and improving activities. In societies which has developed health services, planning, applying and evaluation stages of health improving programmes should be performed by nurses.[3,17] The total average HLBS scores of the health personnel (128.55±21.31) were found to be lower than the total average scores established in Özçakır et al.[18] (134.20±19.14) and in Yıldırım[19] (136.51±17.50) and higher than those established in Altay et al.[20] (117.39±17.04) with health personnel and in Şimşekoğlu and Mayda[21] with nurses (119.97±1.4); and in Dil et al.[22] with adolescents (128.01±19.18). In HLBS subscale, the lowest score of healthcare personnel was identified in exercise and the highest score in self-realization (Table 2). Similarly to other studies, the present study also identified that health personnel working at primary health institutions do not exercise to a sufficient extent.[17-21] In this case the benefit-barrier perception and the level of self-efficacy of health personnel can be explained as the influence exercise behavior.[23]

According to the Health Promotion Model, the rate of adopting health promotion behaviours and positive changes in health behaviours increase in direct proportion with the age.[2,11] Our study is

similar to the relevant studies in literature[11,24,25] in identifying that the HLBS score increases in proportion with the age and especially in the age range of ≥35 (Table2). Here, at the advanced age of the health personnel concluded that healthy lifestyle behaviours more orientation. There are studies that indicate that age and marital status are influential on the exhibition of healthy lifestyle behaviours and increase health responsibility and nutritional behaviours.[10,26] Individuals give more importance to being healthy in order to minimize the losses that may result from possible health-related problems along with the increase in the risk of chronic diseases.[10,26] In fact, according to the relevant literature[11,27], the scores of those suffering from chronic diseases in the subscale of health responsibility and interpersonal support were found to be higher than those not suffering from the same. The present study also yields the observation that those not suffering from chronic diseases demonstrate a higher score in the subgroups of self-realization, nutrition and stress management, as well as in the general average scores in the scale, while those suffering from chronic diseases had higher scores in the average exercise and interpersonal support in subgroup (Table2).

These findings indicate that health personnel with chronic diseases is more awareness about healthy lifestyle behaviours. As women are inflicted with more diseases than men by reason of their physiological attributes, they take better care of their health.[10]In various studies conducted in this field, health promotion behaviours were observed to be higher in women than in men.[13,17,19,28] In this study, a different finding present itself in the higher average established in men for the areas of self-realization, exercise and stress management, even though the average HLBS score of women in the areas of health responsibility and nutrition was higher in women. Furthermore, the general average scale scores of men were higher (128.60±21.93) than women (128.52±21.06).

Around the world, single individuals are known to be inflicted with more diseases and to present more frequently disease-related complaints than married individuals.[29] Studies conducted with working and non-working women evaluated the risk of death with relation to marital status and identified that the risk was the lowest among married women and that working and married women presented higher average HLBS scores[30] than non-working women. Similarly, the present study established higher scores among married individuals than single individuals except for the subscale of nutrition (Table2). This shows that married health personnel gives more importance to the health behavior in regular lifestyle. Apart from the studies that complement our findings [11,30,31], Pender[17] presented a different finding than that of our study in the higher average nutrition score in married individuals than in single individuals. Other studies also yielded a similar result in identifying higher exercise scores in nuclear family structure[32] and higher stress management scores in extended family structure.[33] According to this result, people living in nuclear families can devote more time to exercise. Living in large families can get help from other family members for stress management.

The comparison of the years of experience of health personnel and their average HLBS scores established that the average sub-scale and general scale scores of those that had worked for sixteen years or longer were higher in all sub-scales except for the sub-scale of interpersonal support (Table3). In other words, individuals with the older age and longer experience demonstrated the higher rate of healthy lifestyle behaviours. The other studies conducted with health personnel[23,24] also revealed that the personnel become more attentive to exercise and regular diet in proportion with the increase in their years of experience.

Among the factors that influence healthy lifestyle behaviours, the perception of efficacy, an individual cause, is of a determining nature on health-enhancing behaviours.[9] The SES scores of health

personnel were compared, Ege et al.[24], conducted with health personnel (8.69±11.09), Albayrak-Okçin and Gerçeklioğlu[10](82.40±12.74) and Kızılcı et al.[34] (87.98±14.45) with students established higher general scale scores than that identified in our study (66.53±14.80). According to these results, can be said that low levels of self-efficacy of health personnel. The general scale average per age groups (70.6±16.67) was found to be lower than the general scale averages identified in other studies in the literature.[10,24,25] Relevant studies also observed significant increases in self-efficacy in direct proportion with age.[23,24,34]

The consideration of SES scores in the context of the marital status of health personnel led to the observation that married individuals had lower scores in the fields of behaviour maintenance and completion and coping with obstacles than single individuals (Table3). Similarly to the results of our study, Odanga et al.[35] found higher scores in single individuals in the self-efficacy levels and general scale averages than in married individuals. This result calls for the conception that the fact that married healthcare personnel experience both a professional life and family-related responsibilities, i.e. have to cope with more stressors, creates a negative effect on their self-efficacy levels.

Positive interaction among family members is stated to have a constant and positive effect on an individual's level of adopting healthy behaviours.[36] Relevant study identified that average scores in behaviour initiation, maintenance, completion and coping with obstacles are higher in those living in nuclear families than in those living in extended families.[37] On the other hand, the present study identified lower scores in the sub-scales of behaviour completion and coping with obstacles, but higher scores in the sub-scales of behaviour initiation and maintenance, as well as in the general scale, in families living in extended families than those living in nuclear families (Table3). This conclusion may be associated with the fact that those living in extended families have receive more social support, motivate each other in the process of behaviour adoption and support other family members in coping with various stressors by sharing tasks and responsibilities. A comparison made in terms of the status of having or not having children revealed a statistically significant difference among sub-scales ($p>0.05$). A study similar to ours[24] also identified a higher self-efficacy level in health personnel with children. These results may be associated with such cultural attributes as the increase in self-efficacy level in parallel with the number of children, the status attributed to the family by children, the desire of individuals to be role models for children and the perceived additional strength attained, especially in some regions, in direct proportion with the number of children.

Walker et al.[13] stated that economic level has a positive effect on the level of adopting health behaviour in the health promotion model. Albayrak-Okçin and Gerçeklioğlu[10] in his work with students between self-efficacy scores and economic status were found statistically significant difference. This finding is different according to our study findings (Table3). These results may be associated with such cultural attributes as the increase in self-efficacy level in parallel with the number of children, the status attributed to the family by children, the desire of individuals to be role models for children and the perceived additional strength attained, especially in some regions, in direct proportion with the number of children.

A minor and insignificant correlation was established between the total HLBS score and total SES scores ($r=0.047$). Discussion was based on total points. Ege et al.[24] identified a correlation coefficient of $r=0.33$ between the abovementioned variables in their study with health personnel and this is still a minor correlation, although higher than the result obtained from our study. As a result of the correlation analysis performed by Kulakçı et al.[38] to assess the relationship between SES and HLBS of

the elderly people living in nursing home, the correlation was identified to be rather weak and minor (r=0.50).

Conclusion

As a result of the study, the health personnel working at primary health were identified to represent higher HLBS scores and lower self-efficacy-sufficiency scores than those identified in other studies. An insignificant and minor correlation was established between healthy lifestyle behaviours and self-effectiveness-sufficiency (r = 0.047 p=0.363) (Table 4).

In line with these results, it is recommended that in-service training programs should be organized for healthcare personnel to improve their healthy lifestyle behaviours and self-efficacy levels, to perform experimental studies about exercise subscale scores which are lower than, healthy lifestyle behaviours scores, to perform planned educations in asscociation with related institution were suggested.

Contribution of Authors

Design of Study: A-G N, G G

Data Collection or/and Analysis: A-G N, G G

Preperation of Manuscript: A-G N, G G

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