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Health Man & Info Sci 2024, 11(2), 56–65

HMIS
Health Management and Information Science

Original Article

Health-promoting Behaviors Status of Nurses during COVID-19 Pandemic: A Case of Southern Iran

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Abstract

Introduction: One of the most important indicators of people's health in the pandemic of coronavirus (COVID-19) is their health-promoting behaviors. This study was conducted to investigate the status of health-promoting behaviors of nurses in teaching hospitals in southern Iran during the COVID-19 pandemic.

Methods: This cross-sectional descriptive-analytical study was conducted on 340 nurses of teaching hospitals of Shiraz University of Medical Sciences in 2022. Data were collected through a standard health-promoting lifestyle questionnaire that was designed in 10 dimensions (physical health, exercise and wellbeing, weight and nutrition control, disease prevention, psychological health, spiritual health, social health, avoiding medicines and drugs, preventing incidents and environmental health) with totally 70 questions. Data were analyzed using descriptive statistics, T-test, ANOVA, Pearson correlation coefficient by SPSS23 at a significance level of α=0.05.

Results: The mean score of total health-promoting behaviors was evaluated to be 3.48±1.12, which is in a moderate range. Spiritual health (4.62±1.29) had the highest and that of exercise and wellbeing (2.38±1.38) had the lowest mean score. There was a positive and significant correlation between all components of health-promoting behaviors (P<0.05). There was a significant difference between health-promoting behaviors with demographic variables like gender (P=0.01), marital status (P=0.03), and educational level (P=0.03).

Conclusion: Nurses' health-promoting behaviors were at a "moderate" level, by continuing the condition of the pandemic, it is recommended to the health policymakers to prepare a more supportive work environment considering educational interventions with an emphasis on exercise and wellbeing.

Keywords: Health, Behavior, Nurses, Hospitals, Coronavirus, COVID-19

Article History:
Received: 3 December 2023
Accepted: 12 February 2024

Please cite this paper as:
Bayati M, Yusefi AR. Health-promoting Behaviors Status of Nurses during COVID-19 Pandemic: A Case of Southern Iran. Health Man & Info Sci. 2024; 11(2): 56-65. doi: 10.30476/jhmi.2024.104647.1250.

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Introduction

Cov-SARS-2 that is recognized as COVID-19 contains a family of coronaviruses that have been threatening human society since late 2019. Worries about the COVID-19, are greatly because the world is facing a deadly coronavirus epidemic for the third time in less than two decades (1). This virus causes severe and fatal respiratory problems similar to acute respiratory syndrome (2). The importance and necessity of preventing the outbreak of the COVID-19 virus now are because this virus has a high transmission power compared to SARS and MERS and has unique features that have made it much more difficult to control and treat people compared to previous coronaviruses (3). In such critical situations, one of the most effective ways to control and maintain health is to perform Health-Promoting Behaviors (4).

Health-Promoting Behaviors are behaviors that affect people's health and include behaviors such as seeking information about health issues, general examinations, having physical activity, proper diet, proper sleep pattern, and establishing healthy relationships (5). These behaviors result in people's satisfaction, increased well-being, quality of life, life expectancy, maintaining and improving health, self-fulfillment, and achievement (6, 7). Therefore, health-promoting behaviors are important determinants of health status (8-10).

Although attention to health promoting

behaviors can be considered important for the whole society, the significance of the issue is highlighted among the healthcare workers because of the permanent facing to the disease and a high risk environment. Nurses are regarded as one of the largest groups of healthcare workers. Despite the special status of nurses in improving and maintaining patients' health, research suggests that health-promoting behaviors in nurses are at a weak level and nurses' knowledge in this area does not lead to self-care in them (11). Some studies suggest that despite clear evidence of the dangers of smoking, the rate of smoking in nurses is similar to and even higher than that in the general population. In addition, about half of the nurses do not have regular physical activities and their salt intake, physical activity and, mental health are lower in them compared to other health professionals (12-14). Poor health status of nurses has an impact on medical errors and accidents and research suggests that workplace stresses (especially the current pandemic of COVID-19) affect nurses' health (15).

Nurses who do not have good general health and health-promoting behaviors will not be able to provide appropriate cares for patient (16). Poor participation in health-promoting behaviors is associated with consequences such as stress, disease, increased health care costs, occupational errors, and poor quality (17, 18). Health-promoting behaviors are the main factors in promoting nurses' physical, social, and mental health and preventing health problems. Promoting and using healthy behaviors in nurses can increase their ability to cope with occupational burdens (19). In this regard, nurses face many challenges in adopting healthy lifestyle behaviors. Some of them mention lack of time and motivation, fatigue, and cost (13). Some studies also indicated that shift work, low pay, and emotional suffering of the nursing profession might make it difficult for nurses to have a healthy lifestyle (17). However, having a healthy lifestyle is a moral duty for nurses and an integral part of patient care (17, 18). This significance should be much more highlighted during the pandemic of COVID-19.

Findings from some studies in Iran (20), Turkey (21), and South Korea (22) indicate that in addition to the moderate status of nurses' health-promoting behaviors during the COVID-19 pandemic, these behaviors can play an important role in providing appropriate quality services by reducing nurses' levels of stress, anxiety, and fear.

Since decision-making, planning, and intervention in nurses' health-promoting behaviors require identification of the existing status of such behaviors, the present study was conducted with the aim of investigating the status of nurses' health-promoting behaviors in teaching hospitals of Shiraz University of Medical Sciences during coronavirus (COVID-19) pandemic in 2022. Such practical results can shed the light for policy makers to plan better health interventions for this significant groups and pave the way for the health managers to support the human resources along with promoting the status of their health promoting behaviors.

Materials and Methods

This cross-sectional descriptive-analytical study was conducted in 2022 on nurses working in teaching hospitals covered by Shiraz University of Medical Sciences (including 10 hospitals) in southern Iran.

Based on the population of nurses, which was 2943 individuals, the required sample size for examination was estimated at 340 individuals with a 5% margin of error, using the following formula. Then, by dividing 340 by 2943 and multiplying the obtained number by the number of nurses in each hospital, the required sample size in each hospital was determined.

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N}\left(\frac{z^2 pq}{d^2} - 1\right)}$$

p=q=0.5
d=0.05
z=1.96
N=2943

In each hospital, the selection of nurses began by determining the number of nurses in each department. Subsequently, proportional stratified sampling was employed, and nurses were randomly chosen based on their personnel code using a table of random numbers. These selected nurses then participated in the study.

Inclusion criteria for nurses included willingness to participate in the study, work experience of at least one year in a hospital and employment in various clinical departments of the hospital. The exclusion criteria consisted of history of high stress and discomfort (for

example, the death of a loved one, divorce, etc.) during the past month since participating in the study and working in non-clinical departments such as administrative and financial departments of the hospital.

A questionnaire consisting of two parts was used to collect the data and describe the nurses' viewpoints. The first part contained a number of questions about the demographic information of the sample (age, gender, marital status, educational level, work experience, type of employment, the length of rest time after each work shift, number of shifts per month) and in the second part, a standard health-promoting lifestyle questionnaire was used. The questionnaire consisted of 70 items that included physical health (8 items), exercise and wellbeing (7 items), weight and nutrition control (7 items), disease prevention (7 items), psychological health (7 questions), spiritual health (6 items), social health (7 items), avoiding medicines and drugs (6 items), preventing incidents (8 items) and environmental health (7 items). The answers were classified based on the six-parameter spectrum including fully agree (score 6), agree (score 5), slightly agree (score 4), slightly opposite (score 3), opposite (score 2), and totally opposite (score 1). The status of general health-promoting behaviors was classified as poor (score 1-2.25), moderate (score 2.26-3.51), good (score 3.52-4.77), and excellent (score 4.78-6). The validity of the questionnaire designed was confirmed by experts and its reliability was accepted in the study of Lali et al. with Cronbach's alpha of 0.87 (23). After completing and returning the questionnaires, data were entered into SPSS software version 16.0 (SPSS Inc., Chicago, I11., USA). Pearson correlation coefficients were used to examine the correlation between different dimensions of nurses' health-promoting behaviors with each other and with their age and work experience. Independent t-tests were used to assess the mean differences in the main research variable based on the gender and marital status of nurses. Analysis of variance (ANOVA) was used to investigate the differences in the mean scores of health-promoting behaviors based on educational level and type of employment of nurses.

Ethical Considerations

This article was approved by the Ethics Committee of Shiraz University of Medical Sciences (with ethics number: IR.SUMS.

Table 1: Characteristics of the Study Participants (n=340)

Variable	Class	Frequency	Percentage
Age (year)	<30	178	52.35
	30-40	117	34.41
	>40	45	13.24
Work experience (year)	<10	216	63.53
	10-20	102	30
	>20	22	6.47
Gender	Male	133	39.12
	Female	207	60.88
Marital status	Single	146	42.94
	Married	194	57.06
Educational level	Associate degree	14	4.12
	Bachelor	293	86.18
	Masters	23	6.76
	Ph.D.	10	2.94
Type of employment	Official	62	18.23
	Contractual	71	20.89
	Bespoke	53	15.59
	Project	129	37.94
	Corporative	25	7.35
The length of rest time after each work shift	12 hours	211	62.06
	12-24 hours	106	31.18
	24-48 hours	23	6.67
Number of shifts per month	<10	21	6.18
	10-20	163	47.94
	>20	156	45.88
Total	------	340	100

REC.1399.660). All participants were assured of the confidentiality of their personal information and the anonymity. Written informed consent was obtain from all participants prior to the beginning of the study. Moreover, all participants were provided by explanation on the probability of withdrawal from the study, so that they were free to withdraw from the study at any phase. The research also explained the advantages of the study.

Results

The mean age of nurses who participated in the study was 30.23±6.46 years and the majority of them (52.35%) were aged below 30 years. The mean employment history of them was 7.23±6.45 years and the majority of them (63.53%) had an employment history of fewer than 10 years. Moreover, 60.88% of them were female and the rest were male. Most of the respondents had a bachelor's degree (86.18%), had project-based employment status (37.94%), and 10-20 shifts per month (47.94%). The length of rest time after each work shift was 12 hours or most of the nurses studied (62.06%) (Table 1).

The mean score of total health-promoting behaviors was 3.48±1.12, which indicates the moderate status of health-promoting behaviors among the nurses. The highest mean was observed in spiritual health (4.62±1.29), and the lowest score was related to the exercise and wellbeing component (2.38±1.38) (Table 2).

Table 2: Distribution of Health-Promoting Behaviors and its Components among the Nurse Studied

Components of Health-Promoting Behaviors	Subset	Mean of 6	Standard Deviation
Physical health	I try to keep my body healthy.	3.86	0.80
	I care about my health.	3.52	0.81
	I visit a doctor regularly for medical examinations.	2.76	1.31
	I am able to relax and calm down.	3.33	1.04
	I do not have chronic illness or physical disability.	3.88	0.61
	I sleep at least 7 to 8 hours each night and wake up at cheered up.	2.80	1.48
	Most of the time I don't work due to illness.	2.01	1.78
	In terms of physical health, I am almost equal to those of my age.	3.35	1.19
	Total	3.19	1.13
Exercise and wellbeing	I have a good physical strength.	2.59	1.09
	I practice at least several times a week and improve my muscle strength.	2.52	1.53
	At least 30 minutes a day and 3 times a week, I do sports like walking, bodybuilding, or aerobics.	2.37	1.49
	I have the energy to spend a day without feeling tired.	2.43	1.36
	I spend at least 30 minutes a day on physical activities such as fast walking.	2.28	1.46
	Most of my leisure time is spent on sports or doing physical activities such as cycling, walking, swimming, and other sports.	2.26	1.51
	I feel well.	2.21	1.18
	Total	2.38	1.38
Weight and nutrition control	I refrain from using salt and sugar in excess.	3.28	1.03
	I use fruits and vegetables 5 times or more on a daily basis.	3.21	1.01
	I have a balanced diet.	3.31	1.03
	I use fiber-containing foods several times a day.	3.30	1.18
	I control my weight.	3.33	1.19
	I avoid using saturated fats and fatty foods.	3.37	1.02
	I avoid excessive consumption of foods such as liver, eggs, and red meat that increase blood cholesterol levels.	3.47	0.96
	Total	3.32	1.06
Disease prevention	I avoid illegitimate and risky sex.	5.08	0.98
	I do my vaccinations on time.	4.83	1.09
	After toilet I wash my hands with water and soap.	4.73	1.17
	I avoid being exposed too much to the sun.	3.39	1.13
	I control my blood pressure and lipids regularly.	3.31	1.01
	I have an active life.	3.61	1.15
	In terms of physical health, I am almost equal to those of my age.	3.70	1.09
	Total	4.09	1.11

Components of Health-Promoting Behaviors	Subset	Mean of 6	Standard Deviation
Psychological health	I am hopeful for the future.	2.78	1.01
	I have positive feelings and thoughts.	2.71	0.98
	I am able to express my feelings.	2.94	1.06
	Overall, I love myself.	2.78	1.05
	I enjoy challenges and changes in life.	2.89	1.01
	I am able to adjust and control the stresses of my life.	2.93	1.13
	I enjoy art (painting, sculpture, music, calligraphy, etc.).	2.86	0.96
	Total	2.84	1.03
Spiritual health	I believe that the creation has a purpose.	5.03	1.13
	My life has meaning.	4.61	1.49
	I feel more dependent on something bigger than myself.	4.51	1.18
	I believe life has a purpose.	4.57	1.24
	I try to do things in life that have a lasting value.	4.58	1.34
	The purpose and direction of my life is clear.	4.63	1.39
		4.39	1.19
	Total	4.62	1.29
Social health	I have close and intimate friends.	3.55	1.09
	I have the ability to express my love and friendship to others.	3.59	1.07
	The feelings of others are respectable to me.	3.57	1.02
	I am able to develop optimistic relationships with others.	4.70	0.96
	I have positive feelings and thoughts.	3.81	0.88
	I am one of the people who are beside the people in need.	3.76	0.98
	When I encounter problems in my life, I talk to others and consult.	3.73	1.09
	Total	3.82	1.01
Avoiding medicines and drugs	I avoid excessive use of medicine.	3.49	0.98
	I do not smoke.	3.45	1.01
	I avoid using drugs.	3.34	1.06
	I avoid using risky drugs.	3.41	1.01
	I avoid socializing with addicts and alcoholics.	4.68	0.96
	I avoid drinking alcohol.	3.36	1.04
	Total	3.62	1.01
Preventing incidents	I follow the rules of driving.	3.79	0.98
	I keep the detergent and acidic material in a safe place.	3.60	1.13
	I use a seatbelt while driving.	3.48	1.12
	When driving, I put the children in the back seat equipped with a seat belt.	3.21	1.23
	While using detergents, cleaners and disinfectants, I read the instructions carefully.	3.50	0.94
	I do not use cell phones while driving.	3.51	1.12
	When using a bike and a motorcycle, I use a helmet.	3.34	1.11
	I refrain from riding a high-risk vehicle (such as a motorcycle).	3.20	1.29
	Total	3.45	**1.12**
Environmental health	I am aware of the quality and health of the water I drink.	3.45	1.21
	I wash fruits and vegetables before eating them.	3.47	1.13
	I try to make my living environment full of flowers and plants.	3.41	1.08
	I save energy (electricity, gas) and drinking water.	3.45	1.04
	I do not use insecticides in the home and workplace or, if necessary, I follow their directions.	3.54	1.03
	I recycle aluminum cans, glass and paper.	3.48	1.04
	I am interested in environmental issues (such as the destruction of the ozone layer, forests, etc.).	3.70	0.84
	Total	3.50	1.05
The status of all health-promoting behaviors		3.48	1.12

The results of the correlation test showed that there was a direct and significant difference between all the components of health-promoting behaviors among nurses. Among the components of health-promoting behaviors, there was the highest correlation between the component of spiritual health and psychological health (r=0.571, P<0.001) (Table 3).

According to the results of the study, there was a significant difference between the nurses' health-promoting behaviors and gender variables (P=0.01), marital status (P=0.03), and educational level (P=0.03) (Table 4).

Table 3: The Correlation between the Components of the Health-Promoting Behaviors of the Nurse Studied

Components	1	2	3	4	5	6	7	8	9	10
Physical health	1									
Exercise and Wellbeing	r=0.513 P<0.001	1								
Weight and nutrition control	r=0.392 P<0.001	r= 0.434 P<0.001	1							
Disease Prevention	r=0.287 P<0.001	r=0.213 P<0.001	r=0.332 P<0.001	1						
Psychological health	r=0.345 P<0.001	r=0.291 P<0.001	r=0.397 P<0.001	r= 0.403 P<0.001	1					
Spiritual Health	r=0.297 P<0.001	r= 0.298 P<0.001	r=0.296 P<0.001	r=0.256 P<0.001	r=0.571 P<0.001	1				
Social health	r=0.338 P<0.001	r=0.171 P<0.001	r=0.071 P<0.001	r=0.247 P<0.001	r=0.298 P<0.001	r= 0.461 P<0.001	1			
Avoiding medicines and drugs	r=0.113 P<0.001	r=0.084 0.067 P=	r=0.036 P=0.37	r=0.151 P<0.001	r=0.167 P<0.001	r=0.402 P<0.001	r= 0.342 P<0.001	1		
Preventing Incidents	r=0.104 P<0.001	r=0.058 0.001 P=	r=0.202 P<0.001	r=0.181 P<0.001	r=0.171 P<0.001	r=0.182 P<0.001	r=0.173 P<0.001	r=0.236 P<0.001	1	
Environmental health	r=0.243 P<0.001	r=0.561 P<0.001	r=0.560 P<0.001	r=0.161 P<0.001	r=0.227 P<0.001	r=0.203 P<0.001	r=0.209 P<0.001	r=0.243 P<0.001	r=0.541 P<0.001	1
Total	r=0.605 P<0.001	r=0.572 P<0.001	r=0.561 P<0.001	r=0.510 P<0.001	r=0.624 P<0.001	r=0.636 P<0.001	r=0.522 P<0.001	r=0.411 P<0.001	r=0.465 P<0.001	r=0.353 P<0.001

1. Physical Health, 2. Exercise and Wellbeing, 3. Weight and nutrition control, 4. Disease Prevention, 5. Psychological Health, 6. Spiritual Health, 7. Social Health, 8. Avoiding Medicines and Drugs, 9. Preventing Incidents, 10. Environmental Health

Table 4: The association between health-promoting behaviors and demographic characteristics of the nurses studied

Components of Health-Promoting Behaviors	Demographic Variables					
	Age	Work experience	Gender	Marital status	Type of employment	Educational Level
Physical Health	r=0.48* P=0.02*	r=0.39* P=0.01*	t=2.28 P=0.02	t=2.08* P=0.01	F*=1.64 P=0.21	F=2.85 P=0.03
Exercise and Wellbeing	r=0.42 P=0.07	r=0.31 P=0.06	t=2.25 P=0.03	t=1.87 P=0.02	F=1.78 P=0.14	F=2.88 P=0.01
Weight and nutrition control	r=0.54 P=0.01	r=0.24 P=0.16	t=2.32 P=0.02	t=1.76 P=0.03	F=1.72 P=0.19	F=2.94 P=0.01
Disease Prevention	r=0.24 P=0.16	r=0.27 P=0.15	t=2.84 P<0.001	t=1.96 P=0.02	F=1.47 P=0.22	F=3.01 P<0.001
Psychological Health	r=0.39 P=0.08	r=0.19 P=0.17	t=2.48 P=0.01	t=2.14 P<0.001	F=1.92 P=0.09	F=2.79 P=0.04
Spiritual Health	r=0.27 P=0.16	r=0.45 P=0.01	t=3.11 P<0.001	t=1.83 P=0.02	F=1.86 P=0.12	F=2.81 P=0.03
Social Health	r=0.21 P=0.17	r=0.12 P=0.18	t=3.04 P<0.001	t=1.78 P=0.03	F=1.59 P=0.20	F=2.86 P=0.03
Avoiding Medicines and Drugs	r=0.28 P=0.13	r=0.14 P=0.19	t=2.87 P<0.001	t=1.16 P=0.09	F=1.54 P=0.22	F=2.72 P=0.04
Preventing Incidents	r=0.22 P=0.09	r=0.28 P=0.09	t=2.03 P=0.03	t=1.85 P=0.03	F=1.41 P=0.25	F=2.69 P=0.04
Environmental Health	r=0.18 P=0.12	r=0.16 P=0.21	t=2.19 P=0.07	t=1.11 P=0.09	F=1.39 P=0.27	F=2.56 P=0.05
Total Health-Promoting Behaviors	r=0.31 P=0.09	r=0.25 P=0.12	t=2.54 P=0.01	t=1.74 P=0.03	F=1.59 P=0.19	F=2.79 P=0.03

*r: Pearson Correlation Coefficient, P: P value, t: T-Test, F: Test ANOVA

Discussion

The present study results revealed that health-promoting behaviors in the studied nurses are at the "moderate" level. These results are somehow similar with those of the studies conducted by Najafabadi and Rezaei (24), Nejat and Abedi (25), Tavakoli and Emadi (26), Edrisi et al. (27), Tasi and Liu (28), Kalroozi et al. (29), Nassar and

Shaheen (30), and Lee et al. (31).

It seems that nurses have sufficient and appropriate knowledge of health behaviors due to the nature of their job, but they do not have sufficient opportunities to perform health-promoting behaviors due to factors such as long working hours, hard work, shift work and high job stress, especially during the outbreak of COVID-19 epidemic. Moreover, health-promoting behaviors are an essential element in nursing that its observance can improve physical and psychological outcomes in people and can be effective in controlling and reducing health costs by preventing health problems and improving the healthy lifestyle of people (27). Furthermore, in a pandemic like COVID-19, the psychology of nurses can be negatively affected. Some studies have shown that the COVID-19 pandemic has negatively affected the mental health of nurses (32-34). In a study by Pappa et al., nurses experienced higher levels of anxiety and depression compared to other healthcare workers during the COVID-19 pandemic. Also, in a study of Labrague and De los Santos, Covid-19 fear levels of nurses were demonstrated to be above moderate level (35).

Among the health-promoting behaviors dimensions, the spiritual heath dimension had the highest mean score, which was similarly mentioned in the results of other studies conducted by Kalroozi et al. (29), Norozinia et al. (36), Nassar and Shaheen (30), and Furr (37).

The high mean score of spiritual heath among other dimensions of nurses' health-promoting behaviors may be rooted in the culture and religious beliefs of Iranian society, so paying attention to spiritual issues in this area is crucial. It also seems that nurses are at a desirable level of spiritual health due to their professional identity and the spirituality of the nursing profession.

Based on the results of the present study, the dimension of exercise and wellbeing had a lower mean score compared to other dimensions. In line with this result, the lowest score of health-promoting behaviors in the studies conducted by Nejat and Abedi (25), Tasi and Liu (28), Kalroozi et al. (29), Edrisi et al. (27), Nassar and Shaheen (30), Tucker et al. (38), Mc Elligott et al. (39) and Karen et al. (40) was related to exercise and physical activity. However, in terms of exercise and wellbeing, the results of the present study were not similar with the results of the study conducted by Lee et al. (31). One of its reasons could be a difference in the socio-cultural status of the participants and the research environment.

Obtaining a low score in exercise and wellbeing dimension among the studied nurses can have cultural and social origins. In addition, it seems that high workload, lack of adequate time due to requirements of family life are other personal barriers of physical activity and exercise among nurses. Participation in physical and sports activities depends on various factors such as nurses' perception of physical activity, self-confidence, social support, and sufficient motivation (41). At the same time, the restrictions of the hospitals inadequate procurement of human resources can impose extra pressure on the available nurses for long rotations and lack of access to sufficient spare time. These all can cause less attention to the physical activities or even the routine programs for sports. Regular, planned, high-quality physical activity and exercise in the shortest time can be effective in promoting the physical and even mental health of nurses. Health system policymakers and planners should keep in mind that reduced physical activity could have an unfavorable effect on staff performance and consequently reduce their useful working life.

Results of the present study showed that there was a statistically significant relationship between nurses' health-promoting behaviors and variables of gender, level of education, and marital status so that females, married people, and nurses with higher levels of education had higher mean scores in health-promoting behaviors. In the study conducted by Kalroozi et al, gender and marital status were reported as the determining factors in this regard, so that female nurses performed better than male nurses in all aspects of health-promoting behaviors except the dimensions of spiritual growth and physical activity. Married nurses also scored higher than single and divorced nurses (29). In addition, the study conducted by Najafabadi and Rezaei (24) showed that female nurses and married nurses scored higher in health-promoting behaviors, which was consistent with the results of the present study. However, in the study conducted by Edrisi et al. (27), male nurses obtained higher scores than female nurses in all dimensions, except for nutrition, which is inconsistent with the results of the present study.

The researcher's lack of control over the

emotional state of the participants during completing the questionnaires, especially in the existing status of coronavirus pandemic (COVID-19), was among the executive limitations of the present study.

Conclusion

Based on the results, nurses' health-promoting behaviors were moderate, the highest health-promoting behavior was related to disease prevention, and the lowest was related to exercise and wellbeing. Implementing health education programs with an emphasis on regular physical activity and exercise in nurses is recommended along with conducting the group workshops for improving the moral sense, sprits and unity among the nurses that all can affect their total health and improve their physical health as well.

Acknowledgment

This study was supported by the Vice-Chancellor for Research and Technology of Shiraz University of Medical Sciences (grant no.: 98-01-68-20565). The authors express their appreciation to all those who cooperated with the research team in conducting this study.

Financial Support and Sponsorship

No Funding.

Conflict of Interest

There are no conflicts of interest.

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