Original Article

A Study of Health-Promoting Behaviors of Medical Sciences Students of Islamic Azad University of Sari, Iran 2013

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Abstract

Background and purpose: Health-promoting activities and a healthy lifestyle are major strategies to preserve health. The purpose of this research study, health-promoting behaviors of medical sciences student of Islamic Azad University of Sari, Iran, was carried out in order to determine the compliance and to promote the medical community.

Materials and Methods: This was a cross-sectional study conducted on 285 university students, School of Medical Sciences, Sari, Iran, who were selected using stratified random sampling. Tools for data collection questionnaire were health-promoting lifestyle profile-II, which includes two main categories of health behaviors and psychosocial health of six sub-categories. Data were entered into the SPSS statistical software and for analysis, Friedman and One-sample test was used.

Results: Of the six dimensions of health-promoting behaviors, spiritual growth, averaging 25.11 ± 4.57 most, and the area of physical activity with a mean 18.33 ± 4.40 was the lowest score accounted in this study. The results of Freidman test showed that the ranking of dimensions (aspects) are as following: 1 - personnel inter-relationship; 2 - spiritual growth; 3 - nutrition; 4 - management stress; 5 - health responsibility; and 6 - physical activity.

Conclusion: The finding was shown that doing the facilitator behavior and health promotion in the students are at the acceptable level. Furthermore, the terms of personnel inter-relationship, spiritual growth, nutrition, and stress management are at the important level of health promotion aspects. Regarding the above situations of health-promoting behaviors for health education programs among medical group students is recommended.

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Key words: Health Promotion, Health-Promoting Behavior, University Student

1. Introduction

Inappropriate lifestyle is one of the factors affecting the occurrence of the chronic diseases including colon cancer, hypertension, and chronic obstructive pulmonary disease, cirrhosis of the liver, stomach ulcers, AIDS, and cardiovascular disease (1). Now-a-days, research has shown the causes of many chronic diseases are lifestyle and human behavior. The performance of health-promoting behaviors is one of the best ways by which people can control and maintain their health (2). Health-promoting behaviors as a key issue in the concept of health promotion has attracted wide attention in the research and development of programs-related to health promotion (3). Health-promoting behaviors are among the main determinates of health that have been recognized as underlying factors in disease prevention. Thus, health-promoting behaviors and a healthy lifestyle should be considered as major strategies to improve and maintain health (4). Health behavior is also affected by the outcomes people expect their actions to produce (5). The new public approach increasingly emphasizes health promotion that places importance on building public health policy, creating supportive environments, strengthening community action reorienting health services, and developing personal skills, including giving individuals opportunity to learn skills of self-care and living with health-promoting behaviors (6). Pender and colleagues indicated that health-promoting behaviors are a part of daily activities of life that impact individual happiness, values, and well-being. Health-promoting behaviors comprise six components including health responsibility, physical activity, nutrition, interpersonal relations, spiritual growth, and stress management (7). Health promotion practices of caregivers may contribute to the health and well-being of caregivers and the welfare of stroke patients (8).

Health problems of the elderly result from poor health-promoting behaviors, which may lead to chronic disease such as cardiovascular disease, hypertensive disorder, diabetes mellitus, and mental health problem (9). Health-promoting activities seek to strengthen the host through a variety of approaches in the form of health education, lifestyle modification, behavior change, environment modification, and nutrition intervention (10). Health-promoting behavior is defined as the first level of primary prevention, beginning with healthy adolescents who seek to improve their lifestyles to achieve better health (11).

The results of numerous studies was conducted under this title on the student of Shahid Sadughy University, Yazd, Iran showed designing and development of health promotion programs causes the increase of health and the improvement of the life quality of the students (2). A study conducted by Steven in America in 2002 with the title of the comparison of cultural differences in terms of health-promoting behaviors among college students. The result of this study showed significant differences in specific health behaviors, in terms of gender between Japanese and American students (12). To maintaining and promotion of the health, correcting and improving lifestyles are essential (13). The study on nursing students showed that only 3.1% of students have a good level of health behaviors, while 88.0% of them had a moderate level of health behavior (14).

Today has been identified some patterns of life and the existence of risk factors are the main causes of the endangering the health and the incidence of the mortality. Therefore, due to the high prevalence of anxiety and depression (about 20%) and health-damaging behaviors between students, we decided to examine the health-promoting behaviors in the students of the School of Medical Sciences of Islamic Azad University, Sari, Iran in order to the determination of adherence level and its promotion in the medical community.

2. Materials and Methods

This applied study is of the descriptive type and was conducted in the School of Medical Sciences of Islamic Azad University, Sari, Iran at 2013. In this study, after obtaining permission from the Vice-Chancellor for Research, sampling was done using stratified random sampling method from the 1100 medical sciences students of this faculty with the distribution of a questionnaire and providing the necessary description. The statistical population of the study was 1100 students from this university, which the sample size was determined 285 according to Morgan's table. The method of sampling was a random stratified sampling method that based on the weight of each category (term) and based on Morgan's table, 285 people were selected and filled out the questionnaire of health promotion. The study sample consisted of 37 students of public health field, 144 students from nursing, 45 students of midwifery, and 36 students of the medical field who all of them were randomly selected. Both library and field methods were used for gathering the data and information of the study. In the library method was used from the research resources, articles and available books, and in the field method data were collected from the statistical population with the use of health-promoting lifestyle profile (HPLP) standard questionnaire (2). The HPLP questionnaire has two sections. The first part of the questionnaire has 12 questions and collects information about personal demographic characteristics of students.

The second part is a HPLP-II standard questionnaire, which provides a multi-dimensional evaluation of the health-promoting behaviors based on Pender's health promotion model to determining how people perform health-promoting behaviors. This part of questionnaire measures the frequency of using health-promoting behaviors with a total of 52 questions in six domains as follows: health responsibility (9 questions) maximum score 36 and a minimum score 9, physical activity (8 questions) maximum score 32 and a minimum score 8, nutrition (9 questions) maximum score 36 and a minimum score 9, spiritual growth (9 questions) maximum score 36 and a minimum score 9, stress management (8 questions) maximum score 32 and a minimum score 8, and interpersonal relationships (9 questions) maximum score 36 and a minimum score 9). Acceptable criteria for the questionnaire were 52. Reliability of the questionnaire was determined by Cronbach's alpha test at 0.83.

Each question is scored as never (1), sometimes (2), often (3), and always (4). The total score ranges of health-promoting behaviors is between 52 and 208 and for each dimension is calculated a separate score. Data were entered into the SPSS statistical software (version 17 SPSS Inc., Chicago, IL, USA) and using statistical tests: Friedman and one-sample test was used.

3. Results

About 82.5% of the sample was men. The most frequent was related to the 19-23 year's age group (68.8%) and least frequent was related to the 31 years and above age group (7.0%). About 82.5% of the participants in this study were women, as well as 3.9% of samples were smokers and 74.7% of people were single. The mean of health-promoting behaviors was 135.17 ± 18.00. The highest mean of areas was related to the spiritual growth variable (25.11) and lowest mean score was related to physical activity area. Furthermore, the highest standard deviation was related to spiritual growth area (4.57), and the lowest standard deviation was related to stress management area (3.49).

The results showed the mean scores of single (136.00) in health-promoting behaviors are higher than married (132.78) and, the standard deviation of single people's scores are also higher than married people. The average of women score are more than men at the health-promoting behavior (141.22 ± 19.98 to 133.88 ± 17.31).

Table 1. Mean score of the different aspects of health-promoting with one-sample t-test

Health-promoting behaviors	Test value = 2.5					
	t	df	Significant (two-tailed)	Mean difference	95% Confidence interval of the difference	
					Lower	Upper
Health responsibility	-2.055	284	0.041	-0.05716	-0.1119	-0.0024
Physical activity	-6.323	285	0.000	-0.20739	-0.2719	-0.1428
Nutrition	5.551	285	0.000	0.15153	0.0978	0.2053
Spiritual growth	9.602	285	0.000	0.29103	0.2314	0.3507
Inter-relationship	9.805	285	0.000	0.28871	0.2308	0.3467
Stress	3.532	285	0.000	0.09419	0.0417	0.1467

Table 2. Frequency, mean, standard deviation, minimum, and maximum score of the different aspects of health promoting

Health-promoting behaviors	Descriptive statistics				
	N	Mean	Standard deviation	Minimum	Maximum
Health responsibility	285	2.4428	0.46956	1.00	3.89
Physical activity	285	2.2925	0.55565	1.13	4.00
Nutrition	285	2.6550	0.45876	1.22	3.89
Spiritual growth	285	2.7896	0.51289	1.44	4.00
Inter-relationship	285	2.7880	0.49870	1.56	3.89
Stress	285	2.5928	0.45112	1.38	3.86

The results of one-sample t-test with the average 2.5 and comparing between areas showed that areas of physical activity (P = 0.0001) and health responsibility (P = 0.4100) have been inadequate, but for other dimensions the average were up to 2.5 (P = 0.0001) that shows they are adequate situation (Tables 1 and 2).

The results of Freidman test showed that the ranking of dimensions (aspects) are as following: 1 - personnel inter-relationship; 2 - spiritual growth; 3 - nutrition; 4 – management stress; 5 - health responsibility; and 6 - physical activity (Table 3).

Table 3. Ranking of the different domains of health promoting with Freidman test

Ranks	
Domains	**Mean rank**
Health responsibility	2.91
Physical activity	2.45
Nutrition	3.71
Spiritual growth	4.22
Inter-relationship	4.29
Stress	3.42
Test statistics [a]	
N	285.000
Chi-square	219.819
df	5.000
Asymptotic significant	0.000

[a]Friedman test

4. Discussion

In general, the average score of health-promoting behaviors in students who participated in the present study was 135.17. This score is indicative of the acceptability of health-promoting behaviors. In a study was conducted on the students of Kerman University of Medical Sciences, the mean score of health-promoting behaviors in samples was 134.6, that results of this study confirm the findings our study (15). In this study, there was a significant direct relationship between the health-promoting behaviors with the responsibility, interpersonal relationships, stress management, and physical activity areas.

The results of this study performed with the aim of the determination of health-promoting behaviors showed the health-promoting lifestyles of nursing students were not completely satisfactory and physical activity dimension was at the lowest level between the dimensions of health-promoting behaviors (16). In this study, the lowest score was also related to the physical activity area and this shows that exercise is not integrated in the daily lives of students.

The findings of a study conducted with the aim of the determination of health-promoting behaviors showed in the areas related to nutrition and physical activity the boy's situation is more favorable than the girl's situation. The result of this study showed the health-promoting behaviors in adolescents was at an intermediate level, thus, giving adequate health care and educational services and in some cases counseling service to adolescents and their families should be taken into consideration (17).

In a study by Tergerson and King in 2002, the type of benefits and barriers were examined from the perspective of the boy and the girl. The result of this study showed the girls knew fitness as the most important benefits of exercise and the boys knew the muscles strengthen as the most important benefits of it and the major barrier to girls for participation in sport is having no enough time to exercise and the major barrier for boys is their tendency for fun activities in leisure time (18). The results of the present study suggest that students' behavior is good at the non-smoking and it represents the culture of governing our country and the effectiveness of advertising in the community about non-smoking. The other study that was conducted with the aim of the evaluation of the health-promoting behaviors and lifestyle showed more than half of the students had poor and moderate lifestyle and had lower physical and emotional functioning that in the present study, the mean of area of the physical performance were the lower level, so would indicates the need to plan for the improvement of health-promoting behaviors in students (19).

Therefore, the findings of this study indicate the health facilitating and promoting behaviors in college students is at an acceptable level and the terms of personnel inter-relationship, spiritual growth, nutrition, and stress management are at the important level of health promotion aspects. Regarding the above situations of health-promoting behaviors for health education programs among medical group students is recommended.

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