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Prioritizing health promotion lifestyle domains in students of Qazvin University of Medical Sciences from the students and professors' perspective

Mahnaz Pouresmaeil, Jaffar Abbas¹, Mahnaz Solhi, Arash Ziapour², Esmail Fattahi

Department of Health Education and Promotion, School of Health, Iran University of Medical Sciences, Tehran, Iran, ¹Antai College of Economics and Management/ School of Media and Communication, Shanghai Jiao Tong University, Shanghai, China, ²PhD Student, Health Education and Health Promotion, Health Institute, Kermanshah University of Medical Sciences, Kermanshah, Iran

Address for correspondence:

Dr. Mahnaz Solhi, Department of Health Education and Promotion, School of Health, Iran University of Medical Sciences, Tehran, Iran. E-mail: solhi.m@iums.ac.ir

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Abstract:

INTRODUCTION: An individual's lifestyle is closely related to the health so that a healthy lifestyle improves the purpose of this study was prioritizing health promotion lifestyle domains in students of Qazvin University of Medical Sciences from the students and professors' perspective.

MATERIALS AND METHODS: This study was done in cross-sectional method. The statistical population of this study consisted of students in Qazvin University of Medical Sciences in the academic year 2018. In addition, 10 faculty members in this university and five students were questioned in Delphi method from different educational groups. The questionnaire was used consisted of two parts. The first part included demographic characteristics, and the second part included the standard questions for Pender's health promotion model. The Delphi needs assessment method was also used to collect the information.

RESULTS: The mean score of students' health-promoting behaviors was average (135.22 ± 19.35). The greatest score of health promotion behaviors was related to the spiritual growth scale (25.3 ± 5.4), and the lowest score was for physical activity (19.7 ± 05.1). The results of the Delphi method also suggested that both groups of faculty members and students believe that the dimensions of health accountability, physical activity, and prevention of high-risk behaviors in the students' lifestyle, need to be intervened.

CONCLUSION: The results of the present study indicated that the students' lifestyle at Qazvin University of Medical Sciences was in average condition and low scores in the dimension of physical activity. Planned interventions should be made to promote health-promoting lifestyle among these students.

Keywords:

Delphi-assessment, health-promoting lifestyle, prioritization, professors, students

Introduction

Health-promoting behaviors include activities that people take to prevent potential illness and to have a healthy life together with a sense of happiness.^[1,2] Health-promoting lifestyle behaviors include being accountable for health, physical activity, nutrition, self-actualization, interpersonal relationships, and stress

management.^[3] Today, paying attention to the needs of young people with regard to his role in the future of society is necessary. Many diseases that have a financial burden and psychological stress on the societies and people can be reduced by the right and timely education to young people. According to a research, the childhood experiences can increase the risk of high blood pressure in adulthood.^[4] The World

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Health Organization defines health goals for everyone in the 21st Century and has considered four goals to improve the health of young people and increase their social responsibility in accepting roles in society by 2020.^[5] In addition, young people should be encouraged to take responsibility for their lives.^[6]

Starting college education for many students means starting a life away from the family. In this period, high-risk behaviors are often institutionalized due to their adaptation to the new environment and the organization of their own lives.^[7,8] Many studies have indicated that the students, especially in the field of physical activity and health responsibility, do not have a good lifestyle.^[9] Since the change of healthy lifestyle is difficult in adulthood, therefore, raising awareness of healthy lifestyles is essential.^[10] The first step in the design of educational programs is to determine the educational needs of learners. Educational need-assessment is to identify educational needs and rank them according to the priority of selecting the needs that have been raised.^[11] The need-assessment for medical education in Iran's health education system is the missing link in the universities' educational programs. At all levels of this system, educational needs are the most important determinant factor in the design of educational courses, the subjects of the curriculum, and in general, the process of education and care.^[12] Failure to meet the needs and expectations of the target group will reduce the effectiveness of the training program.^[13]

The Delphi method is a common method for determining the research priorities, a methodology that involves a group of experts seeking to reach a common point of view without face-to-face contact. This method is a structured process and is a relatively quick and effective way to reach an agreement among the expert community by providing a series of inventory s in different stages for ranking.^[14,15] Considering the importance of carrying out the needs assessment, in Iran, the various studies have addressed health-related educational needs, it can be noted to a cross-sectional study done by Kelishadi *et al.* in Khorasan Razavi, Tehran, Khuzestan, Kermanshah, and Guilan provinces. Findings of this study indicated that young people felt more need to education in their life skills, social health, and spouse selection skills. In addition, the priority of the youth, in terms of needed advisory services, was respectively, premarital skills, social communication skills, the prevention of violent behavior, the prevention of addiction, the prevention of no sexually transmitted infections and AIDS and the prevention of smoking and drugs.^[16]

In a study conducted by Shakour *et al.* about reproductive health needs assessment of teenaged girls and boys, it

was found out that adolescent girls had different needs in four groups: experience of menstruation, experience of hygiene, social needs and psychological needs. In contrast, adolescent boys had three groups of needs: physical changes, psychological and sexual needs such as depression and communication with girls.

The findings of a qualitative study about the health information needs of female adolescents determined that their health information needs are to be emphasized on two overarching themes, including adjusting education according to the needs (with two subcategories: preferred content and method of delivery) and public participation in education (with two subcategories: promotion of mass media performance and social networks participation in education).

Each category consisted of some subcategories which were explained with experiences of participants.^[17] Womersley and Ripullone, in their article about medical schools, should be prioritizing nutrition, and lifestyle education said that Students need to understand the role of diet in health promotion and disease prevention. In 2008 and 2009, >75% of the American junior physicians felt inadequately trained to counsel patients on diet and physical activity. Just 27% of the US medical schools provided the agreed minimum of 25 h of nutrition education in 2008.^[18]

As the medical students play a key role in promoting health as the health promotion providers and professional care providers, therefore choosing any lifestyle by them not only have affected their personal lives but also affect the behaviors and lifestyles of the others. This community of people as a channel can promote health promotion issues for their family and community.^[19,20] Furthermore, existing studies have indicated that young people have serious psychological problems, high-risk behaviors, malnutrition, etc., and educational programs have not been desirable effective in terms of quality or presentation. Since the first and most basic step in the programming of each system is the need-assessment, resources may be wasted due to inappropriate planning without prioritization of needs. More importantly, a mistake in assessing needs can lead to a plan that retards or prevents attention to more important health problems.^[16]

On the other hand, the experiences of professors as professionals and practitioners of any profession can be used as a reliable source of information. Therefore, the present study was done to determine the priority of health promotion lifestyle domains in students of Qazvin University of Medical Sciences from the students and professors' perspective in the Delphi method.

Materials and Methods

This was a cross-sectional study. The statistical population of this study was students who were studying at Qazvin University of Medical Sciences in the academic year 2018, with total number of 2567, 318 students were stratified randomly assigned to the study on Morgan sample size formula. According to the ratio of the students of each faculty (and, of course, the division of the field of the study) to the total students of the university, the sample number of each faculty was determined as follows: medicine faculty (83 ones), dental faculty (51 ones), nursing and midwifery faculty (101 ones), and health and paramedics faculty (83 ones). The ethical principles in this study include obtaining the necessary permits, the right to freely choose the research units to refuse or accept participation in the research, to ensure the confidentiality of the collected information, and the nondisclosure of personal data of the samples.

Health-promoting life style inventory (HPLPII)

This inventory is based on the Pender's health promotion model and provides a multidimensional assessment of health promotion behaviors.^[6] It measures the frequency of applying health promotion behaviors in six dimensions (health responsibility, physical activity, nutrition, spiritual development, stress management, and interpersonal relationships). This inventory contains 52 questions, and its grading is as never (1), sometimes (2), usually (3), and always (4). The range of the total score is from 52 to 208. The score obtained from each question has a range from 1 to 4 that high scores represent better and more desirable promoting lifestyle. The score obtained from the entire inventory is divided into three categories so that if people get $\leq 49\%$ of the score, they are considered weak, they are in the average condition with a score in the range of 50%–74% and they are in a good condition with a score $>75\%$. For each dimension, a separate score can be calculated. Validity and reliability of the Persian version of the health promotion lifestyle have been obtained by Mohammadi Zeidi *et al.* in Iran, and its content validity has been confirmed, and its reliability has been reported 0.64 for psychosocial areas, 0.86 for health responsibility, 0.91 for stress management, 0.75 for interpersonal communication, 0.81 for nutrition, 0.79 for physical activity, and 82 for the whole inventory.^[21]

Need-assessment in Delphi methodology

At this point, the Delphi method was used, which is one of the most practical matching techniques. The Delphi method was respectively performed in three stages.

1. Recognition of experts and their agreement to participate in the need-assessment study: Ten members in the faculty of Qazvin University

of Medical Sciences from different educational departments (nursing, health education, health services management, epidemiology, dentistry, specialist in dentistry for children and adolescents), psychology, and five students were questioned

2. In this step, the questions to be answered are identified. For this purpose, the following questions were designed in a table, and people were asked to answer these questions
 - a. Which dimensions of a student's lifestyle are effective? In the designed table, according to the literature review, the different dimensions of lifestyle were included, and people were asked to mark the desired dimension and add if they find more dimension
 - b. Prioritize each of the above dimensions in terms of impact on lifestyle
 - c. Determine the impact factor of each dimension of a healthy lifestyle.
3. Sending initial questions for specialists and students and receiving their answers. At this stage, the first phase questions were sent to 10 faculty members and 5 students by E-mail, and the time was right for them (up to 5 days). People who did not respond were followed up
4. Analysis of responses and inclusion of them in another question for the next round
When answers were received, each one was analyzed, and then a new question was designed.
5. Answers were analyzed and three important priorities and three dimensions with the highest impact factor were extracted, respectively, and then notified to members by E-mail.

The total score of health promotion lifestyle and average scores of each dimension were calculated and ranked according to the lowest average to the highest average. A comparison was also made between the experts and the students' perspective obtained in the Delphi method. Three dimensions with the highest degree of impact factor were determined for intervention by faculty and students.

Data were analyzed using the SPSS software (version 22.0, SPSS Inc., Chicago, IL, USA), descriptive statistics tests (frequency, mean and standard deviation), and analytical statistics (*t*-test and ANOVA). It should be noted that prior to the above tests, the related prehypotheses were examined and all the tests were at a statistically significant level $P < 0.05$.

Results

Among 318 people, 176 ones (55.3%) were female and 142 (44.6%) were male. The mean age of the students

participating in the study was 22 ± 5 years old. The age group of 26–30 years old had the highest frequency (194 ones; 48.5%). Most of the samples ($n = 250$, or 78%) were single. 50% had bachelor degrees and lower, and 50% had master degrees. In terms of major, most of the samples ($n = 101$, or 31.76%) were nursing and midwifery students, and in terms of residence, 145 subjects were residing in dormitories (40%). Moreover, out of the total of 289 faculty members of Qazvin University of Medical Sciences in 1397, 10 ones participated in this needs assessment from the different educational groups (health education and health promotion, nursing and midwifery, management of health services, epidemiology, dentistry of children and adolescents, and psychology); two ones from the health education group, three ones from the nursing and midwifery group, two ones from the health services management group, one from the group of epidemiology, one from the dentistry for children and adolescents group, and one from the psychology group. Four ones were men were (40%), and six ones were female (60%); with an average age of 40.7 years and 90% of them had Ph. D. degree.

In this study, the mean and standard deviation of total score of the students' health promotion behaviors was 135.32 ± 19.35 . The highest score of health promotion behaviors was related to the spiritual development scale (25.3 ± 5.4), and the lowest score was for the physical activity 19.1 ± 5.1 [Table 1].

Among the suggestions proposed by the researcher, the specialists suggested the dimensions of nutrition, physical activity, social health, prevention of high-risk behaviors, stress management, accountability for health, interpersonal relationships, spiritual growth, self-fulfillment, prevention of incidents, and the environmental health. Dimensions of economic welfare, social protection, social capital and family culture, access to health services, and religious orientations were added to the other dimensions by some people. In the next step, while sending the results of the first stage, people were asked first to prioritize the different dimensions of the chosen lifestyle and then determine the severity of the effect of the chosen priorities. The results of the

second stage included the selection of dimensions of accountability for health, social health, spiritual growth and self-fulfillment, stress management, prevention of high-risk behaviors, and nutrition. The dimensions of prevention of high-risk behaviors, spiritual growth and self-fulfillment, physical activity, nutrition, and stress management, had a high effect on the students' lifestyle. In the third stage, while sending the results of the second stage, the experts (faculty) were asked to choose three dimensions that had the highest priority and three dimensions that had the highest impact on the students' lifestyle. The dimensions with the highest priority are nutrition, social health, and accountability for health and dimensions with the highest impact are the prevention of high-risk behaviors, physical activity, and nutrition in the student's lifestyle. The second part of the needs assessment in Delphi methodology was conducted by five students. Regarding the selection of the effective dimensions on the health-promoting lifestyle, among the issues suggested by the researcher, the students chose the dimensions of responsibility for health, physical activity, stress management, interpersonal relationships, prevention of high-risk behaviors, social health, nutrition, and the environmental health. Dimensions of economic welfare and suitable job future for some people were added to the other dimensions. The results of the second stage included the dimensions of the prevention of high-risk behaviors, health accountability, interpersonal relationships, nutrition, physical activity, and stress management as priority; the dimensions of prevention of high-risk behaviors, accountability for health, physical activity, environmental health, stress management, and interpersonal relationships, had a strong impact on the student's lifestyle in their view. Finally, in the third stage, three priorities were selected: prevention of high-risk behaviors, health accountability, and physical activity; three dimensions had the highest impact on the students' lifestyle: prevention of high-risk behaviors, stress management, and physical activity.

Discussion

The results of this study indicated that the students of Qazvin University of Medical Sciences are at an average level in terms of health-promoting lifestyle. Abbasi *et al.*, in their study indicated that the student's lifestyle score is average.^[22] Maheri *et al.* (2013), reported average the score of lifestyle in a research on the health-promoting lifestyle of dormitory students of medical university in Tehran.^[23] Hacıhasanoglu *et al.*, in their study on Turkish students, concluded that the total score of lifestyle for the most students was average, which is confirmed by the results of the present study.^[24] Comparison of the results of this study and other studies shows that the lifestyle of the most students is in an average situation. In this study, the spiritual growth and interpersonal relationships

Table 1: Mean score of different dimensions of health promotion lifestyle in the study students

Health-promoting behaviors subscales	Range	Mean±SD
Health responsibility	9-36	22.7±4.5
Physical activity	8-32	19.1±5.1
Nutrition	9-36	23.93±4.7
Spiritual growth	9-36	25.3±5.4
Interpersonal relationships	9-36	24.6±4.2
Stress management	8-32	19.6±3.9
Total score	52-208	135.3±19.4

SD=Standard deviation

have the highest score among the variables of lifestyle, and the physical activity and stress management have the lowest score. These dimensions were identified as important priorities for intervention, respectively. In addition, the results of the research done by Haynes and Maheri *et al.*, are similar to the present study regarding the priorities of intervention.^[23,25] The high score of spiritual growth may be due to the existence of Islamic values in our society. Spiritual growth is the process of awakening and individual consciousness, and it leads to real self-knowledge. In the study done by Abbasi *et al.*, the dimensions of weight control, nutrition, and environmental health had the lowest score, and the spiritual health and prevention of diseases had the lowest score.^[22] Furthermore, the spiritual health score in this study is similar to the present study. In this study, high-risk behaviors, environmental and social health, and accident prevention were also measured. In addition, the results of the Delphi method indicated that, the dimension of physical activity (both in terms of priority and in terms of the impact factor), and then the health responsibility (in terms of priority), and stress management (in terms of the impact factor) require the intervention, which is similar to the result of a quantitative study. In addition, both groups of faculty members and students shared the dimensions of health responsibility, physical activity, and prevention of high-risk behaviors) in the lifestyle of students who needed intervention. In general, the results of this need-assessment indicate that physical activity in students is low and affects the machine lifestyle. Lack of proper physical activity is common due to the use of cell phones and electronic devices among the different classes of society. Some young people express high sports expenses as their laziness and lack of mobility, however many sports, such as walking, do not cost.^[26,27] Therefore, due to the role of regular activities in human health, which the simplest one is walking for 20–30 min/day, it is necessary to make more effort in the community to educate and develop it. Regarding the findings of this need-assessment, more attention should be paid to the dimensions of physical activity, stress management, and health accountability, and to take measures to improve these dimensions due to their importance in the development of chronic diseases and selected by students and professors as a priority dimension with a high intensity for intervention. Ghassemi *et al.* in their study on lifestyle syndrome, which suggests rapid changes in the pattern of food and the tendency toward high- and low-value foods, reducing the physical activity, and increasing the drugs.^[28] Therefore, according to the results of this need-assessment, it is necessary to take the necessary interventions to maintain and improve healthy lifestyle and also to train the skills of life. Life skills are the individual's ability to cope with the challenges of life

to provide physical and mental health.^[16,29] Training these skills is effective in increasing problem-solving ability and improving interpersonal relationships, reducing stress and preventing high-risk behaviors.^[30] In general, the results of this need-assessment indicate that physical activity in students is low and affects the machine lifestyle. The other studies in Shaheed Beheshti University of Medical Sciences, Yazd and Kurdistan University confirm the existence of low movement.^[26,31] According to Scully *et al.*, students are expected to tend to behave in an environment similar to their home environment.^[32]

One of the restrictions of this study was the reluctance of some students to participate in the survey. This restriction was removed by replacing the other people who were willing to do research; the data were collected through a self-reporting method, possibly affecting the accuracy of the results. In addition, in the cross-sectional study, the other aspects of lifestyle enhancing the health including refusing high-risk behaviors such as smoking, drugs, alcohol, and sexual behaviors were not investigated, but in the Delphi study, this dimension was considered; it was the strong point of the study.

Conclusion

The results of this study indicated that the students' lifestyle at Qazvin University of Medical Sciences was in average condition. Subgroups of physical activity, responsibility for their health, and stress management were at a weak level. Hence, according to the changes that are evident in terms of life and livelihood, there has been a rise in the cost of none-communicable diseases. And, since a significant portion of family income and the country's capital are spent on health problems. The need for a range of actions such as proper plannings and application of them to the elimination of obstacles, the need for expansion of facilities, implementation of necessary interventions and formulation of a comprehensive plan for training and encouraging health promotion behaviors in students is felt, which in the long term can spread these behaviors to the community and improve public health.

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Conflicts of interest

There are no conflicts of interest.

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