Original Article

Health-promoting lifestyle and quality of life among undergraduate students at school of health, Isfahan University of medical sciences

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ABSTRACT

Background: Health promoting lifestyle (HPL) focuses on life promotion through lifestyle which consists of six aspects of "physical activity", "nutrition", "health responsibility", "spiritual growth", "interpersonal relations" and "stress management". This lifestyle promotes health and welfare and induces satisfaction, self-persuasion and self-improvement. Considering the importance of the way a new behavior affects "life quality" as a motivational factor for starting and continuing that behavior, this study aimed to determine the relationship between health-promoting lifestyle and its aspects. **Materials and Methods:** This cross-sectional study was performed on undergraduate students at School of Health, Isfahan University of Medical Sciences, using a census method. Health promoting lifestyle was measured by Health Promotion Lifestyle Profile two and life quality was assessed by the Persian version of QLQ-C30 questionnaire. Data analysis was conducted using descriptive and inferential statistical tests in SPSS. **Results:** Mean age of the participants was 21.12 years old. From among six aspects of health promoting behaviors, spiritual growth and responsibility with the means of 22.01 ± 2.224 and 20 ± 2.31 had the highest and physical activity with the mean of 17.58 ± 2.9 had the lowest scores, respectively. General life quality of 40.7% students was good and only 19.8% of them had an average global life quality. The highest and lowest frequencies of health-related life quality belonged to very good (58.6%) and excellent (9%) health, respectively. Except for stress management ($P = 0.05$) and gender of the students, there were no significant relationships between other HPL aspects and gender. There was no statistically significant relationship between global life quality of students and nutrition, physical activity, self-health responsibility and stress management while there was a significant relationship between global life quality and spiritual growth of the students. Health-related life quality and stress management were significantly related to each other; however, no statistically significant relationship was observed between health-related life quality and nutrition, physical activity, interpersonal relations and spiritual growth. **Conclusion:** There is a significant relationship between adopting health promoting lifestyle and aspects of spiritual growth and stress management on the one hand and general quality of life on the other, at least among students.

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Key words: General quality of life, global quality of life, health promoting lifestyle, health-related quality of life

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INTRODUCTION

Lifestyle is defined as normal and conventional daily activities which are accepted by people during their lives and these activities can affect the health of individuals.[1,2] By selecting a lifestyle, an individual tries to maintain and promote his/her health and avoid diseases through having a proper diet, rest/activity, exercising, controlling body weight, not smoking and drinking alcohol and immunizing body against diseases; this set of activities constitutes the lifestyle.[3] Health requires promoting healthy lifestyle.[4] The importance of lifestyle is to a large extent due to its effect upon quality of life and preventing from diseases.[5] It is essential to promote and correct lifestyle in order to maintain and promote health.[6] Promoting health and providing public health are of the most important bases for the development of communities.[7] Health professionals who were previously focusing on treating diseases are now concerned with prevention and providing health through lifestyle promotion and eliminating the factors which negatively affect human health in any way.[8] Application of positive behavior patterns in life is influential for individual health promotion.[9] 53% of mortality causes are associated with the individuals' lifestyle.[10] Most health problems such as obesity, cardiovascular diseases, cancers and addiction which are observed in most countries, especially in developing ones, are associated with the transformations in the individuals' lifestyle.[11] Also, inappropriate lifestyle is one of the influential factors for the emergence of chronic diseases like colon cancers, hypertension, chronic obstructive pulmonary diseases, liver cirrhosis, peptic ulcers, AIDS and cardiovascular diseases.[12] Non-contagious diseases are closely related to lifestyle; in other words, lifestyle is one of the important determining factors in the health and disease of individuals.[13] Obviously, with no modification in lifestyle, there will be irreparable consequences in future. Lifestyle modification requires behavioral changes that constitute a major part of daily habits. If lifestyle changes do not promote global quality of life, provision and persistence of this motivation will face some problems. Different studies have revealed the relationship of lifestyle, quality of life and its different aspects.[14-17] On the other hand, health promoting behavior, as a key factor in the concept of health promotion, has attracted wide attention of studies and programs.[18] The definition of an individual from health is placed in the center of his/her viewpoint toward health promoting behavior.[18] At this level, health is defined as using some positive qualities recommended by World Health Organization. Health is the fulfillment of human potential, maintenance of balance and goal orientation in the environment.[19] The health promotion lifestyle is defined by Walker as follows: "a multi-dimensional pattern of perceptions and activities which are started by self-motivation and help in the persistence and promotion of their health and self-improvement."[20] It is essential to study the effects of adopting a health promotion lifestyle on the quality of life from two points of view:

The relationship between health indicators and life quality is significantly important in clinical decisions and health policy making and the life quality perspective is a strong stimulus for the individual's decisions and preferences. If there were a remarkable gap between an individual's health and his/her life quality and this difference were not noticed by health policy makers, they might not be in parallel with individual preferences in clinical decisions and health policies; as a result, they would lead to false decisions and the desired results could not be obtained. University students constitute a large part of the country's young population and their age and social conditions as the educated group in the society can turn them into a symbol in the society. Therefore, their selection of any kind of lifestyle can affect not only their personal lives, but also the lifestyle and behaviors of other groups in the society. So, health promoting lifestyle is of crucial importance for this group; as a conduit, this group can be health promoters in the issues related to themselves, their families and, consequently, the society.

MATERIALS AND METHODS

This descriptive-analytical cross-sectional study aimed to investigate health promoting lifestyle and its relationship with the quality of life in undergraduate students of School of Health, Isfahan University of Medical Sciences, in 2009. The studied population comprised of all the (native) undergraduate students in the health related majors (Public Health, Environmental Health, Occupational Health and Nutrition) at School of Health, Isfahan University of Medical Sciences. The exclusion criteria were being over 25 years old, suffering from chronic diseases, difficult diseases, disability and student's reluctance in continuing the participation in the study. Data collection was done through a three-section questionnaire.

The first part included six demographic questions (age, gender, field of study, diseases and economic status); the second part included two questions on the quality of life (terrible, very bad, bad, average, good, very good and excellent) and the third part was related to lifestyle questions, which was designed in six aspects and included 46 multiple choice questions (never, sometimes, often, regularly). Validity assessment of the present questionnaire was done in the following way: first, it was prepared using the reliable books and sources (the WHO standard questionnaire of life quality); then, it was examined by qualified professors and their comments were applied to the questionnaire; finally, its validity was approved after correcting some problems and ambiguities. Moreover, to assure the feasibility of the study in this group of people (students), a pilot study was performed; the questionnaire was given to 30 students who were then excluded from the main study. Then, alpha was calculated for the final two parts of the questionnaire. Alpha coefficient was obtained as 0.98 and 0.78 for the quality of life part and lifestyle questions, respectively. The health promoting lifestyle was measured through the standard questionnaire of Health Promotion Lifestyle Profile two and life quality was measured using the Farsi version of global life quality measurement tool of QLQ-C30 standard questionnaire. This questionnaire has

been translated into Persian and its reliability and validity have been investigated and approved by Dr. Montazeri *et al*.

After arrangements were made with the Research Office of the school, the researchers met the target students, introduced themselves and briefed them about the aims of the study. If they were interested in participating in the study, they were asked to fill out the questionnaire. This was done by observing ethical standards, not forcing students to participate and assuring the confidentiality of information. After completion of the questionnaires, the data were entered into $SPSS_{16}$ statistical software. They were analyzed using statistical tests of Fisher's and x^2. $P < 0.05$ was considered as the significance level.

RESULTS

The highest and lowest frequencies belonged to the age groups of 21-23 years old (58%) and over 24 years old (6.2%), respectively. The highest frequency was for women (54.3%) and was related to Nutrition students (38.3%). 100% of the students were single and only one student was suffering from diseases (1.2%).

Good economic status had the highest frequency (50.6%) and low economic status had the lowest frequency (2.5%). The global life quality of 40.7% of students was good and only 19.8% of them had an average global life quality. The highest frequency related to the life quality was in very good health (58.6%) and the lowest frequency was in the excellent one (9%). There was a statistically significant relationship between stress management and gender ($P = 0.05$), nutrition and age ($P = 0.04$), interpersonal relations and age ($P = 0.02$), interpersonal relations and field of study ($P = 0.01$), global life quality and spiritual growth ($P = 0.006$), health-related life quality and stress management ($P = 0.04$), global life quality and stress management ($P = 0.04$), global life quality and stress management ($P = 0.04$) and global life quality and spiritual growth ($P = 0.01$). From among the six aspects of health promoting behaviors, "spiritual growth" and "self-health responsibility" with the means of 22.01 ± 2.24 and 20 ± 2.31, respectively, and "physical activity" with the mean of 17.58 ± 2.9 had the highest and lowest scores, respectively [Table 1].

DISCUSSION

The results of the study revealed a statistically significant relationship between stress management and gender. Girls are more likely to do relaxation and self-care techniques compared with boys.[21] In the study by Larouche on 151 university students, girls showed significantly better behaviors than boys in terms of nutrition, interpersonal relations, health responsibility and health promoting lifestyle aspects.[22] The findings of the present study were in line with those of other studies only in the stress management aspect and there was no such similarity in other aspects.

There was a statistically significant relationship between nutrition status, interpersonal relations and age. There are two points that should be noticed with regard to the lack of relationship in the "health responsibility" aspect; first, due to the young age of the studied group, they had high health level on average; therefore, their risk perception and experience of diseases were little; second, physical problems are few at young age. Thus, it seems that this factor might not be a determining factor in the perceived life quality of this group.

"Interpersonal relations" indicate an individual's status in terms of establishing and sustaining the relationships which provide social support and intimacy. This aspect is considered a strong predictive factor for quality of life. Social support and interpersonal relations are among the most stable indicators of health in different studies.[23,24] Considering the importance of interpersonal interactions in health promotion and "social asset" production, which is the definitive indicator of health status, interventions such as training life skills, especially communicative skills like active listening, effective talking, and empathy and so on, are among intervention priorities in the studied group.

There was a statistically significant relationship between interpersonal relations and field of study and global life quality and spiritual growth of students ($P = 0.05$). There was also a statistically significant relationship between health-related global life quality and stress management and between global life quality, stress status and spiritual growth of students.

Overall, health promoting lifestyle predicts life quality. This finding has been repeated in different studies with different target groups. To investigate the effect of the perceived intensity of diseases, self-efficacy and health promoting behavior on the life quality of Korean women with arthritis, and observed health promoting lifestyle as the only predictive factor for life quality.[25] Stumberger *et al*.[26] and Clark[27] also found a similar relationship between health promoting behaviors and life quality. There was a significant relationship between perceived health by the health promoting lifestyle and the four aspects of "self-care mental health", "physical activity", "rest" and "commitment to the group" in Tashiro's study on Japanese college girls.[13] There was also a statistically significant relationship between global life quality, stress status and spiritual growth of university students.

Table 1: The lowest, highest and mean scores of different aspects of health promoting behaviors

Aspects of health promotion behaviors	Nutrition	Physical activity	Self-health Responsibility	Stress management	Interpersonal relations	Spiritual growth
Mean	19.3±2.3	17.58 ± 2.9	20.01 ± 2.3	18.02 ± 2.4	19.66 ± 2.4	22.01±2.24
Minimum score	7	6	8	8	7	8
Maximum score	28	24	32	32	28	32

CONCLUSION

Epidemiological changes which have been recently observed due to the changes in life conditions and styles have increased the load of non-contagious diseases in the country. Diseases caused by unhealthy lifestyle are the most frequent reasons of disease and death in Iran. In addition to the development of risk factors, new tendencies have emerged in cultural and technological fields which have led to rapid changes in the individuals' lifestyle and this issue has caused the prevalence of non-contagious diseases. Increase in the prevalence of chronic diseases and disabling conditions along with higher life expectancy and increased mean age of population have become the established factors for the disease frequency. Diseases like cardiovascular problems, cancer, diabetes, joint diseases and psychological problems account for a main part of mortality and disabilities. It is predictable that, in near future, the frequency of behavior-dependent diseases will be even higher.[28]

Due to the cost of diseases, a remarkable portion of family income and, as a result, country's capital is spent on health problems. It is necessary to pay precise attention to strategic approaches for coping with risk conditions and factors which are influential in increasing the extent and intensity of diseases; in this respect, paying enough attention to health promoting lifestyle and determiners is of crucial importance.

Currently, the conditions require immediate action with respect to promoting health and preventing from diseases. Most health-related individual and social factors are the ones that are only modifiable through comprehensive, long-term and interdisciplinary strategies aimed at education, health promotion and disease prevention.

New concepts like social solidarity, social support and social interdependencies have emerged simultaneously with short-term successes of health promotion strategies related to health behaviors. Thus, the key for the development of a healthy society with healthy people is the expansion of proper ways of living. The deep perception of interpersonal relations in society leads to the development of influential approaches for health promotion. National macro-policy making fundamentally affects the individuals' lifestyle, their relations and communities' capacity for sustained development. Promoting a healthy lifestyle is the extension of a constant movement for individual and social empowerment in terms of providing, maintaining and promoting health.

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