Correlation of the Components of Student's Lifestyles and their Health Promotion

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ABSTRACT

Introduction: Health promoting lifestyle is one of the determinants of health. University years are an important phase of life when one can develop health promoting lifestyle. Given the high cost of healthcare there is need to shift from a treatment based approach to a preventive approach in which appropriate methods should be developed to promote health and productivity among youth.

Aim: To investigate the correlation of the components of student's lifestyles and their health promotion at Kermanshah University of Medical Sciences.

Materials and Methods: In this descriptive-correlational study, 434 students at Kermanshah University of Medical Sciences were selected in the academic year 2015-2016 through cluster sampling. Furthermore, to collect data, a demographic questionnaire and the lifestyle questionnaire were utilised. The data were analysed through the Kolmogorov-Smirnov

test, independent t-test, and ANOVA. Additionally, the SPSS Statistics Software Version 21.0 was employed.

Original Article

Results: The mean and SD of the lifestyle of university students was measured to be 2.50 ± 0.13 . Further, the highest and lowest scores in the spiritual health and weight control and nutrition were 2.72 ± 0.16 and 2.21 ± 0.36 , respectively. Additionally, the demographic variables and total score of the components of healthy lifestyle were significantly correlated (p<0.05).

Conclusion: The results of the present study demonstrated that the lifestyle of students was in average condition at Kermanshah University of Medical Sciences. The results were also indicative of low scores in the dimension of weight control and nutrition. Therefore, to hone and promote healthy lifestyles, university students requires more detailed planning, provision of suitable nutritional programs, rectification of lifestyles, and continuing education from medical teams engaged in topics centering nutrition.

Keywords: Demographic factors, Health related behaviour, Nutritional programs

INTRODUCTION

Despite the fact that belief in lifestyles and health is established in the first stages of one's life, the behaviours experienced during attending university can also have tremendous effects on one's health [1]. Lifestyle includes a wide range of social values, attitudes and activities that come into existence during socialisation and incorporates behaviours such as eating habits, physical activities, exercise, sleep, weight control, smoking, drinking, and coping with stress [2].

Health entails promoting healthy lifestyles [3]. The significance of lifestyle is due to its effects on quality of life and disease prevention [4]. To maintain and enhance health, lifestyle improvement and correction play prominent roles [5]. Further, upgrading health and providing the general public with health are seen as two pillars of advancement in societies [6]. According to the research conducted by the World Health Organization (WHO), approximately 65% of one's quality of life and health hinges upon one's lifestyle and individual behaviour [7]. A few health-threatening behaviours, originating from inappropriate personal and social lifestyles, lie at the root of more than a third of all deaths worldwide, including poor diets, little physical activity, smoking and inappropriate sexual behaviours [8]. It is predicted that, by 2020, non-communicable diseases associated with lifestyles lie at the root of seven out of 10 deaths in developing countries [9]. Due to being in epidemiological transitions accompanied by lifestyle syndromes, developing countries are exposed to epidemics of non-communicable diseases in the coming years [10]. A lifestyle syndrome denotes rapid changes in diet and tendencies towards energetic foods, though poor in nutrition, reduced physical activity, and increased consumption of narcotics. Iran has been among the countries that have witnessed epidemiological transitions in recent years [11], resulting in major changes in diet and physical activities of its inhabitants. This has in turn led to rapid rise in risk factors as well as non-communicable diseases [12].

Since students account for a large proportion of the adult population, it stands to reason that our efforts should be concentrated on this group of society towards improving activities associated with health promotion and motivation to have healthy lifestyles and various health habits. University students make up fairly homogeneous and accessible populations in societies whose health is in good condition, thereby mitigating the bias resulting from the effects of illnesses on health behaviours [13]. It is expected that university students gravitate more towards stationary and sedentary behaviours both in their educational environments and houses [14]. During this period, one's dietary habits and individual behaviours would change depending on the type of one's relationships, whether being transient or steady [15]. Thus, given that lifestyle constitutes one of the most prominent determinants of health, university students should follow well-laid educational plans associated with lifestyle-related factors [16].

To develop healthy lifestyles, it is stressed by researchers that some strategies are to be implemented in such a manner that one's cognitive beliefs about one's ability to make healthy choices as well as one's engagement in healthy behaviours be empowered [17]. For instance, in a study conducted by Babanejad M et al., a significant relation was found between one's lifestyle and field of study, whereas one's lifestyle and other factors, such as age, gender and indigenousness were not significantly correlated [18]. Moreover, Younis NM showed that the mean score of lifestyle among the students of Mosul University based in Iraq was low [19]. Further, a significant association was found between lifestyle and gender among the Taiwanese university students [20]. It was demonstrated that the mean score of lifestyles adopted by Iranian female university students surpassed that adopted by males [21]. Moreover, the results of a study done by Hacihasanoglu R et al., indicated that the mean score of healthy lifestyles adopted by Turkish university students was average [22]. In a study performed on Malaysia university students, Gopalakrishnan S et al. concluded that healthy eating was more prevalent among females as opposed to males while females enjoyed less physical activity than boys [23]. Maheri AB et al., and Motlagh Z et al., concluded that the lifestyles of students at Kermanshah-based universities located in Iran were not in good condition [24,25].

Considering that students make up a large proportion of the young population of the country, their age and social status as a welleducated community can be used as a model for others. Therefore, their lifestyle in the field of health promotion, diet, physical activity, etc., has not only influenced their own lives, but also affects the behaviours and lifestyles of others. Therefore, this research was conducted with the aim of relationship between lifestyle and health promotion at Kermanshah University of Medical Sciences in 2015-2016.

MATERIALS AND METHODS

In this descriptive-correlational study, the statistical population comprised all students at Kermanshah University of Medical Sciences in the academic year 2015-2016. Moreover, the sample size was determined using the Cochran formula (n=434). Then, 206, 123 and 105 subjects were selected from the medicine, paramedicine and health schools using cluster random sampling, respectively. Further, the ethical principles employed in the present study included obtaining the necessary permits, retaining the rights for the schools under study to either accept or reject to participate in the study, and ensuring the confidentiality and non disclosure of the personal information of samples.

Demographic Questionnaire

It comprised of five items: gender, age, degree, field of study, and hall of residence.

Lifestyle Questionnaire (LSQ) [26]

This questionnaire was constructed to evaluate and measure lifestyle. The final version of LSQ consisted of 70 questions and 10 subscales. The subscales comprised physical health (eight questions), exercise and health (seven questions), weight control and nutrition (seven questions), disease prevention (seven questions), psychological health (seven questions), spiritual health (six questions), social health (seven questions), avoidance of narcotics, drugs, and alcohol (six questions), accident prevention (eight questions) and environmental health (seven questions). Additionally, the questions were scored with four-point Likert scaling (0=never, 1=sometimes, 2=usually, 3=always), and the lowest and highest scores were 70 and 210, respectively in the present study, the validity and reliability of the questionnaire were reexamined, and the content validity was confirmed by a panel of 12 experts in lifestyles. Furthermore, the Cronbach's alpha was used to determine the reliability (0.89 $\leq \alpha \leq 0.93$).

STATISTICAL ANALYSIS

The SPSS Statistics Software Version 21.0 was used for the statistical data analysis, and the significance level was set at p-value $<\!0.05$ in all tests.

Data were analysed through the Kolmogorov-Smirnov test (to assess the normality of the data), independent t-test (to compare the means of a quantitative variable in two independent groups), and ANOVA (to compare the means of a quantitative variable in three or more groups).

RESULTS

Of the total of 434 subjects of the present study, 210 students (48.4%) were male and 224 (51.6%) were female. The mean and standard deviation of the age of subjects measured was 21.73 ± 3.7

years. The 18-22 age group had the highest proportion (309 students, or 71.2%) [Table/Fig-1].

Demographic variables	Groups	n (%)				
Cander	Female	224(51.6)				
Gender	Male	210(48.4)				
	18-22	309(71.2)				
Age (years)	23-27	68(15.7)				
	≤ 28	57(13.1)				
Educational degree	Bachelor's degree	222(51.2)				
	Master's degree	139(32)				
	Ph.D	73(16.8)				
Field of study	Medicine	206(47.5)				
	Paramedics	123(28.3)				
	Public Health	105(24.2)				
Hall of residence	Dormitory	219(50.5)				
	Non-dormitory	73(16.8)				
	Living with Family	142(37.2)				
[Table/Fig-1]: The demographic characteristics of the samples under study.						

The mean scores and standard deviation of student's lifestyles and their health promotion was 2.50 ± 0.13 . The results of the present study demonstrated that student's lifestyles and their health promotion was of average level at Kermanshah University of Medical Sciences. In addition, in terms of the dimensions of the lifestyles of students, the results revealed that the spiritual health and weight control and nutrition had the highest and lowest means (mean and

Scale	Statistical indexes		Num- ber of items	Min.	Max.		
	Subscales	Mean±SD					
Lifestyles and their Health Promotion	Spiritual health	2.72(0.16)	6	2.14	3		
	Disease prevention	2.66(0.28)	7	2	3		
	Social health	2.61(0.24)	7	1.86	3		
	Psychological health	2.58(0.25)	7	1.86	3		
	Avoidance of narcotics, drugs, and alcohol	2.51(0.31)	6	1.50	3		
	Physical health	2.50(0.24)	8	2	3		
	Accident prevention	2.49(0.25)	7	2	3		
	Exercise and fitness	2.42(0.29)	7	1.57	3		
	Environmental health	2.31 (0.32)	7	1.67	3		
	Weight control and nutrition	2.21 (0.36)	7	1.14	3		
	Total lifestyle	2.50 (0.13)	70	2.22	2.99		
[Table/Fig-2]: The mean±SD of the components of healthy lifestyles. SD: Standard deviation							

SD: 2.72±0.16 and 2.21±0.36, respectively) [Table/Fig-2].

The results demonstrated that there was a statistically significant difference between the mean scores of female and male students in terms of healthy lifestyles (2.53 and 2.48, respectively) (p<0.05). Further, comparing the mean scores of students' healthy lifestyles showed that there was a statistically significant difference in terms of the demographic variables (age, degree, field of study, and hall of residence) (p<0.05) [Table/Fig-3].

DISCUSSION

The present study aimed to investigate the correlation of the components of students' lifestyles and their health promotion. The results of the present study demonstrated that the lifestyles of students were in average condition. Besides, The mean and SD of the lifestyles of university students measured 2.50±0.13. In a study done by Wei CL et al., about the Japanese students, it was shown that the mean score of the students' lifestyle was moderate [5].

Variables	Groups	Frequency	Mean±SD	p-value		
Gender	Female	224	2.53±0.123	t=3.766 p<0.001		
	Male	210	2.48±0.144			
Age (Years)	18-22	309	2.50±0.137	F=14.167 p=0.046		
	23-27	68	2.49±0.130			
	≤28	57	2.50±0.135			
Degree	Bachelor's degree	222	2.51±0.132	F=12.218 p<0.001		
	Master's degree	139	2.46±0.108			
	Ph.D	73	2.55±0.169			
Field of study	Medicine	206	2.50±0.123	F=10.603 p<0.001		
	Paramedics	123	2.46±0.109			
	Public health	105	2.54±0.170			
Hall of residence	Dormitory	219	2.50±0.125	F=27.424 p=0.002		
	Non-dormitory	73	2.44±0.122			
	Living with family	142	2.57±0.139			
[Table/Fig-3]: Frequency, percentage, and comparison of the mean scores of						

students' lifestyles based on the demographic characteristics. Independent sample t-test

p-value<0.05 is significant

Similarly, Babanejad M et al., concluded that more than half of the students from Illam, Iran had average lifestyles [27]. In a research conducted on students at Yazd University, Motlagh Z et al., reported a good mean score of lifestyle [25]. Similarly, Pakseresht S et al., showed that students at Guilan University of Medical Sciences had a good mean score of lifestyle [3]. Kim MJ et al., showed that the mean score of South Korean students' lifestyles was good [28].

Likewise, the results of a study conducted by Heidari F and Mohammadkhan-Kermanshahi S demonstrated that nurses had an average status in terms of addressing lifestyle behaviours related to health [29]. In addition, in a study conducted by Peker K and Bermek G on Turkish university students, it was concluded that the total score of the lifestyle of most university students was average, which was consistent with the results of the present study [30]. Comparing the results of the present study with those of others showed that the lifestyles of most students were in moderate conditions. Therefore, if there is a favourable environment and careful planning is done, the possibility for students to be in good condition can be provided, while in the case of no planning, a large number of students will be in unfavourable environments, thereby increasing undesirable lifestyles.

In the present study, the spiritual health had the highest mean which was consistent with the results of studies conducted by Peker K and Bermek G [30]. This may be due to the effects of the sociocultural and ideological systems in the Iranian universities, resulting in a positive and constructive atmosphere for developing spiritual health in students. It can be said that the Islamic culture governing the society as well as student's religiosity play important roles in the formation and promotion of their spiritual growth [2]. However, the students had the lowest scores in terms of weight control and nutrition. In other words, the students complained about gastrointestinal problems and poor quality food served in dormitories, thererby buying fast foods or preparing their own food {given the low mean of this index (weight control and nutrition) and the analysis of the items in this index, and on the other hand, considering the observations and surveys of the respondents regarding the lack of quality of nutritional status}.

This result was consistent with the results of a study performed by Sajadi SA et al., and Chouhan S, [10,31]. Nowadays, the role of diet and nutrition is known in health and development of diseases. The nutrition patterns and the quality and quantity of foods and fat intake are some of the determinants of chronic diseases such as obesity, cardiovascular diseases, diabetes and some types of cancers in adulthood [10].

Other findings indicated that there was a significant relationship between the demographic variables, the total scores and subscale scores of healthy lifestyles in all domains. Gender, age, level of education, fields of study and hall of residence were correlated with all subscales and the total score of healthy lifestyles. This finding is indicative of the fact that the age variable can be considered an effective factor in increasing one's sensitivity to health and health maintenance and promotion [32]. Nahm ES et al., argued that weight gain, unpleasant diet and undesirable exercise were intensified by aging [9]. Bogossian FE et al., reported a higher prevalence of overweight and obesity in nurses in proportion to the general population, and a significant relationship was found between weight, age, and gender [33]. In a study performed by Kwasniewska M et al., it was shown that the social, and demographic and lifestyle variables were correlated, and women were more active than men in all age groups [6]. This result was concurrent with the results of the present study. It can be argued that women's active participation in physical activities can be justified through paying attention to healthy behaviours. Likewise, Prinicci E et al., concluded that the health-promoting behaviours were correlated with age, education level, marital status, income, and developing a chronic disease [8].

In the present study, females had better lifestyles as compared to males. This result was consistent with the results of studies performed by Ozveren H et al., Khazaie T et al., and Mansourian M et al., [11,13,34]. Furthermore, a significant difference was observed between one's degree and lifestyle, so that one's score of lifestyle was in direct proportion to one's level of education. The results of the present study was concurrent with those performed by Babanejad M et al., and Goudarzi L et al., [18,35].

In a study conducted by Hsiao C et al., the relationship between education and promotion of lifestyles among the Taiwanese nursing students was investigated [14]. The results indicated that the tendency of students towards healthy behaviours was increased on a par with education.

In terms of fields of study, the students at Public Health School had higher scores in the lifestyle questionnaire. This result was concurrent with the results of studies performed by Babanejad M et al., Mansourian M et al., and Mitchell SD et al., [18,34,36]. In the said study, it seemed that these results were due to knowledge that the medical students had acquired in the field of physiology and the health-related sciences during their education.

In this study, a significant difference was observed between the hall of residence and lifestyles, which was consistent with the results of studies performed by Peker K and Bermark G, and Kreutz G et al. Compared to students opting for dormitory and non dormitory hall of residence, the students who were living with their families had suitable nourishment [30,37]. For instance, they often ate breakfast and had higher daily intake of fruits and vegetables as opposed to students choosing dormitory and non dormitory hall of residence.

LIMITATION

Firstly, the data were collected through a self-reporting method, thereby possibly affecting the accuracy of the results. Secondly, because the sample was comprised of the students in the for-profit Schools of Medicine, Dentistry and Pharmaceuticals in Kermanshah University of Medical Sciences, the results cannot be generalised to students in other medical schools.

CONCLUSION

On the whole, the results of the present study revealed that the lifestyles of students at Kermanshah University of Medical Sciences were in average condition. The results showed that there was a low score in terms of weight control and nutrition. Therefore, it is essential to provide appropriate nutritional programs as well as further education of medical groups in the area of nutritional issues.

It is recommended that the specific barriers to health promotion be identified in students, and strategies such as holding experimentaleducational courses should be adopted to improve the eating patterns and to replace fast foods with healthy meals prepared in the shortest possible time.

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