The Study of Knowledge, attitude and practice towards physical activity and its Related Factorsof College Students Living on Campus in Shahid Beheshti University of medical science

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ABSTRACT

Regular physical activity has a positive effect on physical, mental, and social aspects of individual and community health. Regarding prevalence of non-communicable diseases such as primary hypertension, osteoporosis, and cardiovascular diseases that sedentary is responsible for them; health policy makers plan to encourage people to do more physical activity. In this study, knowledge, attitude and practice towards physical activity and its related factors of students living on campus at Shahid Beheshti university of medical science were determined.

In this descriptive analytic survey, 665 individuals college students living on campus at Shahid Beheshti university of medical science were selected by clustering sampling method. Data collected using questionnaires and analyzed by SPSS16 software.

54.9% of the subjects were female and 45.1% male. Mean age of participants was 21.82 years for female and 22.76 years for male. Mean scores of knowledge was 73±1.72 for male and 78.90± 1.66 for female. In addition mean scores of attitude was 79.18 for male and 74.33 for female and mean scores of practice was 228.78 minute per week for male and 174.41minute per week for female.

Results indicated that students had no optimal practice towards physical activity. Thus, more attention is necessary to be paid by authorities to this specific topic and some measures are essential in training students.

Keywords: Knowledge; attitude; practice; physical activity

INTRODUCTION

Chronic diseases are among the main causes of mortality in most countries throughout the world and currently account for 60 per cent of total mortality rate worldwide. It is expected that by 2020, this figure exceeds 60 per cent [1]. Inactivity and living a sedentary life without much physical activity are among the major causes of these diseases [2], for which, during past 3 decades, indisputable evidence had highlighted the crucial role of inactivity as prime cause of initial risk and independent variable in all mortality cases [3], such that decreases have been reported in the morality rate and disability from chronic diseases with increase in physical activity[4, 5].

Today, different factors have worked together and resulted in human inactivity, which has been the source of many diseases. Welfare in terms of housing, using automobiles, machine work, the emergence of sedentary jobs such as office and business jobs, and leading an easy life contributed to less and less muscular and physical activity and in many cases ruled out the possibility of active life style [7]. Despite the advantages of physical activity, in most countries such as Iran, many people do not have to carry out regularly physical activity.

Recommended physical activity for age group 5-18 years is 60 minutes of moderate to intense physical activity per day [8, 9]. This figure is 30 minutes of moderate to intense physical activity

five times in a week or 20 minutes of intense activity 3 times a week for age group 18-65 years and older ages. This could improves provides individuals with physical, mental and social health [8].

A World Health Organization report cites the lack of physical activity as fourth most important cause of mortality worldwide [9]. Worldwide, 31 per cent of the individuals older than 15 suffer from inactivity and 3.2 million deaths are attributed to lack of enough physical activity [10]. Less than a third of young population do enough physical activity to enjoy its benefits, but the amount of physical activity has plummeted to alarming low levels in all young age groups [8, 11]. Lack of activity is quite common in specific social groups including women, the elderly, non-whites, and lower socio-economic classes [13].

Young age is the source of diseases coming up in midlife and late ages in life [14]. Among factors contributing to the lack of physical activity or their reluctance to participate in physical activity are lack of time, motivation, guide and advice, feeling of inaptitude, lack of secure facilities, limitations of access to physical activity facilities, and ignoring the advantages of physical activity [8]. Physical activity significantly cuts the risk of death and development of cardio-vascular diseases, diabetes, colon cancer, and high blood pressure [11, 14, 15, and 16].

Due to the fact that students would be the future health authorities of the country, and that might provide the ideal model for people in terms of high health, the investigation of physical activity among students is justified. With this in mind, the present study investigated knowledge, attitudes, and performance among Shahid Beheshti university of Medical Science students living in camps on physical activity.

MATERIALS AND METHODS

The present study is a cross-sectional and descriptive-analytical study carried out on 665 male and female students living in Shahid Beheshti University of Medical Science campus in 2012. The sampling method was performed dy random cluster sampling. The eligible participants were female and male students who were living in the campus for more than two months and who stated their consent to participate. After gaining necessary approval from university authorities and coordination with campus officials, our questioners distributed the questionnaires among participants after briefing them about the purpose of the study. The questionnaire was built to investigate the knowledge, attitudes, and performance by students about their physical activity. It consisted of four demographic questions (age, gender, educational degree, and residence time in campus), 6 questions related to measuring knowledge, 16 questions related to evaluation of attitudes, and a checklist of students' physical activities.

Validity of the questionnaire was determined through face and content validity (using students later excluded from the research process and also authorities expert on the issue) and reliability of the questionnaire was determined through test-retest method for knowledge components and internal consistency (Croenbach's alpha) for attitudes. The alpha values for knowledge and attitude were as follows:

For questions measuring knowledge about physical activity (6 questions), α=0.75, and measuring attitudes (16 questions), α=0.87. The reliability of the questionnaire was determined through the advice from authorities expert in the field of sports, with Croenbach's alpha of 0.78. The collected data was fed into SPSS16 statistical software, and analysed through descriptive and analytical tests (Pearson's correlation, independent t test, Spearman correlation, and ANOVA).

RESULTS

A total of 665 students participated, of whom 300 (45.1 per cent) were male and 365 (54.9 per cent) female. Of all participants 350 people were students with BSc 43 (6.5 per cent) MSc. 253 (38 per cent) general medicine and 19 (2.9 per cent) Ph.D degrees. Females averaged 21.82 years, and males averaged 22.76 years old. The analysis indicated that the mean for knowledge of participants was 73±1.72, and 78.9±1.66 male and female respectively.

Scores for knowledge based on aged groups indicated that the participants had a good to intermediate knowledge of physical activity, with the highest frequency being for the age group 20-25 with 267 (67.80 per cent) people. In terms of educational degree, results indicated that all participants in various degrees possessed an intermediate level of knowledge with no weakness. The mean score of knowledge of

participants in terms of duration of their residence in campus indicated that all participants were equal.

The findings of the study indicated that the scores for attitude was 74.33 for females and 79.18 for males, indicative of more positive attitude for physical activity among male students. The highest score for attitude belonged to age group higher than 25 years (97.5 per cent). 97.1 per cent of participants studying in BSc, those 100 per cent in MSc, 99 per cent in general medicine, and 94.7 per cent of students with Ph.D degrees had good attitudes toward physical activity.

In terms of performance, male students averaged 228.78 minutes per week, and females 174.41 minutes per week. The highest frequency scores for undisirable performance belonged to age group 20-25 years (with less than 150 minutes per week); 26.9 per cent of age group 20-25 years scored desirable (150-300 minutes per week); and, 28.80 per cent of age group higher than 25 years had desirable level of performance (more than 300 minutes per day).

In terms of different educational degrees, highest frequency related to performance was as follows: 58 per cent of students with BSc had undesirable performance; 32.6 per cent of MSc students performed relatively desirable, and 42.1 per cent of doctoral students had desirable performance scores.

Table 1. The frequency of distribution and mean knowledge scores of participants based on gender

Knowledge scores	Male		Female	
	Number	Per cent	Number	Per cent
Poor (0-33)	0	0.00	0	0.00
Moderate (33-66)	136	45.3	103	28.2
High (higher than 66)	164	54.7	262	71.8
Total	300		365	
Mean	73.00		78.90	
Standard deviation	1.72		1.66	

Table 2. Frequency of distribution and mean scores of attitudes on physical activity based on gender.

Attitudes	Males		Females	
	Number	Per cent	Number	Per cent
Poor (0-33)	7	2.3	5	1.4
Moderate (33-66)	2	0.7	22	6.00
High (higher than 66)	291	97.00	338	92.6
Total	300	100	365	100
Mean	79.18		74.33	
Standard Deviation	5.56		5.97	

Table 3. Frequency distribution and mean scores of performance on physical activity based on gender.

Performance	Males		Females	
	Number	Per cent	Number	Per cent
Poor (0-33)	159	53.00	223	61.10
Relatively desirable (33-66)	72	24.00	92	25.20
Desirable (higher than 66)	69	23.00	50	13.70
Total	300	100	365	100
Mean	228.78		174.41	
Standard Deviation	211.66		155.88	

DISSCUSSION

A total of 665 students participated, of whom 300 (45.1 per cent) were male and 365 (54.9 per cent) female. Females had average of 21.82, and males 22.76 years old. The analysis indicated that the means for knowledge of participants were 73±1.72, and 78.9±1.66 for male and female respectively, which inplied that students had a good knowledge of physical activity, attributed to the situation helping them to access knowledge and information about physical activity. A review of literature indicated that the research by Tavasoli and Hassanzadeh [17], Ahmadi Tabatabaei [18], Ghaffari [19], Seyed Emami [20], and Moini [21] found inconsistent results with the present study, which could be accounted for the poor level of knowledge about physical activity . Our findings showed that mean scores for attitudes of 74.33 in females and 79.18 in males which represented more positive attitudes by male compared to female students.
Research by Senaei Nasab et al [22] found results similar to our results, while inconsistent with findings of Seyed Emami [20] and Moini [21]. In regard to performance of students in present study, male had average of 238.78 minutes per week and female 174.41 minutes per week which indicated higher activity by male students compared to female students, attributed to more facilities provided for male students and also the level of interest among male students towards team sports such as football. Another reason could be their scope of activity and access to facilities.
Results of Hanleh et al [23] indicated that 38.9 per cent of total young population had no activity during their free time, with similar trend for both genders; but among individuals performing a physical activity during their free time, females performed less than males, and in terms of age, youngest cohort among women had the least amount of physical activity.
The findings of Ziaei et al [24] indicated that moderate to intense physical activity was desirable among high school students, but physical activity was significantly lower among female high school students.
Teymouri et al [25] found that only 35.9 per cent of females compared to 64.1 per cent of males practiced sustained physical activity regularly, with daily activity of 31.82 minutes for female.
Tavasoli and Hassanzadeh [17] found that 81 individuals (62.3 per cent of participants) performed poorly; 38 (29.2 per cent) had relatively desirable performance, and only 11 (8.5 per cent) scored desirable in performance. Senaei et al [22] reported performance of physical activity of a group of employees as follows: low (46.7 per cent); moderate (23.4 per cent); and, high (29.9 per cent). Ahmadi Tabatabaei et al [18] reported the performance for their participants as 93.3 minutes per week. Seyed Emami et al [20] also reported a physical activity of 1154 minutes per week in total.
Findings by Moini et al [21] indicated that 271 participants had light physical activity; 124 moderate physical activity; and 5 carried out intense physical activity. Students living in campus had more physical activity compared to of campus; thus, higher percentage of students lacked the necessary level of physical activity.

CONCLUSION

The results of the present study indicated a possible trend of weight gain among large groups of students: wider sport activities, allocation of some hours of free time for female students living in campus, attracting students and waking their interest to sport, holding sport events in campus, necessary educational interference, and providing conditions conducive to students' health, as a, and using more objective research tools, could help more clear findings free of ambiguities; since it might be possible that students fill the questionnaires with reluctance due to voluntary nature of the activity, thus effectively strangling the researchers from reaching at truth.

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