

A survey of effective factors in participation of Tehran University students in public and recreational exercises

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ABSTRACT

In this paper, we aim to examine those factors that are influential in the participation of Tehran University students in physical activities. According to the results and goals, this study is applied and descriptive respectively and based on the data collection this is a field study. A community sample of 16000 of Tehran University students participated in this study. Using Morgan table, 377 students were selected with random stratified selection procedure. To evaluate the effective factors in physical activity participation a researcher-made questionnaire with a reliability of 0.84 was administered. To analyze the data after the non-confirmation of parametric conditions and the natural data distribution using the Kolmogorov- Smirnov test, descriptive and deductive statistics including frequency and mean, Friedman test, Mann-Whitney test and Kruskal-Wallace test were used in SPSS with the significance of 0.05. The research findings have indicated that physical fitness, beauty and health have been more influential in physical activities and exercise participation than other factors. There was a significant difference in ranking the effective factors among male and female students. Gender, age and marital status were also among those factors contributing to the participation of students in exercises.

Keywords: effective factors, physical activities participation, knowledge, advantages of exercise, and students.

INTRODUCTION

During the past three decades the motto of exercise for all has been taken by most of the countries around the world. As a fundamental principle to the realization of this public motto companies, state, private and most of non-sport organizations have spent a lot to lay the foundations for these organized programs for the participation of all social classes and also to provide an equal opportunity in recreational exercises and all enjoyable physical activities for all. The most important ends of these activities and programs are to enhance the quality of life, increase recreation, happiness and promote personal hygiene and health with an emphasis on different kinds of exercises [1]. Recreational exercises which are public exercises are those simple, inexpensive, informal and enjoyable activities with equal chance for everybody to take part in them. This kind of exercise is divided into five separate and relevant parts including training exercise, informal exercise, inside section exercise, outside section exercise and gymnasium exercise[2]. Exercise is one of the ways by which people can conquer different kinds of physical, emotional, mental and social pressures which are imposed on them by the turbulent and stressful lives in this world. Previous studies have indicated that those who exercise regularly are less prone to heart problems, suffer from tension less than others and are more self-confident, also their view toward life is much more optimistic and experience depression less than others[3]. For this reason 15 millions of French people take part in organized physical activities which 6.5 millions of them are comprised of 6 to 14 year olds [4]. In 1952, 6.7 percent of Germany's population took part in

exercises which in the year 2000 this percentage has increased to 28.5 percent [5]. Progress, growth and development of all countries are in the hands of their new and young generations. University students are among those who try to be self-made and by the use of their intelligence, information, knowledge and fine opportunity they have entered university to continue their education; therefore, it is crucial and valuable to ponder on their lives for a better education [6]. To this end, delineating all the detailed goals, exact and executive schematization and detecting all effective factors in students' participation are essential. Many studies have been done on the effective factors in physical activities participation. Welk (1999) has studied the normal effective factors before 1999. These factors include demographic factors, psychological factors and environmental factors. Demographic factors such as age, gender, smoking, alcoholism and biologic factors. Psychological factors include knowledge of competence, belief in the activity, its attraction and advantages, delight in the activities, socio-cultural factors, parental encouragement and pattern, social support by parents, and Environmental factors are access to sport centers, public programs and sufficient facilities [7]. Johnson (2008) in his research has worked on personal, social and environmental factors and their impact on the level of participation. The findings indicated that emotional engagement correlated positively with participation in physical activities in association with behavioral decision-making [8]. Kokolakis and Hallam (2011) in a research on an analysis of effective factors in exercise participation in Spain and England studied and compared the roles of social-demographic, economic and training variables in exercise participation in these two European countries. The results showed that high level of education, professional job, younger age, and being a male were associated with greater participation in exercise [9]. Sirard et al. (2006) in a research on incentive factors associated with high school students' participation showed that competition, social benefits and physical fitness were the most important factors for boys respectively and slightly different for girls these factors included social and skill benefits, competition and physical fitness. Since exercise provides boys with social opportunities, they were more motivated in doing it [10]. Berger et al. (2008) in a research on effective factors in Canadian teenagers' participation in exercise studied their participation and the most important factors from 1995 to 2005. The results showed that family context, gender, social context, self-awareness and alternative behaviors are influential in their participation. Furthermore, demographic characteristics such as age, gender and race, psychological factors such as conception and motivation, socio-cultural factors like socio-economic condition of the family, family support, peer effect and environmental factors such as school, urban and rural environment, beauty and transportation were effective in exercise participation [11]. Ramezani-zhad et al. (2009) in their research studied the incentives for people participation in public exercise in Rasht and concluded that health and physical fitness, delight and pleasure were in the first place and improvement in life and career ties, prevention and treatment of diseases and social interaction were other factors influencing their participation. Women were more motivated than men and married people had more personal reasons for taking part in exercises [12]. Haman and Wicker (2009) in their study on effective factors in exercise participation in the European Union showed that in the European model age, marital status, having children and being employed negatively correlated with participation in exercise, while level of education, city size, existence of infrastructure and sport centers positively correlated with participation in exercise [13]. Totally, all the done researches in the world show the importance of this issue. Despite the name of physical education, physical activities not only train the body but also have an effect on thinking, logic, decision making, self-confidence, courage, self-sacrifice, self-improvement and becoming sociable. Regarding the importance of university students as those who have the future in their hands, it is primarily important to be sensitive about their participation in exercise in order to help them have a better mental and physical health. Government, society and principals must have a lucid, serious and exact schematization for this end. Bowman (1999) in a study showed that inactivity was the main cause for more than 8600 diseases in Australia in a year. His statistics indicated that each Australian can prevent coronary thrombosis by one third and diabetes and bowel cancer by one quarter by doing slow and light exercise [14]. Concerning the importance of this issue, this paper seeks to study the effective factors in university students' participation in public exercise programs. It is hoped that this paper would help finding beneficial approach and strategies to the development of public exercise so that we can observe an increase in university students' participation in public exercise.

MATERIALS AND METHODS

According to the results and goals, this study is applied and descriptive respectively and based on the data collection this is a field study. Community sample of this research is comprised of Tehran University students of B.A. Physical Education which are 16000 people. Based on the random of Kerjesi and Morgan Table sample size determination 377 students were selected through stratified random selection which were 195 females and 182 males. Since there was no standard questionnaire, the researchers made a questionnaire according to the subject of the study. It is evident that the scientific backing for the construction of this instrument was widespread study around the theoretical framework of the present study and previous studies. This 25-item questionnaire is in the 5-point Likert-type scale. The total reliability of this questionnaire, estimated via Cronbach's alpha, was .084 and the validity of the questionnaire has been approved by some professors of Sport Management. Data analysis has been accomplished at two levels of descriptive statistics and deductive statistics. In descriptive statistics mean, standard deviation and

frequency were employed and in deductive statistics T-test was administered for satisfaction evaluation and Friedman test for data prioritization with 95% confidence and the alpha level was set at $\alpha=0.05$ in SPSS[version 16].

RESULTS

After the data analysis the findings showed that:

- 51.7 percent of the community sample consists of females [195] and 48.3 percent of the sample were males [182]. Table 1 shows a list of males' priorities over effective factors for their participation in sport activities using Friedman test according to their answers in the questionnaire.

Table 1. Males' priorities over effective factors for their participation in sport activities

	Leisure activities	Mean	Chi-square	Degree of freedom	Sig.
1	health	10.29	332.403	14	.000
2	Physical fitness	9.99			
3	Sport center and facilities	9.18			
4	Feeling Power and strength	8.89			
5	Appropriate exercise time	8.70			
6	Resistance against diseases	8.68			
7	Having skilled coaches	8.63			
8	Gaining self-confidence and reducing mental pressures	8.36			
9	Delight and pleasure	7.82			
10	Ancillary facilities	7.67			
11	Spending time with friends	7.61			
12	Filling free times	7.43			
13	Development of cultural and sports programs in university	7.43			
14	Family support	6.23			
15	Beauty of sport centers	4.10			

As the results of Table 1 demonstrate there exists a significant difference among males' views about factors in sport activities participation. According to Table 1, taking part in physical activities to gain health has the greatest mean [10.29] and beauty of sport centers has the least [4.10] of all. The average value of the table participation in sport activities is allocated to Gaining self-confidence and reducing mental pressure with mean 8.36.

In Table 2 the ranking of effective factors in female university students' participation using Friedman test based on their means is presented.

Table 2. Females' priorities over effective factors for their participation in sport activities

	Leisure activities	Mean	Chi-square	Degree of freedom	Sig.
1	Physical fitness	10.52	332.403	14	.000
2	Health	10.02			
3	Spending time with friends	10.02			
4	Sport center and facilities	9.37			
5	Delight and pleasure	8.83			
6	Gaining self-confidence and reducing mental pressures	8.77			
7	Family support	8.40			
8	Resistance against diseases	8.24			
9	Filling free times	8.12			
10	Appropriate exercise time	8.07			
11	Feeling power and strength	7.71			
12	Development of cultural and sport programs in university	7.51			
13	Having skilled coaches	6.83			
14	Beauty of sport centers	5.44			
15	Ancillary facilities	5.01			

According to Table 2:

The administration of Friedman test and chi-square amount with freedom degree of 14 and error of measurement with significance of less than 0.05 show that differences in the females' views about factors in port activities participation are significant. Based on this, taking part in physical activities to gain health has the greatest mean [10.52] and ancillary facilities has the least [5.01] of all. In this regard, the average value of the table on participation in sport activities with mean 8.12.

Table 3 shows the differences in the level of physical activity participation among 4 groups of ages using the Kruskal-Wallace test.

Table 3. Differences in the level of physical activity participation using the Kruskal-Wallace test

Dependent variable Independent variable	Age group	Mean	Chi- square	df	Sig.[2-tailed]
Level of participation	18-22	228.16	49.432	3	.000
	22-26	252.97			
	26-30	204.87			
	+30	152.37			

Table 3 results indicates that according to the significance level [$p < 0.05$] with 95% confidence between the means of participation in different groups of ages, there exist a significant difference. Therefore, the null hypothesis will be rejected. According to the means, the greatest mean of university students' participation in physical activities is allocated to age group of 22-26 and the lowest mean with over thirty year olds.

Table 4 studies the differences among females and males' knowledge of physical activities benefits and their participation in these activities.

Table 4. Differences among females and males' knowledge of physical activities benefits and their participation in these activities with administration of Mann-Whitney test

Dependent variable Independent variable	Gender	Mean	Mann-Whitney U	Z	Sig. [2-tailed]
Knowledge of physical activities benefits	Male	193.53	16557	-.999	.318
	Female	182.79			
Level of participation in physical activities	Male	223.40	11232	-6.177	.001
	Female	156.02			

According to Table 4 with significance of $p > 0.05$ and 95% confidence, there exists no difference in males and females' knowledge of exercise benefits; therefore, null hypothesis is confirmed with regard to no difference in the groups' means. While there is a significant difference in the participation of the two groups. With detailed examination of this Table, it can be mentioned that the level of females' participation is lower than males [$223.4 > 156.02$].

Table 5 examines differences of married and single students' knowledge of physical activities benefits and their participation in these activities.

Table 5. Differences of married and single students' knowledge of physical activities benefits and their participation in these activities using Mann-Whitney test

Dependent variable Independent variable	Marital status	Mean	Mann-Whitney U	Z	Sig.[2-tailed]
Knowledge of physical activities benefits	Married	191.16	16051.5	-.451	.652
	Single	186.10			
Level of participation in physical activities	Married	162.18	11105.5	-2.841	.004
	Single	197.26			

Based on the Table 5, critical values [standard Z] of ± 1.96 and test error of 0.05 for knowledge of exercise benefits are not beyond critical values and the significance of 0.652 is not greater than test error. This implies that there is no significant difference among students' knowledge of exercise benefits regarding the 95% confidence. By contrast, there is a significant difference among married and single students' participation in exercise with regard to the significance of 0.004. The mean for single students is remarkably greater than married students.

DISCUSSION

The outcomes of the present study shows that there are meaningful factors and worthwhile presuppositions for university students' involvement in exercise and their recognition plays a crucial role in schematization and growth of recreational exercises in the society. Female participants of this study mentioned that the most important factors for their participation were physical fitness, health, spending more time with friends and existence of sport centers and facilities. Males' priorities are as follows: maintenance of health, physical fitness and existence of sport centers and facilities. Casting a glance at these findings indicates that provision of sport and exercise facilities is among the noteworthy factors in students' involvement in physical activities. In this regard, Ja'fary stated that stagnation and regression of exercise in universities and also students' lack of proclivity towards participation in physical activities in their free time are due largely to lack of concern in universities exercise arrangements, inattention of authorities concerned with Physical Education and insufficient financial support in arrangements and development [15]. Due to the importance of this issue, authorities had better improve sport facilities and universities allocate a big budget to

this section. Gaining delight and pleasure and filling free time were among other important factors for female students while these were less important for males. Since there are fewer opportunities for women to show their happiness, self-expression, self-improvement, competition, ambition, vivacity and entertainment, it is natural that females care more about exercise to gain pleasure. Presenting exercise in an enjoyable manner makes a propensity in people for participation and doing exercise regularly. Preparing the essential condition for the formation of desirable experiences in exercise is a great strategy for increasing the level of exercise activities, in turn; it can change the mind of people about the value of exercise and physical activities. Last but not least, it can have a long-lasting and more important result such as health by people continuous exercise participation in their lifetime [1]. The next factor was family support as an incentive for females to take part in physical activities. Mohammadi (2000) noted the most important factor for girls' lack of proclivity in physical activities at school as parents, society and girls' view of exercise [16]. Wallace (2009) in his research pointed that parents have a highly significant role in the society of family in girls' involvement in exercise activities. Family is the strongest organizing force [17]. An individual spends most of his early childhood at home and under parental guidance and suggestions. Parents not only have an important influence over sport issues but also are more important than other factors [18]. Therefore; family can play an important role in leading female university students to exercise. Appropriate exercise time, development of cultural and sport programs in university and feeling power and strength formed the next priorities of females. Reducing mental pressure, having skilled coaches, beauty of sport centers and ancillary facilities were the least important factors for them. Findings of the study obviously reveal the evident different motivations between the two genders. Male participants mentioned the most important factors as physical fitness, existence of sport centers and facilities and feeling power and strength. Appropriate exercise time, resistance against diseases, having skilled coaches and gaining self-confidence and reducing mental pressures were their next priorities. The least important factors were mentioned as ancillary facilities, spending time with friends, feeling free times, development of cultural and sport programs in university, family support and beauty of sport centers. The findings of the present study regarding the different motivations between females and males for involvement in exercise are in line with Sirard et al. (2006), Ramezani-zhad et al. (2009) and Naderian Jahromi et al. (2009)[1,10,12]. There was no significant difference in knowledge of physical activities benefits between married and single male and female students and also different age groups. By contrast, age, gender and marital status were influential factors in participation. Females were less active in doing exercise than males. Experimental studies have shown that gender differences are effective in the level or degree of exercise barriers in leisure time. Although women comprise the half of society members, they suffer more from barriers in exercise participation [19]. With the rising rate of women employment, in order to make optimal use of their skills and expertise it is highly recommended to provide security for their psychological and physical needs with physical and recreational exercise and planned activities [20]. Since women are mostly employed in less active careers such as office employees, teachers, secretaries and dull and monotonous jobs like librarians and laboratory's employees, it is essential to make them a gift of mobility and a culture of happy and active life along with vitality, physical and mental well-being. The findings of this part of the study are in line with Berger et al. (2008), Lubans (2007), Fathi (2010) and Stephen (1998)[11,21,22,23]. According to the results, over thirty year old participants had lesser participation in physical activities in comparison to other age groups. Gold and Horn (1982) in the review of researches related to people participation in physical activities concluded that life cycle and age have an effective influence on people's motivation for exercise participation[24]. The difference between age groups is consistent with the findings of Kokolakis and Hallam [2011] and Berger et al. (2008)[9,11]. Single people had greater participation which is in line with the research results of Haman and Wicker (2009), Fathi (2010) and Jackson (2005)[13,22,25].

CONCLUSION

As we have already stated, university students' health and liveliness are of critical importance since future is in their hands. If we can institutionalize doing exercise among students and prove it as a necessity, it will be widespread among future generations. In order to prepare the ground for students' more participation, it is recommended that authorities pay a closer attention to effective factors and students' likes along with allocating a reasonable budget and preparing the needed facilities. Moreover, university officials had better identify various factors and base the activities' structure, programs and sport centers on these factors

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