

Research paper

Analysis of Sports Interests and Physical Activity: Motivators and Barriers among Iranian Students

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Abstract

The purpose of this study was to assess interests and needs among students in terms of sports and physical activity. The statistical population of this quantitative and descriptive study consisted of all Iranian male and female students of public universities. By applying cluster sampling, 574 students from 12 universities were selected as a research sample. A researcher-made questionnaire was used for data collection, and descriptive statistical methods were used for data analysis. Findings showed that almost half of the females (more) and 21% of males had no history of sports activity. Furthermore, male and female students tended to be similar in the number of times they exercised per week, and slightly less than 50% of students tended to exercise three days a week and a quarter of students tended to exercise two days a week. Among the twenty priorities of sports among females and males, 14 sports were common, including "volleyball, bodybuilding, swimming, cycling, soccer, table tennis, motorcycling, badminton, mountain climbing, chess, equestrian, basketball, self-defense and shooting ". According to this study results, female students are more interested in emerging sports. Moreover, studies on physical activity indicated that female students had worrying levels of physical activity. In addition, generally, it can be said that the type of interests and motivations of students in sports is changing. In this regard, by creating the necessary mechanisms, sports should be strengthened under the principles, culture and Islamic civilization of Iran as well as compatible with these interests and motivations of students.

Keywords: Interests Assessment, Needs Assessment, Student, Public Universities, Sports

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Introduction

Human resources are considered as one of the most important components of sustainable development in different societies. Having competent and productive human resources plays a key role in achieving sustainable development (Tisdell, 2001). In this regard, the health and factors of human resources as one of the most important components of human development have been considered by researchers. They also have considered as one of the essential human needs. Among different groups and categories of human resources, students are the most important groups and play an effective role in the future of any country (Ahmadi et al., 2016).

Students are a large and influential part of Iranian society and population. In this regard, about 3,600,000 students are studying in universities and educational centers across the country that 750,000 of them are studying in public universities (Ministry of Science, Research and Technology, 2018). The university as one of the most effective institutions on development and progress should be used as a lever to improve students' because the university plays an important role in institutionalizing and physical activity.

In general, fields and areas of student sports can be considered in three categories of educational, sport for all and championship sports. Educational sports include physical education courses as well as training courses in physical education and sports science colleges. Furthermore, the General Directorate of Physical Education of the Ministry of Science, Research and Technology acts as the responsible body and policy-maker in the field of educational sports for students of physical education and other fields. Sport for all in the student can be considered as "maintaining physical and mental health, creating vitality and filling leisure time optimally, as well as creating a healthy entertainment environment." Sport for all in universities includes sports such as darts, Rope pulling, native and local sports games, as well as futsal, volleyball, swimming, wrestling, gymnastics, martial arts and so on. All students can participate in these sport, designed and performed on different occasions.

The World Health Organization (WHO) reported that in 2008, an average of 31% (28% of men and 34% of women) of adults over the age of 15 years old worldwide had physical inactivity and 63% of deaths were due to non-infectious diseases. Statistics from Iran in 2008 showed that in this behavioral risk factor (physical inactivity) on average about 35.7% (25.2% of men and 46.5% of women), and 72% of deaths are due to non-infectious diseases, which is higher than the global average, and therefore increasing the level of physical activity and fitness is a necessity and vital for all members of society, especially students (Ministry of Health: Summary of the sixth report on non-infectious diseases risk factors survey period, 2011).

The significant increase in the student population in different countries of the world -including Iran- has faced the situation of university sports with an

important challenge not only in terms of facilities and equipment but also in terms of quantity and quality of programs. On the other hand, the advent of new computer technologies has led to an increase in inactivity among students. This issue clarifies the need to pay more attention to university sports (Tondnevis, 2012).

On the importance of sport and physical activity, Tuyckom and Scheerder (2010) stated that 69% of those who have completed their education after the age of 21 years old in an EU country are still sports-active. While only 39% of those who completed their education before the age of 15 years old were sports-active. In this regard, Downward and Rasciute (2014) have stated that higher education not only increases the level and intensity of men's participation in sports but also plays an important role in helping to develop women's interest in sports and thus increase their participation rate. Studies by Breivik and Hellevik (2014), Lunn et al. (2013), and Fridberg (2010) have also confirmed this issue and considered higher education as an opportunity for the development of sports and physical activity and its institutionalization among students and individuals in society (Haycock, 2015).

A study by Sport England (2014) found that two-thirds of students (71% men and 61% women) exercised at least once during the four weeks leading up to the study. Also, 57% of students have exercised at least once a week. Lipošek et al. (2019) in their research among the student of the University of Maribor, they have concluded that the majority of students were physically active in the afternoon. Nevertheless, according to the WHO's guidelines, 79.8 % of those were insufficiently physically active. Musa et al. (2016) in a study have stated that overweight and obesity are important issues for students in China. Studies in the United States have also shown that the problem of inactivity is still common among students, and in this regard between one and two-thirds of students are inactive (Boyle and Larus, 2008; MacArthur and Rydek, 2009). Despite appropriate facilities, physical activity is still low among students due to the lack of planning and targeted interventions (Sparling, 2003). Another point in the field of inactivity or low physical activity of students is poor physical and literacy among students (Keating et al., 2009; Steward and Mitchell, 2003). In the field of physical activity and fitness of Iranian students, one of the latest and most comprehensive studies conducted in 2019 on 14092 students (5239 males and 8853 females) from 20 universities has shown that 2 out of every 5 Iranian students are inactive; one in three students is obese or overweight, and one in five students needs to improve muscle strength. These results indicate the need to pay attention to the well-being and physical fitness of students (Gharakhanlou, 2019). These results indicate the need for the development of and physical activity policy and prevention and intervention programs in the student community.

In the field of student sports, in Iran, studies have been conducted by Tondnevis (1999), Azizi et al. (2011), Nazarian and Ramezani (2013), Qarah et al. (2013), and Ghafouri et al. (2003). Most of these studies have been done in the field of sports interests and they have emphasized how to spend leisure time with the approach of sports and physical activity. While in the field of students' sports interests and needs with a comprehensive view and based on a national study, no study has been conducted. Currently, one of the issues of student sports in Iran is managing and providing services to students based on their needs and interests. As a result, the present study attempts to provide a management mechanism and a comprehensive program to manage the needs and interests of students.

The above content indicates the role and importance of higher education in the development of student physical activity and health. In this regard, planning and its implementation among students is an essential step. A basic step in this regard is to determine the needs and interests of the sports students. In this regard, with recognizing the interests of students, planning and consumption of resources by the General Directorate of Physical Education of the Ministry of Science, the Research and Technology as well as the Physical Education Departments of universities will be targeted. On the one hand, to avoid spending waste costs as well as constructing and providing unnecessary equipment leads to the sustainable and comprehensive development of sports in universities, and on the other hand, provides training of healthy and productive human resource. In this regard, due to the lack of developed and comprehensive interests and needs assessment to guide sports in universities, this study provided interests and needs assessments of sports disciplines among students.

Research Methodology

The data of this quantitative and descriptive study were collected through survey and field studies. The statistical population consisted of all male and female students of public universities in Iran. The number of students in public education entities throughout the country was 750,000 (Ministry of Science, Research and Technology, 2018), and according to the Morgan sampling table, the sample population was 394. However, in the current study, for having a larger statistical population via cluster sampling, 574 students from 12 universities were selected according to the geographical distribution of the country (northwest, northeast, southwest and southeast Iran and the center). Finally, after collecting data, reviewing the questionnaires and excluding the distorted questionnaires, 574 questionnaires were completed and entered into the analytic process.

A researcher-made questionnaire was used to collect data related to students' interests and needs assessment. This questionnaire contained questions related to evaluating and prioritizing the interests of students in sports disciplines, determining the amount of physical activity of students during the day, times of exercise, number of times per week, evaluation of students' history of exercise and

setting objectives of sports and motivating factors and barriers to sports activities. In this regard, the research questionnaire contained 51 questions (7=demographic information of the research sample, 4=status of physical activity among students, 1=determining 10 priorities for choosing sports disciplines from 61 sports disciplines, 12= purpose of sports activity, 11=motivating factors for paying attention to physical activity and 16=barriers to participating in physical activity). This questionnaire was distributed and collected physically and online in the studied universities. Descriptive statistical methods were applied to analyze the data, and the results were reported in the form of tables of mean, frequency, and percentage. For statistical analysis, SPSS 19 and Excel 2013 were used.

Results

History of sports activity, time of exercise, number of exercise sessions and optimal hours of exercise during the week in male and female students.

Figure 1 shows the percentage of students with a history of sports activity and students without a history of sports activity among male and female students. As indicated in this figure, male students have a long history of sports activity than female students. In addition, both males and females were less interested in exercising early and mid-week. The male students were generally interested in sports sporadically on weekdays and/or weekends. Less than a quarter of male students were also interested in exercising regularly. In addition, it seems that females were more interested in regular exercise than males. The male and female students tended to exercise the same number of exercise sessions a week, with just less than 50% of students tended to exercise three days a week, and a quarter of students tended to exercise two days a week. Moreover, the results of figure 1 illustrate that about half of the students are interested in sports between 4 p.m. and 8 p.m. Females were more likely than males to do exercise in the early morning, and males were more likely to do exercise between 8 p.m. and midnight.

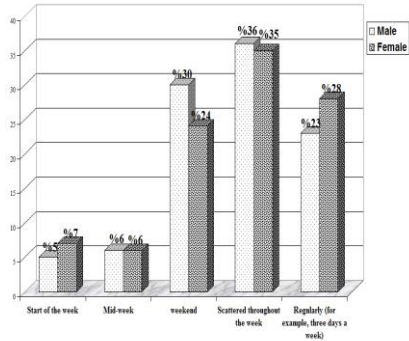


Figure 1-2: Comparison of optimal exercise time during the week between male and female students (numbers are in percent)

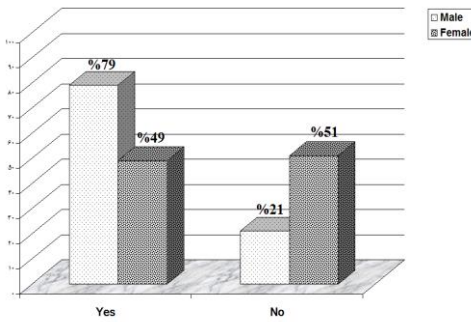


Figure 1-1: Comparison of sports activity history in male and female students (numbers are in percent)

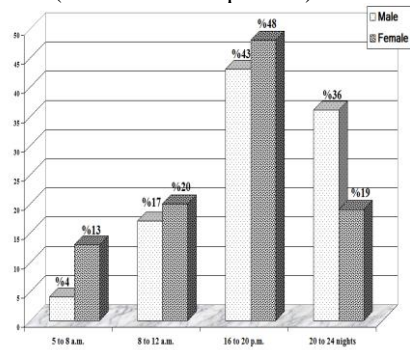


Figure 1-4: Comparison of the desired of exercise sessions per week for male and female students (numbers are in percent)

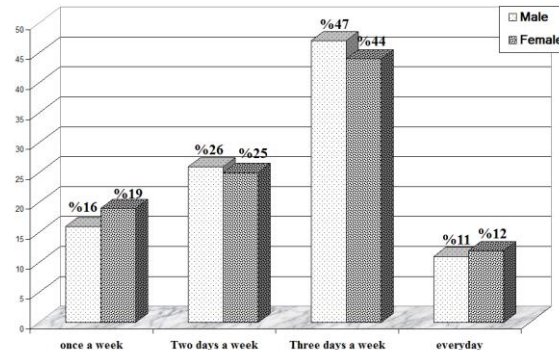


Figure 1-3: Comparison of the desired number of times for exercise per week for male and female students (numbers are in percent)

Figure 1- History of Sports Activity, Time of Exercise, Number of Exercise Sessions and Optimal Hours of Exercise During the Week in Male and Female Students

Students' Favorite Sports

Figure 2 shows the percentage of male students who ranked each sport among their top ten priorities. As shown in this figure, the top twenty favorite sports for male students are soccer, futsal, volleyball, bodybuilding, swimming, cycling, table tennis, shooting, motorcycling, badminton, Mountaineering, chess, wrestling, equestrian, athletics, basketball, billiards, car racing, boxing and self-defense respectively.

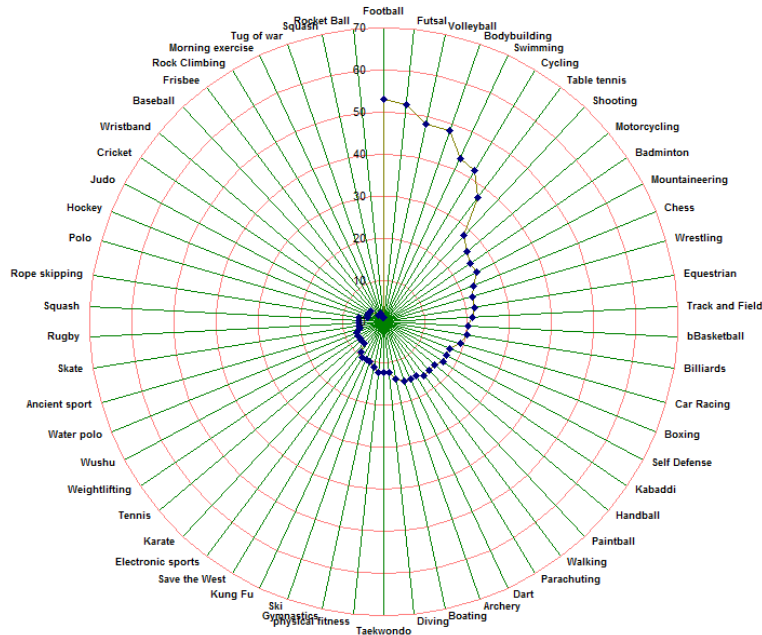


Figure 2- Favorite Sports of Male Students

Figure 3 illustrates the percentage of female students who ranked each sport among their top ten priorities. As shown in this figure, the top twenty favorite sports for female students are cycling, volleyball, bodybuilding, swimming, walking, equestrian, skiing, fitness, basketball, mountaineering, Badminton, self-defense, archery, shooting, darts, soccer, table tennis, motorcycling, chess and morning exercise.

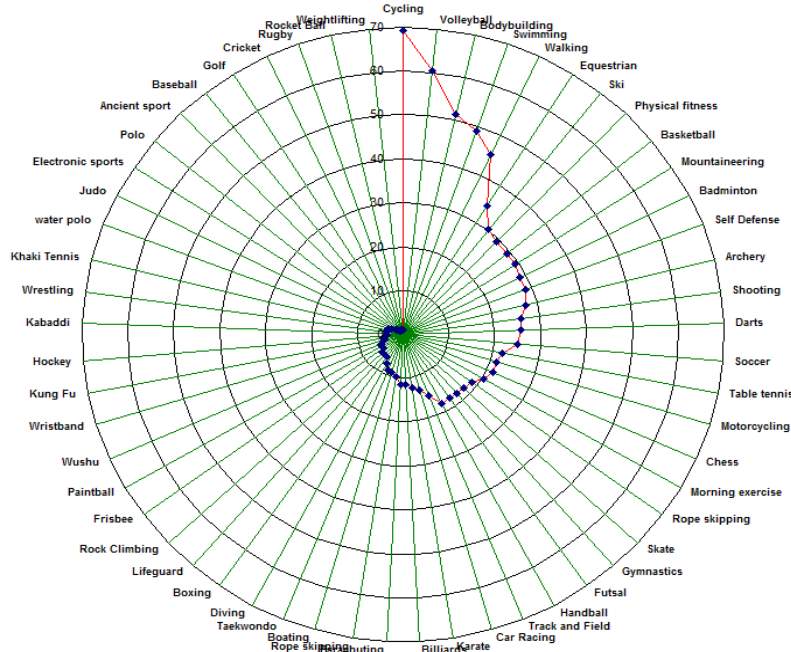


Figure 3- Favorite Sports of Female Students

Among the 20 priorities for females and males, there are 14 common sports: volleyball, bodybuilding, swimming, cycling, soccer, tennis, motorcycling, badminton, mountaineering, chess, equestrian, basketball, self-defense and shooting (Table 1).

Table 1- Favorite Sports of Male and Female Students

ranks	Favorite sports for male students	Common favorite sports among male and female students	Favorite sports for female students
1	Soccer	Volleyball	Cycling
2	Futsal	Bodybuilding	Volleyball
3	Volleyball	Swimming	Bodybuilding
4	Bodybuilding	Cycling	Swimming
5	Swimming	Soccer	Walking
6	Cycling	Table Tennis	Equestrian
7	table tennis	Motor Riding	Ski
8	Shooting	Badminton	Physical Fitness
9	Motorcycling	Mountaineering	Basketball
10	Badminton	Chess	Mountaineering

Table 1- Favorite Sports of Male and Female Students

Ranks	Favorite Sports for Male Students	Common Favorite Sports among Male and Female Students	Favorite Sports for Female Students
11	Mountaineering	Equestrian	Badminton
12	Chess	Basketball	Self Defense
13	wrestling	Self Defense	Archery
14	Equestrian	Shooting	Shooting
15	Track and Field		Dart
16	Basketball		Soccer
17	Billiards		table tennis
18	Car Racing		Motorcycling
19	Boxing		Chess
20	Self Defense		Morning Exercise

Motivations, Effective Factors and Barriers to the Participation of Male and Female Students in Sports Activities

Table 2 represents motivations for participating in sports activities for male and female students. According to the results in the above table, evaluation of all factors by female students is higher than that by males. In other words, female students evaluated the level of influence and importance of each factor for themselves higher. In contrast, males evaluated these factors lower. Moreover, motivations to participate in sports, for females including "fitness", "increased self-confidence", "increased morale and vitality in life", and "improved and maintained health" were priorities; and for males, "improved physical, cardiovascular and respiratory fitness", "increased morale and vitality in life", "fun and entertainment", and "reduced stress and anxiety in life" were found. In general, it can be concluded that females mostly consider the goal of exercise as fitness and increase self-confidence, but males consider promotion of physical, cardiovascular and respiratory fitness as the most important goal. While both groups, in the next degree, do exercise to increase morale and vitality in life.

According to the results of table 2, in order to improve participation of female students, factors such as "safety and standardization of university sports equipment", "having appropriate sports equipment", "appropriate university class registration costs", "having a sports coach specializing in various sports of the university" and "easy access to university sports facilities" are priorities. In contrast, for males, "easy access to university sports facilities", "attractive university sports facilities", "appropriate registration fees for university sports classes"; "safety and standardization of university sports equipment" and "presence of a sports coach specializing in various sports disciplines of the university" were the most important factors affecting participation in sports

activities. In general, it can be said that four factors: "easy access to university sports facilities", "appropriateness of registration costs for university sports classes"; "safety and standardization of university sports equipment" and "presence of a sports coach specializing in various sports of the university" are the most important factors in the greater participation of male and female students in sports activities.

As demonstrated in table 2, the most important barriers from the perspective of female students include: "lack of sufficient time", "lack of facilities", "distance to university sports places", "ignorance of sports interests and needs" and "improper planning and scheduling of sports activities by the university" and males emphasize barriers such as "lack of an experienced coach", "not having enough interest and patience", "family problems", and "distance to university sports places". In general, females emphasize not having enough time to participate in sports, improper timing and insufficient attention to their sports interests. However, males considered boredom and family problems as the most important barriers. Both groups jointly emphasized the distance from sports places as well as the lack of an experienced coach.

Table 2- Motivations, Effective Factors and Barriers to the Participation of Male and Female Students in Sports Activities

Factors	items	females (Average)	males (Average)
Motives for Participation	Improve and maintain health	80/4	57/3
	Relieve fatigue caused by daily life and discharge destructive energies	77/5	60
	Increase mood, vitality and freshness in life	80/2	63/1
	Increasing the self-confidence	80/7	58/3
	Reduce stress and anxiety in life	79/3	61
	Participate in sports competitions and competitions	67/5	52
	Increase efficiency and productivity in daily life	73/6	60/7
	To learn new skills	77/7	60/3
	Fitness	80/7	59/7
	Entertainment	77/3	61/7
	Find new friends and increase social interactions	69	59/7
	Improving physical, cardiovascular and respiratory fitness	79/3	66/7

Table 2- Motivations, Effective Factors and Barriers to the Participation of Male and Female Students in Sports Activities

Factors	Items	Females (Average)	Males (Average)
Factors Affecting Participation	Easy access to university sports facilities	68	78/2
	The charm of university sports spaces	67	75/5
	Appropriateness of registration fees for university sports classes	64/3	79/8
	Attractive and varied sports programs at the university	62	77/5
	Having the right sports equipment	63/4	80
	Safety and standardization of university sports equipment	65	80/7
	Encourage and appreciate sports heroes at the university	57/3	72/3
	Providing various financial and non-financial services and facilities	60/3	71/8
	Match the university sports programs with my time and schedule	62/7	75/3
	Existence of sports information and educational brochures in different places of the university	58/7	73/3
	Existence of a sports coach specializing in various sports of the university	75/3	78/4
	Barriers to Participation	Not having enough time	54/7
Lack of facilities and facilities		57/3	71/9
Improper planning and scheduling of sports activities		45	67/7
Ignoring my sports interests and needs		55/3	69/7
Not having a friend or companion to exercise		55	68/1
Distance to university sports venues		59/3	70/3
Inadequate costs		52/7	64/3
Fatigue due to sports activities		58/7	67
Having a specific illness or physical disorder		41	48/5
Lack of an experienced coach		62/7	66/5
Fear of injury during exercise		59/3	55/7
Lack of belief in exercise and its effects		51/7	47
Not having enough interest and patience		59/7	50/9
Family issues		58/7	46/7
Lack of support and encouragement from others and family		58/3	50/6
Existence of cultural and social restrictions	51/3	56/4	

Discussion and Conclusion

The study results indicated that almost half of the females had a history of sports activity and the rest of them had no history. However, nearly 79% of males had a history of sports activities. These results indicate the need for planning to increase females' participation in sports activities. In this regard, and consistent with the study results, in the field of physical activity and fitness of Iranian students, one of the latest and most comprehensive studies conducted in 2019 on 14092 students (5239 men and 8853 women) from 20 universities has suggested that 40% of students are inactive; one in three students is obese or overweight, and one in five students needs to improve muscle strength. These results indicate the need to pay attention to the physical fitness of students, especially female students (Gharakhanlou, 2019). Therefore, due to the higher prevalence of inactivity among female students than male ones, the development of sports participation based on the interests and needs of female students should be a priority in university sports programs.

To achieve the above objective, it should be noted that female students are often interested in irregular exercise on weekdays and regularly (for example, three days a week) or on weekends. As a result, planning sports activities at the beginning of the week should be avoided. In addition, it should be noted that almost half of female students prefer to exercise from 4 to 8 p.m., 20% from 8 to 12 noon, 19% from 20 to 24 p.m., and 13% from 5 to 8 a.m. According to the results, it should be concluded that males found exercise appropriate during the days of the week and three days a week as well as were interested in exercising more from evening to midnight. In general, for both groups of females and males, there was very little interest in exercising early and only in the middle of the week, and the greatest tendency was to do irregularly or regularly distributed activity during the week or at the end of the week. The male and female students tended to do exercise during the same number of exercise sessions a week, and slightly less than 50% of students tended to do exercise three days a week, and a quarter of students tended to exercise two days a week. In addition, nearly half of the students were interested in sports between 4 p.m. and 8 p.m. The females were more likely than males to do exercise in the early morning, and males were more likely to do exercise between 8 p.m. and midnight.

The above results indicate that the success of university sports departments in increasing student sports participation depends on paying attention to these needs and interests. Therefore, any planning and action in the field of sports should be in accordance with these characteristics and requirements.

Another issue that has been investigated in the present study was the interest in choosing sports disciplines. In this regard, by reviewing the studies conducted on interests of students and other classes of society in sports disciplines, as well as reviewing previous documents in the General Department of Physical Education of the Ministry of Science and its affiliated universities and reviewing sports

disciplines in the universities abroad, a list of 61 sports disciplines was provided and used for questioning students. The study results showed that the top twenty favorite disciplines of female students were cycling, volleyball, bodybuilding, swimming, hiking, horseback riding, skiing, fitness, basketball and mountain climbing, badminton, self-defense, archery, shooting, darts, soccer, table tennis, motorcycling, chess and morning sports, respectively. Besides, the top twenty favorite disciplines of male students were soccer, futsal, volleyball, bodybuilding, swimming, cycling, table tennis, shooting, motorcycling, badminton, mountain climbing, chess, wrestling, horse riding, track and field, basketball, billiards, car racing, and self-defense boxing, respectively. It should be noted that of twenty priorities of sports among females, there were 14 common disciplines, including volleyball, bodybuilding, swimming, cycling, soccer, table tennis, motorcycling, badminton, mountain climbing, chess, horse riding, basketball, self-defense and shooting.

Investigation of conventional sports disciplines in universities represented that some sports disciplines were not established in universities or were the emerging interests of students. In this regard, it should be said that the relatively emerging interests of female students in sports disciplines included cycling, hiking, horseback riding, skiing, self-defense, darts, motorcycling and morning sports, respectively. On the other hand, the relatively emerging interests of male students in sports composed of cycling, motorcycling, horse riding, billiards, motor racing, boxing, and self-defense, respectively.

For female students, emerging disciplines were more prominent and ranked higher. For physical activity, it was found that female students had a worrying level of physical activity and inactivity. Therefore, for planning the sports participation of female students, these sports disciplines should be a priority.

The motivations for female participation in sports including "fitness", "increased self-confidence", "increased morale and vitality in life", and "improved and maintained health" were priorities and for males, these included "improved physical, cardiovascular and respiratory fitness", "increased morale and vitality in life", "fun and entertainment", and "reduced stress and anxiety in life". While in two groups, increasing morale and vitality in life through exercise is very important. These results indicated the important finding that motivations for participating in sports activities were different between females and males and in any action to develop sports plans, the differences between these motivations and objectives among male and female students should be considered.

Interpretation of the results related to students' motivation to engage in sports suggested that students preferred sport for all disciplines than championship sports, and therefore paying attention to sport for all should be a priority. The important point is that, given the relatively limited facilities and resources of universities, the factors with the greatest effect and efficiency on improving

student sports participation should be identified. In this regard, the study results revealed that in order to improve participation of female students, factors such as "safety and standardization of university sports equipment", "having appropriate sports equipment", "appropriate registration costs of university sports classes", "existence of specialized sports coaches", and "easy access to university's sports facilities" are priorities. In contrast, for males, "easy access to university sports facilities", "attractive university sports facilities", "appropriate registration costs of university sports"; "safety and standardization of university sports equipment" and "existence of specialized sports coaches" are the most important factors affecting participation in sports activities. Among these factors, universities should consider four factors: "easy access to university sports facilities", "appropriate registration costs for university sports classes", "safety and standardization of university sports equipment" and "existence of specialized sports coaches" as the most important common factors affecting participation of more male and female students in sports activities.

The most important barriers for female students to participate in physical activity include: "lack of sufficient time", "lack of facilities", "distance to university sports places", "ignoring sports interests and needs" and "improper planning and scheduling of sports activities by the university." On the other hand, the males emphasized barriers such as "lack of an experienced coach", "lack of interest and patience", "family problems", and "distance to university sports places". The barriers to sports participation common between the two groups included distance from sports venues as well as the lack of an experienced coach. Therefore, these two factors should be in the center of attention compared to other factors.

A study by Hosseini et al. (2017) found the managerial factor as the most important factor affecting students' participation in physical activity, followed by social, cultural, economic, equipment and motivational factors. These researchers have concluded that university sports officials should have a close relationship with students and regarding the importance of management factors, make and implement the right decisions in the field of university sports management. In this regard, Manafi et al. (2015) stated that university sports management, prior to establishment of hardware and software, using appropriate management interventions could lead to student sports participation. Furthermore, Agha Khan Babaei et al. (2017) have suggested that desired environmental conditions, both quantitatively and qualitatively, provide emotional, instrumental, informational and evaluating supports in order to increase students' participation in physical activities. The results of Faraji (2015) also indicate that the factor of progress and success is most related to the motivations of academics' physical activity. Moreover, the results of Alizadeh et al. (2014) represented that a significant difference was found in risk perception between male and female students in the indicators of excitement, fear of injury, self-confidence, experience and skills. Further, no significant difference was observed in risk perception between male

and female students in the effect of injury history and success history in repetition of dangerous activities, indicating the close attitude and perception of females and males in the mentioned indicators. Sports managers should understand the attitude of participants in sports activities for sustainability of their organization as well as ensuring safety of athletes; hence, important and fundamental measures should be taken to identify students' perceptions of the factors that can lead to their non-participation in sports activities.

In summary, universities should make more efforts to improve student participation in sports activities. The results of the present study found approaches and orientations of developing students' sports participation in accordance with their interests and needs used as a guide for short and long-term sports planning in universities.

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