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The relationship between the health status of athletic facilities and participation in physical exercises

Seyed Mostafa Tayebi Sani¹, Mehdi Talebpour², Farshad Tojari³, Hadi Jabbari⁴

¹Department of Physical Education and Sport Science, Central Tehran Branch, Islamic Azad University, Tehran, Iran

²Department of Physical Education and Sport Science, Ferdowsi University of Mashhad, Mashhad, Iran

³Department of Physical Education and Sport Science, Central Tehran Branch, Islamic Azad University, Tehran, Iran

⁴Department of Statistics, Ferdowsi University of Mashhad, Mashhad, Iran

ABSTRACT

The purpose of the present research was to examine the relationship between the health status of athletic facilities and participation of Tehran citizens in physical exercises. The population of the research consists of all the athletic facilities of Tehran City. Using stratified and cluster sampling, 227 indoor facilities and 32 outdoor facilities were selected as sample and the health checklist and citizens' participation questionnaire were completed in these facilities. Then, the collected data was analyzed using Pearson correlation test and the results showed that there is a significant positive relationship between the health status of athletic facilities and participation of the citizens in physical activities ($r = 0.128$; $p = 0.039$).

Keywords: hygiene, physical exercise, athletic facilities

INTRODUCTION

There is no doubt about the value and importance of sport and physical education. If this phenomenon is fully appreciated, it will prove to be as important as other socioeconomic issues such as education, industry, agriculture, nutrition, and health and will contribute to the advancement of goals [1]. Research has shown that people who engage in regular physical exercise are physically and psychologically healthier. Sport activities must take place in an environment that is in a good condition in terms of health factors. Studies have shown that healthy athletes may contract different diseases if they practice in insanitary environments. It is recommended that sport activities and exercises be carried out in environments with standard hygiene. The research of Sugiyama and Thompson (2008), Popkin et al. (2005) showed that the hygiene of athletic halls and facilities has a significant positive effect on the participation of people in physical activities [2, 3]. Tehran is one of the biggest and most populated cities of Iran with a high percentage of people who use athletic facilities. Thus, highly sanitary athletic facilities not only will guarantee the health of citizens, but will also increase their participation in physical activities and sports, and as a result we will have a healthier society. Unhealthy athletic facilities on the one hand causes physical injuries and diseases in the participants and on the other hand demotivates people from further participation in physical activities, leading to a sedentary society with unhealthy citizens that impose many costs on the government. Given this brief introduction, the present research aims to examine the health status of athletic facilities in Tehran and to study the relationship between the hygiene of these facilities and participation of Tehran citizens in physical activities.

MATERIALS AND METHODS

The present research is applied and employs the descriptive-correlational method. The population of the research consists of all the athletic facilities of all the 22 regions of Tehran City. Using stratified and cluster sampling, 259 facilities were selected as sample and the health status of these facilities was examined. Moreover, using a researcher-made questionnaire, the attendants of these facilities (1284 individuals) were surveyed regarding their participation in physical activities with respect to the health status of the facilities. A checklist containing 51 items was designed by the researcher based on certain domestic and international criteria that were approved by experts. During two 2-hour sessions, a group of 20 people consisting of experts in the areas of health, environment, and physical education helped in designing a checklist for examining the health status of the athletic facilities. The questioners of the research acquired the necessary licenses, presented themselves in the athletic facilities, completed the health checklist, distributed the participation questionnaire among the citizens, and collected them after a week.

RESULTS AND DISCUSSION

Figure 1 shows that the majority of the participants (702) were male.

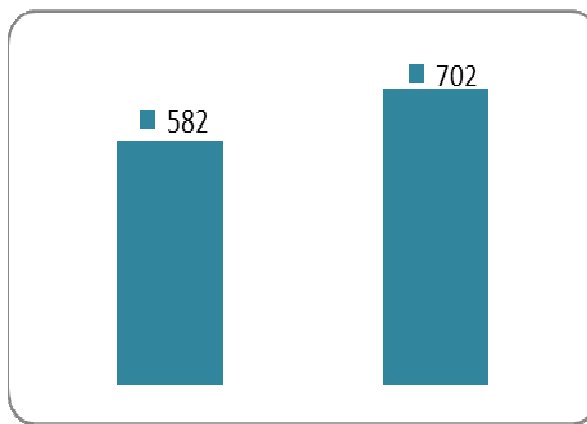


Figure 1 – Frequency of the participants' gender

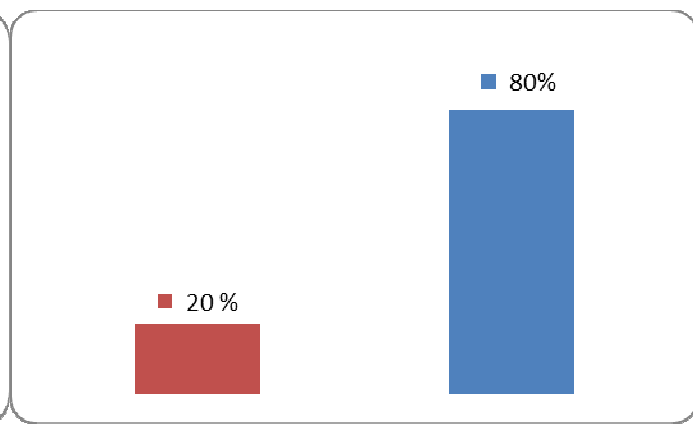


Figure 2 – Frequency of participation in physical activities

According to figure 2, 80% of the participants engage in regular physical exercise.

Table 1 – The health interest of the managers, trainers, and users

	Mean	SD	Minimum	Maximum
Trainers	4.08	0.53	1.00	5.00
Managers	4.20	0.60	2.20	5.00
Citizens	4.19	0.44	1.10	5.00

Table 1 shows the health interest of the studied sample on a scale of 1 to 5. The means scores indicate that the health interest of the managers and citizens is higher than that of the trainers.

Table 2 – The health awareness of the managers, trainers, and users

	Mean	SD	Minimum	Maximum
Trainers	4.57	0.42	1.00	5.00
Managers	3.56	1.10	1.00	5.00
Citizens	4.45	0.31	3.36	4.95

Table 2 shows the health awareness of the sample on a scale of 1 to 5. The mean scores indicate that the health awareness of the trainers and citizens is greater than that of the managers.

Table 3 – Health status in the athletic facilities of different regions of Tehran City

Region	Participation of Citizens	Health Awareness of Managers	Health Awareness of Trainers	Health Awareness of Citizens	Health Interest of Managers	Health Interest of Trainers	Health Interest of Citizens
1	2.93	4.42	4.00	3.96	4.77	4.53	4.22
2	2.53	4.19	4.09	4.52	4.72	4.52	4.59
3	3.83	4.31	4.03	4.36	4.82	4.58	4.52
4	3.49	4.09	4.25	4.24	4.37	5.11	4.26
5	3.39	4.32	4.17	4.25	4.73	4.76	4.31
6	3.54	4.25	3.85	4.13	4.72	4.59	4.26
7	3.35	4.54	4.25	4.08	4.68	4.52	4.31
8	3.76	4.39	3.82	4.29	4.51	4.49	4.45
9	3.41	4.17	3.77	4.40	4.60	4.29	4.50
10	3.55	4.39	4.00	4.23	4.58	4.54	4.41
11	3.24	4.50	4.07	4.07	4.64	4.49	4.36
12	3.16	4.19	4.09	4.08	4.72	4.52	4.23
13	2.57	4.29	4.15	4.29	4.81	4.54	4.46
14	3.48	4.09	4.19	4.32	4.43	4.66	4.48
15	3.16	4.24	4.22	4.05	4.70	5.15	4.31
16	2.63	4.31	3.95	4.47	4.73	4.69	4.54
17	3.81	4.44	3.93	4.40	4.65	4.47	4.56
18	4.60	3.45	4.20	4.15	4.59	4.55	4.33
19	2.60	4.29	3.98	4.22	4.72	4.51	4.34
20	3.14	4.31	3.96	4.25	4.81	4.37	4.47
21	3.80	4.31	4.19	4.42	4.72	4.78	4.55
22	2.62	3.46	4.34	4.18	3.92	4.61	4.34

The findings in table 3 suggest that:

1. The highest level of participation belongs to region 3 (3.38) and the lowest level belongs to region 2 (2.53) of Tehran City.
2. The highest and lowest level of health awareness of managers belongs to region 18 (4.60) and region 4 and 14 (4.09) respectively.
3. The highest and lowest level of health interest of managers belongs to region 3 (4.82) and region 22 (3.92) respectively.
4. The highest and lowest level of health awareness of trainers belongs to region 22 (4.34) and region 9 (3.34) respectively.
5. The highest and lowest level of health interest of trainers belongs to region 15 (5.15) and region 9 (4.29) respectively.
6. The highest and lowest level of health awareness of users belongs to region 2 (4.52) and region 1 (3.96) respectively.
7. The highest and lowest level of health interest of users belongs to region 2 (4.59) and region 1 (4.22) respectively.

Table 4 – Mean and standard deviation of health status in Tehran City

	Mean	SD	Max.	Min.	Skewness	Kurtosis
Health Interest of Citizens	4.375	0.353	4.950	3.364	0.449	-0.427
Health Interest of Trainers	4.597	0.598	5.000	1.000	3.877	1.379
Health Interest of Managers	4.658	0.305	5.000	3.540	1.483	3.032
Health Awareness of Citizens	4.218	0.435	5.000	3.250	0.621	1.525
Health Awareness of Trainers	4.066	0.525	5.000	1.000	0.724	3.530
Health Awareness of Managers	4.312	0.455	5.000	2.750	0.522	0.788
Participation of Citizens	3.288	0.702	4.800	1.933	0.163	-0.821
Age	28.599	5.693	86.000	19.000	5.415	7.993
Training Experience	3.746	1.050	10.000	1.000	0.390	-0.775

The findings revealed that the highest mean belongs to the environmental and health interest of the managers (4.658).

Table 5 – The relationship between age and participation in physical activities

Motivation of Citizens		
Age	Pearson correlation coefficient	0.026
	p-Value	0.356
	Total number	1219

According to table 5, the p-value is greater than 0.05 and thus the null hypothesis is accepted.

Table 6 – The results of Student's t-test for comparing the participation of men and women

	Mean	SD	t	Probability
Men	3.412	1.141	5.365	0.0001
Women	3.07	1.066		

There was a significant relationship between academic degree and participation in physical activities among the citizens of Tehran.

Table 7 – The statistics of participation in terms of academic degree

	Total	Min.	Max.	Mean	SD
High School Diploma or Lower	511	1.00	5.00	2.9654	1.17856
Associate Degree	330	1.33	5.00	3.4545	0.966623
Bachelor's Degree	330	1.00	5.00	3.5470	1.08109
Master's Degree or Higher	68	1.68	5.00	3.2157	1.02014

The result of one-way analysis of variance for comparing the mean participation of people with different academic degrees (at the 5 percent significance level and $p = 0.000$) suggested a significant difference between different educational groups in terms of participation in physical activities.

Table 8 – The relationship between health status and participation of citizens in physical activities

Citizens' Motivation for Participation		
Health Status	R	0.128
	Sig.	0.039
	N	258

Pearson correlation coefficient was used to examine the relationship between the health status of the athletic facilities and the participation of citizens in physical activities. The results showed that there is a significant positive relationship between these two variables at $P = 0.05$.

CONCLUSION

The results showed that there is a significant relationship between the demographic characteristics of the citizens and their participation in physical activities. This finding is consistent with the results of Wang, and Mozaffar et al [4, 5]. Gender is one of the determinants of participation in physical activities. Definitely women have less leisure time and less chance. Moreover, Iranian women have limited access to athletic facilities. In general, men have greater participation in physical activities and sports. Without doubt all transformations in the social structure depend on age. Participation in group sports, competitive sports, and championships is mostly done by the adolescents and youths, while for older individuals, issues such as health, endurance, and physical fitness matters the most. However, participation in physical activities can be seen in people of all the age groups. There was also a significant relationship between education and participation in physical activities. It can be argued that people with higher education are better informed of the importance of physical fitness and strive to achieve it. Educated people are more concerned with the quality of their lives and physical activity is a means for improving quality of life [6].

The results showed that there is a significant positive relationship between the health status of the athletic facilities and participation of Tehran citizens in physical activities. This finding is consistent with the results of Schoefer, Daniel, Sallis, Jaber et al., and Popkin et al. [7, 8, 9, 10, 3], but it is inconsistent with the results of Farsi [11]. Insanitary environments affect the health and efficiency of people over time and are a serious threat to the health of athletes. Pathogenic factors such as organisms (viruses, parasites, etc.) as well as physical and chemical factors can lead to various diseases among the attendants. Health is a general term that encompasses individual health, mental health, nutrition, environment, etc. Thus, different academic groups must try to solve the health problems of the society and this can happen only if all the people of the society feel responsible and contribute to health and hygiene of their environment.

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