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An Investigation into Awareness Status and Sanitary and Environmental Interest among Zabul Citizens and its Relationship with the Level of their Participation in Physical Activities

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Abstract

In 1997, Sport and Environment Commission was established in an attempt to reduce destructive effects resulted from sports activities in environment by raising awareness among athletes, managers, authorities, and organizers of sports events in order for the athletes be able to carry out their sports activities in a healthy environment. The present study was carried out in order to examine the awareness status and sanitary and environmental interest among Zabul citizens and its relationship with the rate of their participation in physical activities. The statistical population included the outdoor and indoor sports spaces (a minimum of 250 m^2) and the citizens of Zabul, Hamoon, and Zahak. The study sample consisted of 38 sports places and 380 participating citizens. The sample size was determined based on the proportion of the society to the minimum required sample size with an appropriate error limit. Data collection tools included a researcher-designed questionnaire and two data collection forms. The reliability coefficient of the sports participation questionnaire was 0.743 and the reliability of the sanitary and environmental checklist was 0.952. Descriptive statistics was employed in order to analyze the collected data, and one sample t-test and Pearson Correlation Coefficient were used to analyze correlation using SPSS 20.0. The results of the present study indicated that the level of awareness of the environmental and sanitary status of the sports places among the citizens was favorable. However, there was no significant relationship between awareness and sanitary and environmental interest and the level of participation in physical activities among Zabul citizens (p=0.601, r=0.079 and p=0.712, r=0.11, respectively). Moreover, there was no significant relationship betweenthe citizens' participation in physical activities and demographic characteristics of gender and education level (p=0.725, r=0.31); however, it was significant between age and participation in physical activities (p=0.008, r=0.430). Therefore, according to the results of the present study, it is recommended that sports managers and planners of Zabul attempt to maintain and raise the citizens' awareness of an interest in environmental and sanitary status of sports places and provide different age groups with various choices in order to motivate them to participate in sports activities.

Keywords: Environmental and Sanitary Status, Participation Rate, Sports Activity, Sports Places

1. Introduction

With technological and industrial advances, it becomes easier to carry out the primary tasks of human life. There technologies; however, have caused a conflict between 20th Century human and nature. Nowadays, it is found that the pollution caused by energy consumption wastes is the largest contributor to environmental degradation (Imami, 2010). Moreover, rapid changes in environment, technological advances, and tendency toward urban life have increase demand for using recreational and sports facilities day by day. Therefore, the need for sports spaces and

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their correct management is felt more than ever. Extensive effect of public entertainments, sports, and physical training lead to the people's awareness of and understanding of recreational programs, facilities, and services (Eghbali, 2007). Sanitary and environmental problems and increasing need for sports activities have caused a complicated challenge for athletes as a vulnerable community and sports managers as authorities in charge of resolving such problems. Adverse effects of playing sports in unsafe environments include short-terms effects, long-term effects, direct effects, and indirect effects. *Short-term effects:* This type of effects fades away in a short while after they influence the individual's performance. For example, disturbance in the individual's physical and mental performance as a result of the noise pollution of the practice environment or conduction of sports activities in a cold or warm environment. *Long-term effects:* They are caused as a result of continuation of exercises and also adherence to principles of human engineering in equipment and facilities, and they are more lasting and cause serious danger to the athletes' health. For example, technical failure of the equipment or exercising in environments with severely polluted air. *Direct effects:* Short-term effects occur during sports exercises. For example, damages caused as a result of technical failure of the equipment or failure to adhere to safety considerations and severe air or noise pollution in the exercise space. Indirect effects: These effects are caused by infrastructures but are not directly related to sports activities, for example, wrong location, inappropriate training hours, or incorrect design of sports complexes (Handbook of Sports and Environment, 2004). In order to deal with the mentioned hazards and threats, Sport and Environment Commission was established in 1997 as National Olympic Committee of the Islamic Republic of Iran. This commission tries to raise awareness among athletes, managers, and organizers of sports events in order to reduce adverse effects caused by sports activities in environment so that athletes can play sports in a more sanitary environment (Bahmanpour, 2005). The goals of the commission include including environmental concepts in developing general policies of sports, preserving environment and natural resources through environmental planning and management in the form of sports activities, enhancing environmental knowledge, culture, and insight among athletes, sports managers, sports fans, and other relevant people, promoting new habits consistent with environmental standards among the target individuals and groups, strengthening the role of major groups particularly women, the youth, and local people in order to enhance their participation in environmentally-friendly sports management, and preserving healthy environment for sports activities (Bahmanpour, 2005). Bahmanpour (2005) pointed out that adopting protective measures and creating a sustainable environment lead to participation of more people in sports places. In a study entitled, "An investigation into the safety and sanitary condition of sports places in Tehran universities and providing an appropriate solution", Farsi (2006) examined the safety status of construction, structures, and facilities of sports spaces in Iran's universities. The results of that study indicated thatthe sports places were not in a favorable condition regarding safety and sanitary status. In their study of Khorasan's sports spaces and the rate of the citizens' participation in sports, Khosravi et al (2013) asserted that authorities and planners need to pay closer attention to sanitary and environmental issues in sports spaces in order to increase the rate of participation in sports activities among people. Jones et al (2010) showed that environmental facilities cause participation of more people in sports, and that environmental facilities are only in access of few parts of a society. In their study, Dagkas and Stathi (2007) stated that different environments affect the rate of participation in sports activities among people, such that nearness and easy access to sports spaces led to participation of more people in sports. Olympic Movement's Agenda 21 explicitly emphasizes the necessity of making environmental and sanitary standards in sports complexes and spaces (Olympic Movement's Agenda 21, 2004). In this regard and in order to enhance quantitative and qualitative status of sports activities and also minimize the damages caused by exercises and sports competitions in nonstandard environments, and due to the needs and capacities of the country, the present study aimed to examine sports places in Zabul in sanitary and environmental terms and evaluate the level of their accordance with Olympic Movement's Agenda 21. Moreover, few studies have focused on examining and understanding the relationship between the citizens' awareness of an interest in sanitary and environmental status of sports places and their participation, the present study focused on this relationship in Zabul.

2. Methods

The present study was an applied investigation which was carried out by a descriptive-correlational method. The

research method was a combined one; library- and field-based. The statistical population was all sports places (outdoor and indoor) of Zabul and suburbs. Based on the information obtained from Sports Department and General Administration of Youth and Sports of Zabul, there were 38 sports places. And 380 citizens participated in the present study. Data collection tools included a researcher-designed participation motivation questionnaire which consisted of 26 questions and was scored based on a Likert scale and approved by professors and experts regarding its validity, an environment checklist which is a standard checklist (containing 39 questions) which was developed by Environmental Protection Agency in order to measure and compare and assess the environmental status of the sports places, a sanitary checklist which contains 53 questions that was developed by the researcher based on domestic and international indices and approved by the experts. The reliability coefficient of the sports participation motivation questionnaire was 0.743, and the reliability coefficient of the environmental and sanitary checklist was 0.952. Data analysis was carried out using descriptive statistics, summarizing, mean, and inferential statistics (t-test and Pearson Correlation Coefficient) using SPSS 20.0.

3. Results

The results of the descriptive data analysis showed that the mean age of the 380 participants was 21.45 years. Out of the study participants, 74% were men and 24% were women. With regard to their education, 48% had a bachelor's or higher degree, 22% had an associate's or lower degree, 17% had a master's or a doctorate's degree, and 13% had other degrees. Regarding the citizens' participation in sports activities, about 72% of them regularly exercised, over 39% had conducted their sports activities for more than 1 year, and 70% of them exercised twice or thrice a week. Moreover, approximately 63% of the participants had exercised in the target sports spaces for three months. Table 1 presents the descriptive data on the environmental condition of the sports places in Zabul.

Table 1. Environmental Status

Town	Min	Max	Mean	SD
Zabul	1.3750	2.4694	1.9835	0.3541
Zahak	1.0254	2.4712	1.8745	0.3278
Hamoon	0.9737	2.4709	1.8094	0.2709

Table 2 indicates descriptive data on the sanitary condition of the sports spaces in Zabul.

Table 2. Health Condition

Town	Min	Max	Mean	SD
Zabul	0.9035	4.0955	2.1452	0.8205
Zahak	0.2718	3.2459	1.6517	0.6358
Hamoon	0.5364	3.4250	1.8395	0.7214

The results of inferential analysis of the collected data regarding the citizens' awareness of sanitary and environmental conditions of the sports spaces are presented in **Table 3**.

Table 3. The Citizens' Awareness of Sanitary and Environmental Conditions of the Sports Spaces

	Mean	SD	One sample t-test	Sig
Citizens' awareness	3.89	1.545	-7.071	0.00001
Citizens' interest	3.89	0.47	0.652	0.00001

According to the results presented in **Table 3**, it can be concluded that the citizens' awareness of an interest in sanitary and environmental conditions of sports spaces were significant; therefore, according to the means, their awareness of an interest in sanitary and environmental conditions of sports spaces were higher than the mean level and at a favorable level.

According to **Table 4,** the coefficient of the correlation between sanitary and environmental awareness and participation in physical activities was 0.079 at a significant level of 0.601. Therefore, there was no significant relationship between sanitary and environmental awareness and participation in physical activities among the citizens.

Table 4. The Relationship between Sanitary and Environmental Awareness and the Citizens' Participation

		Citizen's Motivation to Participate
Awareness of sanitary and environmental status	Pearson correlation coefficient	0.079
	Sig.	0.601
	N.	38

According to **Table 5,** it can be stated that the correlation between sanitary and environmental interest and the rate of participation in physical activities among citizens was 0.108, but this relationship was not significant (p=0.712). Therefore, there was no significant relationship between sanitary and environmental interest and the citizens' participation in physical activities.

Table 5. The Relationship between Interest in and Awareness of Sanitary and Environmental Status and the Citizens' participation

		Citizen's motivation to participate
Interest in sanitary and environmental status	Pearson correlation coefficient	0.108
	Sig.	0.712
	N.	38

According to the results presented in **Table 6,** there was a significant direct relationship between the citizens' age and the level of their participation in physical activities (P=0.430, P=0.038). However, no significant relationship was seen between gender and participation in physical activities.

Table 6. The Relationship between Demographic Characteristics and Participation in Sports Activities

	Age	Gender	Education level
Participation	R=0.430	R=0.314	R=0.873
	P=0.038	P=0.715	P=0.230

4. Discussion and Conclusion

The results of the present study showed that the citizens had a favorable level of sanitary and environmental awareness, which is in agreement with the results of the studies carried out by Naderian et al (2007) and Dagkas and Stathi (2007) who stated that different environments affect the rate of participation in sports activities among people, such that their sanitary awareness and interest lead to more participation in sports activities, which is not in agreement with the results of the present study. The results of the present study also showed that there was no significant relationship between the citizens' awareness of sanitary and environmental status of the sports spaces and the rate of their participation in sports. That is, although the citizens had a favorable level of awareness of an interest in sanitary and environmental issues of the sports spaces, their participation in sports was not at a favorable level. This finding does not seem much reasonable. The results of the present study indicated that Zabul's sports places are in a favorable condition with regard to health issues, and it can be stated that Zabul's sports places have a more inappropriate health condition compared to those of Greater Khorasan (Khosravi, 2012). Moreover, it seems that the relatively favorable condition of the sports spaces in sanitary and environmental issues is considered obvious by the citizens, and they did not feel at risk and referred to other issues such as financial problems, time, accessibility, and so on as primary causes for participating in sports. The citizens' demographic characteristics had no relationship with the rate of their participation in physical activities among Zabul citizens. These findings are in agreement with the results of the studies carried out by Naderian et al (2007) and Khosravi et al (2013) who reported less use of sports facilities by women. Bahmanpour (2005) pointed out that adopting protective measures and creating a sustainable environment lead to participation of more people in sports places. Mechanic and Hassel (2003) found out that environmental elements can lead to women's participation in physical activities, which is in agreement with the results of the present study. The results of the present study showed that according to the citizens, Zabul and suburbs have favorable sanitary and environmental conditions; however, this favorable condition has no relationship with their participation in sports activities. Therefore it is necessary to focus on effective factors in Zabul citizens' participation in sports. Moreover, authorities should adopt measures to maintain and enhance the citizens' understanding of sanitary and environmental issues.

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