 doi:10.20944/preprints202009.0714.v2

Investigating the Relationship between City Districts and Sports Clubs Frequency in Shiraz City in 2020

Mahdieh Ardaneh[1,2], Ehsan Amiri-Ardekani[2,3,4*]

1- Epidemiology Department, School of Health, Shiraz University of Medical Sciences, Shiraz, Iran

2- Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran

3- Student Association of Indigenous Knowledge, Shiraz University of Medical Sciences, Shiraz, Iran

4- Department of Phytopharmaceuticals (Traditional Pharmacy), Faculty of Pharmacy, Shiraz University of Medical Sciences, P. O. Box 1583, 71345 Karafarin Avenue, Shiraz, Iran

Corresponding author: Ehsan Amiri-Ardekani, Student Association of Indigenous Knowledge, Shiraz University of Medical Sciences, Shiraz, Iran Tel: +989171465523 Email: ehsanamiri@sums.ac.ir

Abstract

It has been shown that assessing the capacity and quality of sports equipment is important to develop a better understanding of sport participation. Different organizations are involved in the preparation of sports-related services and products. In this regard, policymakers need to design a framework to give people more access to sports facilities. It appears that geographical access to such facilities can affect differences in sport participation around the globe.

In this study, Shiraz city districts and the Shiraz sports clubs list were collected. The list of sports clubs was matched with Shiraz districts in March 2020. The significance of the relationship between area, the population of each region, per capita construction budget, frequency of clubs, green area, number of parks, population to number of club's ratio, and area to the number of club's ratio indicators and the number of sports clubs were analyzed by SPSS version 22 Using the Spearman correlation coefficient test. There were statistically significant relationships between district and population of each region, District and sports club, District and Population to the number of clubs, area and green area, per capita construction budget and the number of parks, per capita construction budget and population of each region ($p<0.05$ for all).

A significant correlation between the districts and the Population to the number of club's ratio shows that there is no proper distribution of sports facilities in different urban areas. For this reason, in some areas, people may not have adequate access to sports facilities. Also, a significant correlation was observed between total area and green area, per capita construction budget, and the number of parks and Per capita construction budget and the population of each region. So, the health level of the people who live in undeveloped districts is endangered and more attention should be paid to them.

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Keywords: Public Health, Sport policy, Sport access

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 27 October 2020 doi:10.20944/preprints202009.0714.v2

Introduction

Today we are facing increasing urban populations all around the world (1). Sports and recreation play a great significant role in any culture and society especially in big cities (2, 3). The quality and quantity of public health services are one of the most important indicators of people's and policymakers' willingness to develop a health-oriented community(4) and as an important indicator of healthy cities (5). The benefit of participation in sport and recreational activities is increasing social inclusion for communities (2).

It has been shown that assessing the capacity and quality of sports equipment is important to develop a better understanding of sport participation (6). Studies have shown that economic injustice is a threat to economic, social, and political stability(7) Different organizations including sport-related industries, voluntary organizations, and governmental agencies are involved in the preparation of sports-related services and products (8). Policymakers need to design a framework to give people more access to sports facilities (9). The diversity in popularity of different sports fields throughout the world suggests that socio-demographic variables may just partially explain these differences. It appears that geographical access to such facilities can affect varieties in sport participation throughout the world(10).

Studies have shown non-profit sports clubs can affect people's use. Besides, nonprofit sports clubs promote capital, social, and positive externalities. Policymakers need to invest more in expanding non-profit sporting clubs (11). In economics, few investigations focus on public sports in comparison with professional sport (12).

Shiraz is the capital of Fars province and one of the biggest cities of Iran. according to the Census of 2016, Shiraz city has a population of 1565572 people and 11 districts(13). The purpose of this study is to evaluate the relationship between city districts of Shiraz city, Iran, and sports club distribution in this city.

Materials and Methods

In this study, the districts of Shiraz city were first determined based on the reports of the Shiraz Municipality. Also, the list of sports clubs in Shiraz was collected using field surveys, specialized sites that introduce sports clubs, and the “Sports and Youth Organization of Fars Province”. The list of sports clubs was matched with Shiraz districts. All mentioned data were collected March 2020. Then data were presented in the form of a table with indicators such as area (ha), the population of each region (11), per capita construction budget (thousand Rials), frequency of clubs, green area (m2), number of parks (all types of parks), population to number of clubs ratio, and area to the number of clubs ratio (Table 1). The significance of the

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relationship between each of these indicators and the number of sports clubs was analyzed by SPSS version 22 Using the Spearman correlation coefficient test. The results of the statistical analysis have been discussed more in the discussion section (Significance level p-value was set at .05).

Results

In this study, based on field studies and review of statistics, preliminary results were collected reported as shown in table1.

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Table 1. Distribution of quantitative variables based on city districts

District	Area (ha)	The population of each region	Per capita construction budget (thousand Rials)	Frequency of sports clubs	Green area (m^2)	Number of parks (all types of parks)	Population to number of club's ratio	Area to number of club's ratio
1	2556	160885	4363	38	1820284	16	4233.85	67.3
2	1780	196487	3619	15	1052397	24	13099.13	118.7
3	1447	142327	4440	25	7464660	23	5693	57.9
4	2354	243617	1486	11	2410239	31	22147	214.0
5	1680	161290	2443	6	1400008	30	26881	280.0
6	2426	110141	5647	18	8484555	20	6118	134.8
7	1716	133588	4185	2	1597442	22	66794	858.0
8	368	48195	7304	9	117465	15	5355	40.9
9	2943	118909	3225	2	6395300	23	59454	1471.5
10	3187	127211	4850	14	5349941	32	9086	227.6
11	1214	126884	418	1	496376	33	126884	1214.0

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Discussion & Conclusion

In total, the population of 11 urban districts of Shiraz city was analyzed in this study. district 10 has the largest area (3187ha) and district 8 has the least area (368ha). For more information, you can see table 1. The correlation of all variables was measured and the variables whose correlation was significant were listed in Table 2.

Table 2. Correlations between study variables

No.	Variables	Category/Scale	Correlation Coefficient	p-value*
1	District	Number	-0.682	0.021
	The population of each region	Number		
2	District	Number	-0.729	0.011
	Sports clubs	Number		
3	District	Number	-0.873	0.005
	Population to number of clubs	Ratio		
4	Area	Ha	0.609	0.047
	Green area	M^2		
5	Per capita construction budget	thousand Rials	-0.754	0.007
	parks (all types of parks)	Number		
6	Per capita construction budget	thousand Rials	-0.631	0.037
	The population of each region	Number		

*Correlation is significant at the 0.05 level (2-tailed).

Generally, there was statistically significant relationships between district and Population of each region, District and sports club, District and Population to the number of clubs, area and green area, per capita construction budget and the number of parks, per capita construction budget and population of each region ($p<0.05$ for all).

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According to the results, a significant correlation was observed between the districts and the Population to the number of club's ratio. This indicator shows that there is no proper distribution of sports facilities in different urban areas. For this reason, in some areas, people may not have adequate access to sports facilities. These statistics show that policymakers should pay more attention to the distribution of sports facilities in proportion to the population of each region. Our results are in line with Rafoss et al. research on the distribution of sports facilities in Scandinavian countries (14), Liu et al, study on English public sports facilities (15), and Ibrahimo research on North America and Europe (16) and Hoekman (17) who reported inequalities in access to sports facilities due to socio-demographic characteristics.

A significant correlation was observed between area (ha) and green area (m2) that is rational and shows that officials have had a good performance in this index.

There was a strong correlation between per capita construction budget (thousand Rials) and the number of parks (all types of parks). It shows that newer districts have more budget because they are newly built, they have fewer parks.

There is a significant correlation between the Per capita construction budget (thousand Rials) and the population of each region. This has caused more crowded to have fewer sports clubs, and as a result, the health level of the people who live in these districts is endangered.

Limitations of this study were the lack of access to a definitive list of clubs, limited quality of urban life indicators, and not considering the size of clubs in the analysis. Researchers should provide more controlled research in the future and policymakers should pay more attention to undeveloped districts.

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