

Factors affecting the development of urban sports with an emphasis on Isfahan urban bike stations

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ABSTRACT: The aim of the present study is Factors affecting the development of urban sports with an emphasis on Isfahan urban bike stations. The present study is a descriptive applied research study. Sample population of the study is those who use public city bicycles in Isfahan city in 2012. This number of population was estimated by using statistical formulas and 195 people were obtained. Measuring tool was questionnaire which was made by the researcher .its validity and reliability was tested (cronbach's Alpha Coefficient, 0.81). This questionnaire includes five parts, 43 questions. To analyze obtained data SPSS software version 11 was applied, to describe the respondents view, average and percentage and to Hypothesis testing one variable T-test statistical test was used. Results indicated that security and safety of bicycle route, attractiveness of the route and cultural issues affect on amount of bicycle using ($P=0.01$); According to one variable t-test other variables of the study like: consciousness of the citizens about the effect of using bicycle and physical activity, quality of bicycles , having bicycle tournaments, distance between destination and bicycle stations has no effect on amount of bicycle using.

Keywords: bicycle tournaments, bicycle route, municipality, physical activity, Road's beauty, security and safety, Urban exercise.

INTRODUCTION

Motion and mobility is one of the manifest features in human life. People in every stage of their life have different needs depending on the type and amount of physical activity that should be answered. Humans as social beings living come together in either rural or urban complexes and live. With promoting urbanization, the type and amount of physical activities are changed and the need for physical activities are reduced because of providing life necessities. Living in metropolises are sharply take people away from normal activities. In such cities, due to the concerns over people, the leisure time is adjusted in a way that is associated with the lowest mobility and physical activity (abbas zadegan, 2007). In this situation, exercise could be considered as a solution for this laxation reduction and a means to reduce the pressures of urban life. Iran's large cities such as Isfahan are also suffered from this dilemma.

One of the best means to attract citizen to sports is biking, due to its low cost, ease of use and its suitability for all ages (tavasoli, 2008).

Bicycle is a vehicle for leisure and as a non-motorized urban vehicle is considered as professional and expert sport. In this issue, because there are many transport problems and environmental pollution, the role of the bicycle as a means of transportation to reduce traffic and pollution in the air is very important (Honarvar et al., 2006). Isfahan is the first city that is honored to have the accomplishment of biking program across the country officials have taken a new step in the development of cycling in this area. In the past over six km of the cycling path have

been Chahar-Bagh-e- Bala, Chahar-Bagh-e-Abbasi and ChaharBagh-e-Khajoo streets that this city which has been known as a city of bicycles is deprived from this right.

Isfahan proper topographic position, temperate climate and the citizens' cultural structure are the factors for the development of using bikes in the past decades but with the development of the city this culture is faded away slowly (Official Website of Spadana cycling group, 2012).

Development of cycling, to help remove the traffic issues, environmental and public development of bike exercise is importance in providing community health and requires the comprehensive cooperation of city officials. Hence cycling and the culture of its usage is going to be considered.

Lack of bike routes in the city, lack of bike parking for secure parking for bikes, lack of a positive and informed view of cycling in the city, lack of awareness among citizens about the health benefits of cycling, lack of standard bikes, appropriate with the use of it are only part of cycling culture barriers in Iran.

While these studies have been conducted to prove that traveling by bicycle at a speed of less than 6 km is far higher than other vehicles. Thus, bike despite of the substrates to increase physical activity and healthy citizens can consequently can be an economic means, efficient and accessible for everyone.

Motor vehicles' growth, reduction of bicyclists' safety, planners' inattention and insignificance and municipal management caused a reduction in using bicycles. While in Isfahan and in 60 decade more than 15.4 % of inside traveling has taken place by bicycle that is reduced to 5% right now (The official Website of Fars News Agency, 2010). That is the reason for establishing free bike rental stations in 2009 by Isfahan municipality.

Golmarvi, (2006), has proceeded a research about the role of the environment and urban design in developing the public exercises to identify strategies to promote walking and cycling as a convenient method of transport in the city.

Hataminezhad et al, (2009) has explained in an inquiry about bicycle and its role in sustainable urban transport, that more than 71% of people using bicycles for different goals and students are the most bicycle users among people.

Sedigh Bavar et al, (2010) in a study has designed specifically bike lanes in Shiraz for tourists for easier accessibility to the monuments.

Taghvaie et al, (2011) were discussed in their study, the selection of appropriate standards for bike paths in different regions due to the location and its influencing factors was investigated and the results obtained in bike paths are designed to suit any size and design criteria for the quality of the cycling as a result of the use of bicycles and cycling in urban transportation and spending leisure time increases by different people, because the security and safety of use is particularly important factors in road designing.

Baltes, (1997) had an extensive range of factors that may have some influence on the selection of the bicycle in 284 region as the mode for work trips is explored using data from metropolitan statistical areas (MSAs) extracted from the 1990 U.S. census. Only data extractable from the census were used for analysis. As a result for this research it is believed that safety of the road, population accumulation, temperate climate and suitable road steep are the factors that make citizens to use bicycle.

In Poucher et al, (1999) research conclusion about 7 north American city, we have these results that cultural and conception differentiation, city size, immunity, climate terms and cycling substructures are the most important factors for using bicycles.

Tal et al, (2008) in their study are examined patterns of travel of both children and their parents to youth soccer games in Davis, California. The study aims to identify factors influencing mode choice among children and parents to soccer games for the Davis American Youth Soccer Organization. Data come from a survey of 1,084 parents accompanying their children to Saturday soccer games. Over three-quarters of players and their parents drove to the game on the day of the survey, with fewer than 20% biking. Multivariate models show that distance to games is a significant deterrent to bicycling or walking to them, while players who bike to school and whose parents regularly bicycle are significantly more likely to bicycle to games.

Wegman et al, (2010) have concluded in their study in Netherland that when the number of cyclists increases, the number of fatalities may increase, but will not necessarily do so, and the outcome is dependent on specific conditions. There is strong evidence that well-designed bicycle facilities-physically separated networks-reduce risks for cyclists, and therefore have an impact on the net safety result.

John Pucher et al (2011) has considered cycling levels and its differentiation in two big cities of Australia. Findings are shown that cycling levels in Melbourne are roughly twice as high as in Sydney and have been growing three times as fast in recent years. This difference is because of the Melbourne suitable topography, climate and road networks that is guided public goals. In particular Melbourne has more safety than Sydney.

With regards to the mentioned above, we are going to examine the effective factors in developing urban exercise with influence on cycling station in Isfahan, (2012).

MATERIALS AND METHODS

Methods

As the investigators of this research were tend to examine the effective factors in developing urban exercise, this study is applicable from the goal point of view, and descriptive from the essence point of view that is done in a measurement way.

The statistic society of this study included all the male citizens that were used bicycle in Isfahan. But because we do not have the exact statistic of the user and the variance of the society were not accessible, we have distributed 30 questionnaires' among the statistic society and the sample of the mentioned variance were used.

Then for assigning the sample volume the below formula were being used: (khoynejhad, 2008)

$$N = \frac{Z^2 S^2}{D^2} = \frac{1/96^2 \times^2}{0/05^2} = 195$$

According to the formula the sample volume is 195 that from the distributed questionnaires' 187 of them were filled out completely. The investigators were used accidental classification sampling for gathering data.

In this study the certain questioner were being used that its credit were examined by the investigators and then the data were analyzed by the descriptive-deductive methods. To be reputable, the approved questionnaire by several physical education masters and exercise management were distributed among a 30 individual sample and then collected. Then the questionnaire's internal stability were made according to the received data by using the cronbach's Alpha software (SPSS) that amount was 0/81.

The statistical methods used in this study included descriptive- deductive statistics. In the first part the indicators like abundance, percentage, average and standard deviation were used and in the second part the single variant t deductive statistical test were used for analyzing. Meanwhile the analyzing were taking place by SPSS software.

RESULTS AND DISCUSSION

According to the table 1, the marital status of the 48/5% of the person (= 91 person) were single, and 51/5% (=96 person) were married and from the 187 answered paper in this study, 7/5 were under diploma and 35/5% have diploma. 22/5% have associate of arts and 26% have bachelor degree. Education level of 8/5% of the people were Master of Arts and doctrine.

Table 1. Abundance and proportional distribution on the basis of sociology terms

Sociology terms		Abundance	Percentage
marital status	Single	91	48/5
	Married	96	51/5
Education level	Under diploma	14	7/5
	Diploma	66	35/5
	associate of arts	42	22/5
	bachelor degree	49	26
	Master of Arts	16	8/5

In this part we are going to take the different ion of the average and standard deviation to consideration by using single variant t deductive statistical.

Table 2. Comparison of the variants marks average in using urban bicycle with assumptive average

Variant	Average	Standard Deviation	T	Freedom degree	Meaningful Level
Road's attractiveness	23/77	3/79	2/05	193	0/04
Road's standards	25/37	3/58	2/61	193	0/001
Bicycle quality	22/54	3/79	1/72	193	0/07
Cultural factors	28/80	3/87	2/27	193	0/03
Citizens awareness of physical activity	3/88	1/01	0/87	193	0/465
Distance between station and destination	3/75	1/03	0/72	193	0/795
Cycling competition disposal	3/59	1/08	0/54	193	0/922

As it has showed in table 2 received outcomes from single variant t deductive statistical test that in three factors, Road's attractiveness, Road's standards, Cultural factors the calculated t is bigger than t in the table. It means that the received outcomes are higher than average and we can say that the viewpoints of the people of these variants are more than average level and it has affected the bicycle using in a considerable way. But about

the other variants the amount of calculated t is lesser than t in the table so the zero assumption is confirmed and we cannot say that the role of these variants in urban cycling are more than average.

CONCLUSION

The main purpose of the present study is considering factors affecting the development of urban sports with an emphasis on urban bike stations in Isfahan in 2012 that has taken place in a survey way among the citizens and users of the urban cycling. The present study's sample was included 195 person that all of them were men because of the prohibition of the cycling for women. According to the findings 96 (51/5%) individual were married and 91(48/5%) individual were single. From the educational viewpoint the higher abundance were diploma (35/5%) and Bachelor degree (26%) level. Education level of 8/5% of the people were Master of Arts and doctrine also.

Generally, the findings indicate the importance of the role of safety standards, and the attractiveness of cultural factors in the use of bicycles on city citizens. While from the perspective of the other factors used in the study have not the important role in the use of bicycles. The role of the operating and safety standards with the use of bicycles in urban residents and shows the importance of building bike lanes and developing cycling in the city and also municipal regulation of these pathways must be in a way to prevent other vehicles entering these road because of the safety of the cyclers. Having convenient parking spaces, will increase safety and physical security for the bike and the bike route guide maps will help to reach to the mentioned goal. The effect of the safety and internal and external standards factors like Taghvaei et al, (2011), Baltés, (1990) and Wegman, (2010), Pucher et al, (2011) are approved and are the same as this studies' result. The role of road's beauty and the attractiveness are taking into consideration with regards to the citizens' interest. The third focused factor is the effect of the cultural terms in choosing the bicycle as a transportation vehicle and it shows the necessity of advertising in this field that is the same in the Hataminezhad et al's research in 2009 and Poucher et al's study in 1999. Other variants included bicycle quality, citizen's awareness of physical activity the distance between stations and destination, holding cycling completion that have less importance and low effect. So, managers and the city officials and planners have played a good role in developing the and increasing the health rate in designing the roads and stablishing the cycling roads with regards to the mentioned factors and by using bicycles themselves, they will make it culture among the citizens.

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