



URBAN PARK USE, QUALITY EVALUATION, AND RESIDENT SATISFACTION INDICATORS IN THE CITY OF ZAHEDAN, IRAN

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ABSTRACT

Urban parks have social, economic, and ecological roles, and play important role in improving the quality of life and community development. This study investigates the usage rate of urban parks by residents in the city of Zahedan, Iran, and evaluates the quality of them in terms of furniture and facilities, in this survey study participants are 520 of Zahedani residents divided into two ordinary ($n=500$) and expert groups ($n=20$) selected from the population using Cochran's formula. Number of evaluated urban parks was 101 distributed in five regions of the city. A survey questionnaire was designed for collecting data from participants. Results showed that Zahedani residents use urban parks once a week (70%). Also we found out that the quality of urban parks in Zahedan was poor. Our findings revealed that "public toilet facilities", "green spaces", "safety", "accessibility", "welfare facilities", "trails", and "equipments" are most important indicators for evaluating resident satisfaction with public urban parks. Finally, our results reported that there was a significant relationship between residents' satisfaction level and standard quality of urban parks.

Keywords: Natural science, Park use, Park quality evaluation, Resident satisfaction, Survey, Zahedan city.

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Contribution/ Originality

This study is one of few studies which have investigated the park use of residents in Zahedan, Iran by conducting a survey, and evaluated the quality of urban parks and satisfaction indicators in this city.

1. INTRODUCTION

Urban parks and green spaces are the most important factors in shaping urban social stability. Providing appropriate facilities and equipments for urban parks increase the satisfaction of visitors to the parks. Considering that urban parks and green spaces are important strategy for the quality of life in urban communities, they can be considered as an important criterion for appropriate ecological judgment in urban areas. Urban parks have social, economic and ecological role, and are a measure to improve quality of life and community development with advantages such as optimal environment for raising children, social integration, maintaining peace, treatment of mental illness, and so on. A park experience can reduce stress (Ulrich, 1981) improve meditateness, make residents feel younger, and provide a peace of mind and restfulness (Kaplan, 1983). Ulrich (1984) revealed that hospital patients with natural window view can recover more quickly compared to those whose window views was restricted by buildings. Recent studies on the use of urban parks confirm its stress-reduction benefits and mental

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health (e.g. (Hartig *et al.*, 1991; Conway, 2000; Chiesura, 2004)). There is a significant relationship between park use and perceived state of health: those who frequently use local parks are more likely to have good health compared to those who do not (Godbey *et al.*, 1992). “Parks are democratic commons that bring diverse people together, fomenting a sense of community and social vitality that has been progressively lost in the last decades, by promoting human health, environment and economic strength” (Loures *et al.*, 2007). It gives advantages to urban communities in terms of environment, aesthetics, recreation, mental and economics. (Grahn, 1985; Burgess *et al.*, 1988; Conway, 2000; Gehl and Gemzoe, 2001).

Parks and urban green spaces are able to provide opportunities for recreation, sport, leisure and physical and mental health of those who live in cities. Common features of municipal parks include playgrounds, gardens, hiking, running and fitness trails or paths, bridle paths, sports field and courts, public restrooms, boat ramps and/or picnic facilities, depending on the budget and natural features available. Furniture for parks and green spaces like bench and trash as a part of urban furniture, can give them identity and servicing. Design of urban parks with offering different natural and artificial elements has an important role in different aspects of citizens' life such as creating an environment more favorable and more fulfilling in terms of aesthetic value, a place for relaxation and soothing for tired residents work in the city, purification of polluted air from pollution, and prevention of noise pollution in surrounding area. It should be noted that residential proximity to parks is a critical determinant of park use and leisure exercise, i.e. even if a large park be far away from a neighborhood, most of that neighborhood residents will not use that, and instead they will use smaller nearby parks. Also parks do not have equal servicing in the society and even within local neighborhoods. A few parks have facilities such as tracks, walking paths, and trails. If these facilities be present, most of adults and younger residents will be eager to use them. (Cohen *et al.*, 2006)

In the present study by examining the distribution of urban parks based on their furniture and equipment in Zahedan city, we investigated urban park use of residents in this city and the quality of these parks, and then we presented residents satisfaction indicators with the urban parks. At the end, we examined the relationship between resident satisfaction level and standard quality of urban parks.

2. MATERIALS AND METHODS

2.1. Study Area

Zahedan is a city where is the capital of Sistan and Baluchestan Province and located in east of Iran near Pakistan and Afghanistan only about 41 km (25 mi) south of the tripoint of the borders of the three countries, at an altitude of 1,352 m (4,436 ft) above sea level and at a distance of 1,605 km (997 mi) from the Iranian capital of Tehran. Generally, it has a hot desert climate with hot summers and cool winters. Precipitation is very low, and mostly falls in winter. At the 2011 census, its population was 2534327; of which 1243079 live in urban areas and 1288160 in rural areas of the city. Figure 1 shows a sample of urban parks in this city.

2.2. Current Study

In this survey study, we investigated the park usage rate, park quality, and residents satisfaction indicators in Zahedan city, Iran. For this purpose we used term descriptive, comparative and analytic methods and both field and library studies were carried out to collect data.

2.3. Participants

Participants were 520 residents of Zahedan city selected from the city population by Cochran's formula. They divided into two groups: ordinary residents with 500 subjects and expert residents with 20 subjects.



Figure-1. A sample of urban parks in Zahedan, Iran

Source: Taken by author

2.4. Park Selection

Zahedan has divided into 5 regions. according to statistical center of Zahedan in 2014, there are 25 parks in region one, 40 in region two, 13 in region three, 9 in region four, and 14 parks in region five. In this study, we observed all of them (n=101) and were considered survey locations. There was no size restriction.

2.5. Measure

A research-made questionnaire was designed to collect data from participants. The questionnaire has 38 items scored based on 5-point Likert scale ranging as 1=very good, 2=good, 3=average, 4=poor, and 5=very poor; first 5 questions are about the park usage rate and the purpose of use by residents, 26 items concerned the quality standard of parks in terms of furniture and facilities, and last 7 items survey residents satisfaction indicators with public parks. The validity and reliability of our measure was verified according the opinions of experts in green spaces and using chronbach alpha ($\alpha=0.8$). In each region of Zahedan, questionnaires were distributed among both groups by visiting them in studied parks.

2.6. Data Analysis

To analyze data, statistical tests such as frequency, mean, standard deviation, one sample t-test and Friedman were employed in SPSS software.

3. RESULTS AND DISCUSSION

3.1. Characteristics of Participants

Results reported that the ordinary group includes 258 male and 242 female out of 500 while the experts group include 10 male and 10 female out of 20; 90% of participants have the ages between 20 and 50 and 80% of ordinary residents have academic degree (see table 1).

Table-1. Characteristics of participants in the study

Measure		N	%
Sex group			
Ordinary	Male	258	51.6
	Female	242	48.4
	Total	500	100
Experts	Male	10	50
	Female	10	50
	Total	20	100
Age group (years)			
Ordinary	<20	27	5.4
	20-30	205	41
	30-40	159	31.8
	40-50	79	15.8
	>50	30	6
	Total	500	100
Experts	<20	0	0
	20-30	6	30
	30-40	9	45
	40-50	3	15
	>50	2	10
	Total	20	100
Educational level			
Ordinary	Under diploma	22	4.4
	Diploma	67	13.4
	Associate	97	19.4
	Bachelor	215	43
	Master	76	15.2
	PHD	23	4.6
	Total	300	100
Experts	Under diploma	0	0
	Diploma	0	0
	Associate	3	15
	Bachelor	11	55
	Master	6	30
	PHD	0	0
	Total	20	100

Source: Survey data

3.2. Investigating Urban Park Use and Purpose

3.2.1. The Purpose of Residents for Urban Park Use

According to the results shown in table 2 and 3, most of participants in both groups reported that they use urban parks for “recreation”: ordinary residents of region 3 had the highest rate (66%), while seven out of twenty expert residents (35%) reported to use urban parks for the purpose of recreation. According to the results, residents are less likely to visit urban parks for “study” and meeting other people” .

Table-2. Purpose of using urban parks by ordinary group

Reasons	Region 1	Region 2	Region 3	Region 4	Region 5
Recreation	38%	49%	66%	40%	38%
Exercise and walking	20%	21%	8%	19%	26%
Study	2%	0	0	3%	3%
Meeting other people	0	0	0	0	0
All	40%	30%	26%	38%	33%
Total	100	100	100	100	100

Source: Survey data

Table-3. Purpose of using urban parks by expert group

Reasons	N	%
Recreation	7	35
Exercise and walking	4	20
Study	2	10
Meeting other people	2	10
All	5	25
Total	20	100

Source: Survey data

3.2.2. Frequency of Urban Park Use by the Residents

The rate of urban park use by the residents showed that most of residents use urban parks once a week. Among ordinary residents, region 4 residents had the highest park use rate (70%) (See table 4), while on the other hand, ten out of twenty expert residents (50%) reported to use urban parks once a week (see table 5).

Table-4. Frequency of urban park use by residents group

Frequency	Region 1	Region 2	Region 3	Region 4	Region 5
Once a week	40%	32%	30%	70%	66%
Twice a week	30%	25%	34%	13%	24%
3 times a week	18%	12%	26%	9%	6%
4 times a week	6%	15%	6%	5%	4%
5 times a week and more	6%	16%	4%	3%	0
Total	100	100	100	100	100

Source: Survey data

Table-5. Frequency of urban park use by experts group

Frequency	N	Frequency percent
Once a week	10	50
2 times a week	4	20
3 times a week	5	25
4 times a week	0	0
5 times a week and more	1	5
Total	20	100

Source: Survey data

3.3. Evaluating Urban Parks Quality in Terms of Furniture and Facilities

3.3.1. Ordinary group

Design standards: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of design standards was "poor". In this regard, the poorest quality urban parks exist in region 5 (36%), while the better quality parks in terms of design standards was reported in regions 1 and 3 where the status was "good" (4%) (See table 6).

Table-6. Quality of the urban parks of Zahedan based on design standards according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	34%	32%	28%	25%	36%
Poor	48%	28%	36%	48%	41%
Average	14%	39%	32%	25%	21%
Good	4%	1%	4%	2%	2%
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

Accessibility: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of accessibility was “poor”. In this regard, the poorest quality urban parks exist in region 3 (32%), while the better quality parks in terms of accessibility was reported in region 4 where the status was “good” (14%) (See table 7).

Table-7. Quality of the urban parks of Zahedan based on accessibility according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	30%	28%	32%	20%	29%
Poor	47%	20%	32%	35%	30%
Average	15%	41%	26%	31%	29%
Good	8%	11%	10%	14%	12%
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

Green space: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of having enough green spaces was “poor”. In this regard, the poorest quality urban parks exist in regions 1 and 3 (40%), while the better quality parks in terms of green spaces maintenance was reported in regions 2 and 4 where the status was “good” (5%) (See table 8).

Table-8. Quality of the urban parks of Zahedan based on having green spaces according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	40%	23%	40%	28%	38%
Poor	39%	45%	40%	44%	40%
Average	17%	27%	16%	33%	19%
Good	4%	5%	4%	5%	3%
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

Playground: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of having playgrounds for children was “poor”. In this regard, the poorest quality urban parks exist in region 1 (39%), while the better quality parks was reported in regions 2 and 4 where the status was “good” (7%) (See table 9).

Table-9. Quality of the urban parks of Zahedan based on having playgrounds according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	39%	23%	36%	36%	30%
Poor	41%	44%	52%	45%	42%
Average	14%	26%	10%	12%	24%
Good	6%	7%	2%	7%	4%
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

Walking paths: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of having walking paths was “very poor”. In this regard, the poorest quality urban parks exist in region 3 (50%), while the better quality parks was reported in regions 1 and 4 where the status was “very good” (2%) (See table 10).

Table-10. Quality of the urban parks of Zahedan based on having walking paths according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	38%	25%	50%	24%	32%
Poor	41%	40%	24%	32%	42%
Average	13%	25%	22%	30%	18%
Good	6%	10%	4%	12%	8%
Very good	2%	0	0	2%	0
Total	100	100	100	100	100

Source: Survey data

Public toilets: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of having public toilets was “very poor”. In this regard, the poorest quality urban parks exist in region 4 (63%), while the better quality parks was reported in region 2 where the status was “good” (7%) (See table 11).

Table-11. Quality of the urban parks of Zahedan based on having public toilets according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	55%	53%	58%	63%	54%
Poor	28%	28%	34%	21%	29%
Average	15%	18%	6%	9%	17%
Good	2%	7%	2%	1%	0
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

Water fountains: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of having water fountains was “poor”. In this regard, the poorest quality urban parks exist in region 4 (45%), while the better quality parks was reported in region 1 where the status was “good” (8%) (See table 12).

Table-12. Quality of the urban parks of Zahedan based on having water fountains according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	37%	35%	40%	45%	34%
Poor	45%	38%	56%	31%	54%
Average	14%	24%	4%	16%	12%
Good	8%	3%	0	4%	0
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

Sport facilities: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of having sport facilities was “poor”. In this regard, the poorest quality urban parks exist in region 1 (38%), while the better quality parks was reported in region 4 where the status was “good” (10%) (See table 13).

Table-13. Quality of the urban parks of Zahedan based on having sport facilities according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	38%	28%	28%	36%	32%
Poor	40%	47%	54%	36%	54%
Average	20%	18%	16%	18%	12%
Good	2%	7%	2%	10%	2%
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

Night landscape lighting: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of lighting conditions at night was both “poor” and “very poor”. In this regard, the poorest quality urban parks exist in region 3 (48%), while the better quality parks was reported in region 2 where the status was “good” (11%) (See table 14).

Table-14. Quality of the urban parks of Zahedan based on lighting conditions at night according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	18%	27%	48%	25%	24%
Poor	48%	37%	32%	34%	43%
Average	26%	25%	16%	33%	24%
Good	8%	11%	4%	8%	9%
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

Car park facility: Results reported that, according to the ordinary group of residents in each region, the quality of urban parks in Zahedan in terms of having car park places was “very poor”. In this regard, the poorest quality urban parks exist in region 1 (49%), while the better quality parks was reported in region 2 where the status was “good” (6%) (See table 15).

Table-15. Quality of the urban parks of Zahedan based on lighting conditions at night according to ordinary groups

Quality	Region 1	Region 2	Region 3	Region 4	Region 5
Very poor	49%	41%	42%	37%	36%
Poor	39%	37%	42%	43%	42%
Average	10%	16%	16%	18%	18%
Good	2%	6%	0	2%	4%
Very good	0	0	0	0	0
Total	100	100	100	100	100

Source: Survey data

3.3.2. Expert Group

Results reported that, according to the expert group of residents, the quality of urban parks in Zahedan in terms of design standards, accessibility, green spaces, walking paths, and sport facilities was “average”. Also, in terms of having playgrounds, public toilets, and car parking place, they reported that the quality of parks was “poor”. Only in term of lightening conditions at night, it was reported as “good” (30%) (see Fig. 2)

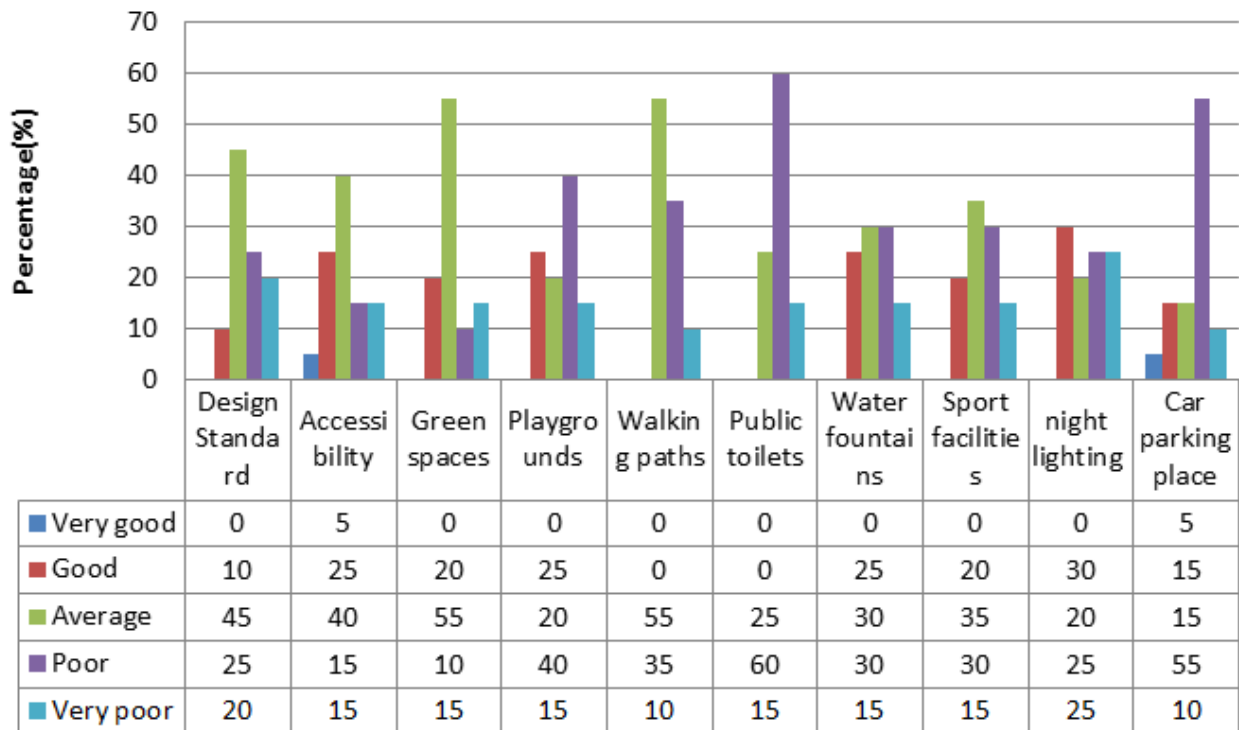


Figure-2. Quality of the urban parks in Zahedan in terms of furniture and facilities according to expert group

Source: Survey data

3.4. Indicators of Resident Satisfaction with Public Urban Parks

After evaluating the response of participants about the most important factors in their satisfaction with public urban parks, accordingly, we prepared the most important resident satisfaction indicators in order of importance by using Friedman test.

3.4.1. Ordinary Group

Reports revealed that “Public toilet facilities”, “green space”, “safety”, “accessibility”, “welfare facilities”, “trails”, and “equipments” are most important indicators for evaluating resident satisfaction with public urban parks in Zahedan according to participants. Table 16 and 17 presents these indicators in order of importance for each group of residents.

Table-16. Satisfaction indicators with urban parks in Zahedan according to ordinary group

Rank	Region 1		Region 2		Region 3		Region 4		Region 5	
	Indicator	Average	Indicator	Average	Indicator	Average	Indicator	Average	Indicator	Average
1	Public toilet facilities	4.32	Public toilet facilities	4.59	Safety	4.72	Safety	4.41	Public toilet facilities	4.36
2	Green spaces	4.29	Green spaces	4.27	Green spaces	4.35	Green spaces	4.19	Safety	4.27
3	Safety	4.21	Welfare facilities	4.09	Public toilet facilities	4.12	Welfare facilities	4.1	Accessibility	3.98
4	Accessibility	3.92	Safety	3.95	Welfare facilities	3.98	Public toilet facilities	4.01	Trails	3.96
5	Welfare facilities	3.91	Accessibility	3.93	Equipments	3.97	Accessibility	3.85	Green spaces	3.95
6	Trails	3.82	Trails	3.72	Trails	3.63	Equipments	3.77	Welfare facilities	3.81
7	Equipments	3.55	Equipments	3.47	Accessibility	3.23	Trails	3.69	Equipments	3.69

Source: Author's calculations

Table-17. Satisfaction indicators with urban parks in Zahedan according to expert group

Indicator	Average
Trails	4.33
Accessibility	4.2
Welfare facilities	4.13
Health facilities	3.93
Safety	3.9
Green spaces	3.88
Equipments	3.65

Source: Author's calculations

3.5. Testing Research Hypotheses

3.5.1. Hypothesis One

Hypothesis one states that furniture and facilities of urban parks in Zahedan are not in accordance with city standards from the ordinary group of residents' perspective. For testing this, we used one-sample t-test analysis. Since the significance level in all the five regions was reported as 0.000, which is less than error level of 0.05 (p-value<0.05), this hypothesis is confirmed (see table 18 and 19).

Table-18. Statistical description for hypothesis one

	N	Mean	SD	Standard Error of the Mean
Region 1	100	1.7508	0.55802	0.5580
Region 2	100	1.9400	0.57080	0.5708
Region 3	100	1.7708	0.45816	0.04582
Region 4	100	1.9292	0.58088	0.05809
Region 5	100	1.8504	0.45528	0.04553

Source: Author's calculations

Table-19. One-sample t-test results for hypothesis one

	Test value = 3					
	t	df	Sig.	Mean difference	95% confidence interval	
					Lower	Upper
Region 1	-22.387	99	0.000	-1.24923	-1.3600	-1.1385
Region 2	-18.570	99	0.000	-1.06000	-1.1733	-0.9467
Region 3	-26.830	99	0.000	-1.22923	-1.3201	-1.1383
Region 4	-18.434	99	0.000	-1.07077	-1.1860	-0.9555
Region 5	-25.251	99	0.000	-1.14962	-1.2400	-1.0593

Source: Author's calculations

3.5.2. Hypothesis Two

Hypothesis two states the hypothesis one from the perspective of expert group of residents. Results of one-sample t-test analysis confirmed that the furniture and facilities of urban parks in Zahedan are not in accordance with city standards ($p\text{-value} < 0.05$) (see table 20 and 21).

Table-20. Statistical description for hypothesis two

	N	Mean	SD	SEM
Expert group	20	3.3731	0.70181	0.15693

Source: Author's calculations

Table-21. One-sample t-test results for hypothesis two

	Test value = 3					
	t	df	Sig.	Mean difference	95% confidence interval	
					Lower	Upper
Expert group	-3.955	19	0.001	-0.62692	-0.9554	-0.2985

Source: Author's calculations

3.5.3. Hypothesis Three

Hypothesis three states that there is a significant relationship between residents' satisfaction level and standard quality of urban parks in Zahedan from the perspective of ordinary group of residents. Results of one-sample t-test confirmed our hypothesis ($p\text{-value} < 0.05$) (see table 22 and 23)

Table-22. Statistical description for hypothesis three

	N	Mean	SD	SEM
Region 1	100	4.4257	0.81092	0.08109
Region 2	100	4.4414	0.79943	0.07994
Region 3	100	4.5571	0.37905	0.03791
Region 4	100	4.4971	0.65496	0.06550
Region 5	100	4.2386	0.88485	0.08848

Source: Author's calculations

Table-23. One-sample t-test results for hypothesis three

	Test value = 3					
	t	df	Sig.	Mean difference	95% confidence interval	
					Lower	Upper
Region 1	17.581	99	0.000	1.42571	1.2648	1.5866
Region 2	18.031	99	0.000	1.44143	1.2828	1.6001
Region 3	41.080	99	0.000	1.55714	1.4819	1.6324
Region 4	22.858	99	0.000	1.49714	1.3672	1.6271
Region 5	13.998	99	0.000	1.23857	1.0630	1.4141

Source: Author's calculations

3.5.4. Hypothesis Four

Hypothesis four states the hypothesis three from the perspective of expert group of residents. Results of one-sample t-test confirmed our hypothesis as well ($p\text{-value} < 0.05$) (se table 24 and 25)

Table-24. Statistical description for hypothesis four

	N	Mean	SD	SEM
Expert group	20	4.2714	0.75721	0.16932

Source: Author's calculations

Table-25. One-sample t-test results for hypothesis four

	Test value =3					
	t	df	Sig.	Mean difference	95% confidence interval	
					Lower	Upper
Expert group	7.509	19	0.000	1.27143	0.9170	1.6258

Source: Author's calculations

4. CONCLUSION

In this survey study our purpose was to investigate the urban park usage rate and their quality in terms of furniture and facilities in the city of Zahedan, Iran. Our participants were 520 residents of Zahedan divided into two groups of ordinary and expert. Most of participants in both groups reported that they use urban parks for "recreation". Our results showed that the most of participants in this city (70% for ordinary group, and 50% for expert group) use urban parks once a week. Also results of quality evaluation showed that, according to ordinary group, the quality of urban parks in Zahedan in terms of design standards, accessibility, having enough green spaces, playgrounds, water fountains, and sport facilities was "poor"; moreover, in terms of having walking paths, public toilets, and car park place the quality of urban parks was reported as "very poor". Also they had "poor" and "very poor" lighting conditions at night. On the other hand, according to the expert group of residents, the quality of urban parks in Zahedan in terms of design standards, accessibility, green spaces, walking paths, and sport facilities was "average"; in terms of having playgrounds, public toilets, and car parking place it was "poor"; only in term of lightening conditions at night, it was reported as "good".

In this study we also investigated resident satisfaction indicators. Our findings revealed that "public toilet facilities", "green spaces", "safety", "accessibility", "welfare facilities", "trails", and "equipments" are most important indicators for evaluating resident satisfaction with public urban parks in Zahedan. Results of testing research hypotheses indicate that furniture and facilities of urban parks in Zahedan are not in accordance with city standards. Also, there is a significant relationship between residents' satisfaction level and standard quality of urban parks in this city.

According to the results we concluded that there has been paid no enough attention to the urban parks in this city. In addition, citizens and even Zahedani managers who are involved in urban management are still not enough information about standards, nature, causes and characteristics of urban parks. This has led to incorrect decisions made in the design of urban parks, and have caused deficiency, unpleasantness and lack of accountability of urban parks in Zahedan. Also, lack of funds has had a negative impact on sustainability, public health and control of these parks. Metals are used in manufacturing furniture of Zahedan's urban parks which due to the sun radiation, most of the day these furniture become useless. During strategic decisions and policy-making in the planning process of parks and green spaces, policymakers should also consider the elderly people; green spaces improve physical and mental health of them and as a result, reduce health care costs.

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REFERENCES

- Burgess, J., C. Harrison and M. Limb, 1988. People, parks and the urban green: A study of popular meanings and values for open spaces in the city. *Urban Studies*, 25(6): 455–473.
- Chiesura, A., 2004. The role of urban parks for the sustainable city. *Landscape and Urban Planning*, 68(4): 129–138.
- Cohen, D.A., A. Sehgal, S. Williamson, R. Sturm, McKenzie, L.T.L. Rosa and N. Lurie, 2006. Park use and physical activity in a sample of public parks in the city of Los Angeles. Technical Reports, RAND Corporation, USA.
- Conway, H., 2000. Parks and people: The social functions. In: Woudstra, J., Fieldhouse, K. [Eds.], *The regeneration of public parks*. New York: E & FN Spon.
- Gehl, J. and L. Gemzoe, 2001. *New city spaces*. Copenhagen: Danish Architectural Press.
- Godbey, G., A. Grafe and W. James, 1992. The benefits of local recreation and park services. A nationwide study of the perceptions of the American public. College of health and human development. Pennsylvania: Pennsylvania State University.
- Grahn, P., 1985. Man's needs for urban parks, greenery and recreation. Institute for landscape planning. Alnarp: Swedish Agricultural University.
- Hartig, T., M. Mang and G. Evans, 1991. Restorative effects of natural environments experiences. *Environment and Behavior*, 23(1): 3–26.
- Kaplan, R., 1983. The analysis of perception via preference: A strategy for studying how the environment is experienced. *Landscape and Urban Planning*, 12(2): 161–176.
- Loures, L., R. Santos and T. Panagopoulos, 2007. Urban parks and sustainable city planning-The case of Portimão, Portugal. *WSEAS Transactions on Environment and Development*, 3(10): 171-180.
- Ulrich, R.S., 1981. Natural versus urban sciences: Some psycho-physiological effects. *Environment and Behavior*, 13(5): 523–556.
- Ulrich, R.S., 1984. View through a window may influence recovery from surgery. *Science*, 224(4647): 420–421.

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