EVALUATION OF MASHHAD CITY PARKS FROM THE CONFORMITY OF CHILD-FRIENDLY CITY STANDARDS

AVALIAÇÃO DOS PARQUES DA CIDADE DE MASHHAD A PARTIR DA CONFORMIDADE DOS PADRÕES DAS CIDADES AMIGAS DA CRIANÇA

Hoda Behravesh
Islamic Azad University, IAU
Mashhad, Iran
Hoda.Behravesh@mshdiau.ac.ir

Katayoon Alizadeh
Islamic Azad University, IAU
Mashhad, Iran
K-alizadeh@mshdiau.ac.ir

Hamid Jafari
Islamic Azad University, IAU
Mashhad, Iran
jafari1421@mshdiau.ac.ir

Abstract. With the current trend of urbanization and the increasing attractiveness of cities, urban environments are becoming the main bedrock of a new generation of children. The presence of children in the city is directly related to the quality of urban space and construction. Proper urban space provides a great deal of security and presence of the child and inadequate urban space eliminates it and causes a variety of social damages and problems. Public spaces such as parks and playgrounds are an important factor in socializing children (Anguluri & Narayanan, 2017). Children as the most sensitive and vulnerable group of society, while being influenced by the environment, have significant abilities in shaping or changing the environment around them (Pamela, Sruthi & Roger, 2015). Therefore, checking and evaluation of Mashhad city parks, as the second largest metropolis of Iran from the Conformity of Child-Friendly City Standards is necessary. This is an applied research that has been done by descriptive-analytical method. The target population in this thesis is 6-12 years old children, their parents and the relevant authorities or a group of experts in Mashhad according to population and housing census of 2016, who with the help of Cochran sample size formula, 390 children and parents, and 30 experts were interviewed. The studied parks in this paper are neighborhood scaled parks of Mashhad which it is a total of 528 cases, out of which 53 parks have been studied in municipalities of Mashhad. Data were analyzed using one-way chi-square, Spearman correlation coefficient, and univariate t-test. The results showed that most districts and neighborhood parks in Mashhad do not comply with the criteria and principles of child-friendly cities and physical-functional and socio-cultural components play the most roles in the presence of children in neighboring and neighborhoods scale parks in the city of Mashhad.

Keywords: child; urban spaces; child-friendly city; green space; neighborhood-neighborhood park; mashhad.

Resumo. Com a atual tendência de urbanização e a crescente atratividade das cidades, os ambientes urbanos são o principal alicerce de uma nova geração de crianças. A presença de crianças na cidade está diretamente relacionada à qualidade do espaço e construção urbana. O espaço urbano adequado fornece muita segurança à presença da criança e o inadequado o elimina causando uma variedade de danos e problemas sociais. Espaços públicos, como parques e playgrounds, são um fator importante na socialização das crianças (Anguluri & Narayanan, 2017). As crianças como grupo mais sensível e vulnerável da sociedade, apesar de serem influenciadas pelo meio ambiente, têm habilidades significativas para moldar ou alterar o ambiente em seu redor (Pamela, Sruthi & Roger, 2015). Portanto, torna-se necessário verificar e avaliar os parques da cidade de Mashhad, como a segunda maior metrópole do Irão a partir da Conformidade dos Padrões de Cidades Amigas da Criança. Trata-se de uma pesquisa aplicada realizada pelo método analítico-descritivo. A população alvo neste estudo são crianças dos 6 aos 12 anos, seus pais e as autoridades relevantes ou um grupo de especialistas em Mashhad. Segundo o censo populacional e habitacional de 2016, que com a ajuda da fórmula de tamanho da amostra Cochran, 390 crianças e pais, e 30 especialistas foram entrevistados. Os parques estudados nesta tese são parques de bairro de Mashhad, com um total de 528 casos, dos quais 53 foram estudados nos municípios de Mashhad. Os dados foram analisados através do qui-quadrado unidirecional, coeficiente de correlação de Spearman e teste t univariado. Os resultados mostraram que a maioria dos bairros do distrito de Mashhad não cumprem os critérios e princípios das cidades amigas da criança e os componentes físico-funcionais e socioculturais desempenham um papel muito importante na presença de crianças em parques de bairos vizinhos da cidade de Mashhad.

Palavras-chave: m-learning; segunda infância; aprendizagem móvel; dispositivos móveis.

INTRODUCTION

Today's child has the least interaction with those around him due to inadequate urban space and special education, and he suffers from many irregularities of the urban space and the resulting psychological pressures. With a glance at urban spaces in Iran, it is observed that children's spaces are not as well formed and their role and presence have always been on the fringes of attention due to their position in Society.

Urban parks became the most important public spaces favored for interactions and measures of the children (Van Rijswijk & Haans, 2018). Paying attention to the social, physical, cultural and environmental quality of these urban spaces has a great deal of importance. One of the best ways to reach proper urban environments for kids is to pay attention to the indicators of a Building Child Friendly Cities- a framework for action (UNICEF) in order to reach a friendly environment. In Mashhad as the second largest metropolis of Iran, except for a few theme parks, whatever has been designed as a park or landscape has been mostly for the purpose of landscaping and beautification which has no special attention to the users' characteristics of such spaces (Preu, Nieuwenhuijsen, Marquez, Cirach, Dadvand, Triguero-Mas, & Zijlema, 2019).

Understanding the impacts of child-friendly city indicators and assessing and adapting them to urban spaces can be one of the most important skill keys to, testing measures and programs especially in re-evaluation and review the environment quality use for proper use of these spaces. According to the statistics of 2016, which shows that about 32% of the population of Mashhad is under 18 years of age and 13% metropolitan of Mashhad's population is children under the age of 15, which is particularly problematic due to this study. Researchers show that outdoor play is a prerequisite for healthy child development (Zhang, & Dai, 2012).

The quality of urban outdoor spaces is directly related to the physical, social and intellectual development of children. Parks are also recognized as a fund for children, but children's access to parks and their quality is often poor (Shuolei, Keith & Shujuan, 2019). In fact, these spaces are formed around the adults' wishes rather than children. Such spaces not only interfere with the kid's development but in many cases it cause the feeling of helplessness in kids causing them being less creative and imaginative.

The main purpose of this article is to evaluate the current status of Mashhad city parks in terms of compliance with the criteria of child friendly city, which it aims the localization of child-friendly city standards in Mashhad city parks, Increasing the presence of children by providing security and relaxation in urban spaces (parks), which improves the mental and physical health of children, Promotion of knowledge and awareness of authorities, children and their parents about children's citizenship rights (observance of children's rights in parks) and introduction of new standards in urban child planning and its application in urban projects and programs, checking Mashhad city parks status and evaluation of child-friendly city criteria and indicators to increase the presence of children in neighborhood scaled parks, advancing urban planners, designers and authorities towards observing child-friendly city indicators and achieving a healthy and sustainable spatial and urban structure in Mashhad.

THEORETICAL FOUNDATIONS OF THE RESEARCH

The Child

According to UNICEF, in the Child Friendly City Initiative (CFC) booklet 2018, anyone under 18 is called a child. According to the definitions given, it is concluded that the child is someone who has not reached puberty, and that puberty usually occurs in boys between the ages of 13 and 16 and in girls between the ages of 11 and 14. It turns out that selecting a criterion of less than 12 full years to define a child provides a good basis (Shia, 2007).

Child Friendly City

Child Friendly City (CFC) is a city, community or any local government system which is committed to enforcing the rights of the child as set forth in the convention on the rights of the child. This city or community where children's voices, needs, priorities and rights are an integral part of its public policies in programs and decisions, is a child-friendly city and therefore, a "child-friendly city" is a suitable city for everyone (Hyojin & Seok, 2018).

Urban Green Space (UGS)

During the process of urbanization around the world, various individuals and immigrants invaded developing cities, replacing artificial, inaccessible surfaces (such as asphalt concrete, etc.) with natural grasslands and wetlands (He, Liu, Tian & Ma, 2014, Weng, 2012). The ratio of urban green space (UGS) was not synchronized with urban growth rate (Pauleit, Ennos & Golding, 2005). Which put great strain on the urban environment and led to a gradual decline in the quality of life. Urban green space is a set of open

and green spaces that are assigned within urban environments with specific goals, planning and specific functions (Matlabi, 2001).

CHILD-FRIENDLY CITY INDICATORS

Safety and security

Appropriate safety of children against motor vehicles and their safety against committing crime and the environment and eliminating the feeling of fear in the environment. This index is by far the most important indicator of a child-friendly city.

Appropriate access to green and natural spaces and public open spaces with a variety of activities

Children are particularly interested in green spaces and open spaces and prefer to spend their leisure time in these spaces.

Access to essential facilities and services (education, health, sports, etc.)

Access to these facilities is a type of basic children's rights that provides for their well-being and development.

Appropriate public transport, especially pedestrian and bicycle routes

Proper public transport along with the creation of bicycle and pedestrian routes, which have a great impact on reducing air pollution, will ensure the protection of the health of children along with all members of society. On the other hand, cycling as a favorite recreation of children makes the existence of bicycle and pedestrian paths more necessary.

Participation and value to children

Applying child participation not only creates better quality environments for children but also enhances their self-esteem and enhances their sense of responsibility and decision-making.

The existence of a safe and waste-free environment

Given the high presence of children in public spaces for play and recreation, one of the most important indicators can be the environment free of waste and pollution.

Creating and designing fun and entertaining environments for children

Considering fun and entertaining environments for children (both natural and artificial) will play an important role in creating a child-friendly environment.

Enhancing the learning and nurturing environment of children's creativity

Given that these ages are the best time to learn fast and permanently and to nurture the child's creative power Therefore, creating conditions for providing an informative and nurturing environment of creativity can be one of the important indicators of the city and the child-friendly environment, especially from the psychological point of view of the child.

An environment for establishing, facilitating and enhancing group activities

As children's games and activities at this age are gradually becoming grouped and this will play a major role in the social education and power of children's interactions at a later age therefore, a child-friendly environment should be effective in facilitating and enhancing group activities.

Flexible and child-friendly environments

Children have a great deal of interest in shaping the environment on their own, and an environment that is flexible and child-friendly can be very attractive to children.

Having a hierarchy of public and semi-public spaces, especially public spaces for specific groups

The hierarchy of public and semi-public spaces in the environment can respond to the different needs of children of different age ranges in childhood and adolescence. At the same time, children have a greater sense of safety and security and a sense of belonging in spaces that can be described as public spaces specific to particular groups, and do most of their recreational and group activities in these spaces. Therefore, the design of these spaces in the environment greatly enhances the desirability and efficiency of the environment for children.

Neighborhood units to create a sense of place

Neighborhoods with adequate number of residential units per neighborhood (5 up to 20 residential units) and a suitable open space in them are one of the most important factors in creating safe, intimate and high-affinity environments for the residents.

According to the studies done in previous sections and various studies in similar foreign samples, studies, internal articles and considering the localization of the child-friendly city based on the main needs and priorities existing in Iran and especially Mashhad, the following indices were selected to review this thesis (Manouchehri & Alizadeh, 2014).

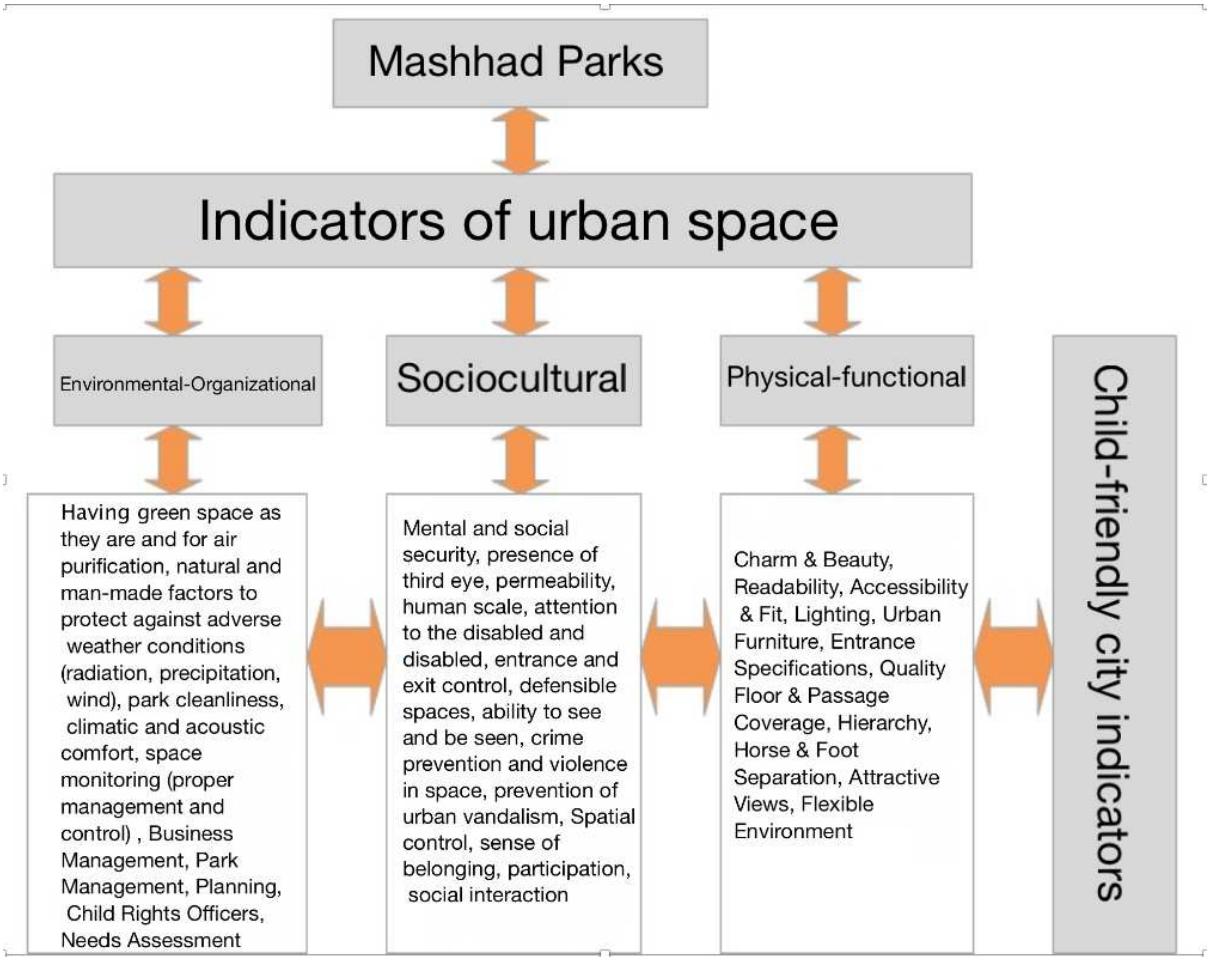

Fig 1. Graphic Mashhad park

INTRODUCTION THE STUDY AREA

Mashhad, the capital of Khorasan Razavi province, is located in northeast of Iran, 966 kilometers from Tehran. Mashhad is expanded at 35 degrees 43 minutes to 37 degrees 8 minutes latitude and 59 degrees 15 minutes to 60 degrees 36 minutes Longitude. The city lies between the two Binaloud Mountains and the Hezar Masjed and Its height is 985 meters above sea level, its area is about 351.4 km2 and its population is about 3.057.679 people in 2017. From the relative position of the city of Mashhad as the center of Khorasan Razavi province from the north it is confined to the lands of Tabadkan and Tous, from south and west to Torghabe Shandiz (Binalood) and from east it is Restricted to Kunoist and Miami.

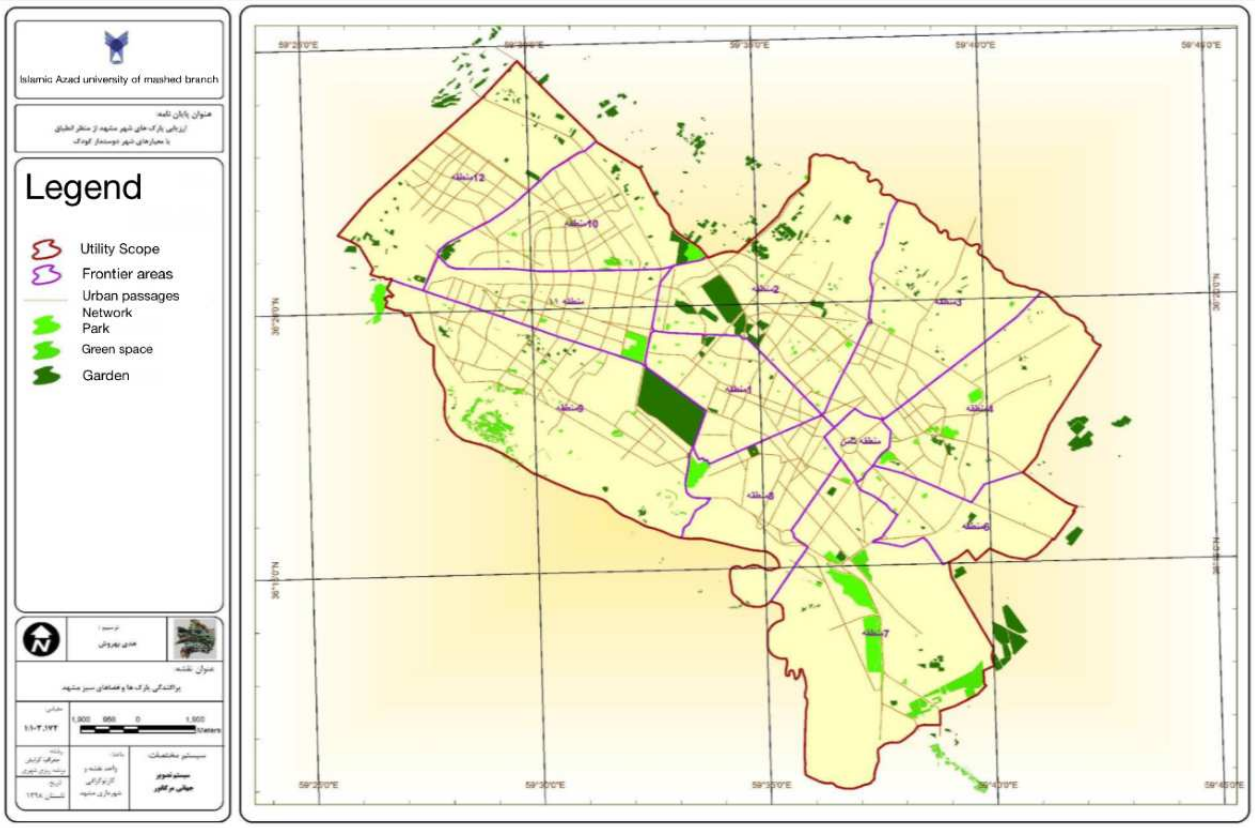

Fig 2. Mashhad Existing Green Space Map, Author Source 2019.

MASHHAD CITY PARKS STATUS

According to the Mashhad Municipality Census of 2019 and the Parks and Squares Organization, 603 parks including neighboring, neighborhood, district, districts, urban and forest, have been constructed in Mashhad. Neighborhood parks had the highest abundance with the total of 281 and large urban parks with the total of 5 cases had the least abundance.

Table 1. Status of Mashhad city parks by regions in 2019

	Mashhad public parks by regions												page number: 1of1 Document code: FR-260-038 Edit number: 00 Editing date: 16.07.2014		
	Neighboring Park		Neighborhood Park		Regional Park		District Park		Great park		Forest Park		Total number	Total	Total number of neighboring and neighborhoods parks
	number	Area (Square meters)	Number	Area (Square meters)	Number	Area (Square meters)	number	Area (Square meters)	Number	Area (Square meters)	Number	Area (Square meters)			
District 1	28	65,098	9	104,928			2	189,311					39	359,337	37
District 2	35	81,321	37	344,157	4	110,882	2	270,533					78	806,893	72
District 3	19	50,577	28	287,292	3	70,755			1	478,000			51	886,624	47
District 4	3	4,561	8	86,746	1	26,000	3	453,086					15	570,393	11
District 5	15	42,222	14	150,313	5	188,295	1	156,541					35	537,371	29
District 6	24	71,386	16	177,526	3	111,569	2	317,930					45	678,411	40
District 7	10	41,178	14	182,382	8	255,515	2	332,449			3	1,992,042	37	2,803,566	24
District 8	10	27,024	11	105,225	1	20,027			1	935,394			23	1,087,670	21
District 9	41	86,851	38	422,108	8	303,240			1	126,700	2	1,445,000	90	2,383,899	79
District 10	47	127,283	43	411,048	13	476,259							103	1,014,590	90
District 11	17	51,712	19	184,334	3	73,684			2	808,000			41	1,117,730	36
District 12	16	44,395	8	71,150	3	103,837	1	80,000					28	299,382	24
Samen District	16	24,245	2	23,714									18	47,959	18
total	281	717,853	247	2,550,923	52	1,740,063	13	1,799,850	5	2,348,094	5	3,437,042	603	12,593,825	528

References: Mashhad Municipality Parks and Green Space Organization 2019

The following conceptual model was developed by the author according to the aforementioned issues in the research and summing up the effective indicators in the research.

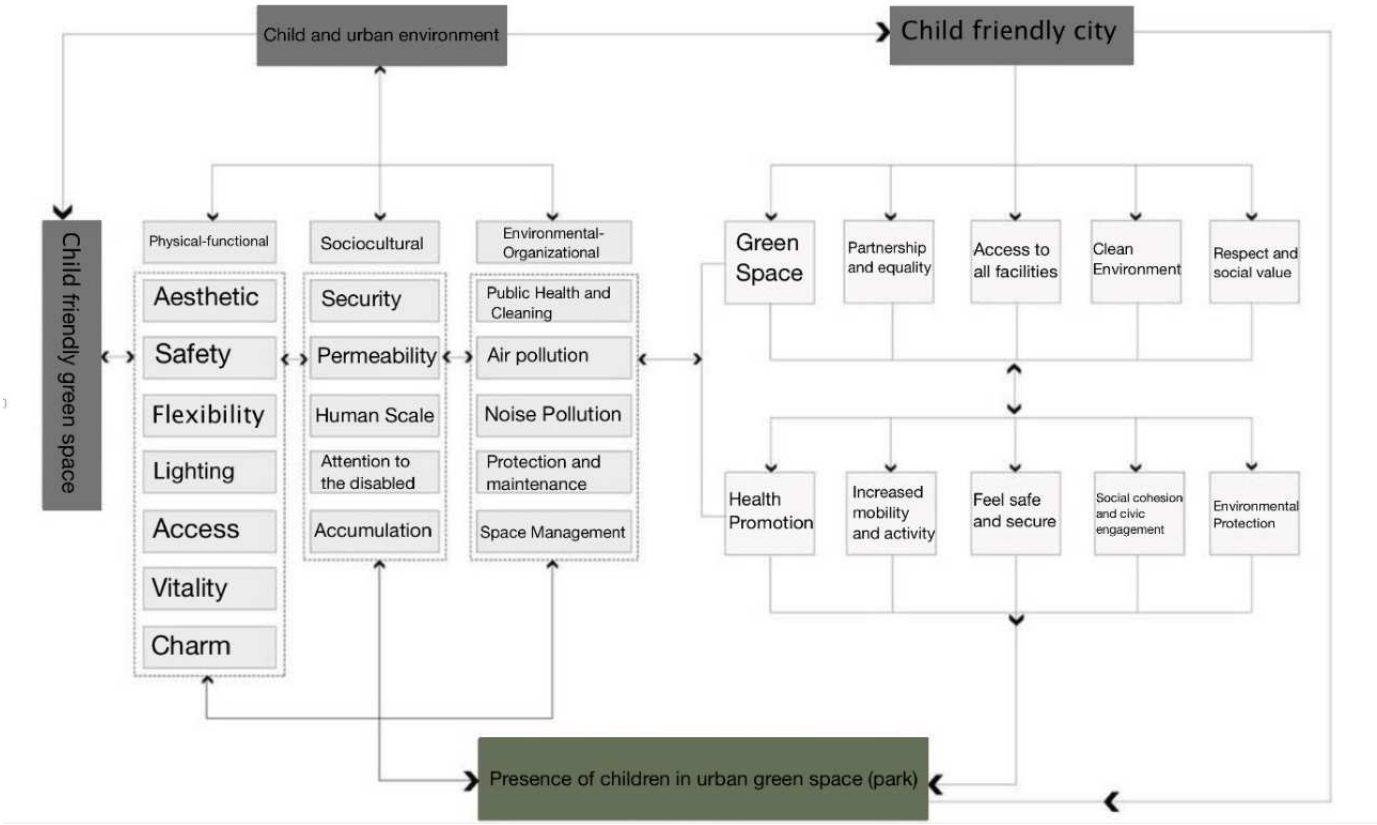

Fig 3. Conceptual model research diagram (Author)

METHODOLOGY

The research method in this study is applied in terms of purpose and in terms of nature, the main approach that governs the process of this research is descriptive-analytical. In this study, Delphi method (expert opinion survey) was used to measure the criteria and their coefficient of effectiveness. The target population in this study is 6-12 years old children in Mashhad according to population and housing census of 2016, their parents and the relevant authorities or the same group of experts (Delphi) which with the help of Cochran sample size formula, 390 parents, children and 30 experts were interviewed.

The study parks of this dissertation include neighborhood scaled parks of Mashhad with a total of 528 cases and among them 53 parks have been studied in the whole Municipalities of Mashhad. The sampling was done by simple random sampling According to the last census of population and housing in 2016, the population of Mashhad was 3,057,679 and the number of children 6-12 years old was 336452. The sample size for the child-parent questionnaires based on Cochran formula was 390 persons. In order to determine the number of under study parks, according to 528 neighborhood and neighboring parks in Mashhad, 53 parks were selected and surveyed in Mashhad. The research also selected and interviewed 30 experts in the field of research including academic professors, municipal experts, City Council, general directorate of roads and urban planning, the technical bureau of the governorate and consulting engineers. Out of 528 neighborhood and neighboring parks in Mashhad (247 neighborhood scale parks and 281 neighboring parks), 10% were selected, 53 parks in total divided into 25 neighborhood scale parks and 28 neighboring scale parks were affected.

This study has performed descriptive and inferential analysis of data from questionnaires by parametric and nonparametric statistical methods in SPSS statistical software.

Descriptive statistics (using descriptive and geometric and visual representations, frequency distribution tables and distribution ratios) and inferential statistics (correlation test, univariate chi-square and t-test) were used to analyze the quantitative data. Arc GIS software has also been used for mapping.

RESULTS

Testing Hypotheses

Using the univariate Chi-square test, Spearman correlation coefficient, and univariate t-test, the research hypotheses were analyzed separately by citizens and managers.

The first hypothesis: Some parks in Mashhad appear to be child-friendly by city standards.

The above hypothesis is examined separately in terms of physical-individual, cultural-social and environmental-organizational characteristics. To test the above hypothesis in the citizen group, a one-way chi-square test is used. The results of this test are presented in the following table:

Table 2. Reviewing of adaptation of Mashhad city parks from physical - functional Characteristics side with Child Friendly City Standards (Citizens' Group)

Compliance rate	Frequency observed	Frequency percentage
Low	195	50.0
Medium	110	28.2
High	85	21.8
Total	390	100.0
X2 statistics	51.154	
Degrees of freedom	2	
The significance level	0.000	

Based on the table 2, the level of significance for Mashhad city parks in terms of physical-functional characteristics with child-friendly city standards in Citizens group is 0.000 and is less than 0.05, so with 95% confidence interval Donors were significantly different in the three groups of low, medium and high. On the other hand, the frequency of the low group is higher than other groups, so with 95% confidence, Mashhad's parks are not designed according to the child-friendly city standards in terms of functional characteristics.

Table 3. Evaluation of Mashhad city parks' adaptation to social-cultural characteristics with child friendly city standards (citizens' group)

Compliance rate	Frequency observed	Frequency percentage
Low	188	48.2
Medium	145	37.2
High	57	14.6
Total	390	100.0
X2 statistics	68.600	
Degrees of freedom	2	
The significance level	0.000	

Therefore, with 95% confidence, Mashhad city parks are not designed according to the socio-cultural characteristics of the child-friendly city.

Table 4. Confirmation of compliance of Mashhad city parks in terms of environmental-organizational characteristics with child-friendly city standards (Citizens Group)

Compliance rate	Frequency observed	Frequency percentage
Low	213	54.6
Medium	79	20.3
High	98	25.1
Total	390	100.0
X2 statistics	80.877	
Degrees of freedom	2	
The significance level	0.000	

Therefore, with 95% confidence, Mashhad city parks are not designed in accordance with the standards of the child friendly city.

Table 5. Confirmation of Mashhad city parks adaptation to child Friendly city standards (Citizens Group)

Compliance rate	Frequency observed	Frequency percentage
Low	156	54.6
Medium	145	20.3
High	89	25.1
Total	390	100.0
X2 statistics	19.862	
Degrees of freedom	2	
The significance level	0.000	

Therefore, with 95% confidence, Mashhad's parks are not designed in accordance with the standards of a child-friendly city.

Table 6. Mashhad city parks compliance with accessibility to child friendly city standards (Citizens Group)

Compliance rate	Frequency observed	Frequency percentage
Low	195	50.0
Medium	42	10.8
High	153	39.2
Total	390	100.0
X2 statistics	96.138	
Degrees of freedom	2	
The significance level	0.000	

Therefore, with 95% confidence, Mashhad's city parks are not designed in accordance with child-friendly city standards.

Table 7. Evaluation of Mashhad city parks' adaptation to elements in space with child friendly city standards (Citizens' Group)

Compliance rate	Frequency observed	Frequency percentage
Low	81	20.8
Medium	284	72.8
High	25	6.4
Total	390	100.0
X2 statistics	285.708	
Degrees of freedom	2	
The significance level	0.000	

Therefore, with 95% confidence, Mashhad city parks are not designed according to the elements in space based on to child friendly city standards.

Table 8. Review of Mashhad city parks' adaptation to neighborhood conformity with child friendly city standards (Citizens' Group)

Compliance rate	Frequency observed	Frequency percentage
Low	129	33.1
Medium	176	45.1
High	85	21.8
Total	390	100.0
X2 statistics	31.862	
Degrees of freedom	2	
The significance level	0.000	

Therefore, with 95% confidence, Mashhad city parks are not designed in accordance with the standards of a child-friendly city. Managers used univariate t-test to test this hypothesis. The results of this test are presented in the table 9. This test compares the average score of the desired variable with the appropriate number. Here, given the answers to the 5-point Likert scale, the median of answers is 3, so we compare the variable with number 3.

Table 9. Confirmation of Mashhad city parks design compliance with child friendly city standards

Variable	Test number = 3					
	Average	T statistics	Degrees of freedom	The significance level	95% confidence interval difference	
					Lower bound	Upper bound
Mashhad city park design compliance with child friendly city standards	1.794	-49.448	29	0.000	-1.255	-1.156

The level of significance for the comparisons of the managers' opinion on the conformity of Mashhad city park design with the standards of the child-friendly city is 0.000 and less than 0.05, and also the t-statistic is -49.448 and negative the average level of design compliance of Mashhad city parks with child-friendly city standards is 1.794 based on managers point of view and is lower than the average of 3, so it can be said with 95% confidence:

> Mashhad city parks are not designed according to child-friendly city standards.
>
> So, the first hypothesis is rejected.

INVESTIGATION ON THE SECOND HYPOTHESIS

Physical-functional and socio-cultural factors seem to play the major role in the presence of children in parks of Mashhad. This hypothesis is examined separately in terms of physical-individual and socio-cultural factors. The univariate t-test was used to test the above hypothesis. The results of this test are presented in the following table: This test compares the average score of the desired variable with an appropriate number. Here, given the answers to the 5-point Likert scale, the median of answers is 3, so we compare the variable with number 3.

Table 10. The Role of Physical-Individual, Socio-Cultural and Environmental-Organizational Factors in the Attendance of children in Mashhad parks

Variable	Test number = 3					
	Average	T statistics	Degrees of freedom	The significance level	95% confidence interval difference	
					Lower bound	Upper bound
Physical - Individual	4.692	57.600	29	0.000	1.632	1.752
Sociocultural	4.545	20.097	29	0.000	1.388	1.702
Environmental-Organizational	3.920	8.392	29	0.000	0.696	1.145

The level of significance for the influence of physical-individual factors on the presence of children in parks of Mashhad is 0.000 and less than 0.05, Also the t-statistic is 57.600 and positive and the average effect of physical-individual factors on the presence of children in Mashhad parks is 4.692 and is higher than the average of 3, thus, with 95% confidence, physical-functional factors play a major role in the presence of children in the parks of Mashhad. The level of significance for the impact of socio-cultural factors on the presence of children in the parks of Mashhad is 0.000 and less than 0.05, also the t-statistic is 20.097 and is positive and the average effect of socio-cultural factors on the presence of children in Mashhad parks is 4.545 and is higher than the average of 3. Thus, with 95% confidence, environmental factors play a major role in the presence of children in the parks of Mashhad.

Since the physical-individual mean is higher than the other two factors, so the role of physical-individual factors in the presence of children in the parks of Mashhad is more than the other two factors. Then socio-cultural factors influence the presence of children in the parks of Mashhad and lastly environmental-organizational factors.

Also, Bonferroni post hoc test results showed that there is no difference between two factors of physical - individual and cultural - social factors in presence of children in Mashhad parks. But these two factors are significantly different from environmental-organizational factors.

Therefore, with 95% confidence, it can be said that physical, functional and socio-cultural factors play the most role in the presence of children in the parks of Mahshad.

Therefore, the second hypothesis is confirmed.

DISCUSSION AND CONCLUSION

In the above study after reviewing the needs of children in urban space with the aim of improving the quality of children's urban parks and achieving the principles of child-friendly city design and localization of child-friendly city indices in Mashhad's urban neighborhoods and districts, the suggestions are summarized as follows:

- Making organizational changes and national regulations
- Pay attention to the native needs of each region based on the structures and capacities of the community
- Fair, inclusive and non-discriminatory planning for all areas of the city
- Considering the spatial and physical quality of the environment and the aesthetic aspects of planning
- Security and safety
- Social participation
- Considering the environment and the environmental potential of each area to provide environmental comfort in space
- Develop guidelines for designing child-friendly urban spaces and utilizing multi-faceted collaboration between universities, children and
- Making children aware of their rights by conducting educational classes in the parks, awareness of social issues and prevention of physical, sexual and mental harm.

When looking at parks as a green box, perhaps the word box first evokes a surrounded and closed space that children cannot use as they should, But the purpose of this word is to create a certain spatial boundary, a box that is located in every area of the city, and the uses within it are defined according to the needs of that area. Since every dynamic space needs to be user-friendly, no point of view is left unplanned. Remote and desolate spaces are destroyed and various uses are added to the space. Creating spaces that meet children's expectations based on indigenous needs and help children identify and raise their awareness. Establishment of services and amenities related to children, such as construction of travel companies to provide short and safe trips for children (selection of related persons based on physical and mental health tests), construction of spaces to provide social services to children (child psychology, familiarity with their rights, etc.), Creating collaborative spaces for voluntary participation of children and people in child and city issues, Constructing indoor spaces that allow the use of space in different seasons (especially autumn and winter), which itself makes the space vibrant and alive.

The transparency of the green box is to see and be seen, which prevents all kinds of social harm such as sexual, verbal and visual violation. As it already has been a great deal of psychological damage of children seeing the cases of addicts, offenders and criminals in the parks, that cannot be compensated by any facilities.

The green factor is very effective in building a green box, creating spaces where children can feel and learn from interacting with nature (water, wind, stone and wood, etc.). Placing trunks of trees in parks, constructing shallow and standard water pits for birds, playing with water and boulders for children to climb, etc. which will increase their respect towards the environment and animal rights.

The reason to suggest constructing these spaces in children's eyelevel which is around 1 to 1.5 meters of children in the age range of 6-12 years and paying attention to the children's circle of vision at this scale, is because we find most of the pollution and disruption of urban spaces such as garbage, animal waste, cracks in the sidewalks and walls and so on is in children's eyelevel. If we visualize ourselves at that scale for a short period of time, the need to pay attention to planning and designing on a child scale becomes clear. Implementation of this plan can include the creation of healthy restaurants and buffets for children with urban furniture tailored to the scale of children, installing signboards in children's park, building child-size phones in the parks and public places to provide them with information to call 123 (Child support) or 110 (police) when needed, paying attention to the color and type of floor coverings to provide the aesthetic

dimension of the child's vision. In fact, the transparent green box on child's eyelevel is a well-planned, coherent, green, safe, flexible and efficient space that can take shape at any site or area to meet the needs of the issue. Transparent green boxes have the same structure and base in all areas and the primary factors are all the same, and only the interior uses can be changed depending on the needs of each area.

Primary Fixed Factors in Spatial Planning of the Transparent Green Box on a Child's Eyelevel:

- Determine the boundary of space: to provide accurate user access to all locations
- Safety and security of that space: A safe space for children and parents without the minor offense and violence
- Natural or man-made green space: Relation to nature and green space, which are the main options in a child-friendly city.
- Including child scale and child-friendly city indicators in all spatial planning: Includes physical-functional, cultural-social, environmental-organizational standards.

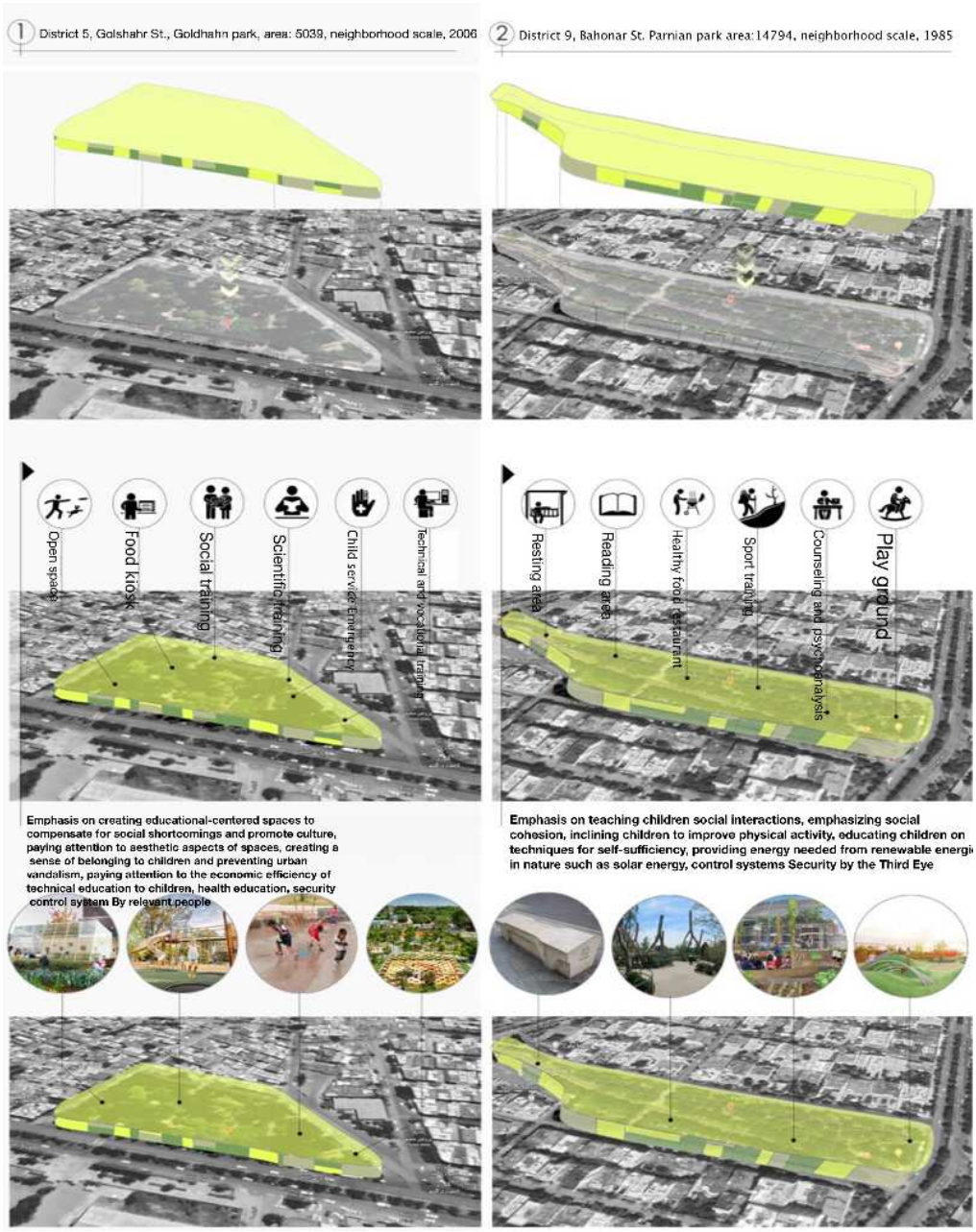

Fig 4. Proposed plan for child-friendly park in Mashhad (author)

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