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## **Measuring the importance of satisfaction indicators of urban parks: the opinions of citizens and experts (A qualitative research)**

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### **Abstract**

Landscapes and urban green spaces, especially urban parks, are considered to be the most important urban spaces, and it is important to pay attention to these places in order to increase the quality of life of citizens. Based on this, the aim of this research is to rank the importance of satisfaction indicators of urban parks according to the opinion of citizens and experts. Library sources, field observation and structured interviews and Excel and Atlas ti software were used to obtain the data required for the research, and the obtained data were analyzed using the structural analysis method and in the Atlas ti qualitative software. In this way, the data from the interview was entered into the software, and after coding the data and determining their relationship with each other, the final model was extracted from the software. the results showed that the indicator of the presence of suitable greenery is the most important, and the presence of suitable health uses and the existence of a ski resort are the least important indicators in satisfaction with urban parks. In general, it can be said that paying attention to the soft landscape, various play equipment and walking paths can increase the level of satisfaction with urban parks.

**Keywords:** Urban Spaces, Urban open spaces, Landscapes and urban green space, satisfaction

## 1-Introduction

Cities have received attention since most of the world's population resides in them. As a result, urban sustainability has become the main touchstone for urban policy (Baycan-Levent & Nijkamp, 2012, Ojeda-Revah et al, 2017). Among the factors that play an important role in the sustainable development of cities, the urban green space is prominent due to the numerous ecological, social and economic benefits it brings. Provision and maintenance of green space mainly depends on proper urban planning (Colding, 2011 Ojeda-Revah et al, 2017). Parks are a source of greenery in the dense fabric of a city. Vegetation is an essential element for a sustainable, healthy and livable city (Neema et al, 2013). Parks in urban areas play an important role in improving the quality of life of residents (Hartig et al, 2003, Chiesura, 2004, Maas et al, 2006, Larson et al, 2016, Svendsen et al, 2016, Hasani et al, 2017). Studies show that access to parks affects the mental and physical health and satisfaction of residents (Nielsen & Hansen, 2007, Hoffmann et al, 2012, Wu et al, 2019, Maniruzzaman et al, 2021, Twohig-Bennett and Jones, 2018). Urban green spaces such as parks provide important conditions for physical activity (Kaczynski et al., 2008), enjoyment of nature, and social interaction (Peters et al., 2010), thereby contributing to the health and well-being of visitors. (Kaplan, 1995, Chen et al, 2021). Park quality may play a key role in determining park use, specific features that encourage park use or park-based physical activity have been identified, including playgrounds, paved paths, basketball courts, water features, gazebos, and picnic areas (Baran et al., 2014; Costigan et al., 2017; Kaczynski et al., 2009; Rung et al., 2011; Shores and West, 2008; Roberts et al., 2019).

Green space use varies spatially and over time in terms of demographic structures, leisure preferences, and behaviors, so the interests of all potential users will not be the same (Byrne & Sipe, 2010, Ojeda-Revah et al, 2017). Therefore, to design green spaces, planners should consider the factors that affect how people perceive and use green spaces. These factors can be user characteristics (age, gender, education, economic status, etc.) or green space design (features and services) (Bai et al., 2013, Cohen et al., 2012, Ojeda-Revah et al. et al., 2017). In this regard, different researches have been conducted that show different factors affecting the satisfaction and use of urban parks. Water facilities, recreational facilities and commercial facilities around urban parks play an important role in the use and satisfaction of this possibility (Huai et al, 2023). Also, achieving peace and being in nature have been effective in using urban parks and increasing satisfaction from these places (Halkos et al, 2021). In the following, we can mention other influential factors in satisfaction with urban parks such as age and gender (Maniruzzaman et al, 2021).

As it can be seen that the majority of the researches carried out in order to check the satisfaction of visitors to urban parks were in one dimension and paid attention to the opinion of the citizens and they were carried out in a quantitative manner, so in this research we

collected the opinions of citizens and experts and Through the qualitative method, we will examine the importance of satisfaction indicators of urban parks and draw conclusions.

## **2-Materials and Methods**

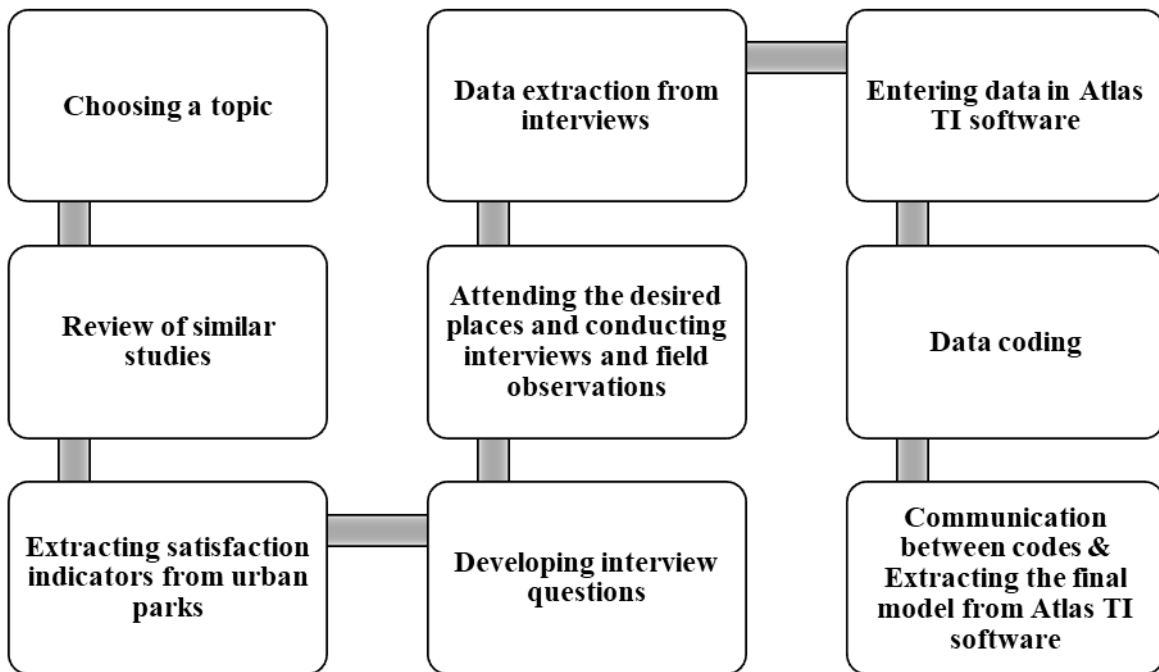
According to the method of collecting information, materials and methods, this research is an applied research type from the point of view of the goal and purpose and a descriptive research type from the point of view of the nature and method. Atlas-ti qualitative software was used for data analysis. Qualitative research is a type of scientific research that includes a different range of disciplines, topics and many different approaches (Lincoln and Denzin, 2000).

Qualitative methods can be used to understand complex social processes, important dimensions of phenomena from the perspective of participants, discover opinions, values and motivations which emphasizes people's behaviors to be used (Malterud, 2001). Qualitative research is often exploratory in nature and seeks new insights and mostly uses an inductive approach (Patton, 2002). The emphasis of qualitative research is on the analysis of specific cases in their own time and place, starting from the opinions of people and activists in the local context (Flick, 2009). Qualitative methods usually produce very large amounts of detailed information about a small number of people and samples. they do. This problem contributes to the depth of understanding of the studied samples and situations (Patton, 2002). The objective of the qualitative approach is often to describe a situation, phenomenon, problem or event (Kumar, 2011).

The population of this statistical study in the citizen section includes people who were present in one of the three parks under research in the cities of Marand, Tabriz, and Ardabil, and in the experts section, it includes the experts present in the three mentioned cities. The research tools in this research were library sources, structured interview and field observation. In order to reach the desired people in the citizens section in the desired research parks, interviews were conducted with 46 people, from the 43th onwards, the selection of options was repeated and the process of opinions was clearly defined, and the interview actually reached theoretical saturation. and it was refused to continue, then we appeared for interviews with experts in the universities of the mentioned cities and interviews were conducted with 14 people, from the 11th onwards, the choice of options was repeated and the trend of the experts' preference was clearly defined, and from The continuation of the interview was refused. Also, the interviews started in the summer of 2023 and the duration of the interviews fluctuated from 10 minutes to 15 minutes. The data required for this research is obtained through library resources and structured interview in 3 questions, 5 optional options and 3 sections, which include entertainment section, welfare section and sports section. These

questions were used both in the interviews of citizens and in the interviews of experts, and the people present in the interview had to choose one option as the most important indicator in their opinion, which was explained to the interviewees at the beginning of the interview.

In the analysis of the data related to the interview part, the structural analysis method was used and the answers obtained from the interviews were analyzed and the relationship between the codes in them was discovered, then these answers were entered into the Atlas TI software and The desired quotations and codings were done, and the relationship between the extracted codes was defined through the tools available in the software, and finally, the extracted data from the section of citizens' opinions and experts' opinions were summarized and the final results were obtained. Also, by using the field observation tool, the performance of visitors and those referring to urban parks in the desire to use the facilities available in these places was investigated and paid attention to(According to Figure 1).



**Figure 1:** Research method process

### 3. Results & Discussion

#### 1-3-Recreational sector from the Opinions of citizens

By examining the texts obtained from interviews and word mining and conceptualizing them using the method of structural analysis in the recreational section of urban parks from the Opinions of citizens, the variety of play equipment with 12 points is the most important

indicator and seasonal markets with 5 points were recognized as the least important indicators in the satisfaction of urban parks in the entertainment sector. Other indicators of this section include the holding of seasonal festivals with 10 points, the existence of a place for group games with 9 points, and the existence of special uses (such as: Maze) with 7 points, respectively, which are ranked second, third, and fourth in importance from the Opinions of citizens are assigned to themselves.

### 2-3-Welfare sector from the Opinions of citizens

By examining the texts obtained from interviews and word mining and conceptualizing them using the method of structural analysis in the welfare section of urban parks from the Opinions of citizens, the presence of suitable greenery with 14 points is the most important indicator and the presence of suitable sanitary uses with 4 points was recognized as the least important indicator in the satisfaction of urban parks in the welfare sector. Other indicators of this section include the presence of an acceptable picnic area with 10 points, the presence of peace and quiet with 8 points, and the presence of proper access with 7 points, respectively, which are ranked second, third, and fourth in importance from the Opinions of citizens are assigned to themselves.

### 3-3-Sport sector from the Opinions of citizens

By examining the texts obtained from interviews and word mining and conceptualizing them using the method of structural analysis in the sports section of urban parks from the Opinions of citizens, the existence of a walking path with 12 points is the most important indicator and The existence of a ski resort with 4 points was recognized as the least important indicator in the satisfaction of urban parks in the sports sector. Other indicators of this section include the existence of various sports equipment with 11 points, the existence of a place for popular sports with 10 points, and the existence of a cycling path with 6 points, respectively, which are ranked second, third, and fourth in importance from the Opinions of citizens are assigned to themselves.

### 4-3-Recreational sector from the Opinions of experts

By examining the texts obtained from interviews and word mining and conceptualizing them using the method of structural analysis in the recreational sector from the Opinions of experts, the variety of play equipment with 4 points is the most important indicator and and seasonal

markets and the presence of special uses (such as: Maze) were recognized as the least important indicators in the satisfaction of urban parks in the recreational sector with 1 point. Other indicators of this sector include the holding of various festivals with 3 points and the existence of a place for group games with 2 points, respectively, which are ranked second and third in importance from the Opinions of experts are assigned to themselves.

### 5-3-Welfare sector from the Opinions experts

By examining the texts obtained from interviews and word mining and conceptualizing them using the method of structural analysis in the welfare sector from the Opinions of experts, the presence of suitable greenery with 4 points is the most important indicator and The existence of suitable sanitary uses with 1 point was recognized as the least important indicator in the satisfaction of urban parks in the welfare sector. Other indicators of this section include the presence of an acceptable picnic area with 2 points, the presence of peace and quiet with 2 points, and the presence of proper access with 2 points, which are jointly ranked second in importance from the Opinions of experts.

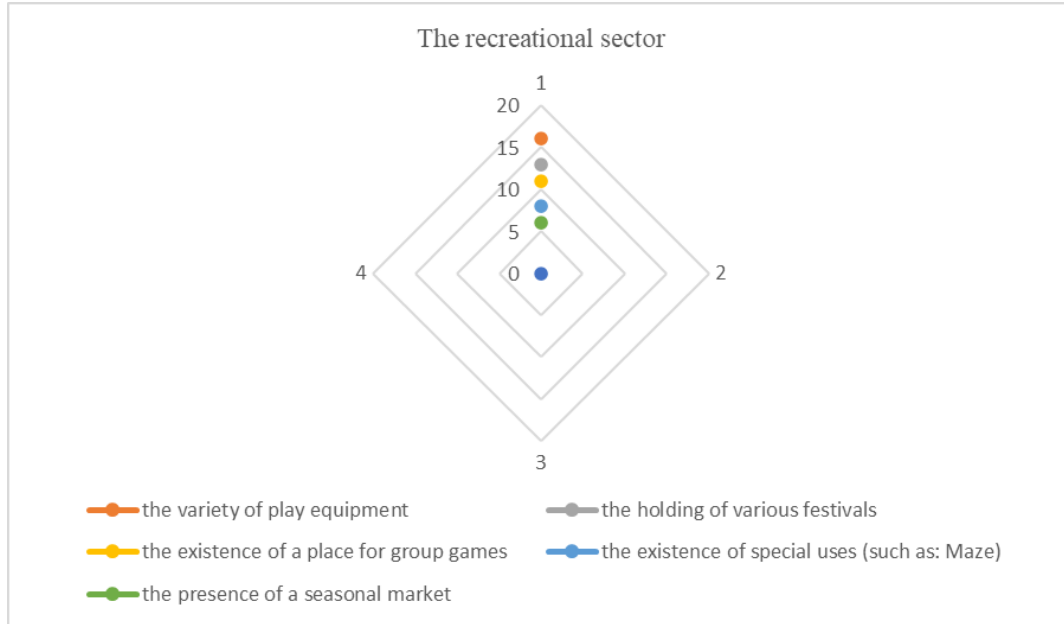
### 6-3-Sport sector from the Opinions experts

By examining the texts obtained from interviews and word mining and conceptualizing them using the method of structural analysis in the sport sector from the Opinions of experts, the existence of a walking path with 4 points is the most important indicator and The existence of a bicycle path with 1 point and the existence of a ski slope with 1 point were recognized as the least important indicators in the satisfaction of urban parks in the sports sector. Other indicators of this section include the presence of a place for popular sports with 3 points and the presence of various sports equipment with 2 points, respectively, which are ranked second and third in importance from the Opinions of experts are assigned to themselves.

### 7-3-Combined section of citizen and expert opinions

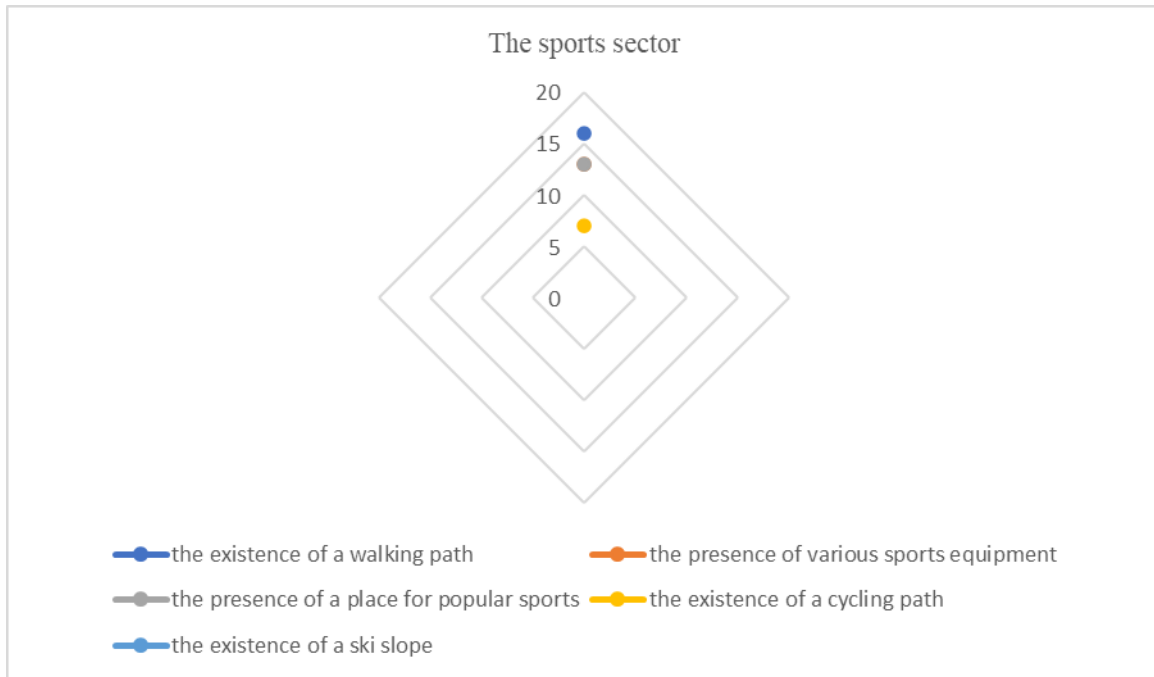
According to the investigations and the results of the structural analysis of the interviews conducted with citizens and experts, it was found that in all three discussed sections, regarding the importance of indicators of satisfaction with urban parks, the opinions of citizens and experts are the same and cover each other. Based on this, in the recreational sector, the variety of play equipment is considered the most important with a total of 16 points, and the presence of a seasonal market with a total of 6 points is considered the least

important indicator in satisfaction with urban parks. Other indicators of this section include the holding of various festivals with a total of 13 points, the existence of a place for group games with a total of 11 points, and the existence of special uses (such as: Maze) with a total of 8 points, respectively, which are ranked second, third, and fourth in importance from the Opinions of citizens and experts are assigned to themselves(According to Figure 2).

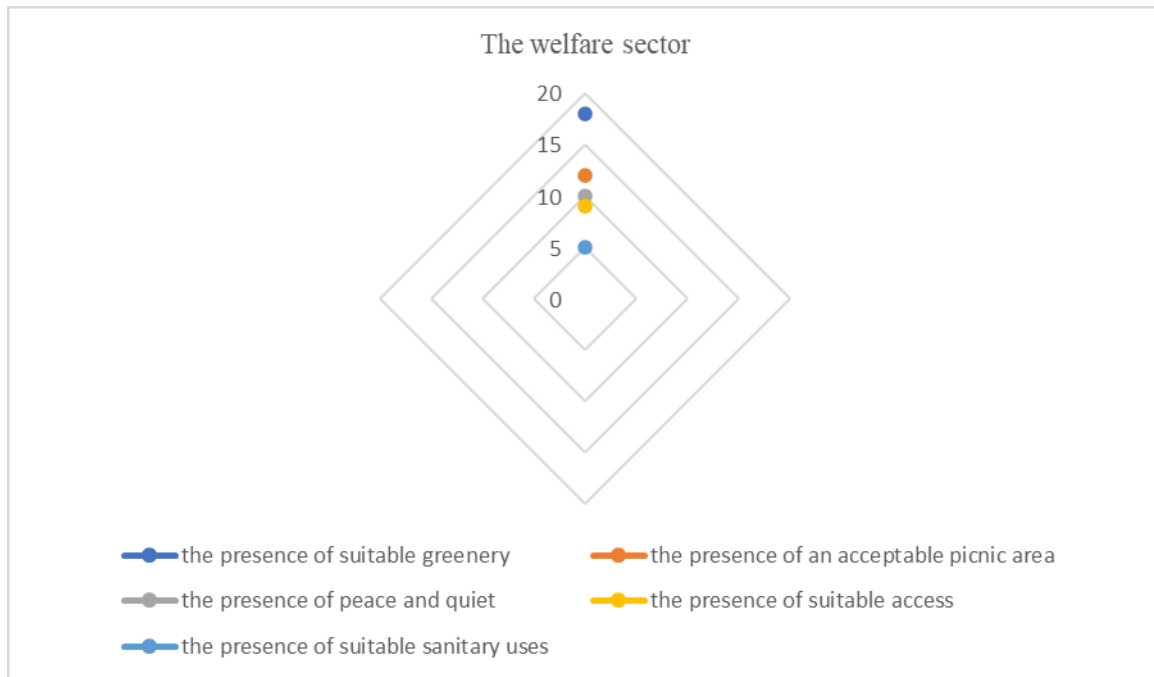


**Figure 2:** Recreational indicators

In the welfare sector, the presence of suitable greenery with a total of 18 points is the most important and the presence of suitable sanitary uses with a total of 5 points is the least important indicator in satisfaction with urban parks. Other indicators of this section include the presence of an acceptable picnic area with a total of 12 points, the presence of peace and quiet with a total of 10 points, and the presence of suitable access with 9 points, respectively, which are ranked second, third, and fourth in importance from the Opinions of citizens and experts are assigned to themselves(According to Figure 3).



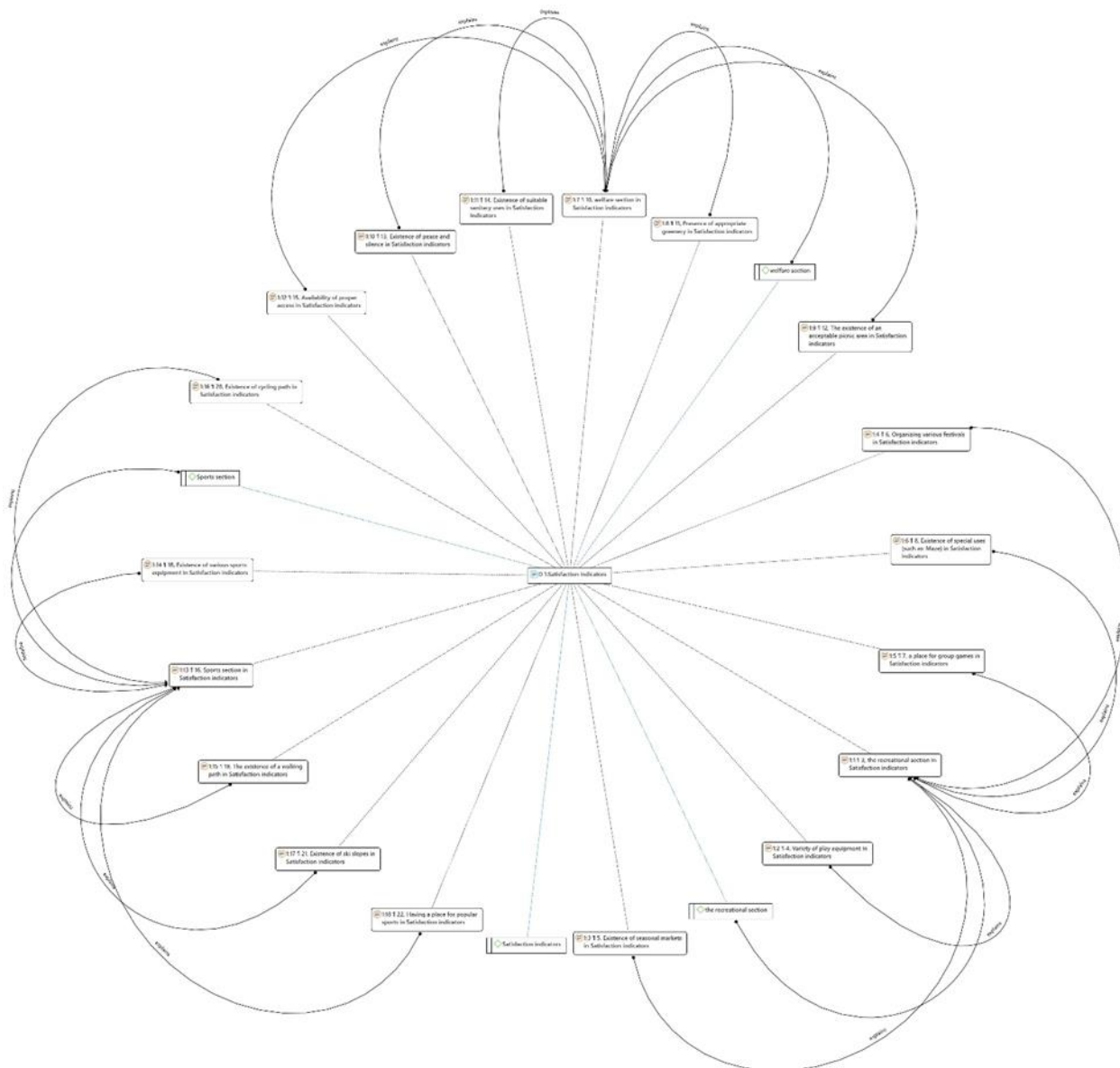
**Figure 3: Welfare indicators**



**Figure 4: Sports sector**

In the sports sector, the existence of a walking path with a total of 16 points is the most important and the existence of a ski slope with a total of 5 points is considered the least important indicator in satisfaction with urban parks. Other indicators of this section include the presence of various sports equipment with a total of 13 points, the presence of a place for popular sports with a total of 13 points, and the existence of a cycling path with a total of 7 points, respectively, which are ranked second and third in importance from the Opinions of citizens and experts are assigned to themselves(According to Figure 4).

In general, among the three sectors of recreation, comfort and sports, the presence of suitable greenery with 18 points was the most important, and the presence of suitable health uses and the presence of a ski resort with 5 points were jointly the least important indicators in satisfaction with urban parks) According to Figure 5).



**Figure 5:** Model extracted from Atlas TI software

Many studies have been conducted in the survey of satisfaction with urban parks and various factors have been considered in these studies, one of these factors is the influence of personality and moral health on the feeling of satisfaction with urban parks, which has been determined to It indirectly affects the satisfaction of urban parks (Chen et al, 2021). In this regard, gender and age also show differences in feeling satisfied with urban parks (Maniruzzaman, 2021). In connection with the specific activities in urban parks, presence in these places to achieve peace or to experience nature has a positive effect on the level of

satisfaction with urban parks, Also, educational, cultural and children's activities do not have a significant effect on the level of satisfaction (Halkos, 2021).

The more facilities that can be used in urban parks, the satisfaction with this possibility will increase as much, while the accessibility and inappropriate location of urban parks will reduce the level of satisfaction with these places (Roberts, 2019). In addition to these issues, the small size of urban parks, maintenance problems and insecurity are other factors that reduce satisfaction with urban parks (Ojeda-Revah et al, 2017).

As it is known, different factors have been investigated in different and similar researches at the world level but these studies have only often been satisfied with the opinions of citizens and have benefited from quantitative research method and also, in most of these studies, all aspects have not been given acceptable attention and the research has been done as a case study but in the present research, a qualitative method was used, and the factors affecting the satisfaction of the park were also investigated in the three sections of recreation, welfare, so that no effective factor would be hidden from the authors. Also, in this research, the authors were not limited to one park and one city, and investigated three cities to obtain a reliable result.

The obtained results show that, as in other researches, the facilities in urban parks are considered important factors in the use and satisfaction of citizens from these places and the access factor is also known among the influential factors. These facilities were examined in different sections in the current research and favorable results and alignment with the similar studies were obtained, which can be said that these results are more complete than the majority of related studies and cover various aspects.

#### **4. Conclusions**

Landscapes and urban green spaces, especially urban parks, are considered one of the most important urban spaces and can play an important role in the lives of citizens. As stated in the results section of the current research, citizens and experts graded indicators for increasing the use of urban parks and, in line with that, increasing satisfaction with these places in terms of importance. According to this classification, the presence of suitable greenery in urban parks is the most important, the presence of suitable health uses, and the existence of a ski resort are the least important indicators in satisfaction with the desired places. According to these results, it can be said that urban green space designers and planners should first pay attention to the greenery of urban parks, or in other words, reduce the hard landscape of these places and add to its soft landscape. Also, pay attention to the existence

of healthy paths such as walking paths and the presence of various playground equipment and make urban parks desirable and pleasant for the majority of people in the society.

The indicators that are placed in the next degrees of importance in the present research should not be hidden from the attention of urban green space designers and planners, but all the indicators mentioned in this research should be considered in the planning of urban green spaces and the amount of attention and their application should be according to the degree of importance of the mentioned indicators from the Opinions of citizens and experts so that the amount of visiting and using urban parks increases and in the continuation of this process, the level of satisfaction with these places also has a positive increasing trend. In general, it can be said that paying attention to the soft landscape, various play equipment and walking paths can increase the level of satisfaction with urban parks, which should be taken into account.

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