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Investigation of Important Park Features that Encourage Park Visiting, Physical Activity and Social Interaction Among Teenagers with the Case of Ihlamur Park

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ABSTRACT

Today, the rapid increase in urbanization and the concentration of population density in urban centers have increased the need for individuals to be in touch with nature. In this context, urban use areas such as urban parks play an important role in meeting the physical and social needs of teenagers. Parks are not only spaces that encourage physical activity, but also spaces that increase social interaction, strengthen community ties and support physical activities. Ihlamur Park in Konya is an important living space where teenagers show great interest, offering various activities and social opportunities. However, detailed information on the purposes for which teenagers use the park and which features of the park encourage this use has not been fully identified. The aim of this study is to examine the purposes of the use of Ihlamur Park by teenagers and to identify the features of the park that encourage physical activity and social interaction. For the research, 116 teenagers were surveyed face-to-face on the basis of the law on the protection of personal data and voluntary participation of park users by visiting the area on random days on weekdays and weekends. The survey was carried out with the approval of the Ethics Committee of Selçuk University, Faculty of Architecture and Design. By determining the level of use of teenagers, it is the preparation of a resource that park users can reach. The research also provides a comprehensive evaluation to understand the park usage habits and motivations of teenagers, and in this context, it has contributed to the development of recommendations for the design and management of parks. Thus, the importance of park features that allow teenagers to lead a more active life and increase their social interactions is emphasized.

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Introduction

Today, the rapid increase in urbanization and the concentration of population density in urban centers have increased the need for individuals to be in touch with nature. In this context, urban spaces such as urban parks play an important role in meeting the physical and social needs of young people. In addition to being spaces that encourage physical activity, parks are also spaces that increase social interaction, strengthen community ties, and support physical activity. Ihlamur Park in Konya is an important living space that attracts a lot of attention from young people and offers various activities and social opportunities. However, there is a need for detailed information about the purposes for which young people use the park and the features of the park that encourage this use.

One of the most important components of ensuring the sustainability of cities is the urban park areas organized within the city. These areas, which reflect the cultural and natural characteristics of the city and offer active and passive recreation opportunities for every individual living in the city, have effects on the city in terms of protection of natural life, improvement of air quality, regulation of urban heat by creating carbon dioxide storage heat islands, stormwater management, energy saving, employment, property value increase, social cohesion and physical/psychological health gain. Moreover, urban parks increase the quality of life of the communities in which they are located. However, to benefit from urban parks in terms of social, economic and health gains and to

contribute to the quality of life of society, it is necessary to use urban parks effectively (Çetinkaya et al. 2019).

Since the beginning of human history, human beings, who have been using nature for various purposes for a healthy life, have described urban parks, which are a small copy of nature, as areas where they feel safe to rest, have fun and engage in various activities (Gemici 2023b). As a result of the human need for nature, the need for green areas has emerged in crowded cities. Green areas have many positive functions related to healthy life (Gemici 2023a).

There are many studies on the relationship between green areas, which have an important place within the scope of comfort, landscape and equipment within the scope of green areas, and health. It is stated that there are studies showing that green areas have an effect on the reduction of air pollution and respiratory system diseases, increase in allergic complaints with tree pollen, less intake of ultraviolet rays, decrease in heat-related causes of disease, and decrease in crimes. In the health dimension, they summarised the results showing the positive effect on cognition and attention, improvement of mental health, reduction of psychosocial stress, positive relationship with the treatment of non-communicable diseases. There are also research results showing that green areas positively improve physical activity behaviours such as walking and cycling (Özcebe et al. 2022).

In order to protect the physical and mental health of the society in order to make cities capable of offering a healthy lifestyle, it is among the most important duties of planners and designers to create humane and safe spaces with social interaction, encouraging physical movement, with common public spaces such as parks, squares and tree-lined streets. Urban parks have become strategic areas that contribute to cities in terms of aesthetic, recreational, psychological, environmental, social and economic aspects, improving the quality of urban life, strengthening the image of the city, as public spaces with many purposes of use. By hosting the 'modern' reflections of urban life, these areas have started to attract attention not only as a recreational area but also as a public space where celebrations, demonstrations and sometimes protests are held. (Süleymanoğlu and Atalı 2023).

Urban green spaces meet some of the human needs and affect the health, welfare levels and behaviours of the residents of nearby cities. Among these behaviours are people's physical activity attitudes. Research has shown that urban green spaces are associated with people's physical activity. On the one hand, urban green spaces encourage people's physical activity, and on the other hand, physical activity contributes positively to human health. For this reason, it is important to determine the factors affecting people's use of urban green spaces for physical activity. Studies have found a significant relationship between urban green spaces with certain characteristics and the frequency and duration of people's physical activity. Studies have revealed that urban green areas with certain characteristics such as walking paths, many trees, drinking water and shade, exercise equipment, vehicle and bicycle parking areas, picnic areas, sports areas, lighting and walking paths and water elements are associated with physical activity level (Akpınar 2019).

Informing individuals and increasing the level of environmental awareness or developing environmental awareness play an important role in preventing environmental problems. Environmental awareness is defined as using the environment at a sustainable level without harming it. In different definitions, it is defined as increasing the sensitivity of using the natural environment by protecting it, supporting life in an ecologically balanced environment and changing behaviours against environmental problems. Determining the environmental awareness, attitudes and sensitivity values of individuals in any region will provide a framework for taking measures to protect the environment and nature (Kahveci and Yücel 2023).

According to Çolakkadıoğlu (2021), the amount of open and green areas in cities in Turkey is insufficient and below the required standard. The insufficiency of open and green areas, which should be an important part of urban life, is the most important threat not only for metropolises but also for medium and small-sized cities in Turkey.

The aim of this study is to examine the purposes of the use of Ihlamur Park by young people and to identify the features of the park that encourage physical activity and social interaction. By determining the level of use by young people, it is the preparation of a resource that park users can reach. This study is at a level to meet the expectations and needs of young park users and to support new studies.

The research will also provide a comprehensive evaluation to understand the park usage habits and motivations of young people, and in this context, it will contribute to the development of recommendations for the design and management of parks. Thus, the importance of park features that allow young people to lead a more active life and increase their social interactions will be emphasized.

Materials and Methods

Ihlamur Park, the main research area of the study, is located in the Selçuklu district of Konya province. The park is an important living space that attracts the attention of young people with its large green areas, walking paths, sports fields and seating areas.

The location and environmental relations of the park, general characteristics of the park, social characteristics of the park users such as marital status, gender, age, education level, occupation, purpose of park use, frequency of use, days of use, time spent in the park, conditions of park use such as evaluation of the park in terms of design, satisfaction and dissatisfaction factors such as reinforcing elements, green space and planting, cleaning and maintenance, security, transportation, adequacy of parking were determined. The compliance of the reinforcing elements present in the area with the standards was measured using the Starline Tape Measure 5 Mt 25 Mm 590X and their safety was checked.

According to Yemenici 2019 and Güngör 2019, in order to obtain reliable results from the survey, it should be applied to at least 30 people according to the "central limit theorem". Even if you exceed this number by tens of people, the result you will obtain according to the central limit theorem will be very close (similar). However, in order to increase the reliability of our study, 116 people were surveyed.

To examine the use of the park, according to the Snowball technique, a face-to-face survey was conducted by going to the research area on random days and hours on weekdays and weekends, and a face-to-face survey was conducted with the park users on the basis of the law on the protection of personal data and voluntariness. Approval was obtained from the Ethics Committee of Selçuk University, Faculty of Architecture and Design for the survey.

Discussion

The sample group of the study consisted of young people aged 16-25 living in Konya city centre and using Ihlamur Park. The samples were determined by random sampling method and the collected data were determined by Chi-Square analysis using SPSS (Statistical Package for the Social Sciences) program. Frequency distributions, cross tabulations and statistical analyses were performed for the survey results. The data obtained from the questionnaire were evaluated using quantitative and qualitative analysis techniques. Quantitative data were analysed as frequencies and percentages and the relationships between demographic characteristics and park use were examined. Qualitative data were analyzed by content analysis method and the relationships between the expectations and needs of young park users and park characteristics were tried to be determined.

In a face-to-face interview (Kaklık 2023), with Mr. Nail KAKLIK Director of Parks and Gardens of Konya Metropolitan Municipality. During the face-to-face interview with Nail KAKLIK, the information about Ihlamur Park located in Konya province, Selçuklu district, Yazır neighborhood is as follows: The park has a total area of 43.000 m^2. Of this area, 25.170 m^2 consists of grass areas and 2.530 m^2 consists of shrub areas. There are 1,220 trees and 32,389 shrubs in the area.

General uses in the project; football field 35×20 = 700m² (artificial turf), basketball court 30×17 = 510 m² (acrylic flooring), bicycle path 718×2 = 1436 m² (hardened concrete floor), walking track 654 × 2,4 = 1570 m² (cast rubber floor 4cm thick). Skateboard track (asphalt floor), fitness station, gothic tower, playhouse, rope adventure track, climbing logs, pyramid playground, trampoline, bird's nest playground, forest play tower, disabled swing, bird's nest swing, rope swing, spherical playground, rope seesaw, stainless slide, cable car, climbing wall, human figured transition wall, young age group activity area, wooden tunnel. The equipment elements in the park are; Square and Pool (Pool area: 100 m². Depth 0.5metre), Wooden Square Pergola (4×4 metres) 11 pieces, Wooden S Pergola (35 metres long), Wooden Benches (37 pieces), Wooden Seating Units on the Wall (100 m long), Amphitheatre (80 people). The materials used in the flooring of the park are Bougainite Cube Stone (4.523m²), Bougainite 50 kerbs (5.832 m3).

Evaluation of Survey Results According to Chi-Square Analysis

(PS. Since our analysis results will exceed the number of pages allowed in the article, only one example is given for the chi-square test, and the other hypotheses are written as text).

Hypothesis 1

Hypothesis 1.1: Most park users are female.

Hypothesis 1.2: Most park users are male.

According to the results of the questionnaire (Table 1) for Hypothesis 1, when evaluated in the Chi-Square analysis; it is concluded that most of the female users use the park once a week.

Hypothesis 2:

Hypothesis 2.1: Individuals aged 0-18 years want to spend more time in the park.

Hypothesis 2.2: Individuals between the ages of 18-25 have less desire to go to the park.

When Hypothesis 2 is evaluated in Chi- Square analysis according to the survey results, it is concluded that the users between the ages of 0-18 use the park several times a week. Accordingly, Hypothesis 2.1 (Individuals between the ages of 0-18 want to spend more time in the park) has been proven to be true.

Hypothesis 3:

Hypothesis 3.1: There is no effect of educational status on park-going individuals.

Hypothesis 3.2: Individuals who go to the park consist of people who continue their education.

When Hypothesis 3 is evaluated by Chi- Square analysis according to the survey results, it is concluded that university students use the park several times a month. Accordingly, Hypothesis 3.2 (Individuals who go to the park consist of people who continue their education) is proven to be true.

Hypothesis 4:

Hypothesis 4.1: The majority of individuals using the park are not employed.

Hypothesis 4.2: The majority of individuals using the park are public employees.

Table 1. How often do you use the park? Crosstabulation and Chi-Square Tests

Crosstabulation			How often do you use the park?						Total
			1	2	3	4	5	6	
Your Gender?	Male	Count	5	6	3	13	16	7	50
		EC	7.8	6.9	4.7	9.5	15.5	5.6	50,0
		UP	27.8%	37.5%	27.3%	59.1%	44.4%	53.8%	43,1%
	Female	Count	13	10	8	9	20	6	66
		EC	10.2	9.1	6.3	12.5	20.5	7.4	66,0
		UP	72.2%	62.5%	72.7%	40.9%	55.6%	46.2%	56,9%
Total		Count	18	16	11	22	36	13	116
		EC	18,0	16.0	11.0	22.0	36.0	13.0	116.0
		UP	100,0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

1: Once a month; 2: Several times a month; 3: Other; 4: Once a week; 5: Several times a week; 6: Every day; EC: Expected Count; UP: % within How often do you use the park?

Table 2. How often do you use the park?

How often do you use the park?	Male	Female
Once a month	5	13
Several times a month	6	10
Other	3	8
Once a week	13	9
Several times a week	16	20
Everyday	7	6

Table 3. Chi-Square Tests for How often do you use the park?

Chi-Square Tests	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.984[a]	5	0.308
Likelihood Ratio	6.092	5	0.297
N of Valid Cases	116		
a. 1 cells (8,3%) have expected count less than 5. The minimum expected count is 4,74.			

When Hypothesis 4 is evaluated by Chi- Square analysis according to the results of the survey, it is concluded that most of the park users who do not work use the park several times a week. Accordingly, Hypothesis 4.1 (The majority of the individuals who use the park do not work) is proven to be true.

Hypothesis 5:

Hypothesis 5.1: The park is used once a month by the users in Yazır neighbourhood.

Hypothesis 5.2: The park is used several times a week by the users in Yazır neighbourhood.

When Hypothesis 5 is evaluated with Chi- Square analysis according to the survey results, it is concluded that the users residing in Yazır neighbourhood use the park several times a week. Accordingly, Hypothesis 5.2 (The park is used several times a week by the users in Yazır neighbourhood) is proven to be true.

Hypothesis 6:

Hypothesis 6.1: The biggest benefit of the park for social interaction is to make new friends.

Hypothesis 6.2: When we look at the social interaction in the park, there is no benefit in making new friends.

When Hypothesis 6 is evaluated by Chi- Square analysis according to the survey results, it is concluded that the park increases the social interaction between users. This proves the accuracy of Hypothesis 6.1 (The biggest benefit of the park to social interaction was to make new friends).

Hypothesis 7:

Hypothesis 7.1: Those who come to the park to spend time outdoors find the play elements in the park sufficient.

Hypothesis 7.2: Those who come to the park to spend time outdoors do not find the play elements in the park sufficient.

When Hypothesis 7 is evaluated by Chi- Square analysis according to the survey results, it is concluded that the amount of play elements in the park is considered sufficient by the users who use the park outdoors. This proves the accuracy of Hypothesis 7.1 (Those who come to the park to spend time outdoors find the seating elements in the park sufficient).

Hypothesis 8:

Hypothesis 8.1: Park users between the ages of 18-25 find the use of new generation fitnees equipment sufficient.

Hypothesis 8.2: Park users between the ages of 18-25 do not find the use of new generation fitnees equipment sufficient.

When Hypothesis 8 is evaluated by Chi- Square analysis according to the survey results; it is concluded that the new generation fitness equipment in the park is sufficient according to the users between the ages of 0-18. This proves the accuracy of Hypothesis 8.1 (Park users between the ages of 18-25 find the use of new generation fitness equipment sufficient).

Conclusion

While most of the park users are women who use the park once a week, the group that uses the park every day is men. It was concluded that most of the users between the ages of 0-18 use the park several times a week and most university students use the park several times a month. It was concluded that most of the users residing in Yazır neighborhood access the park on foot. In the summer months, the park is mostly used by individuals who do not work or are students. Users use the park with their families and to spend time outdoors. The park is most intensively used between 13.00- 15.00 hours. The opinion of the users who use the park is that visiting the park increases social interaction. Park users found the park lighting sufficient. It was concluded that the danger of stray animals in the park poses an average security problem. It is concluded that shading vegetation in the park is sufficient. It is concluded that the amount of play elements in the park is sufficient by the users who use the park outdoors. According to the users who use the park, the width of the pedestrian paths is sufficient. Users between the ages of 0-18 stated that the new generation fitness equipment in the park is sufficient, and they usually come to the park with their families. It is concluded that users who come to the park with their families mostly use pedestrian access. It was determined that the amount of grass area of the park was sufficient, and the park was generally found to be beautiful. It is understood that users between the ages of 0-18 use the park to spend time outdoors and prefer lunch hours. The survey

results show that female park users can benefit from the park sufficiently and park their vehicles more easily around the park.

Ihlamur Park is preferred by teenagers with its green areas and sports facilities. The fact that the urban furniture, especially the lighting, is sufficient has enabled women users to use the park safely even at night. Located in the center of many public housing estates, the park is very easy to reach on foot and public transport is also available.

Declarations

Ethical Approval Certificate

The experimental procedures of this study were approved by the Ethics Committee of Selçuk University, Architecture and Design Faculty (Approval date and number: 03/11/2023-09/05).

Author Contribution Statement

Please indicate how each author contributed to this work and at what stage. For example:

Sertaç Güngör: Project administration, supervision, conceptualization, methodology, review, editing and writing the original draft

Sabriye Özer and Murat Seyhan: Data collection, investigation and formal analysis,

Conflict of Interest

The authors declare no conflict of interest.

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