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Research Article

EVALUATION OF PARKS IN ÇANAKKALE CITY CENTER DURING THE COVID-19 PANDEMIC PROCESS

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ABSTRACT. This study was carried out in Çanakkale City Center between November 2020 and March 2021 to reveal the current status of public open green spaces and neighborhood parks in Çanakkale City Center during the Covid 19 pandemic process. It was examined in 7 neighborhoods and 15 public parks, in the city center on-site. The average open green space per capita in the neighborhoods of Çanakkale City Center was 11.54 m2. The amount of green space per capita in the neighborhoods varied. The neighborhood with the highest green area per capita is Fevzipaşa Neighborhood, and the neighborhood with the lowest per capita green area is Cevatpaşa Neighborhood. Esenler Neighborhood, which has the largest open green space, ranked second in the amount of green space per capita. The condition of the studied parks was found to be close to medium level. Among the parks, the Halk Bahçesi was found at the top. The general conditions of Rotary Park, Osnabrück Park and 500. Yıl Park were found to be poor. Although the playgrounds of the parks are in good condition, animal housing and toilets are poor. The deficiencies and inadequacies of warning signs, sports equipment and irrigation systems were mostly determined in the examined parks.

Keywords: *Open green spaces, city center, neighborhood park, monitoring, sustainability*

INTRODUCTION

Migration from rural areas to urban areas for a better life and income has led to the rapid construction of urban areas and the decrease of urban open green spaces. Urban green spaces have significant effects on the city and urbanite. Urban open green spaces contribute to urban aesthetics and create more liveable areas by reducing the heat island effect on the city. Urban open green spaces absorb dust and noise in the city and help clean the city air. Urban open green spaces provide habitats for other living things (Lam et al., 2005; Bogenç et al., 2018). Urban open green spaces are areas where the citizens breathe, relieve their stress, come together, socialize, and have the opportunity to return to their own nature. The proportional distribution of these areas with the buildings in the city is necessary for the creation of healthy living spaces [1, 2]. With the rapid population growth in cities, the decrease in green areas causes the amount of green space per capita to decrease day by day [3, 4]. The size and distribution of the public open green spaces used for recreational purposes are closely related to the distribution of the population in the city. The numerical ratio of the urban population is an important factor in determining the size of public open green spaces. The places where the population is settled and their distances to open green spaces are important in terms of the area usability [5]. The World Health Organization [6] reports that the amount of green space per capita should be at least 9 m^2 in order to enable individuals to benefit more from public open green spaces.

This study was carried out to reveal the current situation of public open green spaces and neighborhood parks in Çanakkale City Center during the Covid 19 pandemic process.

MATERIAL AND METHOD

This study was carried out in 15 different public parks in 7 neighborhoods (Fig. 1) in Çanakkale City Center between November 2020 and March 2021 during the Covid 19 pandemic process. The sizes of the study areas were obtained from Çanakkale Municipality Parks and Gardens Directorate [7], and neighborhood population data were obtained from The Turkish Statistical Institute [8]. The amount of open green space per person was obtained by dividing the size of the green space by body count. Photographs of the parks were taken and the lighting elements, plant care, plant diversity-adequacy, sitting groups, trash cans, walking paths, animal housing, space limitation, irrigation system, warning signs, children's playgrounds, sports equipment, entrance clarity, toilets of the parks were examined on-site. These parameters were evaluated using a Likert scale (1: very poor, 2: poor, 3: moderate, 4: good, 5: very good).

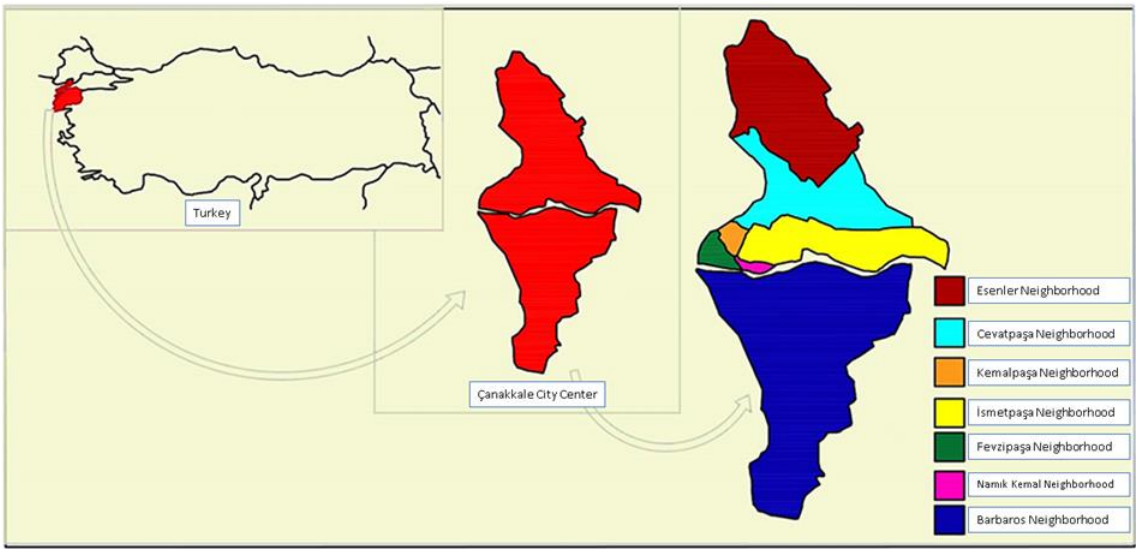

Fig. 1. *The location of the research areas*

RESULTS

Among the neighborhoods of Çanakkale City Center, the neighborhood with the largest population and area was Barboros Neighborhood. The neighborhood with the lowest population and surface area was Namık Kemal Neighborhood. The amount of green space per capita in Namık Kemal Neighborhood was more than twice that of Barboros Neighborhood. The neighborhood with the highest green space per capita was Fevzipaşa Neighborhood, and the neighborhood with the lowest per capita green area was Cevatpaşa Neighborhood. Esenler Neighborhood which had the largest open green area ranks second in terms of green area per capita (Table 1).

Table 1. *Open Green Space Status of Çanakkale City Center Neighborhoods (Anonymous, 2021ab)*

Neighborhood Name	Population (person)	Surface Area (ha)	Green Space (m^2)	Green Space Per Capita (m^2/person)
Barbaros Neighborhood	56904	791	384810.24	6.76
Cevatpaşa Neighborhood	22234	250	113139.89	5.09
Esenler Neighborhood	29402	355	746255.99	25.38
Fevzipaşa Neighborhood	1928	18	68682.00	35.62
İsmetpaşa Neighborhood	21319	233	208796.96	9.79
Kemalpaşa Neighborhood	1638	192	12450.25	7.60
Namık Kemal Neighborhood	1053	11	17119.98	16.26
Total	134478	1850	1551215.31	Mean:11.54

The mean of the open green space per capita in Çanakkale City Center neighborhoods was 11.54 m^2. The World Health Organization [6] states that the minimum amount of green space per person should be 9 m^2. The amount of green space per capita was specified as 10 m^2 in the municipal adjacent area [9]. It is very difficult to say that the amount of green space per capita in cities across Turkey has reached 10 m^2 [10]. Although the mean amount of the green space per capita in Çanakkale City Center neighborhoods was above 10 m^2, Cevat Paşa Neighborhood, Barbaros Neighborhood, Kemalpaşa Neighborhood and İsmetpaşa Neighborhood were below these values. It can be said that this distribution is affected by the over-construction in the neighborhoods. The evaluation of the parks selected from Çanakkale City Center neighborhoods was carried out as shown in Table 2.

The images of the studied parks are shown in Figures 2 and 16 on the basis of Neighborhoods. In terms of the evaluated parameters, the condition of the parks in the study area was found to be close to the middle level. Among the evaluated parks, the Halk Bahçesi was at the top. The general conditions of Rotary Park, Osnabrück Park and 500. Yıl Park were found to be poor. In terms of the parameters discussed, the highest mean evaluation score in the parks was determined in the children's playgrounds. The availability and adequacy of the animal shelters and toilets were found to be weak. The deficiencies and inadequacies of the warning signs, sports equipment and irrigation systems were mostly determined in the parks examined.

Table 2. Evaluation of Çanakkale City Center neighborhood parks

Criteria /Parks	Özgürlük Park	Masal Park	İsmail Bütün Seramik Park	Havantabya Park	Barışkent Park	500.Yıl Park	Rotary Park	Halk Bahçesi	Ahmet Taner Kışlalı Park	Anadolu Hamidiye Tabyası Park	Kooparatifler Birliği Park	Osnabrück Park	Çataltepeliler Belediye Park	Hasan Koyuncu Park	Muammer Aksoy Park	Mean
Lighting elements	4	4	5	1	4	2	2	4	5	5	2	2	3	3	4	3.3
Plant care	4	3	4	3	4	2	2	5	5	5	3	3	4	2	4	3.5
Plant diversity	5	3	2	2	4	2	2	5	5	3	3	2	4	2	4	3.2
Sitting groups	3	3	5	3	4	1	1	5	5	4	3	2	3	2	5	3.3
Trash cans	4	5	1	3	3	2	2	4	4	4	2	2	2	2	5	3.0
Walking paths	4	3	4	4	4	3	3	5	4	4	3	3	4	3	4	3.7
Animal housing	1	1	4	1	1	1	1	3	1	1	1	1	1	3	1	1.5
Space limitation	5	4	4	4	5	4	3	5	4	5	2	2	2	3	1	3.5
Irrigation system	4	2	3	2	3	1	1	5	5	2	1	1	4	1	3	2.5
Warning signs	3	3	1	2	2	1	2	4	3	2	1	1	1	2	1	1.9
Children's playgrounds	5	5	5	5	5	3	3	5	4	5	3	3	3	3	4	4.1
Sports equipments	4	1	1	4	1	3	1	5	5	1	4	1	4	1	1	2.5
Entrance clarity	4	5	5	5	5	2	2	5	5	5	4	2	1	4	1	3.7
Toilets	5	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1.5
Mean	3.9	3.1	3.2	2.9	3.3	2.0	1.9	4.4	4.0	3.6	2.4	1.9	2.6	2.3	2.8	2.9

Fig. 2. *Kemalpaşa Neighborhood / Muammer Aksoy Park*

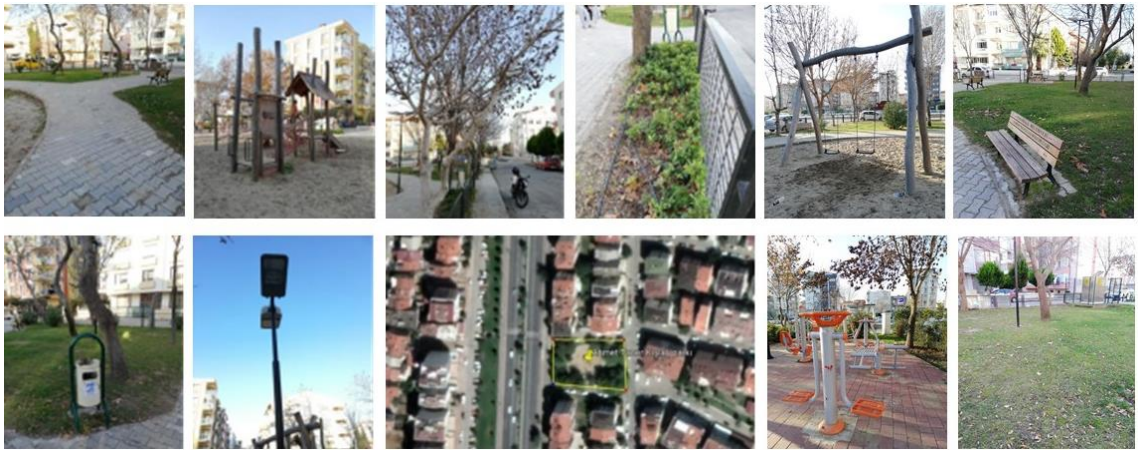

Fig. 3. *Barbaros Neighborhood / Ahmet Taner Kışlalı Park*

Fig. 4. *Barbaros Neighborhood / Anadolu Hamidiye Tabyası Park*

Fig. 5. *Barbaros Neighborhood / Kooparatifler Birliği Park*

Fig. 6. *Barbaros Neighborhood / Osnabrück Park*

Fig. 7. *Esenler Neighborhood / Özgürlük Park*

Fig. 8. *Esenler Neighborhood / Masal Park*

Fig. 9. *Esenler Neighborhood / İsmail Bütün Seramik Park*

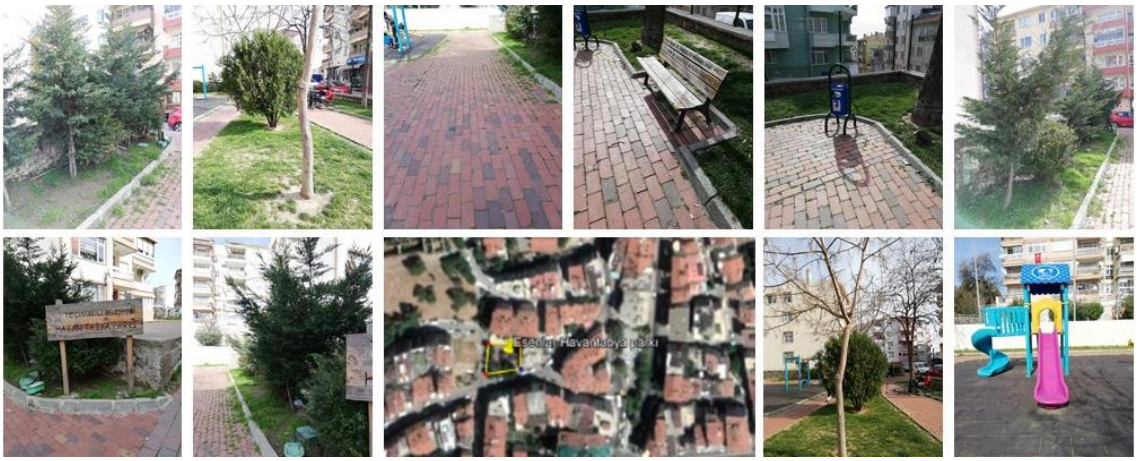

Fig. 10. *Esenler Neighborhood / Havan Tabya Park*

Fig. 11. *Esenler Neighborhood / Barışkent Park*

Fig. 12. *Cevatpaşa Neighborhood / 500.Yıl Park*

Fig. 13. *Cevatpaşa Neighborhood / Rotary Park*

Fig. 14. *Cevatpaşa Neighborhood / Halk Bahçesi*

Fig. 15. *İsmetpaşa Neighborhood / Çataltepeliler Belediye Park*

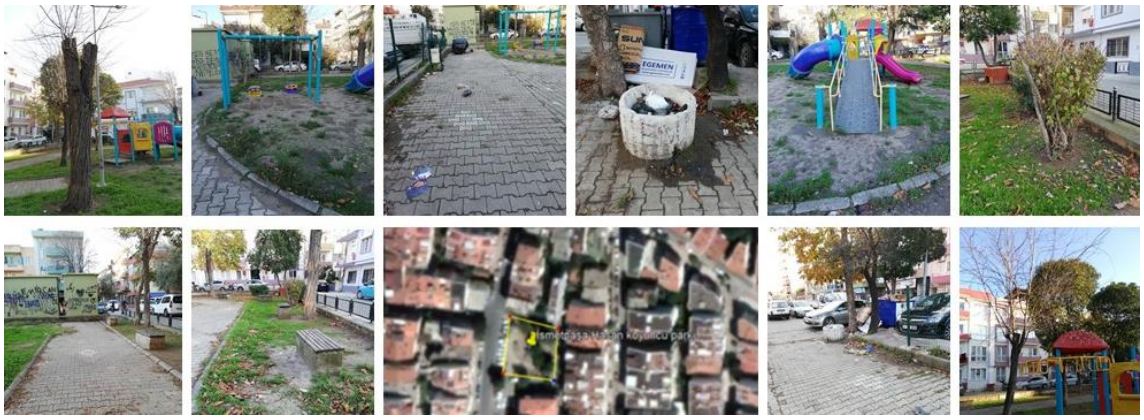

Fig. 16. *İsmetpaşa Neighborhood / Hasan Koyuncu Park*

CONCLUSIONS

It was determined that the population and open green spaces were not evenly distributed in Çanakkale City Center neighborhoods. The amount of green space per capita can be increased by creating new open green spaces in places where the population is high. Positioning the parks according to population growth will make it easier for users to access the parks. The deficiencies and inadequacies of the animal shelters, toilets, warning signs, sports equipments and irrigation systems in the parks can be eliminated, and a more effective and sustainable use of the areas can be achieved.

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