

DOI: [10.38027/ICCAUA2021222N14](https://doi.org/10.38027/ICCAUA2021222N14)

Social Distance Applications in Urban Green Areas in Pandemic

* Assoc. Prof. Dr. Elif BAYRAMOĞLU¹, Prof. Dr. Banu Çiçek KURDOĞLU² and Res. Assist. Seyhan SEYHAN³
Karadeniz Technical University, Faculty of Forestry, Department of Landscape Architecture, Trabzon, Turkey¹⁻²⁻³
E-mail^{1*}: elifsol_@hotmail.com, E-mail²: banukurdoglu@gmail.com, E-mail³: seyhanseyhan2@gmail.com

Abstract

The COVID-19 virus, which affects the whole world, poses a threat to humanity in a short time. This threat has limited daily life by creating fear and anxiety in people. The "new normal" process started in March 2020. In this process, restrictions were imposed on outdoor use to prevent the spread of the epidemic. It is necessary to stay away from closed and crowded environments and socialize in groups. The use of open green spaces has become inevitable for a social being to be well-mannered both mentally and physically. The importance of open green spaces has gained more value during the pandemic process and has become an escape point for people. Urban designers have developed planning proposals for open green spaces during the pandemic period. According to the social distance rules, venue designs and activity diversity were applied. People started using open spaces to reduce the spiritual impact of the pandemic. However, social distance rule was introduced in open areas. This rule created the need to re-plan open green spaces.

This study was conducted to examine the status of urban open green spaces during the pandemic process. Applications within this scope have been examined and evaluated. The pandemic process is not over and it is not known how the process will end. Therefore, the use of open spaces should be considered in new design approaches. Different city users were offered suggestions regarding their preferences.

Keywords: Social distance; COVID-19; Architectural Design; Urban green areas.

1. Introduction

COVID-19 emerged as of the end of 2019 and affected the whole world in the first quarter of 2020 (Ensarioğlu, 2020). After the Covid-19 virus, which first started in China, there have been various changes in the economic, cultural and sociological structures of societies. The virus, which started in 2019 and spread rapidly around the world as of 2020, caused thousands of people to die. With the onset of the spread, countries tried to keep the process under control with various precautionary policies. (Erdogan & Yavuz, 2020). This disease, the cause of which is still unknown, was reported to WHO. Studies conducted after this notification show that the virus has a zoonotic source (passed from animals to humans) (Dinçtürk et.al., 2020). This new type of coronavirus originated from the World Health Organization (WHO) on February 11, 2020. He named the disease COVID-19 and declared a "pandemic", meaning a global epidemic, in March (WHO, 2019).

The oldest known pandemic in history was seen in a prehistoric settlement (Haming Mangha) in north-eastern China around 3000 years before Christ (Laes, 2017). Pandemics do not lead to the formation of history, but act as a catalyst for people to progress faster in history. With the announcement of the pandemic, our lives changed overnight. With increasing measures and restrictions, normal life is left behind (Aydın & Doğan, 2020). Perhaps the first beginnings of a new life appeared in March 2020. Increasing morbidity and mortality has brought many restrictions. Normal life has taken its place as new normal. Countries have tried to affect the rate of spread of the epidemic. For this purpose, they have taken measures such as preventing outdoor use, imposing travel restrictions, quarantining their citizens, and cancelling large meetings such as sports and concert events. In this sense, the dynamics of the urban and rural environment have changed. (UNDP, 2020). It is not known when and how this process, which we are still experiencing, will end. In this case, each country has taken measures according to its own number of cases and deaths. In our country, various measures and measures have been taken such as flight bans, travel bans, curfews, quarantine, filming, and the obligation to wear a mask. With these measures, citizens stayed at home throughout the pandemic period, the isolation approach, which aims to minimize free movement, has become a mandatory approach adopted by countries around the world. (Düşünceli et al., 2020). The current situation in the world at the moment is as in Figure 1 (14 March 2021).

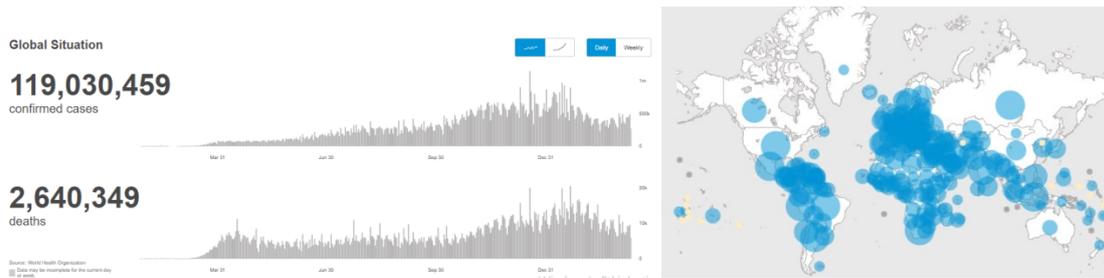


Figure 1. The Current Situation In The World (WHO, 2021)

The pandemic, which has affected the world, has negatively affected people in every sense. Especially in line with the measures, people staying at home have increased their longing for open spaces. When the restriction is free, it has become important that the social contact decreases and individuals maintain their social distances. Studies have shown that urban open green spaces prevent the spread of the disease when necessary conditions are met (Du et al. 2020). In a study conducted in Japan, it is recommended to avoid these three situations: poorly ventilated indoor spaces, crowded spaces and close contact (Furuse et al. 2020).

2. Pandemic In Urban Open Green Spaces

The COVID-19 pandemic has created an emergency by changing many definitions of the public sphere. In many countries contrary to the principle of “being open and accessible to everyone” in the definition of public space, access to public spaces has been prohibited. Many principles that are considered important to humans have begun to lose their validity. Differences and obligations in life have changed with new normal (Durukan & Öztürk, 2020). The COVID-19 pandemic causes physical suffering to individuals suffering from the disease. In addition, it creates negative situations such as panic, sadness, fear and anger that create mental depression and destruction in healthy individuals (Reger et al., 2020). Therefore, the demand for open green areas has increased more. Urban open green spaces receive lots of natural light, and well-ventilated common areas can prevent the spread of infectious diseases. It started to be used more in the days and hours when there were no restrictions on open green areas. On the contrary, the demand for closed areas and shopping centres decreased, instead of the demand for open stores was preferred. People who shy away from, or even fear, closed spaces have found themselves in “open spaces”. Figure 2 shows the open space preferences used in the pandemic process.



Figure 2. Pandemic In Urban Open Green Spaces (URL, 1)

3. Distance-Use Of Open Green Space In The Pandemic

Measures taken to reduce the pace of the epidemic (quarantine people, cancel sports and similar activities) have changed urban and rural uses (UNDP, 2020). It has revealed the necessity of evaluating the COVID 19 pandemic, which spreads rapidly with very little social distance in urban spaces, as an urbanization problem (Dinçtürk et al., 2020). Brooks et al. (2020) has been stated that isolation due to social distance due to COVID-19 can be stressful especially for people living alone (Samuelsson et al., 2020). In cities where urban planning is weak, this situation is more understandable.

A precaution for the epidemics encountered, planning and design relations. As a result, it has been revealed that open spaces also have effects supporting public health. Improving the conditions of the cities; It motivated planners, architects and engineers to redesign cities in the late 19th century. There has been an increase in interest in the relationship between health and urban planning since the 1990s. This field has been nurtured by academics from various disciplines such as landscape architecture, city and regional planning, public health and environmental

psychology (Honey-Roses et al., 2020). It has emerged during COVID-19 that every individual should have easy access to open space.

According to Gehl (2020), the importance of urban open green areas in contact with nature was understood in this period. During the COVID-19 pandemic, an online survey of 2023 people from different countries was conducted over a ten-day period in April. As a result of the research, surprising results have been revealed on the use of public space. According to the study, 35% of the participants stated that they never used public spaces except for mandatory work during the pandemic. This group stated that the narrow sidewalks cause irregularity in terms of social distance or that they cannot use the public space because they have elderly people to care for or work to do in their homes (Gehl, 2020).

The concept that shows the relations of a person belonging to a certain social class with other classes and people and groups in that class, and the relations between classes in a society is the concept of "social distance" (Bogardus, 1959). Social distancing refers to practices deemed appropriate or mandated by health authorities in order to minimize the possibility of infected persons (infected by a disease-causing organism) transmitting the disease to other persons (Finkelstein et al., 2010)

People's social roles, status, etc. distances of 1-2.5 meters created due to the locations constitute the social area (distance). People position themselves according to their environment and situation and determine their boundaries according to this distance. Social Distance; It shows at what distance social groups are willing to keep their privacy boundaries. This distance is also the similarity, proximity and distance based on social variables (Marshall, 1999). In this area, which is mostly an official area, communication is known, it is known as informing distance, it is acted for purposes such as acting together and providing functionality. While the close social area is 80 to 140 cm, this area is the ideal space for business meetings and social gatherings. The remote social area is 1.5-2 m and it is considered suitable for workplace meetings (Özşenler, 2021; Gürüz & Eğinli, 2012). In order to prevent the contamination of the disease agent, the persons were asked to maintain a physical distance of 1.5 meters in the environment where they are together. All of these attitudes and behaviours have been evaluated as social distance. Although the number of epidemics seems to be decreasing, it is necessary to maintain social distance for a while and avoid socialization.

Social distance is divided into two as the close phase: 1.20-2.15m and the Far Phase: 2.15-3.6m. It is emphasized that the boundary that separates the far phase and the near phase of personal distance is the dominance boundary (Gürüz & Eğinli, 2012). The concept of social distance is actually a pre-existing concept. However, it has come to the fore again with Covid-19. The concept of social distance, which was previously preferred for different purposes, is now obligatory. When evaluated in this context, measures have been taken for different uses in urban open areas. For example, the social distance rule was applied by reducing the number of tables in dining areas (Figure 3).



Figure 3. Eating Areas According To The Social Distance Rule (URL, 2; URL,3)

Similarly, the reinforcements used in open green areas are re-evaluated with the rule of distance from social. In this context, different equipment has been designed for sitting activity, for lying down and resting.



Figure 4. Sitting Areas In Open Areas According To The Social Distance (URL, 4)

As the most obvious example, the social distance rule has been applied in open green areas, on wide grass surfaces, beach sides and parks. For this purpose, social distance rings were drawn in order to remember and maintain the social distance rules. Circles were prepared by the İzmir Metropolitan Municipality Department of Parks and Gardens with a diameter of 2.4 meters at minimum intervals of 1.8 meters in green areas. In this context, people preferred to sit in circles in accordance with the social distance rule.



Figure 5. Social Distance Rule With Rings (URL, 5)

Similarly, the Galeria EL Art Center in Elbląg (Poland) came up with a simple but clever idea. A large lawn in its public courtyard has been turned into a green chessboard. This grass pattern helps maintain the recommended social distance regarding the coronavirus outbreak.



Figure 6. The Galeria EL Art Center in Elbląg (Poland) (URL, 6)

Austrian Design Studio Precht envisioned what the future park could be while integrating the rules of social distancing into the context of the current health crisis. The "distance park" allows visitors to walk outside while

maintaining distance during the current pandemic. The park was proposed for an empty space in the city, as the famous Schönbrunn and Belvedere parks in Vienna are currently closed. The social distancing park has multiple routes divided by 90-centimetre-wide fences to ensure a safe physical distance between its visitors. Although Precht park was designed during the current coronavirus outbreak, he believes social distancing park will be a beneficial environment for cities after the pandemic (URL, 7).



Figure 7. Distance Park (URL, 7)

4. Conclusion

It is known that epidemic diseases constitute important problems for humanity throughout history. The COVID-19 pandemic that emerged in the 21st century is also one of the important turning points for humanity. The epidemic situation has weakened people's interaction with the public sphere. Covid-19 is seen to eliminate, change or reveal new needs, some of the usual needs in Turkey.

Due to the virus risk in the cities, some people can spend their weekend activities in city centres²⁰, shopping malls, cafes, etc. Instead of spending time in places, it is integrated with nature such as hiking, camping and going to the plateau. In this process, people started to use green areas with their family when there was no curfew. Green areas, especially small neighbourhood parks, are used more in cities where there is a restriction on going out. The epidemic situation has changed the types and distribution of green spaces used in cities. People have used their preferences to relax, rest, relieve stress and protect themselves from the risk of disease, to return to nature, where the risk of epidemic is much less in the absence of people. In this context, the social distance rule determined by local administrations has started to be applied in open areas. Urban parks, equipment elements and walking areas in the parks are arranged according to the social distance rule. The Covid-19 era has made people understand more about the value of nature.

The current pandemic process will be effective in urban open space planning. In this context, urban circulation systems should be improved in order to increase the rate of physical activity.

Acknowledgement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interests

The Authors declare no conflict of interest.

References

- Atanur, G. S. (2020) Covid 19 ve Neden Evinizin Yanındaki Bahçeye İhtiyacınız Var? [Covid 19 and Why You Need a Garden Near Your Home]. Healthy Cities Association of Turkey, <https://www.skb.gov.tr/wp-content/uploads/2020/09/COVID-19-ve-Neden-Evinizin-Yanındaki-Bahceye-Ihtiyaciniz-Var-Doc.-Dr.Gul-Sayan-Atanur.pdf>.
- Aydın, B., Doğan, M. (2020). Evaluation of Effects of the COVID-19 Pandemic on Touristic Consumption Behavior and Tourism in Turkey. *Journal of Theory and Practice in Marketing*, 6 (1), pp.93-115.
- Bogardus, E.S., (1959) *Social Distance*, Ohio:Yellow Springs, Antioch Press.
- Dinçtürk, C., Dal, İ., & Açıkşöz, S. (2020). Doctrines of the Pandemic and New Outdoor Uses, *Journal of Bartın Faculty of Forestry*, 22(3), 791-801. Doi: 10.24011/barofd.773189.

- Durukan, A., Öztürk, Özkal B. (2020). Interior Architectural Consequences Of Global Epidemic: Designing the Void and be Recovered From the Void Blindness. *Journal of Social and Humanities Sciences Research*, 7(56), pp.1962-1968. <http://dx.doi.org/10.26450/jshsr.1954>.
- Du, Z., Xu, X., Lin, W., Fox, S., Cowling, B., Galvani, A., Meyers, L. A., 2020 Effects of proactive social distancing on COVID-19 outbreaks in 58 cities, China. *Emerging Infectious Diseases*, Vol: 26, 9. September, 2020
- Düşünceli, F., Arı, Ö., Evren, M., & Kavak, O. (2020). COVID-19 Sürecinde Mardin Artuklu Üniversitesi, Uzaktan Eğitim Sistemi, Eğitim-Öğretim ile Araştırma Faaliyetlerinin Değerlendirilmesi. [Evaluation of Mardin Artuklu University, Distance Education System, Education and Research Activities in the COVID-19 Process]. https://www.artuklu.edu.tr/upload/posterler/covid/covid_19_mau.pdf.
- Arın Ensarioğlu, S. "Pandemi sürecinin "evrensel tasarım" ilkelerine etkileri." *Journal of Social and Humanities Sciences Research* 7.55 (2020): 1673-1680.
- Eşbah, H. T., & Eşbah, H. (2020). Healthy Cities and Pandemic: Thoughts about Covid-19 Pandemic. *LANDSCAPE - Journal of Education, Science, Culture and Art*[PEYZAJ - Eğitim, Bilim, Kültür ve Sanat Dergisi], 2(2), 57-64.
- Erdoğan, M. G., & Yavuz, V. (2020). Markalarda Koronavirüs Etkisi: Sosyal Mesafe Logoları. *İşletme Araştırmaları Dergisi*, 12(3), 2501-2514.
- Finkelstein, S., Prakash, S., Nigmatulina, K., Klaiman, T., & Larson, R. (2010). Pandemic influenza: Nonpharmaceutical interventions and behavioral changes that may save lives. *International Journal of Health Management and Information*, 1, 1-18.
- Gehl, J. (2020). <https://gehlpeople.com/announcement/public-space-public-life-during-covid-19/>.
- Gürüz, D. & Eğinli, T.A. (2012). *Kişilerarası iletişim*. Ankara: Nobel yayıncılık [Interpersonal communication. Ankara: Nobel publishing]
- Honey-Roses, J., Angelovski, I., Bohigas, J., Chireh, V., Daher, C., Konijnendijk, C., ... Nieuwenhuijsen, M. (2020). The Impact of COVID-19 on Public Space: A Review of the Emerging Questions, *Cities & Health*, <https://doi.org/10.1080/23748834.2020.1780074>.
- Marshall, G., (1999). *A Dictionary of Sociology*, (Çev. Osman Akinhay-Derya Kömürçü), Ankara, Science and Art Publications
- Onur, M. (2020). Investigation of Landscape and Human Relations on Spatial Preferences during Covid-19 Outbreak Period. *Journal of International Social Research*, 13(74), Doi: 10.17719/jisr.11291.
- Özşenler, S. D. (2021). Covid-19 and Social Distance: A Meta-Thematic Analysis. *Gümüşhane University Journal of Social Sciences Institute*, 12(1), 12-23.
- Reger, M. A., Stanley, I. H., & Joiner, T. E. (2020). Suicide Mortality and Coronavirus Disease 2019—A Perfect Storm? *JAMA Psychiatry*, 77(11), 1093-1094, doi:10.1001/jamapsychiatry.2020.1060.
- Samuelsson, K., Barthel, S., Colding, J., Macassa, G., Giusti, M. (2020). Urban Nature As A Source of Resilience During Social Distancing Amidst the Coronavirus Pandemic. *OSF Preprints*.
- UNDP, (2020). COVID-19 Pandemisi. <https://www.tr.undp.org/content/turkey/tr/home/coronavirus.html>.
- URL, 1. <https://www.designboom.com/design/domino-park-circles-glass-social-distancing-05-19-2020/> Date of access: 02.07.2021
- URL, 2. <https://thesmartlocal.com/read/social-distancing-singapore/>. Date of access: 09.04.2021
- URL, 3. <https://www.dezeen.com/2020/05/15/mediamatic-serres-separees-amsterdam-greenhouse-restaurant-coronavirus-architecture/>. Date of access: 09.04.2021
- URL, 4. <https://www.thisiscolossal.com/2020/04/tape-singapore-social-distancing/> Date of access: 05.07.2021
- URL, 5. <https://www.sozcu.com.tr/2020/gundem/izmirde-cemberli-sosyal-mesafe-donemi-5828359/>. Date of access: 16.04.2021
- URL, 6. <https://www.ubc.net/content/elblag-social-distancing-lawn-brings-people-together>. Date of access: 11.04.2021
- URL, 7. <https://www.arkitera.com/haber/chris-prechtten-viyana-sosyal-mesafe-parki/>
- WHO, (2020). *Strategic Preparedness and Response Plan*. World Health Organization, Geneva.
- WHO, (2021). World Health Organization, <https://covid19.who.int/>
- WHO, (2021). Coronavirus disease (COVID-19) Pandemic. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/> Date of access: 03.04.2020.