



**NEAR EAST UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF ARCHITECTURE**

THE PUBLIC SPACES DURING THE COVID-19 PANDEMIC

M.Sc. THESIS

Humam Helmi

NICOSIA

FEBRUARY 2022

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DURING COVID - 19
PANDEMIC**

MASTER THESIS

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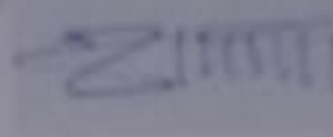
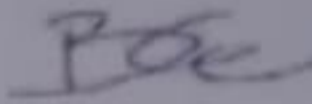

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FEBRUARY, 2022

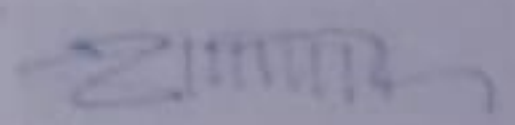
Approval

We certify that we have read the thesis submitted by Humam Helmi titled “**The public spaces during the covid-19 pandemic**” and that in our combined opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Applied Sciences.

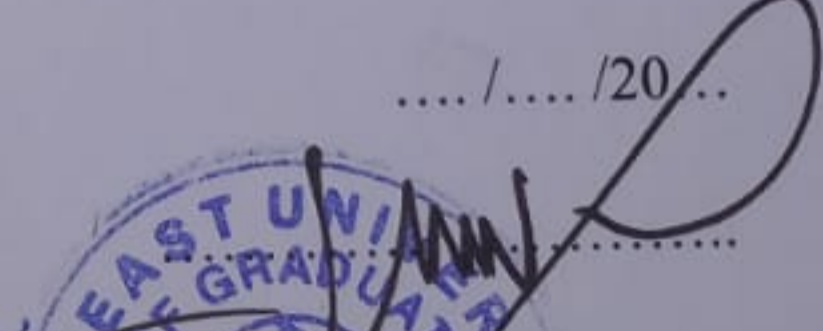

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Declaration

I hereby declare that all information, documents, analysis, and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of the Institute of Graduate Studies, Near East University. As required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

Humam Helmi

15 /01 /2022

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Humam Helmi

Abstract

The Public Spaces during Covid-19 Pandemic

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The main goal of this paper is to study and evaluate the usage and accessibility of the park in central Nicosia (Lefkoşa) in northern Cyprus and the objective is to compare the usage and accessibility before and after the pandemic of Covid-19 also known as a coronavirus (SARS-CoV-2) with this study we will have a better understanding on the situation of parks and how the usage has been changed because of the pandemic and lockdown and it will also help the urban developers in improving this parks in future by making it more safe and healthy to use during this times of pandemic and will help in dealing with similar pandemics in the future. A total of 500 questioners has been distributed to the residents of Nicosia to find how the people's behavior and how the usage of parks has been changed before and after the pandemic these data were analyzed and studied using SSPS descriptive statistics method and also field studies were made to identify the parks in Nicosia the results showed that the parks have a good atmosphere and people using it a lot especially during summer and spring seasons however there was a decline in parks usage during the pandemic and a lot of the improvement can be made to make this parks safer and better for the people in Nicosia. The recommendation has been made in order the help the urban development team in making their decisions in the future and how they can improve this park and also recommendation has been made for future studies on the similar topic all of this will help us to make the parks better place and much safer for the residents of Nicosia.

Keywords: Accessibility; Usage; Urban parks; Covid-19; before and after the pandemic;

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CHAPTER I

Introduction

Background of the Study

The coronavirus pandemic, also recognized as COVID-19, is a constant disease illness that started in 2019 (COVID-19) produced by a strong lung disorder also known as (SARS-CoV-2). It is originally discovered in Wuhan, China in December 2019. The World Health Organization stated the epidemic is an Emergency Public health of Worldwide and a Worry started in January 2020 and was classified as an Emergency pandemic in March 2020. As of 7 December 2020, more than 67 million people got infected, and further than 1.53 million deaths were officially stated COVID-19. (Sun J, He W, Wang L, Lai A, Ji X, Zhai X, et al. 2020).

Since the virus spread on the air public spaces faced massive shut down because of the fear of spreading the virus even more but only parks and some other similar public facilities were still open and used by locals during the pandemic (Jones S, Kassam A (26 March 2020)).

Through the past time, there have been many studies concerning urban parks and how they can be a consequence of the well-being of people and their psychological problems. Thus, this study focused mainly on the western nations, North America and Europe. The recorded that urban environments and public areas lit areas do have psychological health effects and the physical health of humans. The rapprochement has been done, in which rustic and city areas have been in study and the outcome has proven that people existing in the city areas have more health risk issues than those in rustic parts (McKenzie et al., 2013; Romans et al., 2011). The worry is steady and growing on a continuous foundation because of the reality that urbanization is rising and it is growing up to 12% by the year 2050 (United Nations, World Urbanization Process, 2014). The overcrowded cities are the results of urbanization which caused pollution of sound and other types of contamination (e.g. water, and/or air), which produces an increase in the risk of the well-being and health

safety levels for the residents of urban areas and also make the spread of a disease such as covid-19 possible (Peen et al., 2010). Research also proved that people who are fairly further open to normal surroundings will have better health and lesser health problems, causing better bodies and better immune systems (White et al., 2013; Tyrvaiven et al., 2014). Thus, urban park places and how they are linked to the health of people is an important issue to be inspected and extra and more careful studies upon this issue can highly advantage all individuals as it disturbs mass part of their lives (Saw et al., 2015).

Research Problem

Public places are now considered risky because of the opportunity of coming into an exchange with those who are probably sick. Comparable to individuals who live in a closed community, every time we go outdoor we are reminded by the media not only to maintain social distancing but also to wash our hands and avoidance of close interactions with people. While this is surely sensible instruction, we have to consider what the long-term effect will cause on the weak bonds that pile a multifaceted culture together. Physical separation is not the same as social distance, and the latter is progressively seen as delivering the fault idea. We possess the ability to let us be closely linked to each other, not only to our intimates, families, and also friends, but also to make tougher wisdom of the public. Public areas such as sidewalks, parks, beaches, and playgrounds, are completely public in standings of entree, by programming and facilities, however, these are the spaces where we might come in contact with people who we might not essentially recognize and be in interaction and where the connection happen in a more exposed, independent, comprehensive and yet random way.

The effect of parks on people is positively linked to preferable healthy lifestyles. But, excuses can be made that the capacity of parks to give these and more profits is being restricted by multiple aspects. One of the tests stated that the dangers of the spreading of the virus in parks might be a big issue and most of the parks in Lefokşa are considered as not being prepared to face such a pandemic (Bisht, Mishra & Fuloria, 2010).

In this paper, we examine some of the signals around the usage of the parks during the covid-19

And analyzing the social distancing, and argue that ensuring nature access for the public should be an essential strategy of cities when coping with crisis, as is evident in the current situation and informed by the memory of historical insights.

The Aims and Objectives of the Thesis

The Paper purposes to calculate and study the usage of green areas and how it functions during the covid-19 in the part of the center of Nicosia, Cyprus. The core aims of the paper are to measure the usage of green areas and parks in this zone and the park's urban design that is in this district and their application /usage. Calculating the accessibility and the usage of the green areas will help us gain more comprehension of how to improve the spaces in urban which help us to reach a better level of quality of these parks while maintaining the health recommendation of keeping the social distancing and not spreading the virus.

This study can help the people with power in their choice-creating progression in evolving the city areas, and in especially green spaces and urban parks. Moreover, this will aid in counting of what is the reasons individuals/residents have problems while using green areas and parks during a pandemic; like the absence of sitting zones and weak accessibility. Because of this, it will help people with power to find what are the factors of urban strategy and practice structures are extra significant for residents, and improve the plan for urban parks, where children with their families and local people use the gear and facilities more efficiently and better. The core purpose of this study is to assess and compare the usage of the park before and after the pandemic and inspect the usage, of parks during the pandemic in the center of Nicosia. The research also aims to obtain the following Goals;

- To analyze the present practice of urban parks in Nicosia.
- To build the essential foundation to progress the usage of urban parks in Nicosia. During the covid-19 and such similar pandemics.

Thereafter, it is going to impact the value of lifestyle as well it will impact the comfort period of individuals and what they want of social events in the city places which are open to the public and accessible to the people to spend their time while still being safe and not in danger of spreading or getting the virus. Hence, the importance of being safe and not spreading the virus during a health crisis, the city planners and their association will examine this paper when they are making the decisions in development in the existence of the resident's area.

This study is going to help in explaining as well as point out the issues which play a big part in the accessibility and usage of urban parks in the city of Nicosia and it will provide that application for practice and design foundations of city open spaces.

Recognizing the main issues and necessities wanted for establishing a further maintainable and safer park during a crisis is a big value meanwhile people of Nicosia can advantage of the equipment and services.

This growth of green places in city parts supplies a positive step in the health and renewal, amelioration of quality of life by reassuring the residents and the users of urban parks to use the services and spend their free time outside while maintaining the risks of not spreading the virus and keep the users safe.

Having an area, where residents can spend their time and walk and be able to work out along with cultivating social features of the park, helps in the reduction of over weightiness among the individuals which has been noted that people are inclined to be in better and well bodies when they have availability/accessibility to urban public areas and green spaces and city services, especially, the parks. The absence of enough quantity of urban green zones lower the goodness of urban area. The area of Nicosia and its parks

need to be looked at more and studied in a way so that people while using the parks are safe from the virus and also keep their mental and physical health in check.

Research Questions

In bright of the specified aims, this paper aims to search and deliver responses to the next questions;

- How people are using the public parks in Nicosia during the pandemic?
- For what purpose and how often are the residents in Nicosia go to their local urban parks?
- What upgrading can be made to advance the usage of the urban parks in Nicosia?

Research Methodology

The research is specific research that depends on a reconnaissance survey that gathers essential information. Overall 500 surveys were aimlessly spread among people of Nicosia, Northern Cyprus. Answers were examined using recurrence spreading and expressive data. The statistics were to compare the usage of the parks before and after the pandemic and the accessibility Time limit was the focal restriction of the research. Statistics were gathered in a brief period and thus a minor unit was selected.

The survey was only focused on the residents of Nicosia thus this result cannot be generalized to other areas as it lacks to information and data needed on the other resident's area which make further study and survey need those areas this survey was not forced and it was completely voluntary and it was made between 10 to 15 min time spam

All applicants were knowledgeable of the goal of the study, why the statistics were being gathered, and how the data is going to be used. All applicants were conscious that statistics is going to be used in a private manner and applicant documentation would be

anonymized. Applicants were conversant very well that they can take their data out or stop and refuse to take the survey or complete it at any time.

The Scope and Limitation of the Thesis

In this research, the main objective is the study the usage and the accessibility of the parks in the center of Nicosia and make comparisons in the usage and accessibility of the parks before the pandemic and after it, and also examine the relative data and compare its features from transportation to urban design and the other aspects such as physical and social and compare all of them before the pandemic and after it which will help us understand the current situation which will lead in knowing the problems and helps in finding the solution to it in future studies.

CHAPTER II

Literature Review

The Definition of Public Space

We can find numerous meanings of public space illustrious by subjects of possession, regulator, entrée, and usage. Some writers describe it as follows “space that is not controlled by private persons or organizations, and henceforth is open to the general public” (Madanipour 1996, 144). While some writers ground their definition on themes of admittance and usage, it is known as “publicly accessible places where people go for group or individual activities” (Carr et al. 1992, 50). All the places that are normally open and available to residents such as. Roads (including the pavement), parks, beaches, and public squares are naturally identified as public spaces. To a restricted amount, authorities’ structures that are a community open, such as public spaces and public libraries are also considered public spaces, even though they are inclined to have limited area and better restrictions upon usage. While not identified as public space, confidentially possessed buildings or property observable from walkways and public ways may disturb the public Scene, for instance, by outside publicity. Lately, the idea of a Public zone has been progressive to improve the understanding of walkers in common places mutually used by vehicles and other automobiles (Caves, R. W. 2004, 549). In this study, ‘public space’ is going to refer to the entree as well as usage of the places more than its possession belongs to whom. Henceforth, privately possessed areas that are available to the public people can be mentioned as public spaces, and those openly possessed areas that are not available to the people do not. This study restricts the calculation to the urban parks only.

The History of Public Space

In history, urban parks and public spaces in towns were mainly used as places to aid elementary subsistence for, entertainment and communication needs and to achieve numerous commercial, political-religious, and social roles. In modern advanced cultures, countless of these purposes have changed to isolated or to diverse kinds of transferred and narrow places (Brill 1989; Rybczynski 1993; Banerjee 2001). Yet, mainly in a lot of city-center and multi-use areas, individuals still rest in open places and public spaces for, rest and social actions or a meeting, and it plays, a general role in, travel and communication with each other, and relaxation. Stressing on the part of public open space in independent cultures, (Arendt 1958) claimed that it delivers the capability for persons to connect, deliberate, and also identify one other's attendance, this is critical to individuals. (Thomas 1991) said the community part of urban parks and public areas recommended "that public space is an essential arena which provides opportunities for individuals and communities to develop and enrich their lives"

Open areas with public spaces where persons frequently encounter their groups and friend's in everyday life play a serious part in residents' daily lives (Low 2013). (Lofland 2017) additional add yet an additional length of indulgence and claimed that lively and inert communal interaction in public urban space delivers the background for the 'learning of cosmopolitanism' and peoples.

At the current time, new attention to urban lives and public space has happened. There is an increasing faith that up-to-date urban civilizations no need to depend on the town square for the essential desires, decent public space is obligatory for the psychological health and social up-to-date societies (Poppink cited in Cooper- Marcus & Francis 1997). Original kinds of public urban places are developing everywhere in the new and old types are being reworked to current wants. Numerous researchers of urbanism say that still during this rehabilitated attention in public urban places, the diversity of purposes of people's lives that public urban places achieve is fading (Sorkin 1992; Zukin 1996). An important amount of public urban places developing has measured the surroundings and

adjusted them to our desires, the people and public life are unraveling, and clarifying both usages and operators. Banerjee (2001).

Urban Parks

(As Bedimo-Rung, Mowen, and Cohen 2005), mentioned that urban and open sites as well as landscapes, and ecological structures like green zone or open parks grip a substantial role in relaxation actions and additional public features. The aids of parks are varied in range and admiration to the natural atmosphere, and they are planned, to improve health recovery and decrease stress levels whether physically or mentally. This also increases the activity of people because of the existence of physical activity (Byrne & Wolch, 2009). Societies can obtain nearer attachment and connections with each other and with additional assistance in financial features from tourism that is involved in the park. Furthermore, to summarize the simple expenses that are possible to be connected to healthcare and other income of public life, such as transport and the public connection is also improved via parks (Byrne & Sipe, 2010). All the above-mentioned issues can be able to harvest in an optimistic result of the society's or civilization's comfort. This part must be covered by numerous corrections and dissimilar disciplines to improve it and consider and know the substance to improve it to serve the general and the shared well-being of people (Chiesura, 2004; Wolch et al., 2010).

Urban park availability is an important feature when it comes to identifying and explaining the complexity of park uses. Thus, it can be very connected to an additional adjustable which is the welfare of the public or culture on a bigger scale (Wang, Brown & Liu, 2015). Therefore, this feature of environmental zones and places and its practice inside city groups are a vital status and delivers a principle for calculations of the distribution of all above-mentioned green places. (Maruani & Amit-Cohen 2007), an additional approach and the communal replicas of administrative and development on the topic are straightly consistent with quantifiable methods which contain the numeral of parks per capita for volumes upon park entrée.

It was well-known that such copies will not contain the compound-natured administrative-procedure of people. Thus, suitable development for the authorities is to reflect this issue as a multi divergent construction as it includes numerous ideas when it comes to the variety of wants as well as its role in the utilization of urban parks. This is tremendously vital for the development group and urban planner that has to be conscious of the size of this topic in their progression while creating their decision. That is presently defined that availability as a topic is an idea of multi topics and dimensions, it will be a topic of bodily/physical or nonphysical/ spiritual changeable and connected features (Gregory et al., 2009).

While (Hass, 2009), opposes that while calculating availability or accessibility there are numerous features that necessity is distinguished, which is distance and time as regular changeable that talk on implementation inside Location and vital places geometric and on the theoretic foundation. (Bisht, Mishra, & Fuloria (2010), implied that the openness idea was widely increasing to other scopes (spatial-physical) and content and included numerous other features that can be specific to each gender, and age criteria, financial aspects as well as culture.

Scholars have recommended distinct organizational dimensions and social and accessibility from different issues such as topographical features of availability as an idea (Murray et al., 2003). Stated the vocabulary of 'social-organizational accessibility' for changeable can be measured as (non-physical) to be characterized as well as predictable. However, issues like this are believed to oblige the development of progression in getting a facility that can be given to gain it. With the alike idea, Murray et al. (2003) additional recommendations for community features like social blockades to favorites can be compound as well as observed as related to the background of availability (Murray et al., 2003). It was especially highlighted within research shown by Jia (2003) which stated accessibility or availability are similar in the description as well as suitability, and it says that the principle of availability will be exemplified using practical means of entering a facility or multiple facilities which it is much more complex as well as huger in contrast with the core investigation of distance from place 1 to place 2 as a physical idea of

calculation. Henceforward, many recommended that the capability to enter facilities comes from the effect of socio-personal important foundations to grasp a wanted action, as well as comfort, which can be utilized for essential accessibility (Gregory et al., 2009).

Beforehand stated, scholars today are inclined to have labeled availability as a (multi-dimensional) idea that is linked. However, it has been definite in the research shown by Byrne & Wolch (2009) that urban park availability and accessibility are extremely connected to operator individual of the urban public park as similar to structures of urban park. This is although an additional paper showed by Wang, Brown, & Liu (2015) has mentioned a similar method to the substance and intended a combined prototypical of openness for an urban open park with study and information gathered ways in residential parts in contrast with topographies of the urban park and well as indifference with socio and economic position (SES).

Reversion copies, as well as three-dimensional examination, showed the calculating of nonphysical and physical aspects for retrieving parks. The consequences of the research were in consent thru the detail that the type and the kind of park accessibility is a (multi-dimensional) one that contains numerous aspects that are not body activity or physical action. Both features of physical substances together with spiritual matters have an important and bright connection with the availability concept. The investigation on this topic has wide borders that will yet to grow and be exposed. For example, some papers have fixated on exact collections of cultures with exact wants and/or favorites, people from different ethnic's backgrounds, or those with lesser salaries that are moderately unprotected or weak to able to enter the services (Sister, Wolch, & Wilson, 2010).

Awareness of entree to park was originated to become meaningfully and linked to salary as also home-based verbal tongue (ethnicity/other of racial) as a community and financial aspects (Wang, Brown & Liu, 2015). Also agrees with additional scholarships that have been specified populace assemblies which were nominated from unlike social economic status or groups, display a dissimilar awareness when it comes to the topic of urban park accessibility as well as usage (Byrne & Wolch, 2009; Hutchinson, 1987).

However, it was known by proposals of the aforementioned studies that social and financial circumstances are extremely functional when it comes to insight into urban park admission. This is though the works contain many types of research that have created on the cities of the west and their societies a few amounts of such researches inside has been made in the zone of Middle East and precisely Mediterranean island such as Cyprus. which is a pointer for additional as well as an extra detailed study on this topic in other zones of the globe such as the one nominated for our situation and to examine and compare the outcomes of numerous topographical goals, and social once, this will be an additional enlarge the knowledge on the subject of park accessibility during the covid-19 pandemic and its association with other issues such as social and economic changes and the well-being of the users.

The concept of comparing the usage and accessibility of parks before and after the pandemic and the method is in this study emphasizes the part of (the center of Nicosia) situated in Nicosia, Northern Cyprus. Actions of comfort were stood also used as a portion of the multi-aspect ideas of park availability. In addition, park hierarchy and foundations such as several houses, utility, location, and other aspects have been involved in improving and grasping this matter. His paper is one of its kind in this region because it not only studies the usage and accessibility of the park but it also measures the effect of the pandemic on the usage and the accessibility of the park in that region.

Urban Parks and Health

The biosphere's metropolises are attractive progressively overfilled and contaminated (Blanco et al., 2009). Urban park parts deliver an extensive choice of ecology facilities that will aid and fight numerous city diseases and advance the quality of life for urban inhabitants, especially their health. Such urban parks area is varied, variable in scale, shelter, class fertility, ecological excellence, immediacy to community transportation, amenities, and facilities (Dahmann, Wolch, Joassart-Marcelli, Reynolds, & Jerret, 2010; Fuller & Gaston, 2009; Sister, Wolch, & Wilson, 2010). Public park areas contain reserves and parks, sporting grounds, and riparian areas like river and stream banks, trails and

greenways, public parks, road plants, and landscape upkeep parts, as well as fewer moderate places like green alleyways green walls, as well as graveyards (Roy, Byrne, & Pickering, 2012). Isolated natural areas contain person-owned yards, common lands of residential houses, and company grounds.

Environment facilities delivered by urban park parts not only assist the environmental integrity of towns but will also defend the community health of city inhabitants. Urban green areas may clean the air, eliminate contamination, attenuate noise, calm temperatures, penetrate tempest water, and refill groundwater; furthermore, they can deliver nutrition (Escobedo, Kroeger, & Wagner, 2011; Groenewegen, Vanden Berg, de Vries, & Verheij, 2006). For instance, vegetation in a public area might decrease airborne contamination by absorbing a positive flying contaminant that is existed in the air (Nowak, Crane, & Stevens, 2006). Urban green and natural areas, as well as city woods, will also modest heat by giving shadow as well as chilling parts, therefore serving to decrease the danger of temperature-connected diseases for urban inhabitants (Cummins & Jackson, 2001; Nowak et al., 1996).

Nonetheless, inside metropolises, urban parks are not continuously justifiably spread. Entree is frequently extremely stratified founded on salary, ethnocidal features, disability, gender, age, and additional axes of change (Byrne, Wolch, & Zhang, 2009; McConnachie & Shackleton, 2010). In the previous decades, the mixed availability of urban parks was developed as well as documented as an ecological fairness subject as consciousness of its standing to community well-being was developed documented (Dai, 2011; Jennings, Johnson Gaither, & Gragg, 2012). The work was aimed at in what way to calculate entree to city parks and natural areas, mainly parks; the qualified entree of sociodemographic to these places; and in what way the absence of access touches community well-being. But most of these studies were created in Australia. The United Kingdom and the United States

The motives why urban parks and green areas are differentially spread inside the city countryside are diverse, as well as the attitude of the green plan, history of land growth, developing philosophies about comfort and regeneration, and pasts of class and ethnocidal

disparity and state domination (Byrne, 2012; Byrne & Wolch, 2009). Frequently descriptions are unified and equally strengthening. For instance, a US histories of property growth are tangled with pasts of ethnocidal dominations, attitudes toward urban park land-use, and design schemes.

In the United States, individuals of different racial backgrounds and lesser-salary employees naturally inhabit the city center and/or lesser-salary internal circle conurbations where urban park parts are also scarce or badly kept. The higher-income houses frequently exist on the out-of-town margin where the green zone is rich, well-examined, and well-kept (Heynen, Perkins, & Roy, 2006). This ecological unfairness has developed importance, foremost to grassland gaining agendas and varied plans to organize under a utilized city place for extra green areas. Restoring the lack of urban parks in groups of different racial backgrounds and/or lesser-salary families will, also, generate a city green areas inconsistency. As additional green areas originate on a streak, it will advance the appeal and community well-being, and it will make the districts to be more desirable. In turn, housing prices will increase. Such housing price growth will possibly lead to more dislocation and/or elimination of the very inhabitants, the urban parks and green areas were destined to help. trainee, inhabitants will also face higher rentals fees and therefore turn out to be insecurely housed, though individuals who are exiled can be enforced to exit from their societies, which results in fewer wanted districts the park-shortage issue and This inconsistency cause undesirable community health consequences, not just because of sustained gardens and natural areas such as park shortage but can also lead to dislocation as well as unwarranted residential positioning themselves to be in undesirable public health allegations (Bentley, Baker, & Mason, 2012; Centers for Disease Control, 2011).

Furthermost studies on city green areas and well-being have aimed at city gardens, as well as researchers investigative natural zones (Bedimo-Rung, Mowen, & Cohen, 2005; Kuo, Sullivan, Coley, & Brunson, 1998). The absence of gardens and parks entree is connected to death (Coutts, Horner, & Chapin, 2010). Natural zones were revealed to defend well-being (Villeneuve et al., 2012). Moreover, natural areas and city gardens frequently aid as

places of sports action, which is related as well as improved well-being that reduces the danger of all reasons of death and numerous long-lasting illnesses (Anon, 1996; Barton & Pretty, 2010; Bush et al., 2007; Casey et al., 2008; Grahn & Stigsdotter, 2010; Hartig, 2008; Kuo, 2001; Woodcock et al., 2009). Certainly, a great number of papers prove connections between park nearness and physical action (for example, Brownson, Baker, Housemann, Brennan, & Bacak, 2001; Cohen et al., 2006, 2007; Diez Roux et al., 2007; Evenson, Wen, Hillier and Cohen, 2013; Gordon-Larsen, Nelson, Page, & Popkin, 2006; McCormack, Rock, Toohey, & Hignell, 2010; Sallis, Floyd, Rodriguez, & Saelens, 2012).

Specific care was aimed at urban gardens and natural areas and green areas and over weightiness issues (Ogden, Carroll & Flegal, 2008). Overweightness might be damaging to kids' well-being (Dietz, 1998), as well as raise the possibility that causes mature over weightiness (Freedman, Mei, Srinivasan, Berenson & Dietz, 2007). Whereas inherited influences perhaps give a share (Stunkard, 1991), fast growths when it comes to over weightiness advise that person's performance routine, counting the short amount of sports practices, seem to strongly affect over weightiness tendencies (Hill & Peters, 1998). Kids with additional entrees to gardens and entertaining services are extra energetic than kids that have fewer entrees, and many outcomes can be shared in grownups (Diez Roux et al., 2007; Timperio, Salmon, Telford & Crawford, 2005).

For instance, Giles-Corti et al. (2005) mentioned the importance of appeal and scale of the open zone. As the sequence of papers in Perth, Australia (Giles-Corti & Donovan, 2002; Giles-Corti, Macintyre, Clarkson, Pikora, & Donovan, 2003), using studies as well as statistics upon ecological services, originate that city garden has been extra likely to inspire sports and body action that if they are apparent appealingly attractive (retail shops, trees, minor traffic, sidewalks,). Veitch, Ball, Crawford, Abbott, & Salmon (2012) examined the city gardens' usage with physical activity in Australia, before and after enhancements, and discovered important rises in park usage after the enhancements.

In addition, mental health is empirically connected to green areas and urban parks (Ernstson, 2012). City gardens knowledge was proven to be the cause of decreased pressure and stress levels among people (Ulrich, 1981; Ulrich et al., 1991; Woo et al., 2009), urban parks and natural areas will give city inhabitants chances to meet vegetation as well as wild creatures and chances to convalesce or to test privacy (Fuller, Irvine, Devine-Wright, Warren, & Gaston, 2007). Going to parks will revitalize inhabitants, improve inspection, and deliver a feeling of peacetime as well as calmness (Kaplan and Kaplan, 2003; Song, Gee, Fan, & Takeuchi, 2007).

Park Accessibility during the Covid-19 Pandemic

The new Covid-19 epidemic, (before recognized as the 2019-nCoV and future retitled COVID-19 through the writing of this document) is caused to the closing of whole capitals in China and produced severe actions to be engaged While in other far away and different lands, far from China where the virus was primary stated, places are being put on high aware. In Wuhan, where the virus first spread, universities, road, and rail networks and marketplaces have been closed (Allam, Z. 2020)

A similar is correct in Hong Kong, Beijing, and Hubei Province between nearby parts, as protective actions are being stressed to safeguard that the breakout of the virus is minimalized, and whole and precise data on the virus is started to be gained (Buckley, C.; May, T.2020)

Though, the amount of blowout of the virus and the doubts nearby the whole state has made the World Health Organization (WHO) on 30 January 2019 state that Covid-19 also known as the Coronavirus epidemic a ‘Global Public Health Emergency’. WHO is strong-minded, but, does not announce the epidemic as a ‘Public Health Emergency of International Concern (PHEIC) which is an advanced level of the announcement. A PHEIC is definite as “an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response” whose choice may contain: earnest,

unexpected, uncommon, or unpredicted; transports suggestions for public well-being outside the pretentious State's nationwide boundary; and may need instant worldwide act

The 2020 novel Covid-19 epidemic has produced nations across the globe to engage in unprecedented actions of social distancing to control the outbreak of the virus of COVID-19. Such measures include school closures and urging people to stay home, and center on reducing the number of close physical interactions among people. It is widely regarded as one of the most effective approaches to keeping COVID-19 cases down (Gu, Jiang, Zhao, & Zheng, 2020; Tian et al., 2020; Wilder-Smith & Freedman, 2020).

Social distancing has simultaneously disrupted the everyday lives of entire populations wherever it has been implemented (Fetzer, T et al., 2020). Such big and unexpected disturbances to ordinary life are probable to influence people's health, mainly so amongst inhabitants that live in crowded city locations with few urban parks and public spaces. Older people, for instance, that are in the greatest danger of suffering from the deadly effects of COVID-19 are a dangerous group by also suffering from nervousness and unhappiness from social separation and isolation (Hawkley & Cacioppo, 2007; National Academies of Sciences Engineering and Medicine, 2020).

Throughout these unusual conditions of public isolation, the city landscape offers pliability for preserving health and comfort. The essence of this proposal is that in situations of volunteer social distancing, in which individuals are still allowable to visit outside surroundings, the city landscape can deliver individuals with a chance to flee household imprisonment and appreciate a host of positive and healthy effects (Hartig, Mitchell, de Vries, & Frumkin, 2014; Markevych et al., 2017), and preserve social relations even with social distance (Jennings & Bamkole, 2019) and deliver a sense of joining with the outdoor environment (Weimann, Björk, & Håkansson, 2019).

Chapter Summary

In 2020 the world has faced big health pandemic that cost many dramatic changes on the life of people and most the cities around the world were in lockdown and caused many

people to not have access to their public spaces and their parks many of the public facilities were shut down or under restriction to enter and since urban parks were one of the few places where people could go out and because it have effect of the human health physically and mentally and it also played big part during the lockdown so we need to understand the usage of this parks during the pandemic and how the usage of park been effect and how people used this parks during lockdown so we can have better understanding on this point and also to understand what kind of problems the people faced using this urban parks during lockdown and sense this parks were place where people gather it also put them in danger of spreading the virus so by understanding this factors and asking people on what kind of activity they used the park so we can have data base on how the changes of the usage of this parks changed before and after the pandemic .

CHAPTER III

Research Methodology

Research Method

This existing research considers a specific study way to be used on the subject at hand for it to improve recognition of essentials as well as issues involved. Thus, this paper will action a survey questionnaire that is founded on research comparing park availability and accessibility and the practice and usage before and after the covid-19 pandemic to gather the main information that comes from the participants. This paper trusts case studies to improve the experiential foundation of the paper. Ground research has also happened and this contains individual visits and inspections of the study zone which in this study is Nicosia which is 111 Km² in size.

Location and maps of Nicosia

The writers have shown numerous physical analyses of the places of urban parks. These physical examinations let an improved viewpoint on the part as sound as the concept of the individual park. This allows vintage in extra precise outcomes and fairly, improved notifying the participants and comprehend numerous features of city design with its raises

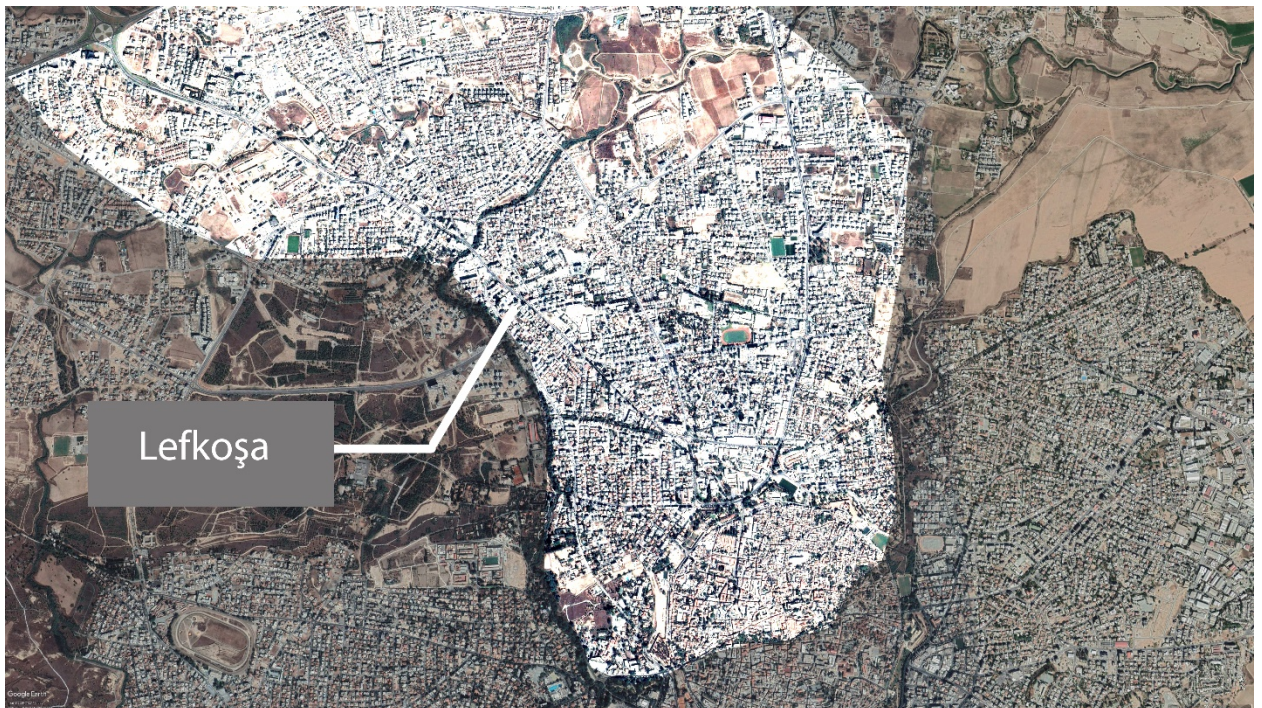
The next photos and maps are precisely intended and collected by the investigator for the aim of this paper. Numerous faces to face appointments have been completed to entirely the noticeable places in the part and also self-managed study, which has been made in real life by the scholar. Furthermore, maps, as well as photographs and pictures, were made by AUTOCAD and PHOTOSHOP software by using the Windows platform as an operating system. Additionally, the region boundaries locations have been tinted over this

section for an improved understanding, of the size of the regions, and the distribution of parks and houses in the district.

These photos and maps are the consequence of in-person, valuations where it is shown by the academics in the part of Nicosia during 2020 (August). Through this dated, all highlighted sites that are revealed in the Figures have been going and examined by the investigator himself for the gathering of information as well as individual remarks, which is a feature of primary data and quantitative study calmed. Pictures, photos, and maps (e.g. google earth) examinations were shown to improve comprehending the current use and accessibility of urban parks in the part during that time.

Figure 1

Map of central Nicosia city



Research area Nicosia

The figure 4.2 show the park's location in Nicosia and how they are distributed in the regions this will help to identify the number of the parks in each region and will provide us with important information about the availability and accessibility of the parks in each region and it give us curricula information about the places where there might be potential of the making new parks in the area in this figure you will find the locations of the listed parks down below.

- Ankara Çağlayan Parkı
- Rota Park, CY
- Barış Manço Parkı, CY
- Dr. Fazıl Küçük Parkı,CY
- Marmara Parkı, CY
- Göçmenköy Sanat Parkı
- Barış ve Demokrasi Parkı
- Kermiya Parkı
- Kumsal Park
- Kuğulu parkı

Figure 2

The distribution of the parks in Nicosia



In this figure 4.3 we will find the regions distribution in Nicosia and the number of housing units in each region and also the total number of housing units in Nicosia this will allow us to find where the most density of people lives and also to sort out the number of the questioners and in the sampling methods and also help is so from the following figure, we will see that the number of the housing units in Nicosia is 14616 that according to the survey that has been done by the government of North Cyprus in 2011 says that in center of Nicosia there are 14616 housing units which are been distributed on this following way.

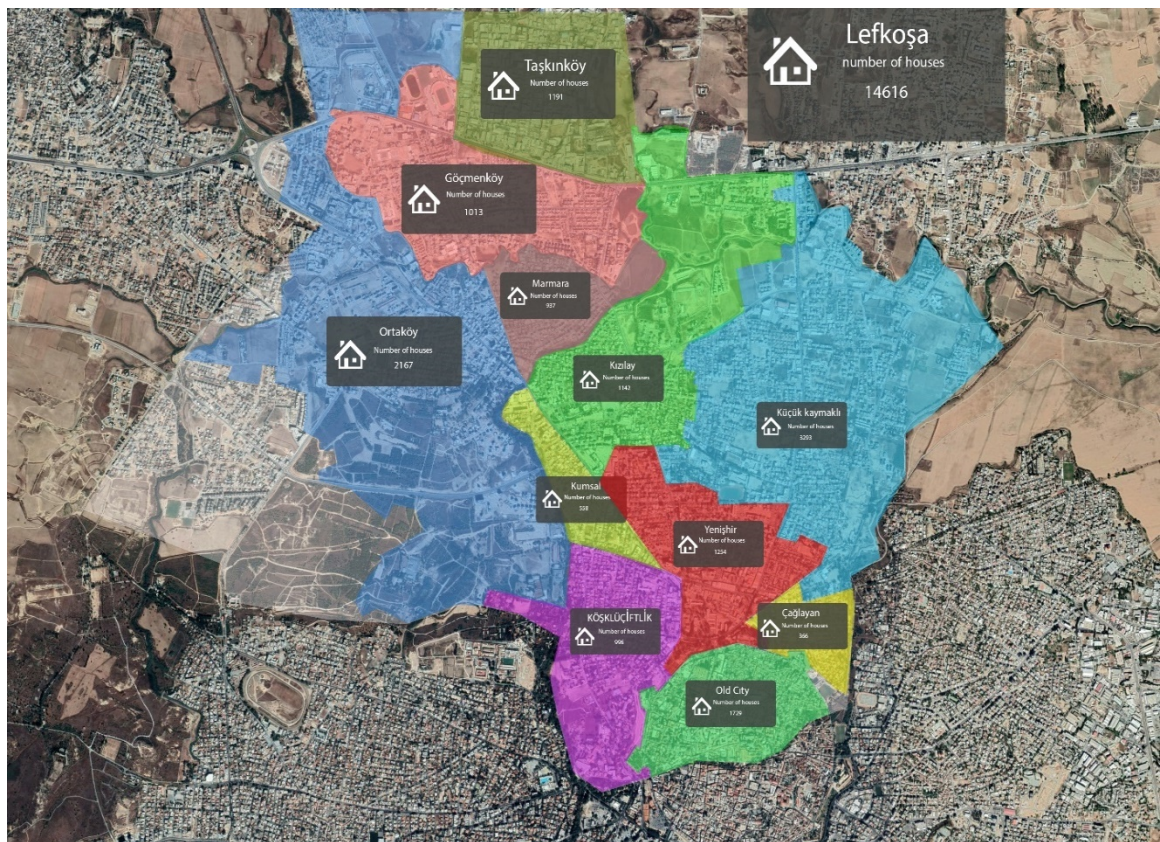
- Old City (inside the wall): 1729 housing units

The Old City concludes with the following places (ABDİ ÇAVUŞ 134 housing units, AKKAVUK 208 housing units, ARABAHMET 150 housing units, AYYILDIZ 148 housing units, HAYDARPAŞA 38 housing units, İBRAHİMPAŞA 141 housing units, İPLİKPAZARI 44 housing units, KAFESLİ 69 housing units, KARAMANZADE 108 housing units, MAHMUTPAŞA 82 housing units, SELİMİYE 203 housing units, YENİCAMİ 404 housing units)

- ÇAĞLAYAN 366 housing units
- GÖÇMENKÖY 1013 housing units
- KIZILAY 1142 housing units
- KÖŞKLÜÇİFTLİK 996 housing units
- KUMSAL 558 housing units
- KÜÇÜK KAYMAKLI 3293 housing units
- MARMARA 937 housing units
- ORTAKÖY 2167 housing units
- TAŞKINKÖY 1191 housing units
- YENİŞEHİR housing units.

Figure 3

The distribution of the houses and the regions in Nicosia



The land visit that happened takes the fact of, the changes in periods of the trip into respect. This is because of numerous issues such as employed hour, weather temperature, summer school, or alike influences which is not involved in this paper. But, we can admit the presence and different issues, that might be significant, however, continue uncalculated in this study as our method describes. None of the mentioned changes is helpful for the study to reflect regulator changes and the unidentified additional surveys as stated the core objective of this paper is to find the changes in the usage of these parks before and after the pandemic.

Questionnaire Survey

Primary, a survey was made in this paper for the reason that it covers the usage of study-specific queries to calculate the replies from applicants. This can allow us to locate the usage of the urban parks in this part before and after the Covid-19 pandemic. In addition, the questionnaire also contains accessibility study queries, it can be res result that how these urban parks and green areas behave concerning the usage from a residence viewpoint. The survey is collected of six pieces, demographic piece which covers data relating to age, gender, education level, and how long residents stayed in their homes. The second part of the survey is the educational section which efforts to obtain data around the accessibility of the urban parks the third section is about the usage of urban parks and the fourth section is about the urban design improvements for parks and what the participants want to change and fifth sections are about the problems and difficulties the participants faced while using the urban parks during the pandemic and the last section was focused on children's usage of the parks before and after the pandemic the questions was made in 5 options/ answers for each question like strongly disagree/disagree/neutral/agree/strongly agree their purpose is the answer the following questions.

- Whether the inhabitants are pleased with the current situation of the urban parks.
- How did the participant's usage change the urban parks before and after the pandemic?
- Dose the parks have essential and satisfactory standard services.
Probable proposals or enhancements that can be made to improve the accessibility and use and practice and utilization of the urban parks

Population and Sampling Method

The zone of Nicosia is 111 km². This part was stated to have 51386 inhabitants in 2011. It also covers an estimated number of 14616 houses, the Sampling method will be a random sampling method there will 500 questioners will be distributed across all the

regions of Nicosia and each region will take depending on the percentage of the overall number of the houses in the table down below it will specify each region and the number of the questioners that has been distributed.

Table 1

The questionnaire's distribution table

The questionnaire's distribution table			
Region name	Number of houses out of 14616	The percentage	Number of the questioners out of 500
ÇAĞLAYAN	366	2.5%	13
GÖÇMENKÖY	1013	6.9%	35
KIZILAY	1142	7.8%	39
KÖŞKLÜÇİFTLİK	996	6.8%	34
KUMSAL	558	3.8%	19
KÜÇÜK KAYMAKLI	3293	22.5%	112
MARMARA	937	6.4%	32
ORTAKÖY	2167	14.8%	74
TAŞKINKÖY	1191	8.14%	41
YENİŞEHİR	1254	8.5%	43
OLD CITY	1729	11.8%	58

In this figure 3.3.2, it shows an example of the random sampling and how the distribution is going, in this case, we took (Marmara) region as an example the distribution was made to cover the area as much as possible while maintaining the random sampling of the housing units were randomly selected in a way to cover the whole region 32 housing units were selected and the questioners were distributed to them and the same method were applied to all other regions

Figure 4

The distribution of the questioners Marmara



The study is founded on the moral means of the study plan and is anonymous. Therefore, the populace scale is 51386 inhabitants exist in Nicosia, North Cyprus, and a random sampling of 500 inhabitants was made in this paper.

Participants were well informed about the questioner's matter and it was completely voluntary and no private questions were asked such as salary and personal beliefs and also

personal interests the participants were aware of the aim and the object of this research and they were informed that their data will confidential

Data Analysis Tools and Methods

Gathered answers were examined using Statistical Package for Social Sciences (SPSS). Graphical imageries on the study that contains maps were made by AUTOCAD and PHOTOSHOP. However, graphic data and rate tabularization have been used to examine the gathered information.

CHAPTER IV

Survey Results

Demographic

Here we can find the type of people that have been included in the survey we asked for their age and jobs and gender the survey only included people the age of 18 and higher we can see on the table below the age distribution for the participants

Table 2

Age of the participant

	Frequency	Percent	Valid percent	Cumulative percent
18 to 25	98	19.6	19.6	19.6
26 to 30	136	27.2	27.2	46.8
31 to 35	143	28.6	28.6	75.4
36 to 40	69	13.8	13.8	89.2
41+	54	10.8	10.8	100

Figure 5

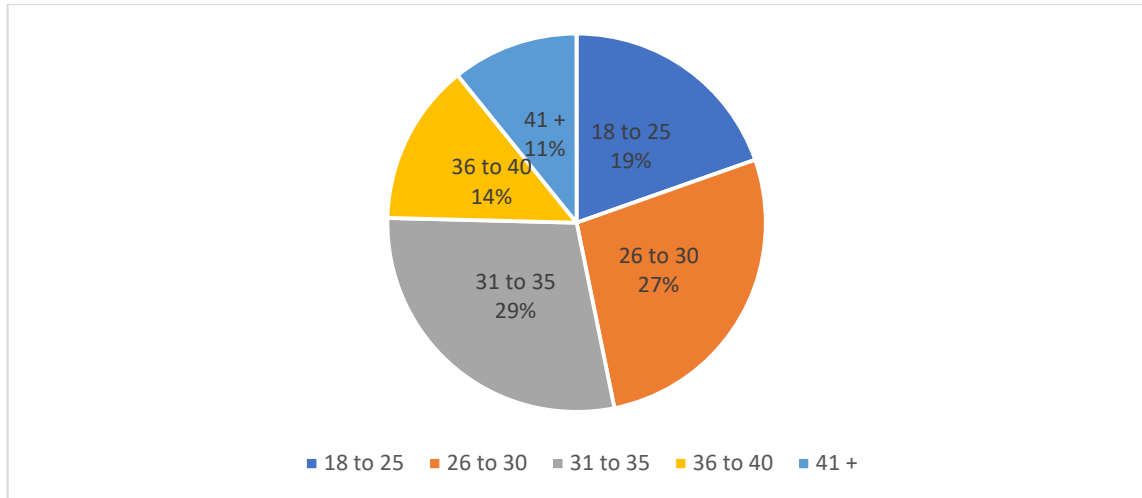
Age of the participant

Table 4.1.1 show the age difference for the participants and as showed the majority of people are between to age range of 31 to 35 years old with 29% followed by 26 to 30 with 27 % and then 18 to 25 with 19 % and then 36 to 40 with 14 % and finally 41+ with 11 % so form that we can know that most of the participant are adults in the working-age and most of the participants are between 25 to 35 years which consider more like young adults who use the park most of the times

Following the survey we asked for the gender to see who uses the parks for both genders in the table below 4.1.2 we can see the gender destitution among the users

Table 3

The gender of the participants

	Frequency	Percent	Valid percent	Cumulative percent
Male	271	54.2	54.2	54.2
Female	229	45.8	45.8	100

Figure 6

The gender distribution of the participant

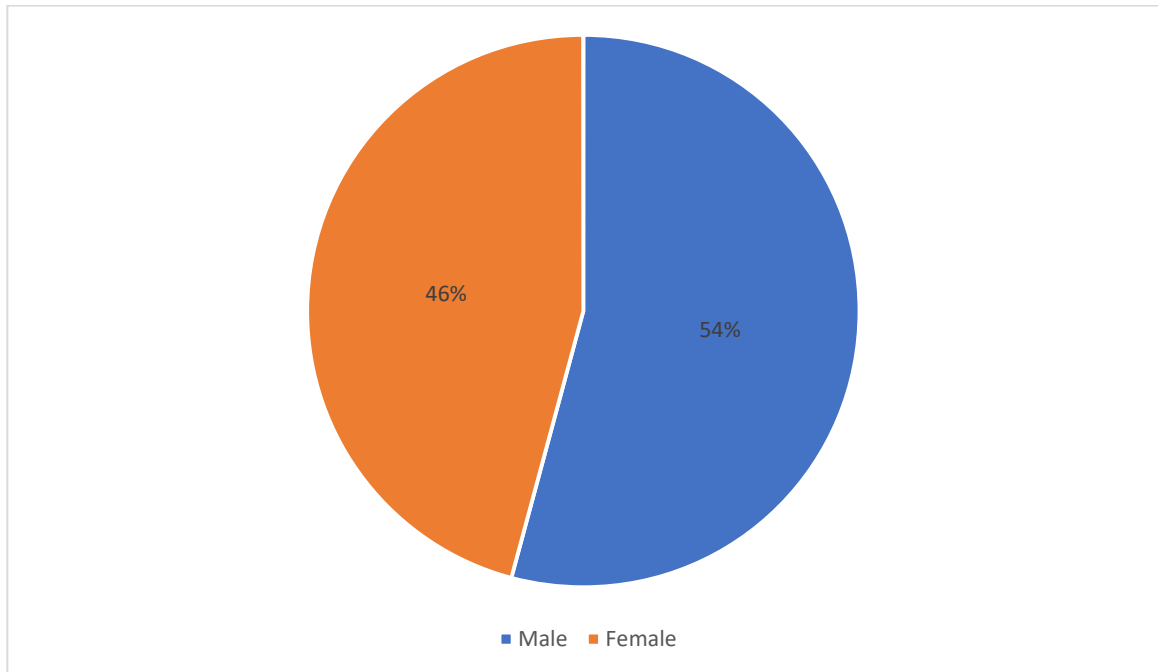


Table 4.2 shows that 54 % of the participants were male and 46 % of the participants were female, so we can see that the parks are used by both genders almost equally in number.

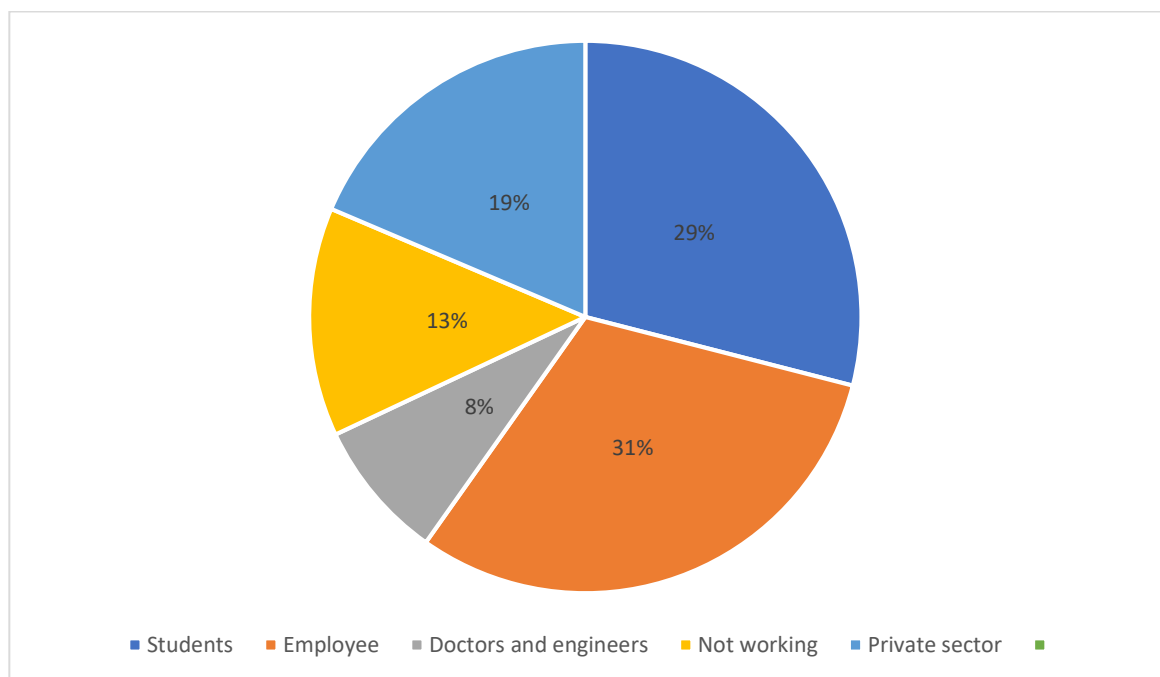
In the following, we asked also for the participant's occupation to know from which demographic the parks are mostly for high income or mid or low income and in the table below 4.1.3 we can see the occupation distribution between the participants.

Table 4

The Occupation of the participants

	Frequency	Percent	Valid percent	Cumulative percent
Students	145	29	29	29
Employee	154	30.8	30.8	59.8
Private sector	93	18.6	18.6	78.4
Doctors and engineers	41	8.2	8.2	86.6
Not working	67	13.4	13.4	100

Figure 7

The Occupations of the participants

The majority of the participants are employees with a percentage of 31% followed by the student with 29% and the 19% from the private sector and 13 % not working and 8% for Doctors and engineers

It is possible to see that most of the participant are employers and students and small bossiness owner (market owner. Shop owners ...etc.) Which mean most of the participant is in mid to high income and which mean that parks are desired and used by the majority of the people

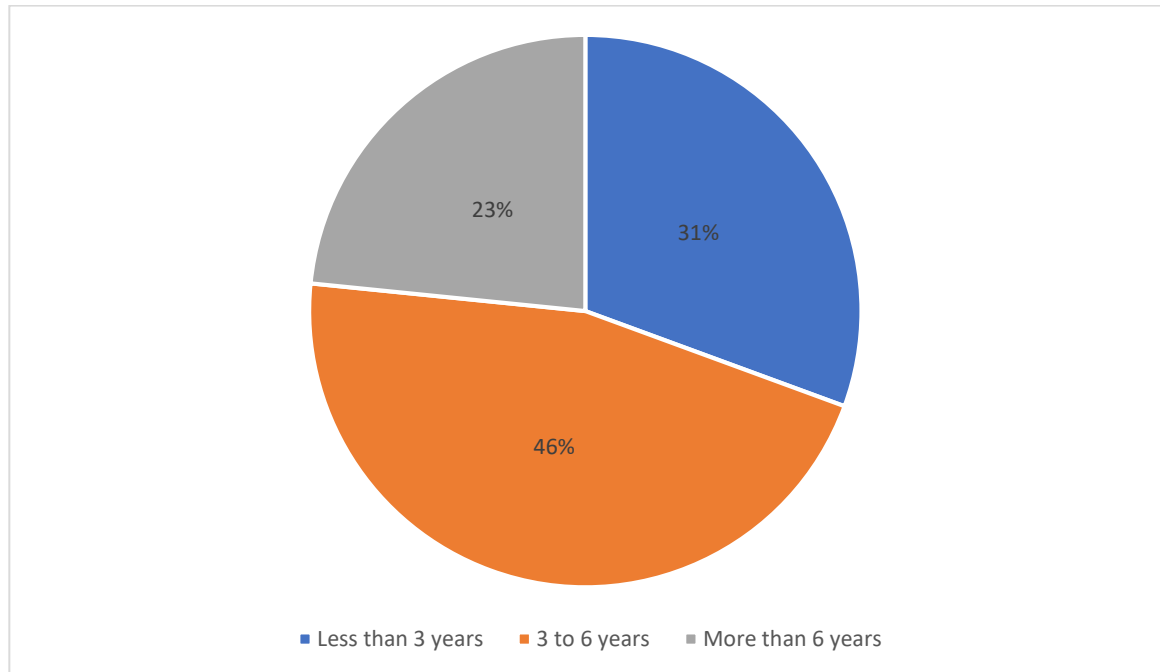
In the following, we asked the participant for their duration of stay in their area and for how many years they stayed in their homes so we can either whether users are long term users or short-term users in the table 4.1.4 we can see the duration distribute among the participants

Table 5

The duration of residence

	Frequency	Percent	Valid percent	Cumulative percent
Less than 3 years	153	30.6	30.6	30.6
3-6 Years	230	46	46	76.6
More than 6 years	117	23.4	23.4	100

Figure 8
The duration of residence



Most of the participants lived in this area between 3 to 6 years with 46 % followed by less than 3 years with 30.6 % and more than 6 years with 23.4 %

We can see that most of the participant lives in their house for 3 years and more with 77 % which mean that most of them are long term users and they use the parks for a long time and they know the park and their neighborhood very well

Accessibility

Here we discuss how easy to access the parks like if there are any nearby parks where people live and also how far are the parks from the participants' houses and what is the main way to go to the parks participants the main purpose form this is to find wither the parks is easily accessible to the people or if they are away or hard to reach

So, the question was is to know if the participants live nearby a park or if there are nearby parks where they live in table 4.2.1 we can see the participant's answers on

Table 6

The closeness of parks to participants' homes

	Frequency	Percent	Valid percent	Cumulative percent
Yes	237	47.4	47.4	47.4
No	263	52.6	52.6	100

Figure 9

The closeness of parks to participants' homes

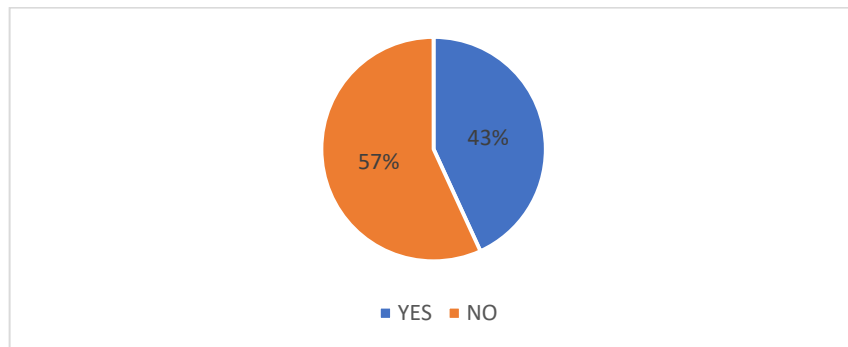


Table 4.5 show that 52.6% of the participants answered no to the question (do you have a park nearby your house?) and 47.4 % answered yes which means most of the participants do not have a park near their houses, as we can see that most of the people don't have parks near their house so this create problem where most of the people have to travel for a good distance to reach the park and use it and during lockdown were people movements are limited and it is not advisable to leave the homes during the lockdown so it might be an issue where people can't use the parks because it is far and they don't have time

This part is very relative to past questions the purpose is to know how far the participant's homes are away from the parks and how much time it is needed for them to reach the closest park to their houses on table 4.2.2 we can see how much time the participant needs to reach the park

Table 7

The time needed for participants to reach the parks

	Frequency	Percent	Valid percent	Cumulative percent
1 to 5 min	74	14.8	14.8	14.8
5 to 10 min	161	32.2	32.2	47
10 to 15 min	180	36	36	83
15+ min	85	17	17	100
Total	500	100	100	

Figure 10

The time needed for participants to reach the parks

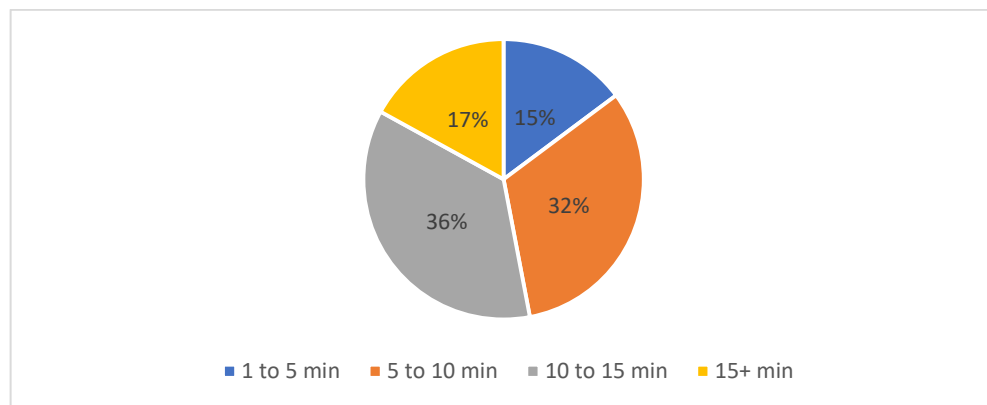


Table 4.2.2 shows that the majority of the people live 10 to 15 min away from parks with percentages of 36 % from 5 to 10 min 32 % for more than 15 min 17% and only 15 % for 1 to 5 min which means that majority of people live more than 10 min away from the park by a 53% of the participants which mean there is a lot of houses where you can't find any parks nearby which it creates a problem because parks were one of the few public areas where people could use it during a pandemic and been far away during lockdown where there is no public transportation made a lot of people have hard access to park and sometimes not possible

The point of the question is to know how people go to parks in table 4.2.3 we can see the participants respond to this question so we can know which type of transportation people use to reach the parks

Table 8

The method the participants use to go to parks

	Frequency	Percent	Valid percent	Cumulative percent
Walk	253	50.6	50.6	50.6
Drive	175	35	35	85.6
Bike	72	14.4	14.4	100
Other	0	0	0	100
Total	500	100	100	

Figure 11

The method the participants use to go to parks

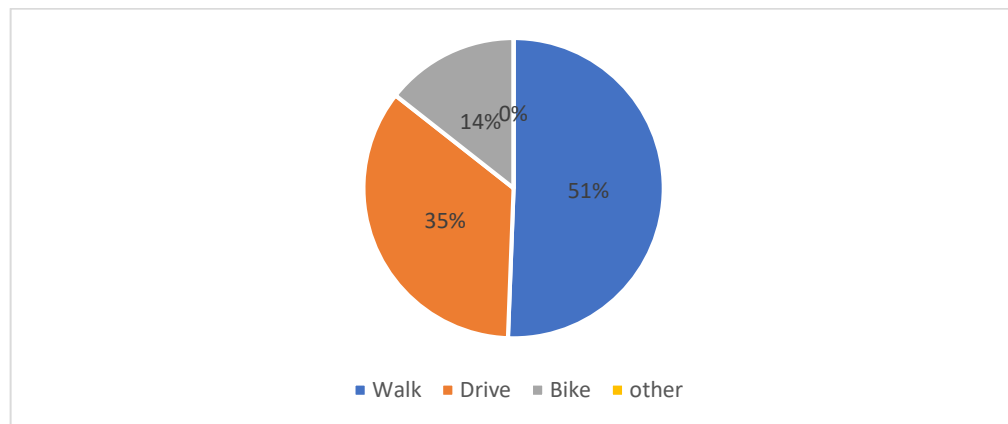


Table 4.2.3 shows that the majority of the participants go to parks by walking with 51 % followed by driving with 35 % and by bike 14 % which mean that most of the participants prefer to go to parks by walking and according the table 4.2.2 we can say that most of the participant are away from their parks at least 10 min walking and some of them 10 to 15 min by car/public transportation so not all of the people are close to parks and most of

them during pandemic found difficulties to reach and access the parks especially the people who depends on the public transportation such as students and people who does not own a car so the effect of the pandemic on the accessibility of park it made it harder for people to use parks and reach them during pandemic because the parks in some location were too far from the participants houses and also the lack of the public transportation and sometimes not existed in certain times made it difficult and in some case not possible for people to use the parks in the daily life so we can say the covid-19 pandemic effect how people accesses the parks and made it difficult for them to use it regularly

Usage

In this section, the main purpose is to compare the usage before the pandemic and after the pandemic and how the user change their behavior, and how the usage in parks has been changed so there is a set of questions was asked to the participants asking them of their usage before and after the pandemic this question were according to the time and the purpose and how frequently they are using the parks and which parks they are mainly us, in table 4.3.1 we can see which parks the participants are using during the pandemic by this we can know which park is mostly used and crowded

Table 9

The parks that participants use

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Kumsal	107	21.4	21.4	21.4
	Ankara Çağlayan Parkı	50	10	10	31.4
	Kuğulu parkı	25	5	5	36.4
	Belediye parkı	73	14.6	14.6	51
	Göçmenköy Sanat	13	2.6	2.6	53.6
	Marmara Parkı	59	11.8	11.8	65.4
	Barış Parkı	96	19.2	19.2	84.6
	Rotapark	23	4.6	4.6	89.2
	Dr. Fazıl Küçük Parkı	35	7	7	96.2
	Kermiya Parkı	19	3.8	3.8	100
	Total	500			

Figure 12

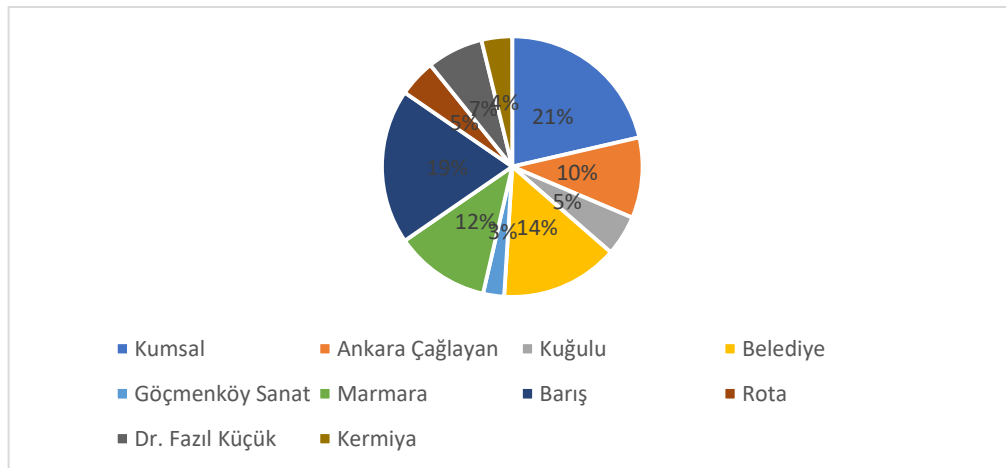
The parks that participants use

Table 4.8 show that the most used park is kumsal Park with 21% and 19 % for Barış ve demokrasi parkı with 19 % and for Belediye park 14% then followed by Marmara park with 12 % and the rest comes between 5 to 10 % as shown in the table here we can see that the most used parks are the one near the center of the city such as Kumsal and Belediye park and Barış ve Demokrasi park mainly because they are easier to reach and have a lot of activities around it such as markets and coffee shops and also mostly it does not require cars and transportation to reach and people can easily access it by walking

Here we asked the participants how frequently they use the parks during the week before and after the pandemic in table 4.3.2 we can see the participant's usage before the pandemic and how frequently they are using the parks in a week and the table 4.3.3 we can see the participants usage after the pandemic and how frequently they are using the parks during the week.

Table 10

The people's usage of parks before the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
Everyday	84	16.8	16.8	16.8
Once in three or four day	166	33.2	33.2	50
Once a week	171	34.2	34.2	84.2
Once a month	79	15.8	15.8	100
Total	500	100	100	

Figure 13

The people's usage of parks before the pandemic

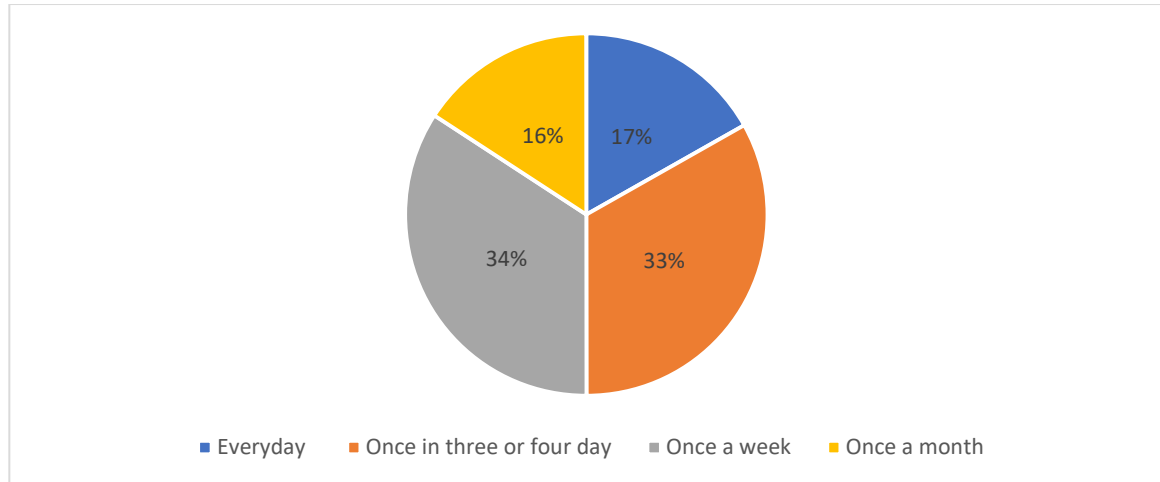


Table 4.3.2 shows that most of the people before the pandemic were using the parks once a week with 34 % followed by once in 3 to 4 days 33 % and 16 % for the everyday users and 17% once a month.

Table 11

The people's usage of parks after the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
Everyday	40	8	8	8
Once in three or four day	116	23.2	23.2	31.2
Once a week	203	40.6	40.6	71.8
Once a month	141	28.2	28.2	100
Total	500	100	100	

Figure 14

The people's usage of parks after the pandemic

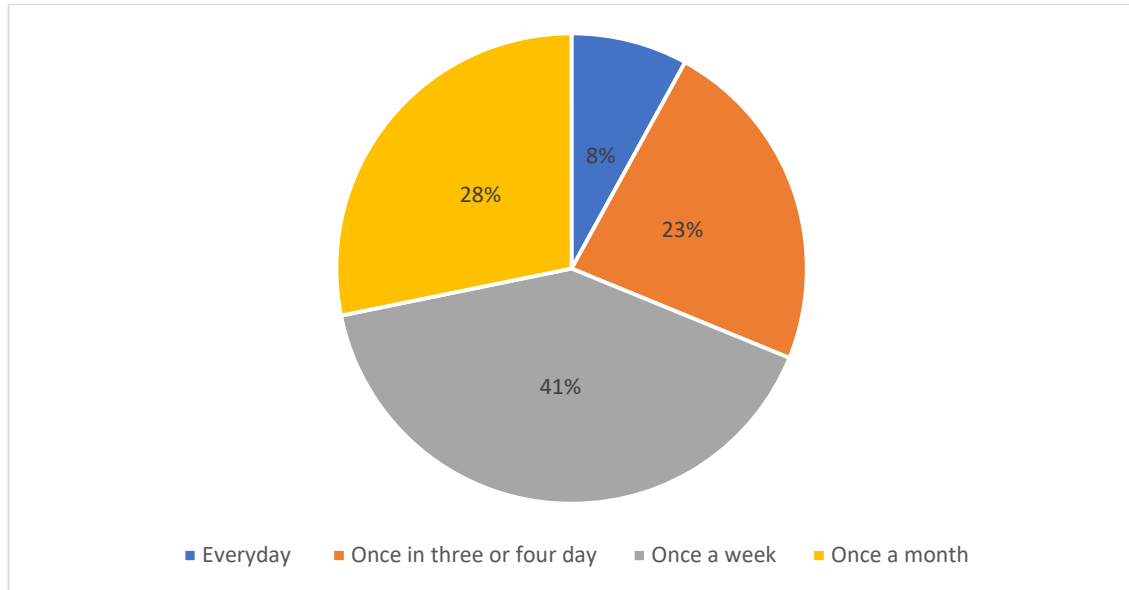


Table 4.10 we see that after the pandemic people mostly use the parks once a week with percentages of 41% and once a month with 28 % followed by once the three or four days in a week with 23 % and for everyday 8 % we see that fewer people were using parks during the pandemic in the table 4.3.4 we can see the componence between before the pandemic and after the pandemic.

Table 12

The difference is used before and after the pandemic

	Before	After	Before %	After %	changes
Everyday	84	53	16.8%	8%	-8.8%
Once in three or four day	166	71	33.2%	23.2%	-10%
Once a week	171	191	34.2%	40.6%	+6.4%
Once a month	79	185	15.8%	28.2%	+12.4
Total	500	500	100%	100%	

We can see clear decreases in everyday usage and an increase in monthly and weekly usage for the parks after the pandemic so people during the pandemic were not using the parks regularly as they used to be and that was caused by problems inaccessibility during the pandemic and because of the lockdown so people usage got decreased so we can find fewer people using the parks on daily basis and fewer people going into parks during the pandemic, however, we can see an increase in number on one-month usage by 12% so people still want to go to parks and use them but they find difficulties to use the parks during the pandemic so mainly the parks were used by the people who live nearby the parks between 5 to 10 min walk that did not need transportation to reach the parks and people who live away from parks did not use the park during the pandemic

In this part, we asked the participants about the times they mainly use the park and compared it before and after the pandemic so in table 4.3.4 we can see the time the participants used the parks before the pandemic, and in table 4.3.5 we can see the time the participant's used the parks after the pandemic.

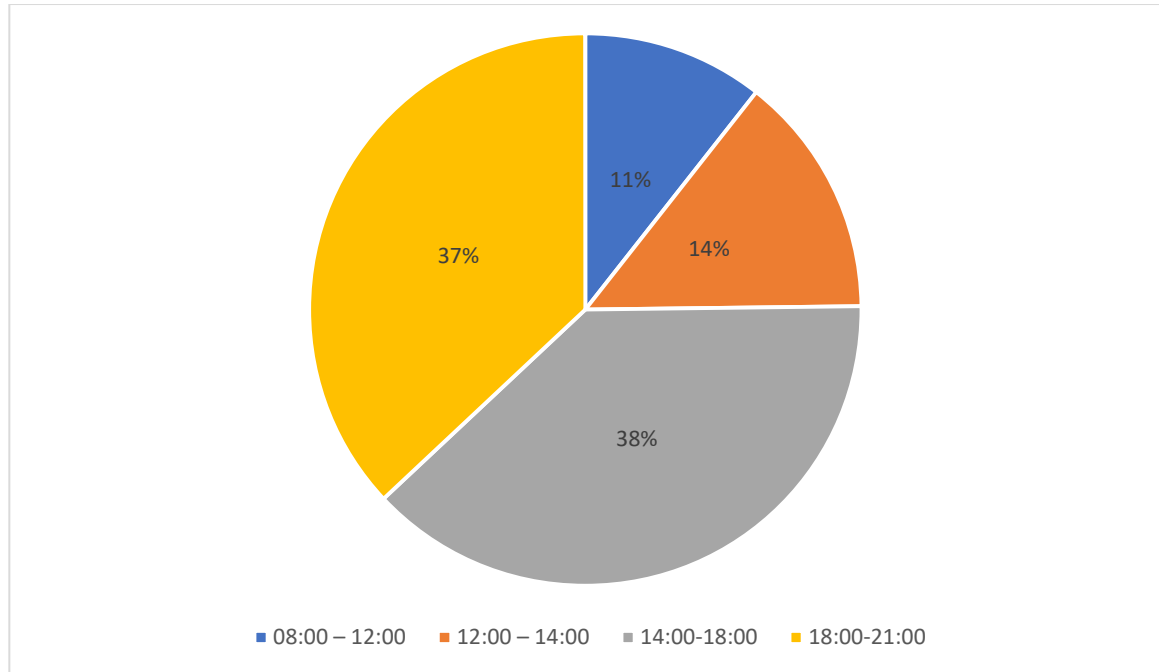
Table 13

The time people use the park before the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
08:00 – 12:00	53	10.6	10.6	10.6
12:00 – 14:00	71	14.2	14.2	24.8
14:00-18:00	191	38.2	38.2	63
18:00-21:00	185	37	37	100
Total	500	100	100	

Figure 15

The time people use the park before the pandemic



Form the Table 4.12 shows that most of the participants visited the parks before that pandemic mostly between 14:00 to 18:00 with 38 % followed by 18:00 to 21:00 with 37 % and then comes 12:00 to 14:00 with 14 % and 08:00 to 12:00 with 11 %

Table 14

The time people use the park after the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
08:00 – 12:00	59	11.8	11.8	11.8
12:00 – 14:00	181	36.2	36.2	48
14:00-18:00	187	37.4	37.4	85.4
18:00-21:00	73	14.6	14.6	100
Total	500	100	100	

Figure 16

The time people use the park after the pandemic

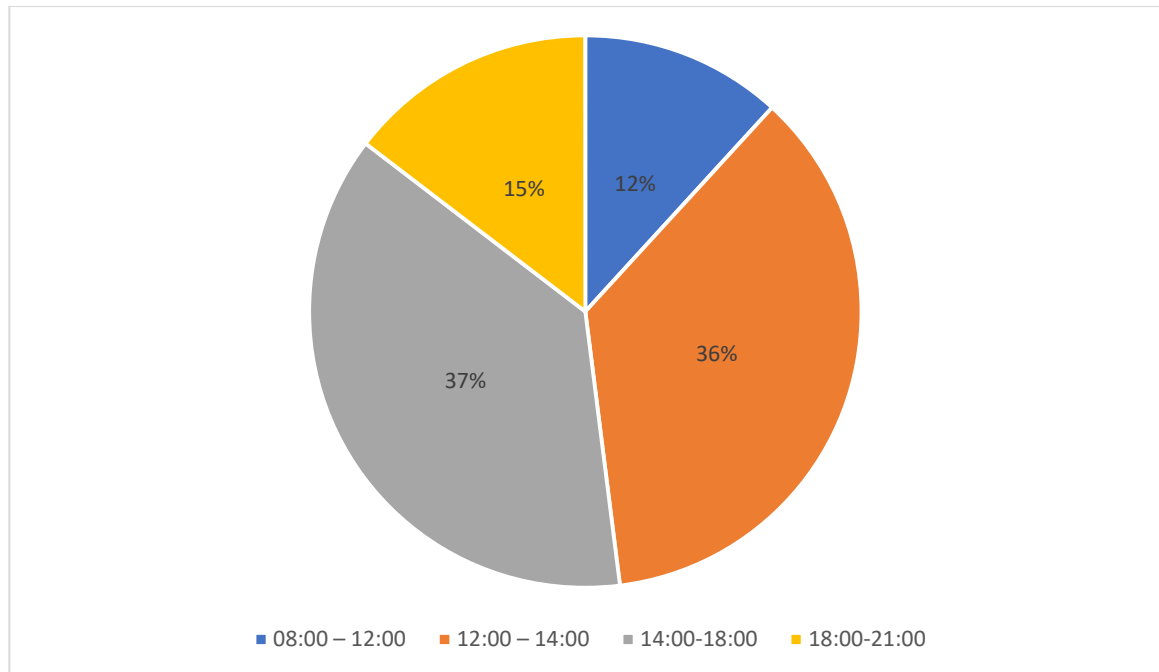


Table 4.13 shows the time when participants visited the parks after the pandemic mostly visited the parks between 14:00 to 18:00 with 37 % and followed by 12:00 to 14:00 with 36 % then followed by 18:00 to 21:00 with 15 % and 12 % for 08:00 to 12:00.

In table 4.3.7, we can see the componence before and after the pandemic when it comes to time usage

Table 15

The difference is time usage before and after the pandemic

	Before	After	Before %	After %	changes
08:00 – 12:00	53	59	10.6%	11.8%	+1.2%
12:00 – 14:00	71	181	14.2%	36.2%	+22%
14:00-18:00	191	187	38.2%	37.4%	-0.8%
18:00-21:00	185	73	37%	14.6%	-22.4%
Total	500	500	100	100	

We can see that there are decrease in late time users between 18:00 to 21:00 and 22.4% decrease and an Increase in 12:00 to 14:00 with 22% which means that majority of people were using the parks during the daytime during the pandemic due to lockdown that was applied during the night so we can see that peak hours before in the pandemic were between 14:00 to 21:00 and after the pandemic, the peak hours are between 12:00 to 18:00 that was mainly because of lockdown and people could use the parks during the daytime because most of the business and schools and universities were closed which made most of the people use the parks during the daytime and also made the parks crowded in some cases and areas when it comes to facilities they provide such as sports equipment's and children's playground to be occupied and when you have too many people use the same equipment's in a short amount of time it might cause a problem and help in spreading the covid-19.

In the next question, we ask about the participant's usage of parks and for what purpose do they use the parks before and after the pandemic so we can analyze if there are changes in the participant's use of the parks because of the pandemic in the table 4.3.8 we can see the usage purpose for the participants before the pandemic and in the table 4.3.9 we can see the usage purpose of the participants after the pandemic

Table 16

The purpose people use the park before the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
Seating and resting area	192	35.8	35.8	35.8
Children Playground	115	21.4	21.4	57.2
Sports and hiking trails	169	33.8	31.5	88.7
Cafeteria and Buffet	37	6.9	6.9	95.5
Other	23	4.2	4.2	100
Total	536	100	100	

Figure 17

The purpose people use the park before the pandemic

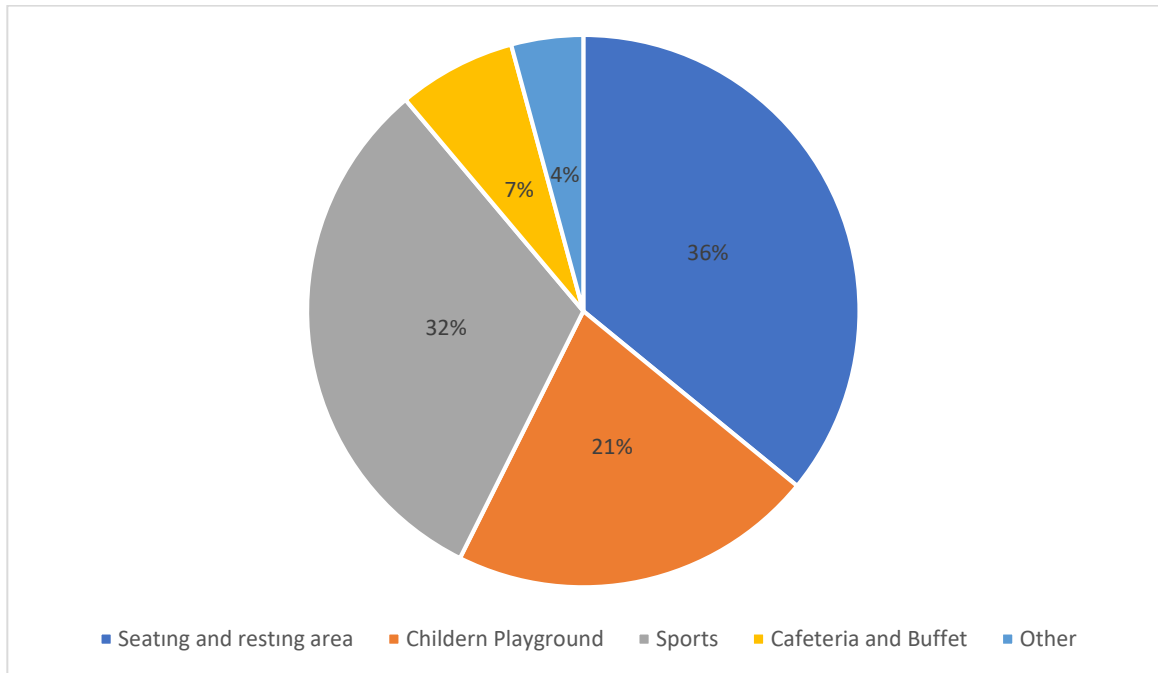


Table 4.9 shows that the majority of participants visit the park for seating and resting with 36 % followed by sport and hiking with 32 % followed by children's playground with 21 % for cafeteria and buffet and 7% for other usage 4%

Table 17

The reasons people use the park after the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
Personal rest	194	38.8	38.8	38.8
Sports and hiking trails	143	28.6	28.6	67.4
For Children's activity	116	23.2	23.2	90.6
Cafeteria and Buffet	27	5.4	5.4	96
Other	20	4	4	100
Total	500	100	100	

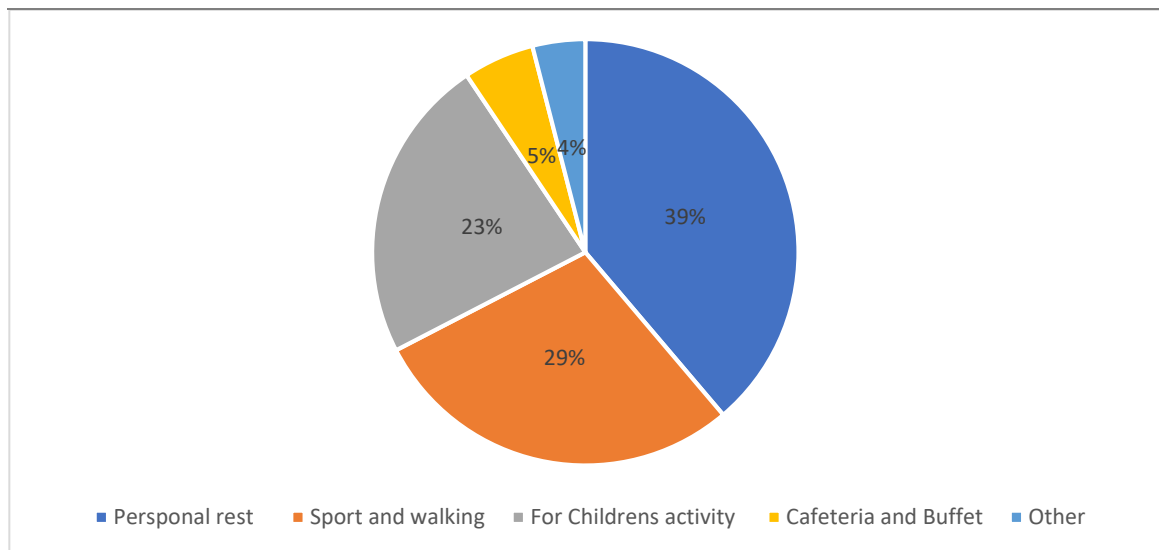


Figure 18

The reasons people use the park after the pandemic

From the Table, we see that most activity people use the park after pandemic personal rest with 39% followed by sports and walking with 29 % and for children activity with 23 % and 5 % for Cafeteria and Buffet and 4 % for other usages

In table 4.3.10, we see the componence in the usage reason/purpose in the parks before and after the pandemic

Table 18

The difference in usage before and after the pandemic

	Before	After	Before %	After %	changes
Seating and resting area	192	194	35.8	38.8	+3%
Children Playground	115	116	21.4	23.2	+1.8%
Sports and hiking trails	169	143	33.8	28.6	-5.2%
Cafeteria and Buffet	37	27	6.9	5.4	-1.5%
Other	23	20	4.2	4	-0.2%

From table 4.3.10 we can see that there are small changes in the participants used for the parks we can see an increase of 3% in seating and resting and almost 2 % in children's playground and decreases about 5% in sport usage and 1.5%in cafeterias and buffet and almost no changes in the other usages we can say that there is not much difference when it comes for the reason why people use the parks before and after the pandemic and the changes are too small so the same reasons that led people to use the parks before the pandemic are the same reasons why they are using the parks during the pandemics.

Urban parks designed improvements

In this part the questioner was focused on the participant's opinions on the parks and what kind of changes and improvements they want in parks and what kind of changes they want to see in the parks and what is they are most concerned about so when they are using the parks the participants have some ideas and opinion about how to improve the current parks.

In this part, we asked the participants about what if they think the usage of the parks have been increased or decreased during the pandemic in the tabled 4.4.1 we can see the participant's answers and what they think about the park usage during the pandemic

Table 19

The participant's opinion about the usage of parks after the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
Increased	205	41	41	41
Decreased	295	59	59	100
Total	500	100	100	

Figure 19

The participant's opinion about the usage of parks after the pandemic

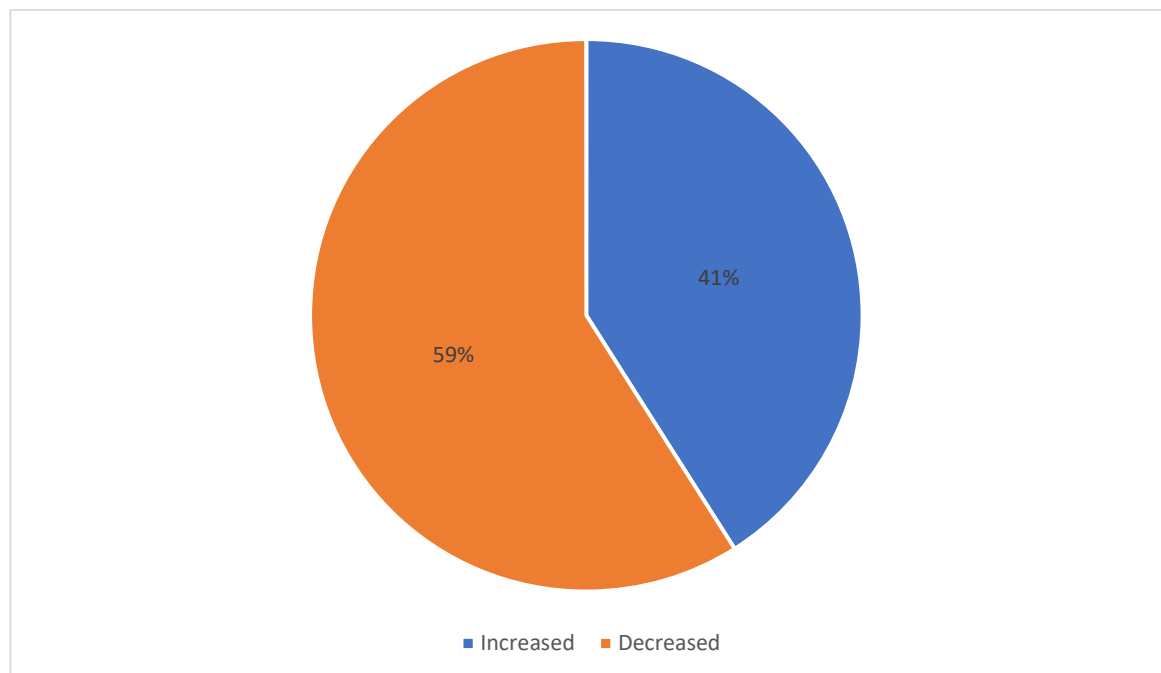


Table 4.14 show that the majority of people think that usage of parks during the pandemic has been decreased because of the lockdown with 59% and followed by 41 % think that the usage has been increased

From this table, we can see the participants saw a decrease in the park usage during the pandemic that causes by lockdown and accessibility problems, especially in the areas where there is no nearby park and where it is required for the participants to travel a good distance to reach the nearest park in their area so we can say because of the lack of transpiration and the lockdown the usage on the parks has been decreased

In this question, we asked the participants what they want to be changed and add to the parks what kind of elements are used and what kind of facilities and equipment they want to be added from the children's playground to the parking area to the medical point, etc.... in the table 4.4.2 we can see how the participants answered to this question

Table 20

The participant's opinion of what should be changed in parks

	Frequency	Percent	Valid percent	Cumulative percent
The parking area should be enlarged	140	20.9	20.9	20.9
Sports activities in the park should be increased	107	16	16	36.9
Playground for children in the park should increase	88	13.1	13.1	50
More walking and resting area	55	8.2	8.2	58.2
The parking area should be rearranged to the risk of contamination	60	8.9	8.9	67.1
The sitting area should be rearranged to the risk of contamination	88	13.1	13.1	80.2
Playground for children should be rearranged to the risk of contamination	63	9.4	9.4	89.6
The medical points should exist in the park in case of emergency	27	4	4	93.6
Checkpoint on the entrance to make sure everyone has a mask	39	5.8	5.8	100
Total	667	100	100	

Figure 20

The participant's opinion of what should be changed in parks

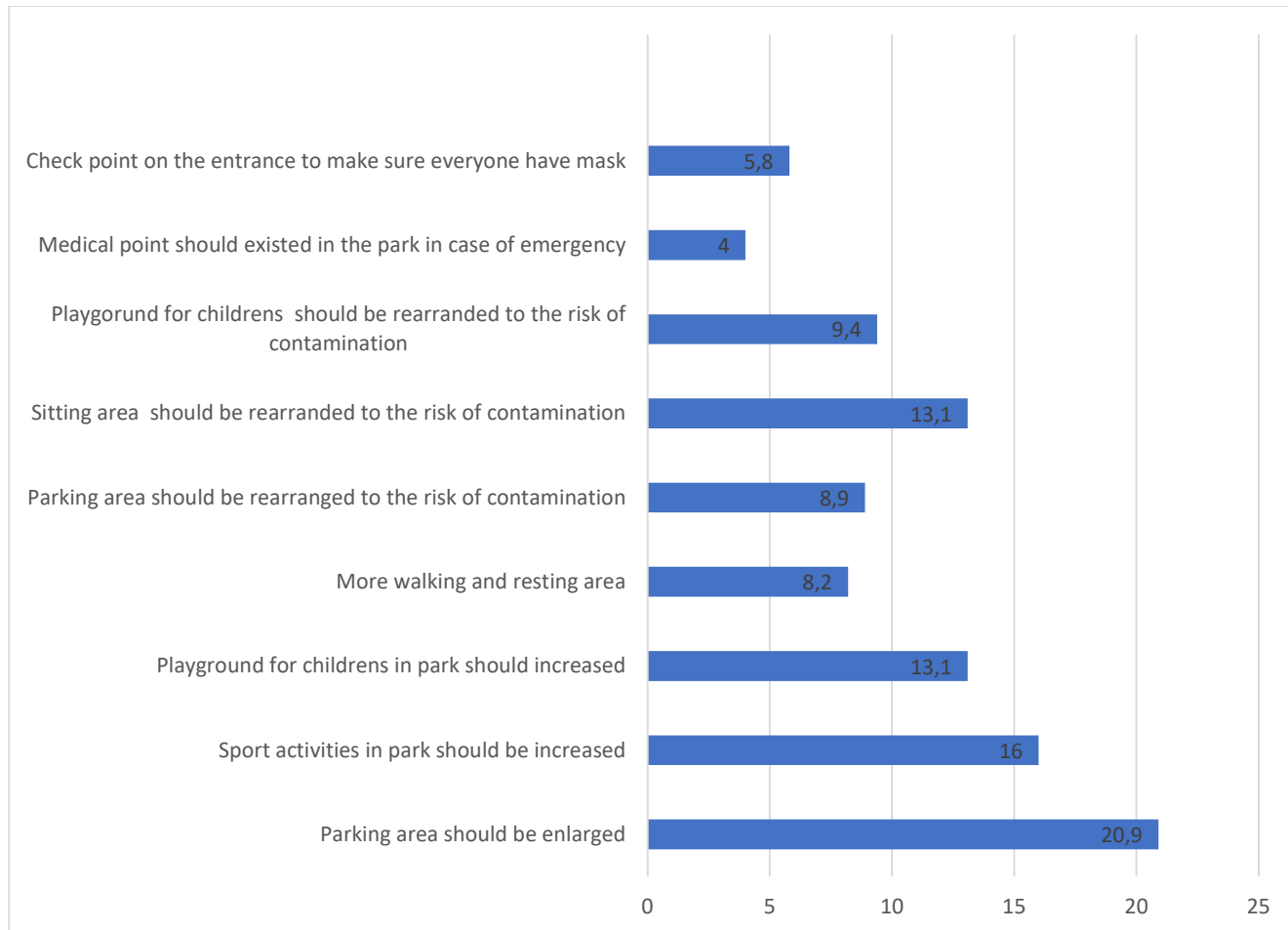


Table 4.15 show that the highest demand for parking area should be enlarged by 21% followed by sports activities in parks should be increased by 16% followed by the playground for children in parks should be increased and the sitting area should be rearranged to the risk of contamination with 13% followed by the playground for children should be rearranged to the risk of contamination 9.4% followed by parking area should be rearranged to the risk of contamination with 9% and for more walking and resting area 8% and 6 % for the checkpoint at the entrance to check on masks and 4 % for medical point in a park in case of emergency

From the table we can say that most demanding part is having parking lot near the parks most of the parks in Nicosia does not have any parking area for cars so the people who comes by driving to the parks usually have hard time finding area to park their cars and especially during the pandemic were people use their private cars to travel because of the lack of public transportation during the pandemic the next most demanding is sport activity should be increased that if it is existed we can see form table 4.3.10 that 28% of the people use the parks for sports activity not all the parks have sport equipment's and the one that do have them are very limited and few in numbers the next comes with 13% is the second thing is playground for children should be increased and sitting are should rearranged when it comes to play ground for children it is only existed on some parks and not the other parks and also the one that have the playground it is in one place and allow for very few number of users at the same time and form the usage table 4.3.10 we see that 23 % of the people used the parks for children's playground during the pandemics so having more playground in the parks will make it less crowded and available to more people to use it and make it less crowded which make it more safer to use during the pandemic, and for the sitting area should be rearranged most of the parks bench that are existed it allow 2 to 3 people to sit at the same time but close to each other so if they could be rearranged in a way to maintain the social distancing will help the participants to use the sitting are more safely less likely to spread the covid-19 , next in the table we have playground for children's should be rearranged and parking area should be rearranged both at 9 % for children's playground the one that are existed in the parks are placed in one place close to each other which make a lot of users gather one of them and on one place were the rest of the park in empty and available so spreading out the playgrounds across the park with help the user to spread out and not gather in one area which help maintaining the social distancing and not transfer to covid-19 to other people, when it comes to parking area people park their cars on the streets most of the time and very close to each other so having parking areas where it is designed to maintain social distancing will help the user to use the parks in a safe way and not be compacted and close to each other, what comes next is more resting and walking area 8 % of the participants felt the need for more sitting area in the parks especially during the pandemic were you are not allow to sit next to each other to maintain the social distancing so the bench parks which

allow 2 to 3 users now only allow 1 to 2 users which made the parks have very few sitting areas available for them to use so having more sitting places that is arranged in way to maintain the social distancing will help people sit in the parks and use it safe considering that 38 % of people that use the parks used for the purpose of sitting and resting when it comes to check point 6 % of the participant felt the need of check point to make sure people wear masks all the time and follow the social distancing rules because there is few people who might not follow this rules and cause an confusion in the parks lastly we have 4 % of people felt the need of medical point in the park in case of emergency .

So to conclude having bigger parks with more sports equipment and children's playground and more sitting area that is arranged in a way to lower the chances of people gathering at a single point will help the users to use the parks safely while maintaining the social distancing rules and letting making the parks to have a parking area for people who comes with their cars will also help people to access the parks more easily and will help to create safer parks for the people.

In this question, we asked the participants about their opinion on whether there should be more parks or not in table 4.4.3 we can see how the participants answered this question

Table 21

The participants agree or not on having more parks

	Frequency	Percent	Valid percent	Cumulative percent
Strongly agree	140	28	28	28
I agree	197	39.4	39.4	67.4
Neutral	43	8.6	8.6	76
I disagree	83	16.6	16.6	92.6
I strongly disagree	37	7.4	7.4	100
Total	500	100	100	

Figure 21

The participants agree or not on having more parks

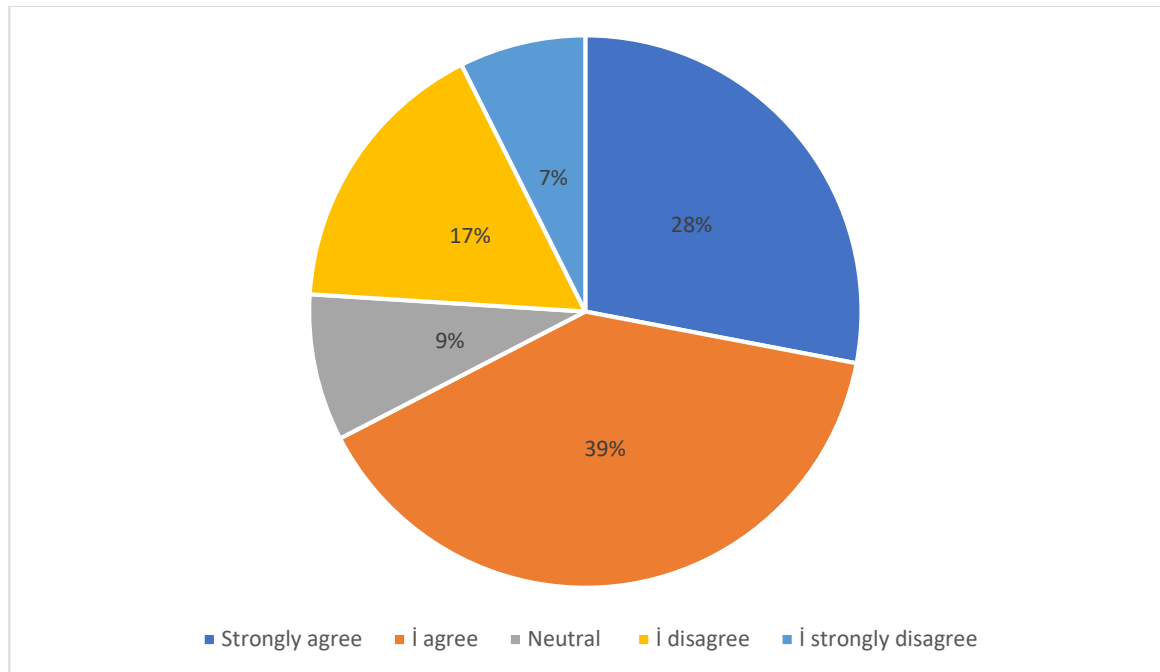


Table 4.16 shows that 28% of the participant strongly agree with having more parks and 39% agree and 9 % were neutral and 17% disagree and 7% strongly disagree

From this table we can see that there is a lack in the numbers of parks that is available for the people to use and also the parks that are existed is small and not enough for the people that live in the area and some areas there are no parks nearby the participant's house so having more parks and distributing them in way that covers the areas more will help the people to use the parks and access them more easily and faster without the need of transportation or to use cars we can see from the table 4.4.3 that 67 % of the participants said there should be more parks in Nicosia.

Problems the Participants in Urban Parks

in this section, the participants were asked what kind of problems they were facing while using the urban parks during the pandemic so several questions were asked to identify these problems which will help us understand and have a clear idea of what kind of difficulties the participants faced while using the parks after the pandemics

In this question, we asked the participants about the problems that they are facing using the parks during the pandemic and what kind of difficulties they are facing in table 4.5.1 we can see how the participant answered this question

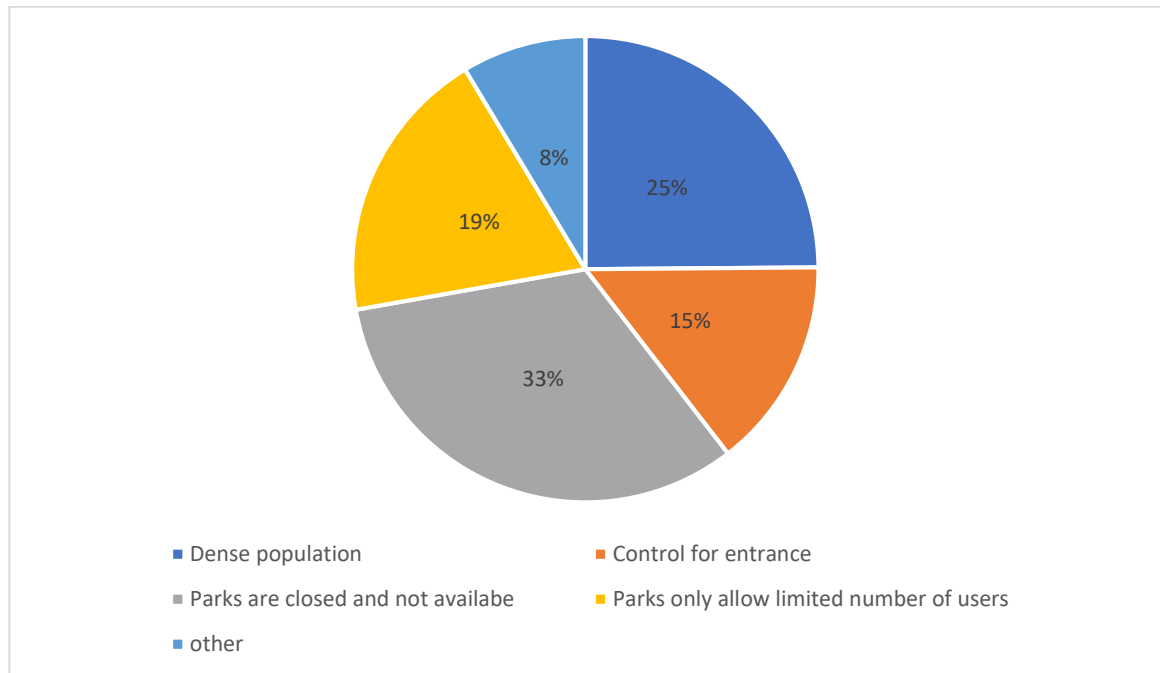
Table 22

The problems the participant faced in using parks

	Frequency	Percent	Valid percent	Cumulative percent
Dense population	127	24.8	24.8	24.8
Control for entrance	75	14.6	14.6	39.4
Parks are closed and not available	167	32.6	32.6	72
Parks only allow a limited number of users	98	19.1	19.1	91.1
other	44	8.6	8.6	100
Total	511	100	100	

Figure 22

The problems the participant faced in using parks



As shown in table 4.17 the main parks are closed or not available because of quarantine 33% dense population with 25% and 19% parks only allow a limited number of users and 15 % for control on entrance 8 % for other

We can see that most problem the participant face is parks are closed or not available that because of the lockdown and people have problem accessing the parks during the pandemic and also so facilities were close during the pandemic in some parks the people were not allowed to use the sport equipment and the children's playground which made the people not go to the parks because it was their purpose to go to it and the lack of transportation and parks been away from some participant homes made it difficult to people to use the parks during the pandemic , in the next we have dense population and this comes because of the current parks are small is size and not too many of them so people who don't have parks close to their home they go to other places parks which create a problem when it comes to number of people , next problem is the parks only allow few number of people in many cases the parks are too small and a lot of users they don't find enough sitting area or the children's playground is full or the sport equipment's is also

occupied which create a problem that, this parks are not designed to host this number of users , when it comes to control on the entrance people mostly complain about the lockdown rules and the social distancing and how it is hard for them to go to any parks because they live too far from it or they can't access it easily or the parks been closed in some cases ,

In this section, we asked the participants what they are mostly concerned about while using the parks and what is the thing they most fear/concerned in table 4.4.5 we can see how the participants answered this question

Table 23

The most concerns the participant have

	Frequency	Percent	Valid percent	Cumulative percent
Health risk	177	35.4	35.4	35.4
Infction of covid 19	161	32.2	32.2	67.6
Too many users	87	17.4	17.4	85
Cleanliness	47	9.4	9.4	94.4
Safety	28	5.6	5.6	100
Total	500	100	100	

Figure 23

The most concerns the participant have

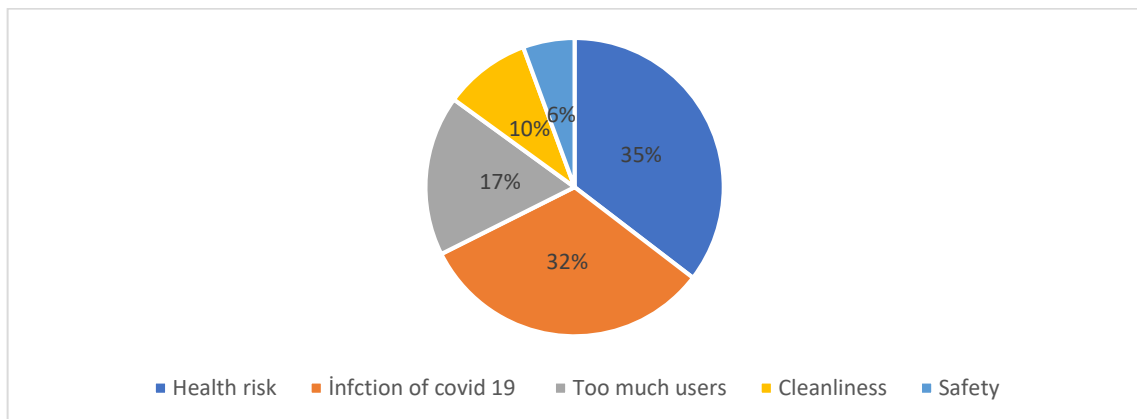


Table 4.5.2 shows that most thing the participants were concerned about is their health 35% and infection of covid-19 32% and 17 % for too many users and 10 % to cleanliness and 6 % to safety problems

We can see from the table that 67 % of the participants mostly concern about their health risk and transferring covid-19 because as show before that the parks have problem when it comes to number of users and number of facilities that this parks provide to the user were theirs is too many user on the children's playground and the sport and sittings area and not too many people follow the rules of social distancing and wear masks in the parks it created a concern on the people when it comes to their health safety and a fear of transferring the covid-19 , for the next is too much user with 17% the participants reported that having too much users in the parks during the pandemic time it is dangerous and not safe to use , for cleanliness mostly people where complain about the parks not been cleaned regular or people throwing food disposal and leftovers in some areas finally for safety the participants complain that the parks are dark and there is no light during the night times in some parks which made some people uncomfortable using the parks during the night time during the day time people has almost no complains about safety issue

Children Usage

In this section, we asked the participants if they have children between the age of 5 to 12 years old so we can study if there is any changes to the children's usage and behavior before and after the pandemic especially when 23% of the participants visits the parks because of the children's activity and playground in the table 4.5.1 we can see the number of the children's in the participant's houses

Table 24

The number of participants that have children between 5to12 years old

	Frequency	Percent	Valid percent	Cumulative percent
1 child	111	76	76	76
2 children	21	14.3	14.3	90.3
3 children	14	9.5	9.5	100
4 and more children	0	0	0	100
Total	146	100	100	

Figure 24

The number of participants that have children between 5to12 years old

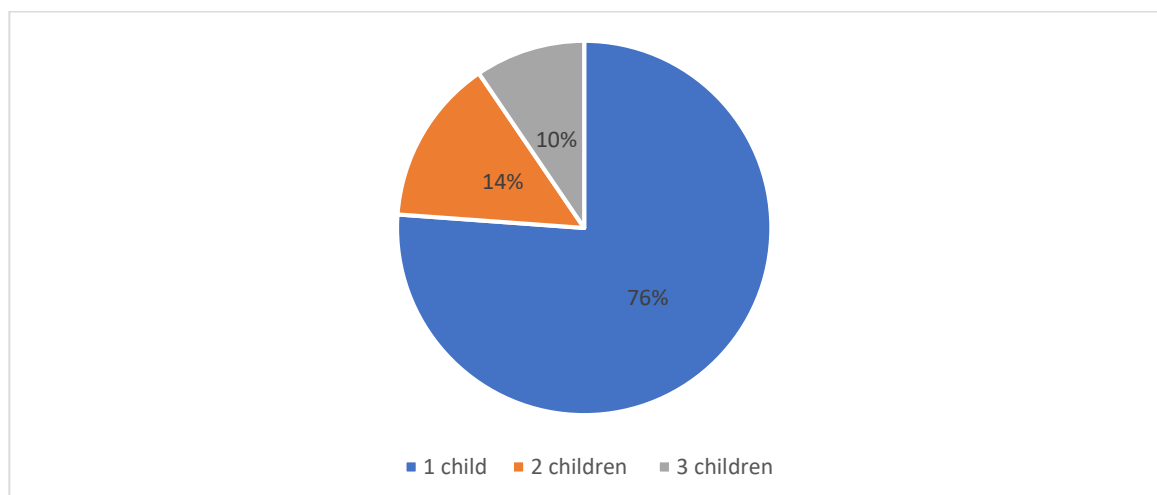


Table 19 shows that the majority of them have only 1 child between the ages of 5 to 12 years old with 76 % and followed by 2 children with 14% 3 children at 10% and 4 children's 0 %

In the next question we asked the participants about the children's usage and where do they play before and after the pandemic in table 4.5.2 we can see the participant's answers before the pandemic and in table 4.5.3 we can see their answers after the pandemic

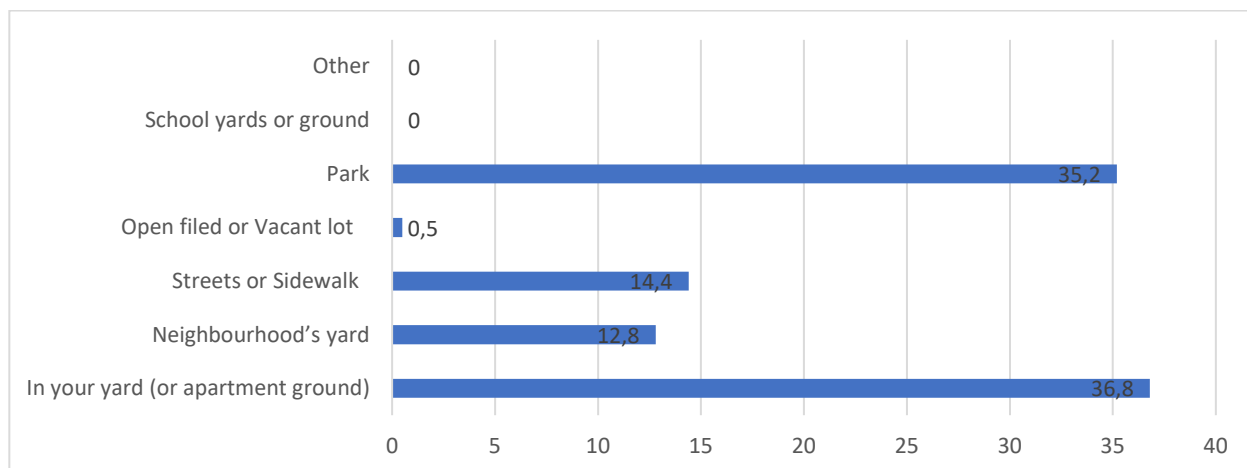
Table 25

The places that the children played before the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
In your yard (or apartment ground)	69	36.8	36.8	36.8
Neighbourhood's yard	24	12.8	12.8	49.6
Streets or Sidewalk	27	14.4	14.4	64
Open filed or Vacant lot	1	0.5	0.5	64.5
Park	66	35.2	35.2	100
Schoolyards or ground	0	0	0	100
Other	0	0	0	100
total	187	100	100	

Figure 25

The places that the children played before the pandemic



Most of the children play in the house yard with 36.8% and for parks 35.2% and streets and sidewalks 14.4% and for neighborhood yard, 12.8% and for open field 0.5%

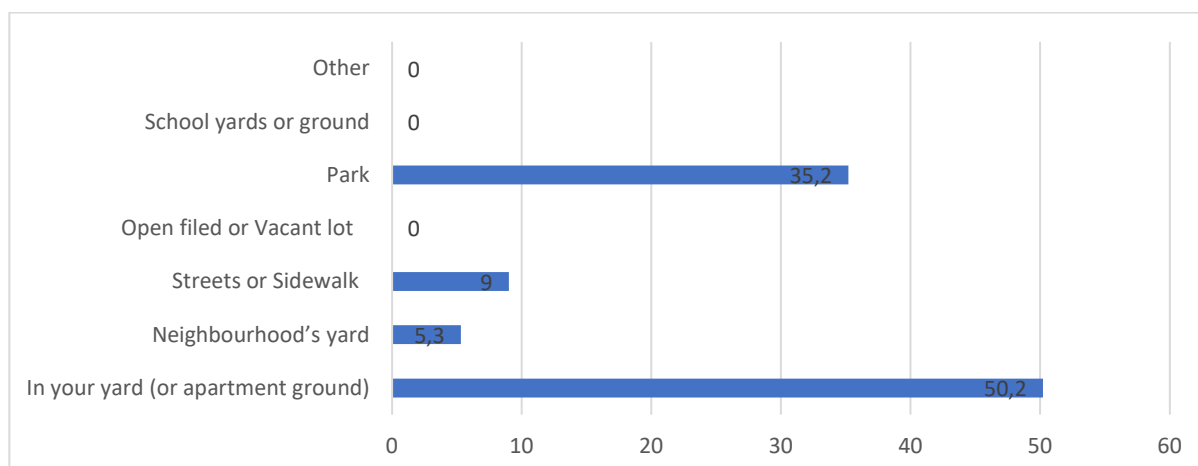
Table 26

The places that the children play after the pandemic

	Frequency	Percent	Valid percent	Cumulative percent
In your yard (or apartment ground)	94	50.2	50.2	50.2
Neighbourhood's yard	10	5.3	5.3	55.5
Streets or Sidewalk	17	9	9	64.5
Open field or Vacant lot	0	0	0	64.5
Park	66	35.2	35.2	100
Schoolyards or ground		0	0	100
Other		0	0	100
total	187	100	100	

Figure 26

The places that the children play after the pandemic



Most of the children play in house yard with 50% followed by 35% for parks and for streets and sidewalks we have 9% and 5 % for neighborhoods yard

Table 27

The difference in the places that children play before and after the pandemic

	Before	After	Before%	After%	Changes
In your yard (or apartment ground)	69	94	36.8	50.2	+13.4%
Neighbourhood's yard	24	10	12.8	5.3	-7.8%
Streets or Sidewalk	27	17	14.4	9	-5.4%
Open filed or Vacant lot	1	0	0.5	0	-0.5%
Park	66	66	35.2	35.2	0
Schoolyards or ground	0	0	0	0	
Other	0	0	0	0	
total	187	187	100	100	

From this table, we can see that most of the changes that herein are to the home yards users many people during the pandemic prefer to use their house parks for children to play in it and also because of the lockdown and people not be able to leave their houses so most of them turned in the house garden to play meanwhile we see decreases in neighborhood yard and streets or sidewalk because people where forbid to leave their houses but we see no increase or decrease in the number of park usages that mean that people preferred their garden and yard over the parks that is nearby the houses that because of the lack of children's playground and the fear of catching an infection from covid-19 so mostly the users of the parks where the people who lived in an apartment house that do not have private yards for their children's are mostly where the users of the parks during the pandemics

CHAPTER V

Conclusion and Discussions and Recommendations for Future Studies

Conclusion and Recommendations:

As seen previously in and as mentioned before in the chapters many important features when it comes to accessibility and usage of the urban parks are missing such the easy access to the parks and their availability to inhabitants of Nicosia many of the inhabitants suffer or find difficulties to the reach the parks because of lack of transportation and many also find difficulties to use the parks because of lack of parking area and which causes the parks to be not up to the standard when it comes to accessibility and usage.

Additionally, many participants faced some difficulties when it comes to sitting and resting area, not because of the lack of it but how it is designed and spread many of the sitting areas requires people to sit close to each other which was not allowed during the pandemic times because of social distancing rules which made most of the parking bench only usable by a small number of participants which creates a need of more well-designed sitting area that can be used safely during the pandemic time

Many people find the need of having more parks in their area where they live many complains were about the shortage of parks or the parks that is existed not up to standard or not been used properly creating new parks and improving the existing ones will reduce the crowding problem and solve the accessibility issues for people who lives far away from parks and creating more healthy and sustainable districts where it has a good amount of open places and urban parks will help people not travel for a long distance to reach the nearest park to their home

When it comes to parking equipment and facilities many people discuss the issue of lack of sporting equipment and not enough children's playgrounds so providing more children's playgrounds and adding more sporting equipment will solve the problem of too many users on the same facility and designing them in a way were multiple of people using it at the same time while maintaining the social distancing will help to decrease the concern of health risk and spreading the covid-19 virus across the users.

The main objective of the study is to identify the problem that the participants face while using the parks during the pandemic time and help us understand what kind of problems people facing and compare the usage and accessibility of Nicosia parks before and after the pandemic will help the decision-making people and the authorities to have a better understanding of the situation so they can have better planning for future and solving the current problems

Suggestions for Future Studies

Other studies can expand on this study and take it to a larger scale these studies focused on the center of Nicosia they can expand it to include the other parts and see the similar problems accrued and other papers can take one of this problem that has been addressed and find the solution of this existing problem additionally many aspects were not been taking into consideration while making this survey because it was only focused on accessibility and usage problem other studies can expand it to cover more points that have not been taking into consideration in this study, expanding this study and applying on other regions will help in understanding the bigger problems and will help the responsible people in their decision making and planning for the future on cities and the people in northern Cyprus.

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22.12.2020

**BİLİMSEL ARAŞTIRMALAR ETİK KURULU**

Dear Humam Helmi

Your application titled “**The public spaces during covid-19 pandemic**” with the application number YDÜ/FB/2020/103 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

Note: If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document.

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