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"Know-How" to Spend Time in Home Isolation during COVID-19; Restrictions and Recreational Activities

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ABSTRACT

This study aims at identifying the emotional, physical, psychological, and social states of individuals who had to stay home for a while due to the measures taken to prevent the spread of the COVID-19 pandemic and to determine what kind of recreational activities they preferred during this period. We used a mixed research method and composed the study group of 479 consisting of 297 female and 182 male participants with a non-random, convenience sampling method. Data was collected through questionnaires of open-ended qualitative questions. Findings address that recreational activities during the long homestay in a pandemic have psychological, socio-cultural, and physical benefits. Social isolation during such circumstances is known to be limiting the physical mobility of individuals and it did so in this COVID-19 pandemic process. While the main activity source was of technology of the people attended this research, we also observed that they are aware of the variety and the benefits of recreational activities at the same time. The respondents stated that the coronavirus outbreak had negative effects in terms of economic, social, psychological, and physiological contexts, but with the outbreak; staying in social isolation had also positive effects on their family such as exploring new things together, happiness, and spending time effectively. One other remarkable aspect is that respondents reported that they would do recreational activities soon after the social isolation period ends. In the results of the research, it is suggested that it is necessary to resort to recreational activities in order to both reduce the spreading effect of the virus in isolation at home and to overcome this process with the least negative impact, and individual and institutional efforts should be made for this.

Keywords:[1]
Coronavirus, COVID-19, Recreational activities, Sport

1. Introduction

Coronavirus disease (COVID-19), which appeared in China and caused quite a serious panic and fear, has become a health problem on which the entire world has focused (Chen et al., 2020). The World Health Organization (WHO) declared on 11 March 2020 that the novel COVID-19 is a global pandemic. The coronavirus pandemic, which first appeared in Wuhan city of China and spread to the world, has been observed intensively in Europe and America as the new epi-center and has increased rapidly. Through the end of April 2020, there have been 2,471,136 confirmed cases and 169,006 deaths from COVID-19 in 209 different regions of the world (WHO, 2020). Because of this rapid spread, governments have started to apply highly serious and protective measures in the regions where the pandemic appears. These measures, which started with social distance practices, have gradually continued with self-quarantine practices, mandatory quarantines, travel restrictions, cancellation of international flights, then travel restrictions within the country, and lastly curfews. Education has been physically interrupted and while online education has been initiated, flexible and home office practices have started at workplaces.

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Although no vaccine or medication can be found for the treatment of the virus-caused disease, it is known that many researchers around the world are conducting intensive research into the source of the virus and extensions of this pandemic. While the number of academic studies conducted recently to increase the exchange of information on the subject has also increased (Stove, 2020), on the other hand, it has been reported that no answer has yet been found to the questions regarding virus incubation time, risk assessment and effective treatment methods (Callaway & Cyranoski, 2020). It is emphasized from the statements of WHO officials that this process remains uncertain and that governments should take active measures to prevent further spread of the disease and continue the pressure on societies (VOA, 2020).

The outbreak of the COVID-19 pandemic has a major impact on society in many respects such as community health and the extent of the struggle. Pandemics have many different implications for community health. Social isolation and quarantine environments show up as an important measure in order to prevent the physical spread of pandemics. In terms of public health, while controlling the virus is a primary priority, it is also emphasized that individuals' daily physical activities should be continued. Although such measures as staying home, which is highly recommended to prevent the transmission of the virus from person to person, are safe, they have some undesirable negative consequences such as a decrease in the level of physical activity. As a result of staying home for a long time, individuals develop some permanent sedentary behavior routines, such as sitting, lying down, playing games, watching TV for a long time or constantly being attached to the screen with mobile devices; a decrease in the level of physical activity (hence, low energy consumption) ultimately increases the risk potential for chronic health conditions (CDC, 2020). Therefore, it is important for health to continue physical activity even in limited environmental conditions in order to stay healthy during the period of homestay. As a result of the rapid spread of the COVID-19 worldwide, it causes the spread of stress in society. In this process, it can be said that anxiety and fear related to the disease can cause severe mood changes in children and adults.

Both the WHO and the health authorities of countries recommend individuals to quarantine themselves as COVID-19 cases increase. In this regard, countries have decided to close businesses where people can come together, even if there is no decision to implement a quarantine. This situation has caused the temporary closure of environments such as fitness centers where individuals can do physical activity. The fact that individuals of all age groups stay home for a long time may cause them to be physically immobile. Sedentary life or low level of physical activity may have negative effects on individuals' health and quality of life. In such cases, it can be said that recreational activities can lead to physical, physiological, and social gains by enabling individuals to have physical mobility.

U.S. Center for Disease Control and Prevention (*CDC*) draws attention to the emergence of our fears about our own health and the health of our loved ones, changes in our diet and sleep patterns, sleep disturbances and difficulty in concentration, worsening of chronic health problems and an increase in alcohol, tobacco, and some other drug addictions as a result of the stress appearing in the pandemic environment (CDC, 2020). In addition to protecting our body, applying relaxation techniques such as deep breathing, stretching and meditation, following healthy and balanced nutrition, doing regular exercise, having sufficient and well sleep and avoiding harmful substance intake, it is particularly recommended not to constantly listen to negative news from the television, social media or other channels related to the pandemic in order to eliminate such negative effects (Achenbach, 2020). Considering the types of social isolation, it is mentioned about such types as individuals' being isolated from other people and social environments with self-control in order to avoid being affected by the pandemic, individual quarantine practice at home after risky mobility such as travel or compulsory quarantine in cases where the risk of the virus is high. In these days, when the COVID-19 pandemic shows its effect pretty intensely, social isolation periods are expected to take a long time. Considering the negative effects that social restrictions may have on individuals in a closed environment for a long time, it is highly significant to know how to evaluate time in the social isolation process. We need to make use of the time well, have activities that we like to do, and continue to interact with other people within the limitations and obstacles (Stieg, 2020). It is known that individuals participating in recreational activities are happy and healthy (Eskiler, Yıldız & Ayhan, 2019). Having knowledge about and applying recreational events and activities aimed at eliminating the negative effects of permanent homestay will prevent mental and physical regression and provide morale and motivation within the family while developing personal skills (Yildiz, 2010). Individuals should develop a time management mechanism for the extra time that occurs during

their homestay within the framework of pandemic measures in order to reduce the stress that shows up in themselves and the people around them. At this exact stage, recreation and recreational activities take an important place as a time management tool.

In this context, this study was carried out to determine the emotional, physical, psychological, and social states of individuals who had to stay home for a while due to the measures taken to prevent the spread of the COVID-19 pandemic and to determine what kind of recreational activities they preferred during this period.

2. Methods

2.1. Research Model: The mixed-method was used in the research. The mixed method is based on the basic assumption that quantitative and qualitative methods, when used together, provide a better understanding of research problems (Creswell & Plano Clark, 2014). On the other hand, Greene, Krayder & Mayer (2005) consider the mixed method as quantitative - qualitative data collection and data analysis processes in which participants' evaluations are carried out purposefully.

2.2. Study Group: The study group of the research consists of 297 female and 182 male participants that corresponds to a total of 479 individuals whose average age is 30,837 (± 9,55) and who voluntarily participated in the study determined by convenience sampling methods, which is one of the non-random sampling methods.

2.3. Data Collection Tools: While the process of reaching a larger sample group was ensured by means of quantitative methods, a more in-depth analysis of the research subject was realized with the qualitative data collection method (Green, Krayder & Mayer, 2005). In the research, a questionnaire form consisting of quantitative and qualitative questions prepared by the researchers was used as the data collection tool. Since the aim of the research was shaped by the participants staying home, an internet access system was used. The participants were reached via the web platform and a program providing online data was used as the data collection method (Reips, 2002).

2.4. Data Analysis:

Accordingly, statistical package program (SPSS 24) was used in the analysis of quantitative data. The arithmetic mean, standard deviation, frequency, minimum, and maximum values were used in statistical representations of the data. In the analysis of qualitative data, content analysis method was used and open coding method was applied (Yıldırım & Şimşek, 2018). In addition, Nvivo 10 package program was used to model the analysis of qualitative data.

In the qualitative research process, the data obtained was first transferred to the Office program and read several times, and coding was created by two experts in their field. Afterward, the themes (categories) that would form the outlines of the research findings were created by combining the codes, the content analysis method was used and the open coding method was applied (Yıldırım & Şimşek, 2018). Overlapping themes of the data coded by 2 experts in their field were grouped. Cohen's Kappa statistics are used to determine the consistency among evaluations made by two or more coders. Fleiss's kappa coefficient is a statistical method that measures the reliability of the comparative match among more than two constant numbers of raters (Cohen, Mannion, & Morrison, 2007; Cohen & Swerdlik, 2002). In the research, the rejected and accepted codes were calculated by placing in the Cohen kappa formula.

$$k = \frac{p_o - p_e}{1 - p_e}$$

In the study, the Cohen kappa coefficient was determined as r = 0.89 as the concordance among the coders. Therefore, the calculated values show that there is a very good level of concordance among the raters.

3. Findings

In this part of the study, the analysis results and comments of the quantitative and qualitative data obtained are included.

3.1. Findings regarding Quantitative Data

Table 1. Descriptive Statistics (percentage, frequency and means, prevalence scales)

Variables	Groups	f	%	Total
Gender	Female	297	62.0	479
	Male	182	38.0	
Education Status	Primary/Secondary	16	3.3	
	High School	48	10.0	
	Bachelor	324	67.6	
	Master/PhD	91	19.0	
Occupation	Public employee	166	34.7	
	Private Sector employee	96	20.0	
	Retired	8	1.7	
	Housewife	9	1.9	
	Student	167	34.9	
	Other	9	1.9	

When Table 1 was examined, it was observed that 62% (f= 297) of the participants were female and 38% (f= 182) were male. When the distributions were analyzed in terms of educational status, it was determined that 67.6% were bachelor's degree, 19% were master degree, 10% were high school and 3.3% were primary school graduates. In occupational distributions, it was seen that 34.9% were student groups and 34.7% were public employees.

Table 2. Findings regarding the experiences of the participants during COVID-19

Variables		f	%	Total
Do you care about the health measures to be taken released by the WHO or the Ministry of Health?	Yes	**420**	**87.7**	479
	No	1	.2	
	Partially	58	12.1	
Do you believe that the recreational activities decrease the negative psychological, physical and socio-cultural effects of a long time home isolation	Yes	**250**	**52.2**	
	No	47	9.8	
	Partially	182	38.0	
Do you believe that Recreation has a therapeutic effect?	Yes	**275**	**57.4**	
	No	47	9.8	
	Partially	157	32.8	
When you think of the long-term home isolation, do you believe that recreational activities done at home can help to prevent/decrease physical and mental disorders that may occur in the long-term?	Yes	**256**	**53.4**	
	No	75	15.7	
	Partially	148	30.9	
When you think of the long-term home isolation, do you believe that recreational activities done at home will help you develop some personal skills?	Yes	**244**	**50.9**	
	No	79	16.5	
	Partially	156	32.6	
When you think of the long-term home isolation, do you believe that recreational activities done at home will contribute positively to the mood and motivation of your family?	Yes	**294**	**61.4**	
	No	56	11.7	
	Partially	129	26.9	

It was determined that the participants stated that they complied with the coronavirus measures (87.7%; n=420) recommended by WHO and the Ministries of Health of the countries; recreational activities alleviated psychological, physical and socio-cultural effects of being constantly at home (52.2%; n=250) and in this process, recreation created a therapeutic effect (57.4%; n=275). In addition, the participants also stated that

when they stayed home for a long time, doing recreational activities at home could prevent future mental-physical regression (53.4%; n=256), improve personal skills and abilities (50.9%; n=244) and support the morale and motivation of the family (61.4%; n=294)

Table 3. Findings regarding the emotional state of the participants during COVID-19 pandemic process

Items	N	Min.	Max.	$\bar{x}$	Sd.
Stress and anxiety had negative effects on my life quality.	479	1.0	5.0	**3.292**	1.23
I did not have any idea about what to do during home isolation.	479	1.0	5.0	2.537	1.29
During my stay at home, my possibilities to move were restricted.	479	1.0	5.0	**3.499**	1.29
I am well equipped with the types of recreational activities in similar circumstances.	479	1.0	5.0	**3.386**	1.26
I felt alone and isolated.	479	1.0	5.0	2.537	1.34
I was strong enough to struggle with stress and anxiety.	479	1.0	5.0	**3.670**	1.17
I had mental health problems because of boredom.	479	1.0	5.0	1.706	1.10
I put on weight because of the inactivity.	479	1.0	5.0	2.511	1.43
I experienced a decrease in the physical activity level which was higher formerly.	479	1.0	5.0	**3.434**	1.32

While the individuals staying home due to COVID-19 stated that their lives were affected by anxiety and stress (x=3.292), their physical mobility was limited (x=3.499) and their physical activity level decreased (x=3.434) as long as they stayed home; in such cases, they said that they had information about recreational activities that could be done at home. Moreover, individuals stated that they had as much psychology as to deal with stress and anxiety in such cases (x=3.670). As the findings of the research were prepared in the form of five-point grading, it was observed that the participants generally commented above the average value (x=2.50).

3.2. Findings regarding Qualitative Data

Considering the analysis of the data obtained, the views of the participants were determined in eleven different outputs in the question about "what kind of recreational activities the participants do by staying home" (Figure 1). The participants were given the freedom to make more than one choice in the activities conducted in the research question directed to the participants.

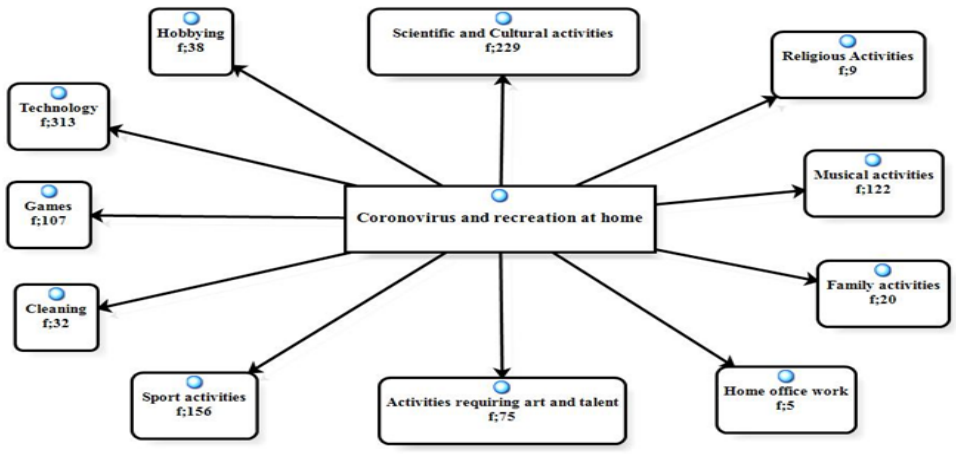

Figure 1. Coronavirus (COVID-19) and recreation at home

Some participant preferences for these outputs are given below:

"We are definitely playing with the whole family, how do we best evaluate the time, we strive for this, I am painting mandala, I am frequently reading books, I am trying to play the guitar, etc." (P30). "I have a little girl, she is just 2 years old, I am spending my whole day doing continuous activities with her and listening to music" (P50). "I am doing sports at home. I am reading books and trying to continue my academic studies. I am also occasionally watching documentaries and movies" (P80). "I am trying to do daily exercises regularly. After finishing my works, I have started to watch the movies I like and have not watched for a long time" (P180). "I am knitting, reading books, and trying recipes for different flavors" (P252). "I am doing sports at home, watching TV, and embroidering canvas; we are painting stones, spending lots of time with my daughters and studying lessons" (P335).

It was reached to ten different outputs as a result of the analysis of the question "What is your favorite recreational activity with your family during social isolation" question directed to the participants (Figure 2).

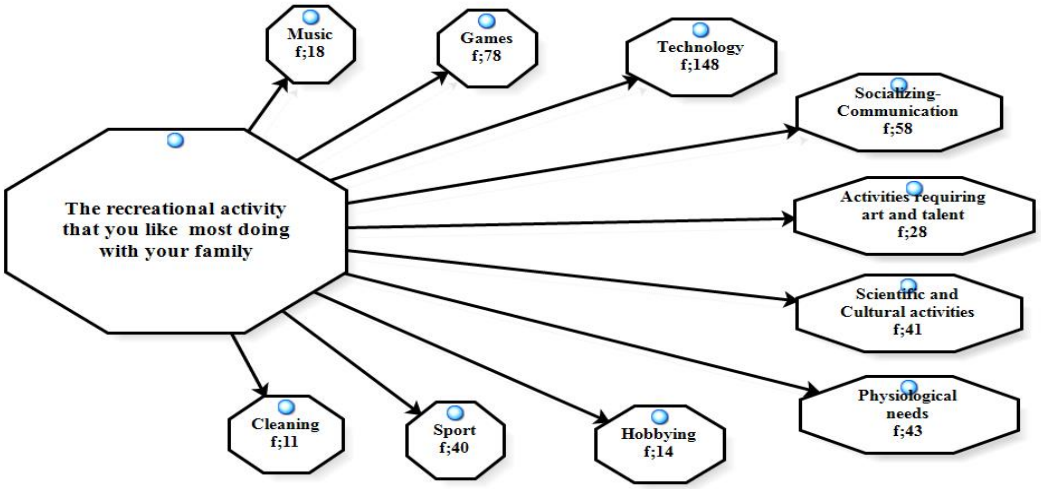

Figure 2. Family recreation

Some participant preferences for these outputs are given below:

"We are watching lots of movies with my spouse. We used to be fond of discovering new movies, collecting movies; while we have the time now, we act as if we are doing this arbitrarily by not thinking about the obligation of quarantine and staying home" (P55). "We are listening to music and singing karaoke with my 4.5-year-old son at home and having lots of fun" (P225). "Listening to music. Listening to music with the family can change your mode very easily, it is so at least for me. It works when I feel unhappy" (P326). "We are doing sports with the whole family at home. We are browsing the videos on the Internet and doing this all together" (P405).

Considering the analysis of the question of "How does staying home affect you as required by COVID-19 measures?" directed to the participants, three main themes and 14 sub-themes were reached (Figure 3). The main themes were discussed as positive, negative, and both positive and negative. While the sub-themes of discovering new things, self-awareness, effective use of time, the effectiveness of belief, taking precautions, happiness, and cleanliness struggle were reached in the positive theme, sub-themes of physiological effect, psychological effect, social effect, restriction, and economic effect were determined in the negative main theme. In both positive and negative main theme of the participants, it was found that the positive and negative effects of coronavirus on homestay were observed together.

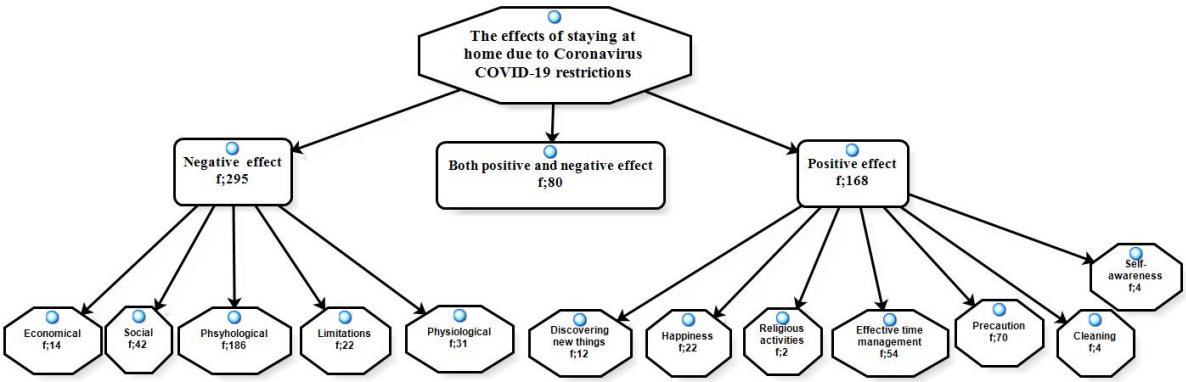

Figure 3. The effects of staying home due to coronavirus COVID-19

Some of the participants' views on these main and sub-themes:

Negative: "I am always feeling tired and sluggish because I can't move. I have become distanced from my social environment" (P4). "My psychology is broken. I have been affected. I have stenocardia for the past several days" (P195). Positive: "I am just curious about my loved ones and worrying about them; of course, such external measures have positive effects ... most importantly, there has been actually a return to the inner world and I have realized the time I have forgotten to devote myself, there has been great awareness, so it has actually affected me positively..."(P50). "I declared as if it was a holiday for my children and my spouse. We are having a peaceful time, we are setting up special tables, we are trying to stay happy" (P124).
Both Positive and Negative: "Of course there are positive and negative aspects. The positive aspects are health is a cause in itself, but there are quite more negative aspects; first of all, our education life has ceased, there are so many obstacles coming out, my social life has definitely stopped and the activities at home can be done to a certain extent in this situation" (P30). "Staying away from social environments is boring. Although it is disadvantageous for children to take a break from education, we are trying to spend productive time at home with different activities and educational games that will affect my child's and my psychology to a minimum degree" (P330).

Considering the analysis of the question "What is the first activity you want to do when you return to your normal life after the COVID-19?" directed to the participants, eleven themes were reached (Figure 4).

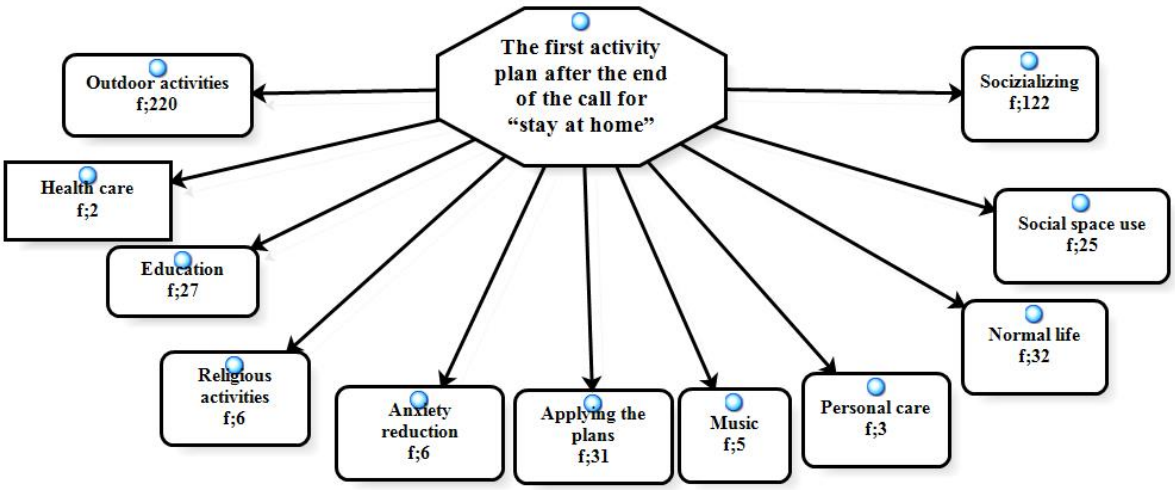

Figure 4. The first activities you want to do after COVID-19

Some of the participants' views on the themes reached as a result of Figure 4:
"There are so many people that I want to hug and I can go to the beach, sit until the evening and weep for joy" (P15). "I want to pray to thank God" (P116). "I am thinking of maintaining this situation by softening the conditions a little more,

the effects will continue for a while and it is better to be cautious" (P270). "Spending hours outside" (P417). "I want to meet my close friend and hug him tightly. A tiny virus took away the right of people even to hug their loved ones" (P445).

4. Discussion and Conclusion

Pandemic diseases have been one of the factors negatively affecting community life. At this point, the primary duties of states are to protect public health during the pandemic. Considering that physical inactivity is one of the important factors affecting death increases in the world today (Kohl et al., 2012), the importance of physical activity for public health should be emphasized. Recreational activities consist of activities involving individuals' personal characteristics, economic conditions, living conditions, and a range of socio-cultural situations as well as sportive activities. Performing both outdoor and indoor physical activities and recreational activities will be effective in individuals' being well physically, physiologically, and sociologically.

This study was conducted on participants who isolated themselves due to the novel coronavirus pandemic. It was stated that the participants acted in accordance with the recommendations of the WHO and the Health Ministries of the countries concerned about COVID-19, which has become a widespread pandemic worldwide. It can be said that individuals isolated at home in this challenging process stated that they could mitigate the psychological, physical, and socio-cultural effects of COVID-19 with recreational activities. Participants also expressed their views that health problems that might be encountered in the long term could be prevented by recreational activities to be carried out at home. In order to prevent the virus from spreading in many countries, including Turkey, cities have been closed to entries and exits, human circulation in public spaces has been restricted, and even restrictions have been imposed on public spaces that offer community sports and recreation. As a result of such measures taken during the pandemic control process, people may wonder whether physical activity and exercise can be done or they may think of the question about how to overcome this situation. As a result of a study conducted by Lowder, Padgett, & Woods (2005) on this subject, they have seen that regular exercise contributes to the development of the immune response to the influenza vaccine in adults.

Among the important effects of COVID-19 on the participants, it has been determined that the lives of individuals staying home due to coronavirus are affected by anxiety and stress, their physical mobility is limited and their physical activity levels show a decrease. One of the criteria for evaluating quality in the modern world is the ability of individuals to organize their daily lives well within social life. Although there are personal differences, it is seen that individuals can handle their time management in different ways in daily life (Jackson & Scott, 1999; Kujala et al., 1998; Zhang et al., 2020). In the results of our study, it has also been determined that there are individuals who want to be protected from the virus outbreak during isolation process by staying home; however, due to the fact that they constantly stay home, these individuals also want to overcome the psycho-social and physiological problems with family members by doing recreational activities. It is seen that similar results have also been obtained in a recent study conducted by Marston, Musselwhite & Hadley (2020). In this study, it has been emphasized that while it is important to actively evaluate the concept of mobility and time, it has also been stated that a life such as traveling, meeting friends in social environments and participating in social-cultural-artistic activities in open or closed areas existed before the virus outbreak. However, when these activities which continue routinely are restricted because of forced reasons such as health problems, viruses, etc., we are deprived of many opportunities, mainly the activities we do in order to meet our basic needs that are necessary for our social lives. The importance of recreation at home becomes evident in the process of overcoming these activities.

The benefits of regular physical activity are to help improve overall health and fitness, maintain a healthy weight, reduce the risk of many chronic diseases and premature death and promote good mental health (Janssen & LeBlanc, 2010; Warburton, Nicol, & Bredin, 2006; Yalcin & Ayhan, 2020). Due to the pandemic, it can be said that there is an increase in physical inactivity as a result of individuals declaring natural quarantine for themselves. The reason for this situation is the limitation of adequate sports and recreation areas for individuals. Therefore, individuals try to spend their time at home by doing recreational activities with their families. Recreational and leisure activities offer opportunities that bring people with similar hobbies together and open the doors to socialization and communication. It has been an issue of concern about how people can be kept busy within these constraints, whether social relationships will continue and how they can be

maintained if they can continue (Genoe et al., 2018; Hadley, 2019; Parnell, 2020). As a result of this research, it has been determined that the same problems arise in the individuals staying home and recreational activity with family members are an important solution tool for overcoming these problems.

In conclusion, in this study, it has been tried to create awareness towards the recreational activities that can improve the quality of life of individuals, especially in the psychological, physical, and social aspects during the COVID-19 pandemic period, which particularly affects the whole world and shows a rapid spread. In the results of the research, it is suggested that it is necessary to resort to recreational activities in order to both reduce the spreading effect of the virus in isolation at home and to overcome this process with the least negative impact, and individual and institutional efforts should be made for this.

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Conflicts of Interest: The authors declare no conflict of interest.

Ethical clearance*:* "Ethics are the rules of conduct in research" (Walliman, 2006).That is especially important when conducting research with humans. The major principle for making sure that no harm is done to any participants in the research. Also as this was not an interventional study, 'permission form' and 'voluntary confirmation letter' were taken from all the participants. Informed consent of participants was obtained and they were at liberty to participate and withdraw voluntarily. We also ensured that their responses were anonymous and confidential.

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