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Original article

Reflections of Nature-Oriented Outdoor Sports Activities on Coronavirus-19 Phobia During the Pandemic Process

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Abstract. *Study Objectives:* This study was carried out to evaluate the impact of participation in nature-oriented outdoor sports activities on Coronavirus-19 phobia during the pandemic process. *Methods:* The population of the cross-sectional study consists of 289 people who were engaged in nature-oriented outdoor sports activities in the Tunceli region between 28.06.2021 and 20.07.2021. *Results*: COVID-19 phobia was statistically higher in women, people under 35, singles, those with high school or lower education, and those who do not have children. Although many nature sports activities reduce the phobia of COVID-19, there was especially a statistically significant decrease in COVID-19 phobia among those who engage in rock climbing. Besides, those who practiced outdoor sports with fear of death and quarantine had a statistically higher COVID-19 phobia score. There was a weakly significant negative relationship between the years of experience, the number of types of outdoor sports activities that the individuals engage in, and the COVID-19 phobia score. As the years of experience in these activities and their types increased, the COVID-19 phobia decreased, albeit weakly. *Conclusion:* Performing nature-oriented outdoor sports activities from different fields can be beneficial, even partially, in reducing the phobia caused by COVID-19. In pandemics, such as COVID-19, which have a wide range of negative effects on society, individuals can be directed to nature sports against COVID-19 phobia.

Key words: Nature-oriented outdoor sports, Athletes, Physical activity for health, COVID-19 Phobia, Pandemic psychology, Coronavirus.

Introduction

SARS-CoV-2, which was detected as the continuation of the coronavirus family that emerged for the first time since December 2019 in Wuhan, China, has spread rapidly to other cities of China, other countries, and different continents. The World Health Organization (WHO) announced the epidemic by declaring a state of emergency for this type of coronavirus on January 30, 2020. The spread of COVID-19 has been defined as a "pandemic" as of March 11, 2020. It has been reported by the WHO that COVID-19 caused the death of millions of people in different countries (1). This pandemic, which rapidly affects individuals in the world and shows differences between individuals; determines the behavior of the society or the emotional reaction process they are in with psychological effects (2). Previous outbreaks have also had negative effects on society. Fear and anxiety disorders are among the negative effects it causes. The rapid increase in the number of deaths due to the COVID-19 pandemic and the inability to control the virus has caused communities to experience some different difficulties. People often exhibit different psychological reactive behaviors such as fear, panic or phobia with arise of epidemics (3).

A phobia can be defined as an unusual, disease-sized fear or worry of the individuals that they feel

about certain situations or objects that is disproportionate to the usual fear even if a scary phenomenon exists. Such kind of a phobia, which reveals avoidance behaviors in the individual, is a disorder that greatly affects the quality of life and restricts individuals socially. In natural stress, the energy of the organism increases in the moment of fear and a cold-blooded reaction against the negative situation can be developed. In the management of the psychological effect of COVID-19, the control phenomenon that can reveal this reaction in the organism becomes important (4). Along with the COVID-19 pandemic, which changed the order of the life story of individuals, corona virus phobia also disrupted the quality of life of individuals. The health perception of individuals is important for their physical and psychological health. Health anxiety, on the other hand, can affect the demand for health services and different behaviors such as protective measures. It is observed that the level of anxiety is high during the COVID-19 pandemic process, individual freedoms are restricted, and the psychologies of the individuals are negatively affected as a result of the concentration of thoughts on the fear of being sick and losing loved ones. Due to the consequences of the COVID-19 pandemic in mortality rates, it may have important effects on the psychology of the society, therefore, the psychology of individuals should be protected and supported within this period (5).

In terms of local communities, it is seen that the tourism potential of outdoor sports activities has been realized in the last ten years. In addition, it is known that outdoor sports activities constitute a rapidly developing area in the sports tourism market today. Outdoor sporting events are regional tourism and economic activities that provide entertainment and social benefits for local communities, as well as benefits that increase community pride (6). Passive or active realization of activities; positively affects the lives of the individuals as well as contributing to the preservation of the position of individuals in the society, including the struggles that affect the way of life in the field of occupation (7). Having good mental stamina is an important factor in outdoor sports. It creates a direct effect on reaching the goal (8). In countries where living standards are of high quality and technology has a high impact on individuals, nature makes outdoor sports popular as well as meeting the demands and needs of individuals (9).

Nature-oriented outdoor sports and mountaineering activities make it important for individuals to have the ability to cope with the difficulties they face. It is known that factors such as decision making, planning, acting quickly, self-confidence, teamwork, and leadership are effective when performing these activities (10). The feeling of satisfaction experienced by participating in these activities with the search for a different and new excitement, has increased the interest in nature sports and made it a reason for preference. Nature sports, which show different results in many areas, are activities that create different positive effects in terms of living and spending time in nature. Desires and search for adventure, the feeling of being close to the wild nature, physical exercise, natural life and landscape, the desire to be alone, challenging and risking, socializing, seeking the unknown, and having fun, paving the way for individuals to prefer nature-oriented outdoor sports (11). It is known that the importance of sports and physical activities has increased in recent years in modern societies, and they are considered positively by the governments, due to the benefits that will increase the welfare of individuals. For individuals, activities that include physical exercise are the main priorities for health, increasing general fatigue resistance, reducing and controlling stress, improving the threshold for strain and socialization. Regular physical activities affect the psychological and physical conditions of individuals in a positive way (12). It is seen that nature sports, which are known for their economic, environmental, social, and personal benefits, are discussed by many scientists. Discovering group dynamics, increasing confidence, risk management, being able to take responsibility for oneself and others, obtaining positive effects on physical development and personality development, feeling of happiness, interacting with different people can be expressed as the benefits gained by individuals engaged in outdoor sports (13). Nature-oriented outdoor sports include many sports and activities performed in nature, such as mountaineering, rock climbing, hiking, caving, camping, skiing, cycling, orienteering, sailing, canoeing, rafting, river indoor canoeing, and underwater sports (14). This study, it was aimed to determine what kind

of reflections the participation of individuals in nature sports activities has during the pandemic process on their coronavirus-19 phobia.

Materials and Methods

Scope of the Research

This cross-sectional study includes people who do nature sports in the Tunceli region, which is a province in the eastern region of Turkey. Online survey data were collected from 289 people who agreed to participate in the research between 28.06.2021 and 20.07.2021.

Data Collection and Evaluation

The questionnaire prepared by the researchers in accordance with the purpose of the study and the scale which was developed by Arpaci I et al. in 2020, were used as the data collection tools. Coronavirus-19 Phobia Scale, of which the validity and reliability were assessed, consists of 20 items. The participants were asked to mark the most appropriate item for them in the questions including 5 Likert items: strongly disagree, disagree, undecided, agree, and strongly agree. The lowest 20 and the highest 100 points can be obtained from the Coronavirus 19 Phobia: C19P-S Scale. A high score on the scale indicates a high phobia.

Statistical Analysis

Shapiro-Wilk test, Skewness, Kurtosis values, and Histogram graph were used to evaluate the normal distribution of the data. Independent Samples T, One-way ANOVA, and Pearson Correlation test were used for statistical analysis. Statistically, $p<0.05$ was considered significant.

Ethics of Research

The ethical approval of this study was approved by the decision of Munzur University Rectorate Non-Interventional Research Ethics Committee, with the date and number: 2021/10-04.

Limitations of the Study

The results cannot be generalized to all athletes, as the study includes athletes engaged in nature sports only in the province of Tunceli.

Results

Sociodemographic data of people who were engaged in nature-oriented outdoor sports are presented in Table 1. A significant difference was found from the point of gender, age, marital status, income, educational status, and having a child, in the COVID-19 phobia scores ($p<0.05$). COVID-19 phobia was statistically higher in women, people under 35, singles, those with high school and lower education, and those who did not have children.

The comparison of nature-oriented outdoor sports activities regarding COVID-19 phobia of the participants is presented in Table 2. Those who engaged in nature sports like canyoning, mountaineering, paragliding, camping, hiking, trekking, had a lower COVID-19 phobia, while those who engaged in rafting and rowing sports had a higher COVID-19 phobia. COVID-19 phobia was statistically significantly lower in those who were engaged in rock climbing than those who didn't perform this activity ($p<0.05$).

The characteristics of people involved in nature-oriented outdoor sports regarding the diagnosis of COVID-19, quarantine, and follow-up are presented in Table 3 and compared regarding COVID-19 phobia. There was a statistically significant difference for those who have previously been diagnosed with COVID-19, those who followed COVID-19 statistics, and those who followed COVID-19 media news, regarding the COVID-19 phobia ($p<0.05$).

In Table 4, the reasons for the participants to prefer nature sports to be protected from COVID-19 are presented and compared throgh COVID-19 phobia. There was a statistically significant difference regarding the COVID-19 phobia, in individuals who engaged in nature sports because of the fear of an increase in death, and those who did nature sports to avoid death and quarantine, ($p<0.05$). Statistically, the COVID-19

Table 1. Comparison of participants' socio-demographic characteristics through COVID-19 phobia

Variables		n	Mean	[b]SD		p
Gender	Female	119	54.25	14.34	[c]t=2.689	0.008[a]
	Male	170	49.71	14.01		
Age	18-34	209	53.25	15.02	[c]t=3.714	0.000[a]
	35-65	80	47.21	11.18		
Marital Status	Single / Divorced	215	52.85	14.97	[c]t=-2.951	0.004[a]
	Married	74	47.89	11.47		
Level of Education	Elementary/High School	249	52.25	14.64	[c]t=2.001	0.046[a]
	University	40	47.40	11.20		
Child	Yes	216	52.67	15.09	[c]t=2.614	0.010[a]
	No	73	48.34	11.09		
Chronic Disease	Yes	270	51.68	14.56	[c]t=-0.464	0.643
	No	19	50.11	10.09		
[c]BMI	Thin	11	52.64	9.38	[d]f=7.004	0.001[a]
	Normal	198	53.53	15.29		
	Fat, Overweight	80	46.60	10.79		
Income Rate	<2500 [f]TL	132	55.64	16.01	[d]f=10.488	0.000[a]
	2500-5000 TL	67	47.93	11.64		
	>5000 TL and above	90	48.33	11.77		
Working Field	Student	113	55.55	16.50	[d]f=2.986	0.008[a]
	Education Services	46	49.22	13.20		
	Health Services	30	49.97	11.02		
	Not Working	33	50.82	12.80		
	Private Sector	31	46.07	11.05		
	Other Public Services	22	45.27	14.07		
	Search/Security	14	49.93	14.30		

[a]p<0.05, [b]SD; Standard Deviation, [c]t; Independent Samples t Test, [d]f; One-Way Anova Test, [c]BMI; Body Mass Index , [f]TL; Turkish Lira

phobia score was higher in those who exercised nature sports because of the fear of death and quarantine.

The relation of the number of outdoor sports from hiking, trekking, skiing, camping, paragliding, rock climbing, rowing, and rafting that the participants engaged in and their years of experience in nature sports with COVID-19 phobia are presented in Table 5.

There was a weakly significant negative relationship between the number of outdoor sports activity types, the years of experience in outdoor sports with the COVID-19 phobia score (p<0.05). As the years of experience and the type of nature sports activities increase, the COVID-19 phobia decreases, albeit weakly.

Discussion and Conclusion

As the COVID-19 epidemic turned into a pandemic, it has affected individuals worldwide physically, psychologically, emotionally, and economically. In countries that were caught unprepared, the struggle of individuals against the COVID-19 epidemic has rendered the functionality of daily life unusable and has caused the formation of different crises (16). COVID-19 not only penetrates people's physical health but also greatly affects their psychology and comfort (17). Uncertainties experienced during the pandemic process, along with the fear of catching the disease, also

Table 2. Comparison of nature-oriented outdoor sports activities regarding COVID-19 phobia

Outdoor Sports Activity		n	Mean	[b]SD	[c]t	p
Canyon	Yes	16	48.19	8.98	-0.976	0.330
	No	273	51.78	14.54		
Mountaineering	Yes	101	49.75	12.97	-1.595	0.112
	No	188	52.56	14.91		
Paragliding	Yes	19	45.47	10.44	-1.934	0.054
	No	270	52.01	14.45		
Camping	Yes	105	50.31	14.82	-1.135	0.257
	No	184	52.30	13.98		
Skiing	Yes	46	51.35	13.79	-0.119	0.906
	No	243	51.62	14.42		
Rock climbing	Yes	56	47.73	10.65	-2.763	0.007[a]
	No	233	52.50	14.92		
Rowing	Yes	11	57.18	24.47	0.785	0.450
	No	278	51.36	13.77		
Rafting	Yes	12	52.67	12.28	0.269	0.788
	No	277	51.53	14.40		
Hiking	Yes	202	51.26	14.19	-0.580	0.562
	No	87	52.32	14.61		
Trekking	Yes	152	50.33	13.82	-1,568	0,118
	No	137	52.96	14.74		

[a]p<0.05, [b]SD; Standard Deviation, [c]t; Independent Samples t Test,

Table 3. The characteristics of the participants regarding COVID-19 and comparisons through COVID-19 phobia

Variables		n	Mean	[b]SD	[c]t	p
Previously Diagnosed with COVID-19	Yes	44	55.70	16.20	2.091	0.037[a]
	No	245	50.84	13.84		
Prior COVID-19 Quarantine	Yes	67	54.00	15.37	1.586	0.114
	No	222	50.85	13.91		
Having Adequate Knowledge of COVID-19	Yes	240	51.05	14.11	-1.380	0.169
	No	49	54.14	15.08		
Tracking COVID-19 Statistics	Yes	189	53.34	13.96	2.915	0.004[a]
	No	100	48.25	14.40		
Following Social Media	Yes	31	53.23	13.67	0.678	0.498
	No	258	51.37	14.39		
Following Media News	Yes	54	55.24	14.21	2.100	0.037[a]
	No	235	50.74	14.22		
Following Expert Comments	Yes	252	52.10	14.19	1.635	0.103
	No	37	48.00	14.75		

[a]p<0.05, [b]SD; Standard Deviation, [c]t; Independent Samples t Test,

Table 4. Comparison of the reasons for the participants in the pandemic to turn to nature sports regarding the COVID-19 phobia

Variables		n	Mean	[b]SD		p
Increase in Tendency to Nature Sports in Pandemic	Yes	146	51.68	14.26	[c]t=-0.072	0.943
	No	62	51.84	16.06		
The Willingness to Resist Infectious Disease	Yes	88	52.76	12.02	[c]t=0.931	0.353
	No	201	51.06	15.19		
Strengthening my body and soul	Yes	248	51.61	14.37	[c]t=0.102	0.919
	No	41	51.37	14.01		
Distracting My Attention	Yes	92	53.90	14.68	[c]t=1.897	0.059
	No	197	50.49	14.02		
Low Risk of Transmission in Open Area	Yes	109	52.15	13.32	[c]t=0.526	0.600
	No	180	51.23	14.89		
Protection from Death or Quarantine	Yes	29	57.10	13.51	[c]t=2.209	0.028[a]
	No	260	50.96	14.28		
Self Protection	Yes	77	54.64	14.20	[c]t=2.206	0.028[a]
	No	212	50.47	14.21		
Fear of the Increase in Death	Yes	114	59.39	13.35	[d]f=48.73	0.000[a]
	No	80	41.64	13.13		
	Partially	95	50.57	10.41		

[a]p<0.05, [b]SD; Standard Deviation, [c]t; Independent Samples t Test, [d]f; One-Way Anova Test,

Table 5. The relationship of the number of nature sports activities that the participants engaged in and the years of experience in nature sports with COVID-19 phobia and COVID-19 phobia sub-components

		COVID-19 Phobia	Psychological Factors	Psychosomatic Factors	Economical Factors	Social Factors
The number of types of nature sports	r*	-0.122	-0.101	-0.057	-0.044	-0.160
	p	0.038	0.085	0.334	0.452	0.006
The years of experience in nature sports	r*	-0.128	-0.120	-0.026	-0.080	-0.157
	p	0.029	0.041	0.663	0.174	0.008

*Pearson Correlation

spread the feelings of hopelessness, helplessness, and unhappiness (18). In addition to the mental symptoms caused by the pandemic, the results of the measures such as the quarantine period are considered to be very important. It has been observed in some studies that the quarantine process has negative psychological effects (19).

In our research, a significant difference was found between the sociodemographic variables of the individuals engaged in nature sports, such as gender, age, marital status, income status, education status, and having a child, and the COVID-19 phobia score. COVID-19 phobia was statistically higher in women, people under 35, singles, those with high school or lower education, and those who did not have children. In a different study conducted in China, it was observed that there was a significant correlation between the depression, anxiety, and stress levels of individuals during the COVID-19 duration and being female (20). In addition, the COVID-19 pandemic had significant effects on anxiety and depression levels in pregnant women (21). In a different study, findings were obtained that older individuals and those with better physical activity had better mental health during the COVID-19

pandemic (22). The fact that COVID-19 phobia was lower in married individuals, individuals over the age of 35, and individuals with children, probably due to their greater social space and mental preoccupation. COVID-19 phobia was significantly higher in individuals with low income. The fact that the majority of individuals with low income status are students, those without children, single individuals, and younger individuals, may have demonstrated a higher phobia of COVID-19.

In our study, when the participants' outdoor sports activities and COVID-19 phobia were compared, COVID-19 phobia was found to be lower in those who engaged in canyoning, mountaineering, paragliding, camping, trekking, while it was higher in those who engaged in rafting and rowing. On the other hand, those who did rock climbing had a statistically significantly lower incidence of COVID-19 phobia than those who did not engage in this sport. In a different study conducted during the COVID-19 epidemic, it was observed that individuals who exercised had a higher quality of life compared to those who did not, and it was concluded that regular exercises during this period provided mental and physical benefits and caused them to relax (23). Rhodes et al. (24), in 2017, mentioned the importance of every minute of being active during the day, and it was stated that regular physical activities would help reduce anxiety and stress-related problems, and that individuals should have an active lifestyle in order to stay healthier. The fact that COVID-19 phobia was higher in rowing and rafting sports may be because this sport is done in teams with less social distance. The fact that the COVID-19 phobia was statistically lower in rock climbing may be due to the absence of social distance problems in this activity.

In the study, the characteristics of people involved in nature-oriented outdoor sports regarding the diagnosis, quarantine, and follow-up of COVID-19 were compared through COVID-19 phobia, and there was a statistically significant difference in those who have previously been diagnosed with COVID-19, those who follow COVID-19 statistics and those who follow COVID-19 media news, in having COVID-19 phobia. In a study conducted during the COVID-19 period, it was observed that inactive individuals who increased their physical activity level more during the social isolation period had less anxiety than inactive individuals who increased it less (25). In another study, it was observed that patients with chronic obstructive pulmonary disease (COPD) had an increase in fear, anxiety, and depression during the COVID-19 pandemic. It was determined that they stated that they experienced these feelings due to reasons such as not being able to go out, fear of death, and social isolation (26).

In the study, the reasons for the participants to be protected from COVID-19, to prefer nature sports are presented and evaluated through COVID-19 phobia. There is a statistically significant difference in COVID-19 phobia scores of the partipants who practice nature sports because of fear of the increase in death and those who practice avoiding death and quarantine. Statistically, the COVID-19 phobia score is higher in those who do nature sports for fear of death and quarantine. In a different study, 12.5% of the individuals participating in the study had a chronic disease, however, there was no significant difference between the coronavirus fear levels of individuals with and without chronic disease. However, when the average scores were examined, it was concluded that individuals who did not have a chronic disease, experience more fear of coronavirus than those with the disease (27). In a study, it was noticed that the stress, depression, and anxiety states of health personnel working with intense tempo and effort during the COVID-19 epidemic were affected (28). Since people who are interested in nature sports are fond of their freedom and nature, thoughts of death and quarantine may have increased the phobia of COVID-19 in these people. The fact that the COVID-19 phobia is statistically higher in those who follow the pandemic from the media may be due to the scary content of the shared content, the frequent introduction of bans, the constant sharing of death statistics, or the twisting of the subject.

In our study, the total number of outdoor sports activities among hiking, trekking, skiing, camping, paragliding, rock climbing, rowing, and rafting, that the participants engage in and the years of experience were also examined through COVID-19 phobia. A weakly significant negative correlation was found between the phobia score and the number of types

of nature sports that participants engaged in, as well as the year of experience. As the years of experience and the type of outdoor sports activities increased, the COVID-19 phobia was found to decrease, albeit weakly. In a different study, it was found that the level of physical activity decreased in the social isolation period in patients with knee and hip arthritis, while there were no significant differences in the mental subscales of quality of life, however, significant decreases were observed in the physical subscales. In addition to the decline in physical functions of individuals along with the inactivity that occurs with the COVID-19 period, an increase in joint function losses was observed (29). A study conducted on teachers during the COVID-19 period showed that regular sports activities had positive results on anxiety and psychological well-being, and it was observed that teachers who did not participate in sports activities regularly, had higher anxiety levels (30). There is a relationship between COVID-19 phobia and the number of types of nature sports engaged in, as well as the years of experience, even though it is weak. These also have a significant relationship with the social subcomponents of COVID-19 phobia. Engaging in more types of nature sports activities might have distracted the attention of the participants from the thought of COVID-19. Exercising different types of nature sports provides some benefit, even partially, in reducing the phobia caused by COVID-19 by drawing people's attention away.

As a result, doing nature-oriented outdoor sports activities from different branches can be useful in reducing COVID-19 phobia. In order to reduce the phobia caused by diseases that have a wide range of negative effects on society, such as COVID-19, people can be directed to nature sports. In addition, individuals who do not have a COVID-19 phobia may prefer outdoor sports to feel good and protect themselves from the phobia. However, when social distance is not protected in activities such as rowing and rafting, a tendency of increase in the COVID-19 phobia may occur.

In this study, although the COVID-19 phobia was found to be significantly lower in individuals who engage in nature-oriented outdoor sports, it cannot be concluded that outdoor sports eliminate COVID-19 phobia. Further experimental research can be conducted to cover a wider region, where confounding factors regarding the link between nature sports and COVID-19 phobia will be removed.

Conflicts of interest: The authors declare that there is no conflict of interest about this study.

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