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THE BENEFITS OF ONLINE RECREATIONAL ACTIVITIES ON WOMEN AND THE EFFECTS ON THEIR STRESS AND ANXIETY LEVELS DURING THE COVID-19 PANDEMIC PROCESS

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ABSTRACT

People have been adversely affected from the spread of the Corona virus and the unusual measures taken against it, and anxiety has started along with the stress. The purpose of this study is to research the benefits of online recreational activities on women and the effects on their stress and anxiety levels during the Covid-19 pandemic process. The research sample consisted of 35 women. As data collection tool, personal information form, recreation benefit scale developed by Ho (2008), the perceived stress scale developed by Cohen et al. (1983) and the trait anxiety inventory developed by Spielberger et al. (1970) were used. The data were analysed with the SPSS package program. F, %, and descriptive statistics were performed it. Cronbach Alpha coefficient was calculated for reliability. Independent Samples T-test was applied to normally distributed variables and Mann Whitney U test was applied to variables not conforming to normal distribution ($p < 0.05$). In conclusion, it has been determined that recreational activities are more beneficial for women in the physical and social dimensions while the benefit in the psychological dimension has remained very low. It has also reduced the level of anxiety and had less effect on stress level.

Key Words: Anxiety, Benefit, Recreation, Stress

INTRODUCTION

Covid-19 first appeared in Wuhan, China in late 2019. It shows symptoms such as fever, cough, shortness of breath and weakness in infected individuals. In severe cases, pneumonia, severe respiratory failure, kidney failure and death occur. It is from the coronavirus family with single-stranded RNA, enveloped, with protein protrusions on its surface (T.R. Ministry of Health, 2021).

Covid-19, which spreads very rapidly and mutates, started to be seen in all countries in the first quarter of 2020 and affected the whole world in a short time. A pandemic has been declared by the World Health Organization (WHO). Countries had to take various measures. Schools and workplaces were closed, sports matches, travels, cultural events and meetings were banned, curfews began with social isolation (Çakır, 2020).

This situation has caused economic, occupational and educational losses on the one hand and it has led to a passive life that people are not used to on the other hand. Changes and uncertainties in social life habits have created anxiety along with fear (Karagun, 2020). Unpredictable uncertainty and a closed life at home caused stress and increased anxiety.

Stress denotes the events that negatively affect people. It is the interpretation of the danger situation arising from the interaction of the individual with the environment. It is the response of organism to oppressive change and the internal and external response of individual to the situation (Lazarus & Folkman, 1984). Stress can be grouped as physical, emotional, mental and social stress (Braham, 1998). The sources of stress are related to the individual herself/himself, the work environment and the environment s/he lives in (Pehlivan, 1995). The way people are affected negatively by events is expressed by perceived stress.

This indicates the level of stress perceived by individuals as a result of negative feelings and thoughts about the events they experience in their lives (Gumustekin & Oztemiz, 2005). How and how much is the stress perceived by people in restricted living conditions due to Covid-19?

In the studies carried out during the pandemic process, it is stated that the views Covid-19 infuses people with stress and it affects the human psyche and behaviour are supported and it causes emotional, economic and academic stress, social alienation, fragmentation, social fallibility and many other types of fear and stress among people (Rafique et al., 2020).

While anxiety and stress levels are higher in people who are concerned about the rate of spread, it is stated that the awareness of the society on Covid-19 is not at the desired level and misinformation is a factor that increases anxiety (Aydın et al., 2020). There is a moderately positive significant relationship between perceived stress and anxiety in individuals (Goksu & Kumcagiz, 2020).

Anxiety is defined as a mixture of subjective and physiological events leading to anxiety, tension or perturbation that result from an expectation of an unknown or unnoticed danger. The intensity and/or duration of the anxiety is measured in proportion to the amount, degree or duration of the perceived threat (Schlebusch, 2000; Young, 2013). Anxiety, which becomes evident especially in stressful situations, is a natural defence that people develop against the situations where they perceive themselves as unsafe (Oz, 2010).

Various events cause anxiety, which includes such feelings as sadness, failure, uncertainty and judgment (Koknel, 2004) and they are divided into two. The anxiety arising due to a certain situation is expressed as trait anxiety, and the anxiety that can be experienced continuously is expressed as continuous anxiety. Trait anxiety is the

tendency of the individual to interpret the threat of internal or environmental stress in a generally negative way and in some way expresses a person's predisposition to anxiety (Turkcapar, 2012; Goksu & Kumcagız, 2020).

It is known that stress, which causes depression, anxiety and mood disorders, negatively affects the quality of life of individuals (Zorba, 2014: 70). Living in isolation at home can also cause too much stress, anxiety and physical and mental distress. The best way to tackle these problems is to do home-based activities. Recreational activities such as bodyweight aerobic exercises, dance, walking, yoga, tai-chi, meditation, reading and handicraft play an important role in dealing with physical and psychological stress. WHO recommends regular physical activity for muscle and bone strengthening as Covid-19 protective lifestyle adjustments can help eliminate harmful physical and mental side effects (Hamami et al, 2020).

It is reported that there is a positive relationship between sports and recreational activities and mental health, such activities primarily serve as a form of preventive medicine and reduce the risk of life-threatening diseases. On the other hand, sports and recreation improve not only physical health but also psychological health and well-being. It reduces anxiety, depression and tension and acts as an antidote to stress (Riddick & Stewart, 1994; Young, 2013).

Purpose of The Research

The purpose of this study is to research the benefits of online recreational activities on women and the effects on their stress and anxiety levels during the Covid-19 pandemic process when curfews have started.

METHODOLOGY

Ethical Clearance

Kocaeli University Social Sciences and Humanities Scientific Research and Publication Ethics Committee approved this study (Dated 09/07/2020 No. 10017888-100).

Research Model

One group pre-test-post-test design of the weak experimental design, one of the quantitative research methods, was used in the study (Buyukozturk et al., 2020: 208).

Group	Pre-test	Procedure	Post-test
Female participants	69 people	Aerobics, Plates, Zumba, Cardio, Yoga	35 people

Among the sampling methods, the convenience and volunteer sampling method was used. In convenience sampling technique, the sample consists of participants that the researcher can easily reach. In volunteer sampling, volunteers participate in the research as subjects or respondents (Doganay et al., 2018:122).

Research Group

The sample group of the study consisted of 35 women at different occupational and educational levels (primary school-graduate school) who voluntarily participated in the study between the ages of 18 and 54 and living in Kocaeli.

Data Collection

The program prepared was performed as the form of a video call online on Instagram for 3 days a week and 45-60 minutes a day. Pre-tests were applied before the study and post-tests after the study as e-mail. Photographs of each study were taken, attendance was taken for that study, and a report was kept. The study started with 69 people. During the 14-week study period, the data of 35 women participating in regular studies were taken into account. Activities consisted of Aerobics, Plates, Zumba, Cardio and Yoga.

The performed program (In May - August 2020);

Monday	Wednesday	Friday
Aerobics, Plates	Zumba	Cardio, Yoga

Data Collection Tools

Personal information form, recreation benefit scale, perceived stress scale and trait anxiety inventory were used as data collection tools.

Recreation Benefit Scale (RBS); It was developed by Ho (2008) to measure perceived benefit from recreational activities and adapted into Turkish by Akgul, Ertuzun & Karakuçuk (2018). This 5-Likert type scale consists of 3 sub-dimensions as physical, psychological and social and 24 items. The Cronbach's Alpha value of the scale is .83 and the internal consistency coefficients for the three sub-dimensions range between .80-.86 (Akgul et.al, 2018). General total of Cronbach α internal consistency coefficient recreation benefit scale of this study was determined as 0.81; physical dimension as 0.84, psychological dimension as 0.78, and social dimension as 0.78.

Perceived Stress Scale (PSS); It was developed by Cohen, Kamarck and Mermelstein (1983) and adapted into Turkish by Eskin et al. (2013). Consisting of 14 items, the PSS is designed to measure how stressful some situations are perceived in a person's life. It is a 5-point Likert type scale and consists of 14 items. The scores of the PSS vary between 0 and 56. High score indicates a person's excessive perception of stress. Internal consistency coefficient was 0.84, and retest reliability coefficient was found as 0.87 (Eskin et. al., 2013). The Cronbach α internal consistency coefficient of this study was determined as 0.66.

Trait Anxiety Inventory (TAI); With the purpose of determining the trait anxiety and trait anxiety levels of individuals, it was developed by Spielberger et al. (1970) and adapted into Turkish by Öner and Le Compte (1998). The TAI, which consists of 20 items, was developed to determine the general feelings of individuals. The scale is a 4-point Likert type and consists of 20 questions. Alpha reliability was reported as .87 and test-retest reliability was stated to range from .71 to .86 (Goksu & Kumcagiz, 2020). The Cronbach α internal consistency coefficient of this study was determined as 0.72.

Statistical analysis

Data obtained from the scales were analysed with the SPSS 25 package program. f and % values were taken for personal information, and descriptive statistics were made in other data. Cronbach Alpha coefficients were

calculated for reliability. Independent Samples T-test was applied to normally distributed variables and Mann Whitney U was applied for variables not conforming to normal distribution. The significance level in the analyses was accepted as $p < 0.05$.

RESULTS

Pretest-posttest comparisons of the participants' ages and their levels of stress, anxiety and recreational activities benefit are presented in the tables.

Table 1. Distribution of Participants by Age

	Groups	Frequency	Percentage%
Age	18-24	7	20.0
	25-34	7	20.0
	35-44	15	42.9
	45-54	4	11.4
	55-64	2	5.7
	Total	35	100

When the distribution of participants are analysed by their age in Table 1, it is observed that 7 (20%) of them are in the age group of 18-24, 7 of them (20%) are in the age group of 25-34, 15 of them are (42%) in the age group of 35-44, 4 of them (11.4%) are in the age group of 45-54 and 2 of them (5.7%) are in the age group of 55-64.

Table 2. Descriptive Statistics And P Value Belonging to Perceived Stress Pretest-Posttest Data

	N	\bar{x}	SS	t	P
Perceived Stress Pre-test	35	37.00	6.53	.982	.333
Perceived Stress Post-test	35	35.65	5.82		

When the perceived stress pre-test and post-test data of the participants are compared in Table 2, no statistically significant difference was found between two measurement scores ($p = 0.33$; $p < 0.05$). However, it is observed in the averages that the post-test average scores (35.65 ± 5.82) are lower than the pre-test average scores (37.00 ± 6.53).

Table 3. Descriptive Statistics And P Values Belonging to Trait Anxiety Pretest-Posttest Data

	N	\bar{x}	SS	t	P
Trait Anxiety Pre-test	35	46.42	5.86	4.951	.000
Trait Anxiety Post-test	35	40.77	7.28		

Looking at the descriptive statistics and P values belonging to the pre-test and post-test data of the participants in Table 3, a statistically significant difference was found ($p = 0.00$; $p < 0.05$). This difference happened in favour of the pre-test. It is observed that the trait anxiety post-test mean score (40.77 ± 7.28) is lower than the pre-test mean score (46.42 ± 5.86).

Table 4. Descriptive Statistics And P Values Belonging to Pretest-Posttest Data of Recreation Benefit Total Scores

	N	\bar{x}	SS	t	P
Recreation Benefit Total Pre-test	35	91.23	15.96	-.502	.619
Recreation Benefit Total Post-test	35	92.77	14.83		

Comparing the recreation benefit pre-test-post-test total score averages of the participants in Table 4, no statistically significant difference was found between two measurement scores ($p=0.61$; $p<0.05$). However, it is seen in the averages that the post-test average scores (92.77 ± 14.83) are higher than the pre-test average scores (91.23 ± 15.96).

Table 5. Descriptive Statistics And P Values Belonging to Pretest-Posttest Data of Recreation Benefit Sub-Dimension Scores

	N	\bar{x}	SS	Z	P
Physical Dimension Pre-test	35	28.89	4.72	-5.163 ^b	.000
Physical Dimension Post-test	35	56.80	7.39		
Psychological Dimension Pre-test	35	30.51	6.23	-1.290 ^b	.197
Psychological Dimension Post-test	35	30.54	5.50		
Social Dimension Pre-test	35	31.83	7.44	-.216 ^c	.829
Social Dimension Post-test	35	33.45	6.78		

When the descriptive statistics and P values belonging to the pre-test and post-test data of the recreation benefit sub-dimensions of the participants were analysed in Table 5, a statistically significant difference was found between the pre-test-post-test average scores in the physical sub-dimension ($p = 0.00$; $p < 0.01$) and this difference took place in favour of the post-test. The post-test average of the physical sub-dimension (56.80 ± 7.39) is considerably higher than the pre-test average score (28.89 ± 4.72).

There was no significant difference between pre/post-test in other sub-dimensions. However, when looking at the averages, it is seen that the post-tests are higher than the pre-test averages. The post-test average of the social sub-dimension (33.45 ± 6.78) is higher than the pre-test average score (31.83 ± 7.44). In the psychological dimension, it is almost the same, and a minimum increase was determined in favour of the post-test.

DISCUSSION AND CONCLUSION

It is seen that epidemics cause psychic disorders such as depression and anxiety and traumatic effects in humans and subsequently, increase the stress level in individuals (Joos, 2020). Leisure activities also provide temporary relief and escape and buffer the impact of negative life events by creating optimism and hope for the future (Stumbo & Peterson, 2004). Since the beginning of the Covid-19 pandemic period, the restriction of social life, limiting people with the home environment and the fear for unknown lead to increased anxiety and stress. Under these conditions, this study investigates the extent to which the online recreational activities can be beneficial to the participants and how effective they can be on their trait anxiety and perceived stress levels.

It has been determined that the program consisting of sports recreational activities have a positive effect in reducing the trait anxiety levels of the women participating in the study and a statistically significant difference

has been found. The participants were found to have high anxiety scores at the beginning of the study while they had moderate anxiety after the program.

There are various studies on the effect of recreational activities on anxiety. Basaran (2015) has stated that recreational activities have a positive effect in reducing the trait anxiety levels of convicts. Stonerock et al. (2015) has found that exercise reduces anxiety symptoms, Moor et al. (2006) has reported that those who exercise have lower anxiety levels than those who do not exercise on average. Birturk (2014) has reported that recreational activities performed with the 13-14 age group are effective in reducing trait anxiety and Asci (2003) has found the same with the exercises performed with university students. These results show that recreational activities have a positive effect on reducing anxiety and they support our study.

Rogowska et al. (2020) has concluded that university students have experienced very high anxiety and stress during the Covid-19 pandemic and they have needed support and guidance to better manage stress and fear in this unusual situation. Goksu & Kumcagiz (2020) have found that the anxiety of the majority of the participants has increased during the coronavirus epidemic and the perceived stress is moderate. On the other hand, Cetin (2018) has stated that the perceived stress levels of sedentary women before exercise are high while they decreased during the exercise continuity phase. Mumcu (2019) has found that the perceived stress score average of students doing recreational sports is lower and Ozdenk & Kaya (2019) have found that the perceived stress level is higher in people not doing physical activity. Lee et al. (2014) have reported that the perceived stress and anxiety levels of the individuals participating in the study have decreased as a result of the health recreation program performed with the elderly.

It can be said that especially sports recreational activities have a stress-reducing effect and this is due to the endorphin and serotonin hormones secreted in the brain. However, when it comes to a serious situation such as the Covid-19 pandemic that affects the whole world, how effective could the online sports recreational activities be in reducing stress?

When the perceived stress pre-test and post-test scores of the participants in our study were compared, no statistically significant difference was found. However, a decrease was observed in the average stress scores. This may be due to the low level of positive effect of the activities applied, or to the fact that the participants have adapted to the situation after they have got over the first shock they experienced.

With the purpose of coping with stress or reducing the effect of repetitive and high-intensive stressors caused by inactivity, it is used to engage in different recreational activities and to perform activities that prevent inactivity (Karakucuk & Basaran, 1996). It is known that this not only provides physical and mental benefits to people, but also increases social interactions, refreshes the senses, and provides intelligent and effective use of time (Li & Wang, 2012). The studies performed point out that physical activity improve cardiovascular and respiratory efficiency and the body's resistance to disease. It provides many health benefits to the immune system, body posture and musculoskeletal system as well as the nervous system by supporting intellectual performance. It is

stated that regular exercise also reduces nervous tension (Rogowska et al., 2020), depression, anxiety and stress (Vurgun, 2015).

Inactivity can cause many physical diseases such as heart disease, diabetes and obesity being associated with metabolic syndrome (Zeelie et al., 2010). While the global prevalence of physical inactivity increases, its harmful effects on health increase more with the pandemic. Therefore, sports activities are encouraged due to their physical and mental benefits by complying with the epidemic restrictions (Yeo, 2020). Considering the benefits of physical activities applied in our study on the participants, a statistically positive significant difference was found between the pre and post-tests in the physical sub-dimension of recreation benefit scale while there was no significant difference in the other dimensions. However, it was determined that the post-test average scores were higher than the pre-test average scores.

Although the literature that was made during the pandemic period and compared by taking measurements is not available, there are many studies on the benefits of recreational activities. In the study of Karakucuk et al. (2019) performed on orienteering athletes, the participants have a moderate recreational benefit total average score while they have obtained the highest benefit score in the physical sub-dimension and the lowest benefit score in the psychological sub-dimension. Although this result tallies with our study, there are also different results. Ertuzun et al. (2020) have stated that they have found a significant difference in the physical and psychological benefit sub-dimensions and total scores of participants who participated in activities with mild, moderate and severe intensity in the sports centre, but that the recreational benefits perceived by those who participated in fitness activities with mild intensity are more than the others.

People doing regular physical activity perceive themselves as having more autonomy, personal development, purpose in life, more positive relationships with others, self-acceptance and fitness than those who do not do sports (Edward et. al, 2005). Women state that these activities positively affect their body image satisfaction, self-efficacy, general health, social relationships, life quality and lifestyles. They also utter that otherwise, they will turn into individuals with a gradually deteriorating mental health who only spend time at home and it makes a difference in their lives (Vurgun, 2015; Çakır et al., 2021; Colak et al., 2019; Albayrak Kuruoğlu & Uzuncayır, 2020; ; Tunç et al.,).

Physical benefits are expected in the program consisting of sports activities. However, it is an interesting result of this study that the online activities are useful in terms of socialization. People are so bored to be stuck at home that meeting in a virtual environment, being together and having fun for a short time have a positive an impact on the participants. Recreational activities applied in this study were highly useful physically and less beneficial socially. It has little impact from a psychological point of view and remains almost at the same level. In addition, this practice was more effective in reducing anxiety and less effective in reducing stress.

Conclusion

During the Covid-19 pandemic process, online recreational activities have reduced the anxiety level in women and created less effect on the stress level. Looking at the level of benefit, it was useful first in the physical dimension and then in the social dimension. Its benefit in the psychological dimension has remained very low.

Suggestions;

- The program composed of sports and recreational activities prepared for this study was implemented for 14 weeks and 3 times a week. It would be more beneficial to do such studies 5-7 days a week in order to be more effective and beneficial.
- This study was conducted without a control group due to the current conditions. In the next studies, making it comparatively with the control group will reveal the competencies of the applied program better.
- In this study, it can be said that the psychological benefit is minimum and has remained the same. Considering that the reason for this is the pandemic conditions, it will be more beneficial for the participants to have an instructor who provides psychological support in the program.
- All kinds of recreational activities to be planned in such extraordinary situations may be beneficial to individuals and at least prevent future problems.

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