



Perceived health outcomes of recreation and exercise addiction: A study on individuals exercising for recreational purposes

Hale Kula¹
Cihan Ayhan²
Zulbiye Kaçay³
Alptug Soyer⁴
Fikret Soyer⁵

Abstract

In this study, it was aimed to investigate exercise dependencies according to perceived health levels from participation in recreational activities. In the study, the “Exercise Addiction Scale” developed by Tekkurşun-Demir, Hazar and Cicioğlu (2018) and “The Scale of Perceived Health Outcomes in Recreation” developed by Gómez et al. (2016) and adapted to Turkish by Yerlisu-Lapa et al. (2017) were used. Convenience sampling method was used for sample selection, and face-to-face survey method was preferred for data collection. Independent Sample t-test and One-way ANOVA were used in examining the differences between variables and descriptive analysis were conducted by using the SPSS package program. In addition, Hierarchical and Non-Hierarchical Clustering analysis was used to group the participants according to perceived health outcome levels. A total of 241, including 114 male (47.3%) and 127 female (52.7%), who participated in the activities within the Sport Istanbul Inc., participated in the study voluntarily. When the findings of the research were examined, it was determined that there was a statistically significant difference in the “Over Focus and Emotional Change” sub-dimensions of exercise dependence according to the perceived health level. As a result, it was found that individuals with high health perception had a higher level of over-focus and emotional change than those with low health perception.

Keywords: Recreation, Exercise Addiction, Perceived Health Outcome.

¹ Asst. Prof., Erciyes University, Faculty of Sport Sciences, halekula74@hotmail.com

 Orcid ID: [0000-0003-2969-1784](https://orcid.org/0000-0003-2969-1784)

² Res. Asst., Sakarya University of Applied Sciences, Faculty of Sport Sciences, cihanayhan@sakarya.edu.tr

 Orcid ID: [0000-0002-7633-1389](https://orcid.org/0000-0002-7633-1389)

³ Asst. Prof., Canakkale Onsekiz Mart University, Faculty of Sport Sciences, zzkacay@gmail.com

 Orcid ID: [0000-0002-9794-0888](https://orcid.org/0000-0002-9794-0888)

⁴ Master Student, University of Applied Sciences, Graduate Education Institute, alptug.soyer1@gmail.com

 Orcid ID: [0000-0002-7149-6897](https://orcid.org/0000-0002-7149-6897)

⁵ Prof. Dr. Balıkesir University, Faculty of Sport Sciences, fikretsoyer@gmail.com

 Orcid ID: [0000-0002-8528-3622](https://orcid.org/0000-0002-8528-3622)



INTRODUCTION

Today, with the understanding of rapid urbanization and technological developments, the number of works per unit with body strength has increased over time. One of the methods used to keep people healthy in a changing and constantly developing world is the phenomenon of leisure and recreation.

The activities done in the leisure time of the people and for the purpose of entertaining, having pleasure, contributing to the development by providing individual satisfaction, rest, renewal, restructuring in order to regain, maintain or continue the physical and mental health of the people, which is negatively affected by environmental influences, people's routine lifestyles and intense workload can be expressed as recreation. People needed recreation in the historical process for the self-actualization and evaluating their leisure times (Torkildsen, 1999).

Recreation has many benefits for individuals and society. Especially, considering the increasing stress and living conditions, the positive effects of recreation on body and mental health will be better understood. Recreation, on the one hand, increases the physical movement of the individual and provides morale and motivation to the individual, on the other hand, socializes individuals by developing social relations (Er et al., 2019; Torkildsen, 1999).

Today, the fact that there has been a significant change following the motor development periods, from skill-based physical education to health-based recreational activities and physical activity that continues throughout life and benefits the individual is a subject mentioned in many scientific researches (Gallahue et al., 2012; McKenzie & Kahan, 2008).

The emphasis is placed on the relationship between participation in leisure activities, high levels of physical activity, and community health and life satisfaction by individuals who make up the society. It is stated that leisure time can no longer be seen as only a timeframe remaining from sleeping or other compulsory activities, but on the contrary, it is an essential part of life for individuals anymore (Broadhurst, 2001). A lot of research has been done on the sociological, psychological, physical and environmental benefits of recreation by multidisciplinary approaches (Driver et al., 1991). In the literature review, it is known that the "Perceived Health Outcomes of Recreation Scale (PHORS)" is developed shortly and theoretically by addressing the three dimensions of recreation activities that are improvement, prevention and realization in terms of variables related to physiologically and psychologically perceived health outcomes (Gómez et al., 2016). Also, it is stated that the perceived health outcomes in recreation can be addressed from sub-dimensions such as motivation, emotions, attitudes and carrying out a desire or need (Henderson, 2008; Gürbüz & Henderson, 2013; Parr & Lashua, 2004).

Behavioral addictions are at the core of repetitive behavior. The delightful aspect of these behaviors can become habitual (Grant et al., 2010). In addition to the physiological benefits of regular physical activity, it is also known to have effects on mental health, such as reducing depression and anxiety, regulating sleep, providing relaxation, increasing self-confidence (Adams & Kirkby, 2002; Gumus & Isik, 2018; Vardar et al., 2005; Yalçın & Ayhan, 2020). On the other hand, excessive willingness to spend most of their time doing physical activity, uncontrollable excessive exercise despite some obstacles are defined as exercise addiction (Hausenblas & Downs, 2002).

Exercise addiction is defined as getting out of control of the individual, increasing the duration, frequency and intensity of the exercise to ensure the desired effect from the exercise, not being able to give time to family and friends, exercising instead of participating in social activities and rearranging the individual's life within the framework of exercise habits (Adams & Kirkby, 2002; Zmijewski & Howard, 2003). The main reason why exercise behavior, that is a problem in exercise addiction, is performed with passion and not to cause loss of function, is the existence of a spiritual and physical connection to this action (Hausenblas & Downs, 2002).

The first of three main components of exercise dependence is tolerance (increasing the amount of exercise to achieve the desired effect or decreasing the effects as a result of continuing to exercise in the same amount), the second is the effect of withdrawal (when the behavior is

blocked, the negative effects are observed, the feeling of abstinence) and the third is compulsive behavior (stress and repetition of behavior to avoid anxiety) (Adams et al., 2003). Symptoms of tolerance or cessation of exercise are called physiological dependence, those who do not show these symptoms are classified as exercise addicts who do not show physiological dependence (Vardar et al., 2012).

Although it is universally accepted as a healthy habit, it is accepted that exercise behavior has the potential to turn into an obsessive and harmful behavior on people (Szabo & Griffiths, 2007). Excessive exercise has the potential to adversely affect physical and psychological health (Berczik et al., 2012). Excessive exercise, like other addictive behaviors, is often described as challenging by theorists (Freimuth, Moniz & Kim, 2011).

Excessive and uncontrolled exercise, which has an important role in ensuring individuals to be physically, mentally, emotionally and socially healthy, can lead to negative consequences such as addiction instead of expected benefit.

In this study, it was aimed to compare and investigate exercise dependency levels related to the health levels perceived by the participants from participation in recreational activities according to various variables.

METHOD

Research Design

The research was carried out based on the quantitative research design. In a universe consisting of a large number of elements, in order to make a general judgment about the universe, the general screening model, in which the screening is performed on the entire universe or a sample to be taken from it, was applied (Karasar, 2012).

Participants

241 individuals who exercised for recreational purposes in Sport Istanbul Inc. participated in the study voluntarily. Convenience sampling method was used for sample selection. Within the framework of the research, it was aimed to reach a certain part of the participants, and a total of 250 questionnaires were applied by face-to-face questionnaire method and a total of 241 participants were reached when the missing and incorrect ones were removed. Demographic characteristics of the participants are given in Table 1.

Table 1. Demographic Features of the Participants

Gender	f	%
Male	114	47.3
Female	127	52.7
Age	f	%
25 and under	39	16.2
26-29	52	21.6
30-33	38	15.8
34-37	43	17.8
38 and over	69	28.6
Income	f	%
3000 TL and under	80	33.2
3001-3500 TL	105	43.6
3501 TL and over	56	23.2
Aim of participation	f	%
Socializing	57	23.7
Physical Health	148	61.4
Psychological Health	36	14.9

Instruments

The form used as a data collection tool in the study consists of two parts. The first part, "Personal Information Form" was used to determine demographic features of the participants such as gender, age, income, and purpose of participation. In the second part, "Exercise Addiction Scale" developed by Tekkurşun-Demir, Hazar & Cicioğlu (2018) was used to measure participants' exercise addiction levels. The scale consists of 17 items, 3 sub-dimensions and has a 5-point Likert-type answer key. These sub-dimensions are Excessive Focus and Emotion Change, Postponing Individual and Social Needs, and Tolerance Development and Passion. In the third section, the scale of "Perceived Health Outcomes in Recreation" developed by Gómez et al.(2016) and adapted to Turkish by Yerlisu-Lapa, et al. (2017) was used to determine the participants' health outcomes perceived from the participation to the recreational activities. It consists of 16 items and 3 sub-dimensions. These sub-dimensions are Realization of Psychological Experience, Prevention of a Worse Situation, and Improved Condition. The assessment of the scale is 7 degrees and organized between definitely does not express me (1) completely expresses me (7).

Data Analysis

In the analysis of the data, besides descriptive analysis, t-test and one-way analysis of variance were used to analyze the differences between variables. In addition, Hierarchical and Non-Hierarchical Clustering analysis was used to group participants according to perceived health outcome levels (Tabachnick & Fidell, 2015). In this research, K-mean analysis (in determining the number of clusters) used in Non-Hierarchical Cluster analysis and Ward cluster algorithm method was used in Hierarchical Cluster analysis. This method is used to identify groups when the researcher does not know the number of groups in advance and then to analyze group membership (Çokluk, Şekercioğlu & Büyüköztürk, 2014; Nakip, 2006).

RESULTS

A detailed list of findings related to perceived health outcomes of recreation and exercise dependence parameters is presented in tables in this section.

Table 2. Last Cluster Centers

Health Outcomes Perceived of Recreation	Cluster 1	Cluster 2	Mean
Realization of Psychological Experience	4,67	6,34	5,90
Prevention of a bad situation	4,69	6,61	6,10
Improved situation	5,58	6,76	6,45

7 Point Likert Type Scale

The distribution averages of clusters pertaining to health outcomes perceived in recreation were given in the table above.

Table 3.Cluster sizes and distances between cluster centers

Clusters	Number of people	Cluster Size (%)	Distances Between Cluster Centers	
			Cluster 1	Cluster 2
Low	64	26.6		2.802
High	177	73.4	2.802	
Total	241	100		

When the findings were examined, it was determined that there were 64 (26.6%) participants in the first cluster and 177 (73.4%) in the second cluster (Table 3.). It is seen that the distances between these cluster centers are 2.802. In addition, as a result of the one-way analysis of variance included in the analysis, it was determined that the difference between the groups was significant at the level of 0.01. As a result of cluster analysis, two different groups were determined as low and high perception level of participants' perceived health outcomes.

Table 4. Difference analysis results regarding exercise dependence variable according to the perceived health outcome levels of the participants

Exercise Addiction	Perceived Health Level	n	Mean	S.D.	t	p
Excessive Focus and Emotion Change	Low	64	3.68	.57	-3.380	.001*
	High	177	3.96	.58		
Postponing Individual and Social Needs	Low	64	2.41	.92	-.098	.932
	High	177	2.42	1.23		
Development of Tolerance and Passion	Low	64	2.98	1.10	-1.830	.069
	High	177	3.29	1.18		

*p<0.05

When the results of the analysis were examined, it was found that there was no statistically significant difference in the postponement of individual and social needs and the development of tolerance and passion sub-dimensions according to the perceived health outcome level of the participants ($p > 0.05$). On the other hand, it was determined that there was a statistically significant difference in the sub-dimension of exercise dependence over-focus and emotional change according to the perceived health outcome level ($p < 0.05$). Accordingly, it was found that individuals with high health perception had higher focus and emotional change average scores than those with low health perception.

Table 5. Difference analysis results regarding exercise dependence variable according to the gender of the participants

Variables	Gender	n	Mean	S.D.	t	p
Excessive Focus and Emotion Change	Male	114	3.87	.58	-.358	.721
	Female	127	3.90	.59		
Postponing Individual and Social Needs	Male	114	2.59	1.15	2.222	.027*
	Female	127	2.26	1.14		
Development of Tolerance and Passion	Male	114	3.25	1.19	.602	.548
	Female	127	3.16	1.15		

*p<0.05

According to Table 5, it was determined that there was no statistically significant difference in the sub-dimensions of exercise dependence over-focus-emotion change and tolerance development-passion according to the gender of the participants ($p>0.05$). On the other hand, there was a statistically significant difference in the sub-dimension of postponing individual and social needs of exercise dependence by gender ($p<0.05$).

Table 6. Results of the difference analysis regarding the exercise dependence variable according to the age of the participants

Variables	Age	n	Mean	S.D.	F	p
Excessive Focus and Emotion Change	25 and under	39	3.86	.56	.863	.487
	26-29	52	3.91	.61		
	30-33	38	3.78	.57		
	34-37	43	4.01	.56		
	38 and above	69	3.85	.61		
	Total	241	3.88	.59		
Postponing Individual and Social Needs	25 and under	39	2.46	1.06	.283	.889
	26-29	52	2.38	1.18		
	30-33	38	2.47	1.32		
	34-37	43	2.27	1.08		
	38 and above	69	2.49	1.16		
	Total	241	2.42	1.15		
Development of Tolerance and Passion	25 and under	39	3.05	1.19	.364	.834
	26-29	52	3.29	1.16		
	30-33	38	3.11	1.23		
	34-37	43	3.22	1.20		
	38 and above	69	3.28	1.13		
	Total	241	3.20	1.17		

When the analysis results were examined, it was determined that there was no statistically significant difference in all sub-dimensions of exercise dependence according to the ages of the participants ($p>0.05$).

DISCUSSION AND CONCLUSIONS

This research was carried out to compare and investigate exercise dependency levels according to the health levels perceived from participation in recreational activities according to various variables. The results of the analysis obtained for this purpose are discussed and interpreted in this section.

Although the studies on health outcome perceived in recreation with exercise dependence are quite limited; As a result of the literature review, studies examining the relationship between different situations and exercise addiction were found. In the study conducted by Bavlı et al. (2011), the effect of exercise on exercise addiction was investigated in healthy individuals who went to sports centers for a long time and regularly, and they found that 10 of 140 participants had symptoms of exercise dependence and 95 of them had symptomatic symptoms. It is stated that the

most important feature that distinguishes this situation from others is that the number of days allocated to exercise per week and the age of exercise is high.

When the results of the analysis were analyzed, it was seen that there was a statistically significant difference in the over-focus and emotional change sub-dimension of exercise dependence according to the perceived health levels involved. It was determined that the participants who had high perceived health level had more focus and emotional change levels than those with low perceived health level. It is known that exercise has positive effects on physical and mental health in human life (Bouchard, Shephard & Stephens, 1994; Koroç & Bayar, 2004; Whelton et al., 2002). In addition to being a negative situation, exercise addiction plays an important role in increasing the benefit from exercise (Biddle, 1995). Therefore, it is thought that the reason for the high scores in the excessive focus and emotional change sub-dimensions of the participants compared to the other group may be from increasing the duration, intensity and frequency of exercise and giving themselves to the activity completely in order to provide the health outcome they expect from exercise.

When the results of the analysis are analyzed, it was determined that there was a statistically significant difference in the sub-dimension of postponing individual and social needs of exercise dependence by gender. Accordingly, it was observed that the average score of postponing individual and social needs of male participants was higher than that of women. There are studies supporting these results in the related literature (Hausenblas & Downs, 2002a; Polat & Şimşek, 2015; Tekkurşun-Demir & Türkeli, 2019). It has been suggested that the reason why male individuals show higher levels of exercise addiction than women may be because of their over loading time and exercise severity and their feeling internal pressure to exercise constantly (American Psychiatric Association, 1994). On the other hand, in a study on weight control, it was reported that women tend to be more addicted than men (Zmijewski & Howard, 2003). This is thought to be due to the fact that women are more sensitive to weight control than men.

When the results of the analysis were analyzed, it was determined that there was no statistically significant difference in the levels of exercise dependence according to the ages of the participants. There are studies supporting these results in the related literature (Namlı, Tekkurşun-Demir & Cicioğlu, 2018; Tekkurşun-Demir & Türkeli, 2019).

As a result, it was determined that individuals with high health perception had higher focus and emotional change levels than those with low health perception. In addition, it was concluded that the majority of the participants had a high health perception.

Limitations of the Study and Further Research

The most important limitation of this study is its covering only Sport Istanbul Inc.. In order to obtain more generalizable results regarding the level of exercise dependence according to the perceived health outcome, it is recommended to work in a sample that will include sports facilities in different cities across the country. In addition, in this study, exercise dependency levels were investigated according to the perceived health levels of the participants. In future studies, exercise dependencies can be associated with the motivation levels of the participants.

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