

## **Examination of Relationship Between Exercise Dependence and Narcissism in Adults**

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### **Abstract**

There are few studies examining the relationship between personality traits and exercise dependence. Narcissism has newly started to attract attention in the field of sports. The purpose of the present study is to examine the relationship between exercise dependence and narcissism in regularly exercising individuals. 271 individuals aged between 18 and 65 years and regularly exercising at least for a year in the sports halls in Bursa participated in the study. In the study, as a data collection tool, the Personal Information Form, the Exercise Dependence Scale and the Narcissistic Personality Inventory were used. It was determined that there was a significant relationship between the participants' narcissism and exercise dependence levels. While a high level of positive relationship was found between time and exercise preference in the sub-scale of continuity in the male participants, it was observed that there was not a statistically significant relationship between the female participants. Personality factor might be contributing to exercise dependence. The increasing level of narcissism might increase the possibility of a person's being exercise-dependent. We expect that the study will draw attention to the personality factor.

**Keyword:** exercise dependence, narcissism, personality traits, narcissistic personality disorder

## Introduction

Studies on narcissism are available in many different fields. New studies are needed especially in the field of sports. Seeing his reflection in the water and falling in love with his reflection, that is to say, himself, and living out his life in the pursuit of this love (himself), which he cannot reach for a lifetime, Narcissus hugs this impossible love of his with a desire to reach it, falls into the water and loses his life, being drowned (Ilkay, 2012). The word of narcissism comes from this story (Dorland, 1986)

A person's loving him/herself is a psychological need. However, a selfish person is interested only in him/herself, but his/her concern for the outside world depends on his/her interests (Fromm, 2004). And abnormal narcissism defined by selfishness starts here. Contrary to what is believed, a selfish person does not love him/herself, but loves a little, even hates him/herself. A person, who hates him/herself and is unhappy, tries to get the satisfaction which s/he has been unable to obtain by force, and pretends to be interested very much (Fromm, 2004).

In his case story which he published in 2005, Walder described individuals with narcissistic personality as the ones acting superior, being interested themselves excessively, feeling different from other people (Uzumcu, 2016)

That negative comments and criticisms coming from the environment do not cause any serious decrease in the individual's self-confidence is accepted as the most apparent feature differing normal narcissism from pathological narcissism (Ozturk, 2004). Pathological narcissists create opportunities to win others' interest and admiration (for example, exercise behavior) in the name of themselves (Evren, 1997). According to Kernberg, these people have an inflated self and continuously wait for the approval and the admiration to come from outside. Individuals with a narcissistic personality have difficulty in deriving pleasure from life and the extent of this pleasure depends on how much they are admired by others (Kernberg, 1975).

Firstly, the pathological narcissism was defined in the DSM III diagnostic criteria book (APA, 1994), then it was examined by taking in hand as Narcissistic Personality Disorder (APA, 2013). The permanent and long-term characterological features including intensive pathological narcissistic symptoms point to the narcissistic personality disorder (Uzumcu, 2016). DSM-V defines narcissistic personality disorder as “a common pattern starting at early adulthood and appearing in different contexts, going with arrogance (in reveries or behaviors), the need for being admired and the inability to show empathy” (APA, 2013).

People with narcissistic personality disorder are the ones excessively admiring themselves physically and psychologically, thinking themselves superior, continuously waiting for admiration, interest and approval and believing that they will immediately get special attention wherever they go and that they deserve a superior position. She is or will be the most beautiful, handsome, successful, the brightest person. An individual's self-esteem feeds on interests, admirations, approvals to come from outside (Kohut, 1977).

Narcissists are expert at remaining at the center of attention, love drawing attention and do whatever they can to accomplish this (Twenge, 2010). They do not acknowledge criticism (Ozturk, 2004). Kernberg stated that narcissistic individuals always compare themselves to others and, as a result of this, have difficulty, feel sorrow due to the feeling of inferiority, and feel an intensive and continuous desire to possess what others possess (Genctan, 2003).

According to Kernberg, they do not derive much pleasure from life apart from appreciation they take from others or their own grandiose fantasies and when external interest decreases and they do not feed sources themselves, they feel bored and uneasy (Alperen, 2017).

In narcissistic individuals, the need for evoking admiration has deeply rooted; they try a lot to satisfy this need (Cook, 2018). They can use exercise as a tool for evoking admiration.

Exercise dependence was firstly defined by Veale (1995) as the participation in exercise firstly for fun but then getting out of control and resulting in excessive exercise behavior. However, Sachs (1979) defines exercise dependence as an individual's being dependent on exercise psychologically and physiologically, which is distinguished by the symptoms facilitating exercise diagnosis as a result of 24-36 hours spent without doing exercise. Its psychological and physiological symptoms are listed as anxiety, being unable to stay without moving, feeling of guilt because of being unable to do exercise, aggressiveness, laziness, lack of appetite, being unable to sleep and headache (Adams, 2009).

In their study, Antonio Bruno et al. (2014) demonstrated that certain narcissistic personality traits were related with the risk of exercise dependency.

Narcissistic individuals want to evoke admiration and might use exercise as a tool to meet this need. The purpose of our study is to examine the relationship between narcissism and exercise dependency in adults. The effect of personality on exercise dependency might help to understand individuals' mental states.

## **Material and Method**

### **Research Model**

This research was carried out in relational scanning model. Relational scanning model among the general scanning model types; It is a research model that aims to determine the existence and / or degree of co-change between two or more variables (Karasar, 2005).

### **Participants**

The sample of the study was composed of a total of 271 individuals, 229 male and 42 female, aged between 18 and 65 years and doing exercises at least for a year in the sports halls in Bursa. When the educational levels of the participants were examined, it was observed that 0,7% of them were primary school graduates, 1,5% were secondary school graduates, 18,5% were high school graduates, 68,6% were undergraduates and 10,7% were postgraduates. 67,7% of the participants were working. Moreover, it was observed that 47,5% of the participants had a high level of income, 27,7% had a middle level of income and 24,8% had a low level of income.

### **Measurement Tools**

The individuals desiring to participate in the study were interviewed one by one and, prior to the administration of the scales, they were informed about the study. As the data collection tool, the "Narcissistic Personality Inventory" and the "Exercise Dependence Scale -21" were used. The Narcissistic Personality Inventory was developed by Daniel R. Ames, Paul Rose and Cameron P. Anderson in 2005. The scale was adapted into Turkish and its validity and reliability study was made by Salim Atay (2009). In order to determine the validity of the inventory, factor analysis was applied and, as a result of the factor analysis, it was observed that the questions scattered to 6 factors, namely Exhibitionism, Superiority, Authority, Stake a Claim, Exploitation, Self-Sufficiency, in accordance with the original structure (Atay, 2009).

As the score increases, so does the value of narcissism (Atay, 2009). The "Exercise Dependence Scale-21" composed of 21 items and 7 sub-dimensions, namely tolerance, withdrawal, purpose, inability to control, time, reducing other activities and continuity. The participants' exercise dependence symptoms are evaluated on a six-point Likert type scale scored as "Never (1)", "Rarely (2)", "Sometimes (3)", "Often (4)", "Very Often (5)" and "Always (6)". The scale developed by Hausenblas and Downs (2002a) were administered to the participants in the environment where they did their exercises. Although Hausenblas and Downs (2002a) supported the 7-factor structure put forward in the original study in general, they revealed different factor structures for some sub-dimensions. It was found that 9 items in the "reducing other activities", "time" and "purpose" sub-dimensions included in the original version gathered in a single dimension in this study. When the verbal structures of the items taking place in these 3 factors were taken in hand, it was observed that they included the statements related to exercise preference and exercise time and duration and these factors were named as "time and exercise preference tercihi" (Gurbuz, Asci, 2006). As a result of the evaluation, a high score indicated the presence of more exercise dependence symptoms (Gurbuz, Asci, 2006).

### Statistical Analysis

The analysis of the data was made via SPSS 22.0 program. The fitness of the data for normal distribution was tested via the Shapiro-Wilk Test. Since normal distribution was not achieved, the analyses were made via nonparametric statistical tests. The between-groups comparisons were made via Mann-Whitney U test. Moreover, the between-variables relationships were examined via Spearman's rank correlation coefficient. Since the data did not distribute normally, the descriptive statistics were given as median (min-max). The statistical significance level was taken as  $\alpha=0.05$ . The reliability of the scales were examined via Cronbach's Alpha reliability coefficient for the exercise dependence scale and via Kuder Richardson 21 reliability coefficient for the Narcissistic Personality Inventory.

### Bulgular

### Findings

**Table 1.** Findings related to the Sub-Dimensions of Narcissism – Exercise Dependence

Variables	Male			Female			General		
	n	r	p	n	r	p	n	r	p
<b>Narcissism-Time and Exercise Preference</b>	178	0,251 **	0,001	30	0,087	0,648	209	0,204**	0,003
<b>Narcissism-Lack of Control</b>	182	0,118	0,112	31	0,105	0,573	214	0,107	0,120
<b>Narcissism-Effects of Withdrawal</b>	181	0,096	0,197	31	0,161	0,387	213	0,106	0,122

<b>Narcissism-Tolerance</b>	182	0,106	0,153	31	0,179	0,335	214	0,106	0,123
<b>Narcissism-Continuity</b>	180	0,231 **	0,002	31	0,223	0,228	212	0,228**	0,001
<b>Narcissism-Exercise Dependence</b>	172	0,257 **	0,001	30	0,189	0,317	203	0,227**	0,001

\*p<0.05, \*\* p<0.001

The relationship between the participants' narcissism total score and the exercise dependence scale and its sub-scales was shown in the table. It was determined that there was a statistically significant difference between narcissism and exercise dependence. While a weak positive relationship was found between the sub-scale of time and exercise preference and that of continuity in the male participants, it was observed that there was not a statistically significant difference in the female participants.

**Table 2.** Findings related to Mann-Whitney U Test

		XI	ST	SO	U	Z	P
<b>Exercise Dependence-Tolerance</b>	Female	41	4566,00	111,37	3705,000	-1,973	0,049
	Male	224	30679,00	136,96			

When we looked into the Mann-Whitney U test results of the participants according to the variable of gender, a positive relationship was found only in the tolerance sub-dimension of Exercise Dependence.

**Discussion and Conclusion**

The purpose of the study is to examine the relationship between the regularly exercising individuals' exercise dependence and narcissism levels.

While a positive relationship was found between narcissism level and the time and exercise preference and continuity sub-dimensions in the male participants, it was observed that there was not a statistically significant difference in the female participants (Table 1). As a result of the literature review, the data supporting this study was encountered. It was determined in the study that the score of the "Time and Exercise Preference" sub-dimension, one of the sub-dimensions of exercise dependence differed significantly (Dogan et al., 2017).

In our study, a statistically significant difference was determined between narcissism and exercise dependence. In a previous study, a significant relationship was found between narcissism and exercise dependence in favor of the male participants (Miller, Mesagno, 2014). Moreover, it can be stated that individuals with developed exhibitionism trait might be inclined to attract attention by using their body. In addition to this, the need for meeting the expectation might lead to showing much interest in exercise and turn into exercise dependence (Miller, Mesagno, 2014). In another previous study, it was reported that narcissism contributed significantly to body satisfaction in the male participants attending a fitness center regularly (Brown, 2008). In a study made with 150 individuals attending a

fitness center regularly, the narcissism score of the high exercise dependence risk group was found higher (Bruno et al., 2014). High levels of narcissism can be explained as a driving force for exercise (Bruno et al., 2014). Again, in another previous study, which seems to support our study findings, it was concluded that narcissism might be one of the factors underlying exercise dependence (Cook et al., 2018). It can be an ideal method for exercise narcissists to accomplish their narcissistic goals and expectations (David, 1992).

The effect of personality role on exercise is evident. Increasing narcissism level might increase the possibility of a person's becoming exercise dependent. We expect that this study will draw attention to the personality factor, which might have an important effect on the motivation for going on exercising despite the factors of disability, family, etc.

When the descriptive statistics of the demographic characteristics of the sample group participating in the study were examined, it was observed that the male participants were more in number, which makes us consider that it resulted from the fact that, in our country, men prefer sports centers more than women.

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