ISSN: 2146-9598 Doi Prefix:10.22282

Aksoy, Ö.F., & Kul, M. (2023). *Examination of the relationship between exercise addiction and behavioral regulations in exercise and substance abuse awareness of weightlifting and boxing athletes*, *The Online Journal of Recreation and Sports* (***TOJRAS***), 12(2), 161-175.

DOI: https://doi.org/10.22282/tojras.1266075

Makale Türü (ArticleType):
*Araştırma Makalesi / **Research Article***

Gönderi Tarihi (Received): 16/03/2023 Kabul Tarihi (Accepted): 08/04/2023 Online Yayın Tarihi (Published): 30/04/2023

EXAMINATION OF THE RELATIONSHIP BETWEEN EXERCISE ADDICTION AND BEHAVIORAL REGULATIONS IN EXERCISE AND SUBSTANCE ABUSE AWARENESS OF WEIGHTLIFTING AND BOXING ATHLETES[1]

Ömer Faruk AKSOY
Bayburt University, Social Sciences Vocational Schools, Bayburt.
06aksoy14@gmail.com
Orcid: 0000-0002-4988-544X

Murat KUL
Bayburt University, Faculty of Sports Sciences, Bayburt.
muratkul@bayburt.edu.tr
Orcid: 0000-0001-6391-8079

Abstract

The aim of this study is to evaluate the relationship between exercise addiction and behavioural regulation in exercise and substance addiction awareness of weightlifting and boxing athletes and to examine these data in terms of demographic variables. The research group consists of 333 participants. “Exercise Addiction Scale”, “Behavioural Regulations in Exercise-2” and “Substance Addiction Awareness Scale” were used for data collection. Percentage and frequency distributions and Pearson Correlation Analysis were applied in the analysis of the data. According to the results of the research, significant positive correlation was found between the Exercise Addiction Scale total score and the Substance Addiction Awareness Scale total score, and the Behavioural Regulations in Exercise-2 total score. In this context, when the motivation that occurs during exercise becomes a compulsive action, it is thought that exercise addiction starts in the individual and that the substance addiction awareness of exercise addicts is higher.

Keywords: Weightlifting, boxing, motivation, exercise addiction, substance abuse.

Corresponding Author: Ömer Faruk AKSOY, Bayburt University, Social Sciences Vocational Schools, Bayburt, +90(543) 726 27 82, 06aksoy14@gmail.com.

[1] This research was supported within the scope of 2020/8 Turkey Green Crescent Society Graduate Thesis Research Scholarship Support Program. It is also derived from the master thesis titled “Examination of the Relationship Between Exercise Addiction and Behavioral Regulations in Exercise and Substance Abuse Awareness of Weightlifting and Boxing Athletes”.

HALTER VE BOKS SPORCULARININ EGZERSİZ BAĞIMLILIĞI VE EGZERSİZDE DAVRANIŞSAL DÜZENLEMELERİ İLE MADDE BAĞIMLILIĞI FARKINDALIKLARI ARASINDAKİ İLİŞKİNİN İNCELENMESİ

ÖZET

Bu çalışmanın amacını halter ve boks sporcularının egzersiz bağımlılığı ve egzersizde davranışsal düzenlemeleri ile madde bağımlılığı farkındalıkları arasındaki ilişkinin değerlendirilmesi ve bu verilerin demografik değişkenler açısından incelenmesi oluşturmaktadır. Araştırma grubunu 333 katılımcı oluşturmaktadır. Veri toplama amacı ile "Egzersiz Bağımlılığı Ölçeği", "Egzersizde Davranışsal Düzenlemeler Ölçeği-2" ve "Madde Bağımlılığı Farkındalık Ölçeği" kullanılmıştır. Verilerin analizinde yüzde ve frekans dağılımları ve Pearson Korelasyon Analizi uygulanmıştır. Araştırma sonuçlarına göre, Egzersiz Bağımlılığı Ölçeği toplam puanı ile Madde Bağımlılığı Farkındalık Ölçeği toplam puanı ve Egzersizde Davranışsal Düzenlemeler Ölçeği-2 toplam puanı arasında pozitif yönde orta düzeyde anlamlı ilişkiye rastlanmıştır. Bu bağlamda egzersiz sırasında oluşan güdü kompulsif bir eylem halini aldığında, bireyde egzersiz bağımlılığı başladığı ve egzersiz bağımlısı kişilerin, madde bağımlılığı farkındalıklarının daha yüksek olduğu düşünülmektedir.

Anahtar kelimeler: Halter, boks, güdülenme, egzersiz bağımlılığı, madde bağımlılığı.

INTRODUCTION

A number of negativities accompanying the decrease in exercise habits of the individual have brought with it the need for and importance of motivation for the qualities that affect the initiation, orientation and maintenance of physical activity behaviours. (Beaudoin, 2006, s. 202). In order for the mentioned motive to be realized towards exercise, internal and external factors are effective in the individual. As mentioned in the Self-Determination Theory, these factors, the individual perceives these factors as a source of reward and makes their choices under their own control. The choices made play an active role in the acquisition of positive exercise habits, in the process of choosing how often and what type of exercise to participate in. (Deci, & Ryan, 2000, s. 230).

The motivation causes the person's arousal level to increase at the point of exercise. The motivated person takes pleasure from the exercise and continues to do so. However, this situation can sometimes become a compulsive action and reach levels that can harm the person. While these harmful behavioural disorders were defined with the concepts of "running addiction", "morbid exercise" and "running anorexics" in the literature, they are now referred to as "exercise addiction". (Coverley Veale, 1987, p. 736). The fact that exercise addiction is not specific to a particular sport branch, and that it can occur in various branches of sport, is fixed by relevant studies. (Smith, & Hale, 2005, p. 407).

Exercise addiction is not positioned as a mental disorder by significantly reliable sources such as the diagnostic guidelines in Europe, the International Classification of Diseases (ICD-10) or the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) in the United States. However, it is known that the symptoms observed in the diagnosis of some addictions such as alcohol addiction are also similar in exercise addiction. (Lichtenstein, &

Hinze, 2020, p. 265). To define addiction in this regard, Eysenck (1997) addiction; It defines a person's predisposition to behaviours that may have harmful and harmful consequences outside of normal.

While in the past definition of addiction, it was expressed that it occurs with the consumption of drugs or alcohol use, today addiction is divided into different classes. We can consider many behaviours such as exercise, gambling and internet use as a potential type of addiction. In fact, although the mentioned behaviours are concepts from today's life, even if they provide benefits, they can cause negative consequences for the user from the moment they turn into an obsession. (Terry, Szabo, & Griffiths, 2004, p. 490). Substance addiction is a type of addiction that may cause more damage to humans, similar to behaviours that cause negative consequences.

Substance addiction can be defined by the expressions "continuation of use despite the devastating consequences of all substances obtained from synthetic molecules of vegetable origin or chemically created, that have a physical or mental calming effect on the central nervous system, that make the individual want to take more over time due to regular intake and show signs of deficiency when not taken". Substance abuse does not only cause physiological damage to the person, but it can also cause social, mental, financial and trust problems in the person. In other words, the person harms person's identity and comfort area in the society as a substance addict as well as the damage to person's physical and mental health. Substance addiction is a risk factor that can affect young generations, which is the basis for the present and future of all societies from the past to the present. (Ministry of Health, 2018).

Various studies have reported that an increase in exercise frequency has a positive effect on the psychological health of people with different addictions. Palmer, Vacc, and Epstein (1988) reported a decrease in depression and state-trait anxiety during exercise. In the domestic literature, Yeditepe (2010), it was stated that regular physical exercise was effective in reducing the level of anxiety in addicted people, contributing to positive changes such as a decrease in the level of depression and an increase in the level of well-being. The harms of substance use and the benefits of regular exercise are undoubtedly fixed based on research in the relevant literature. So much so that the person's awareness of substance addiction and participation in regular exercise will be very beneficial. At the same time, it can be predicted with these gains, which can have positive results for the behavioural regulation of the person in exercise. By taking all these data as a reference, the main aim of the research is to examine the relationship between exercise addiction and behavioural regulation of exercise and substance addiction awareness of weightlifting and boxing athletes.

METHODS

Model of the Research

In order to achieve the aim of this study, scanning model was used. In general terms, we can define the screening model as the screening arrangements made on a sample consisting of the population in order to form a general

judgment about that population in a population with many or few members (Karasar, 2012, p. 77). However, we need to use more than one scale in order to obtain data suitable for the purpose of our study, and for this reason, the relational survey model, which is one of the survey models, was used in our research. As we mentioned before, in the survey model, it is the quantitative data obtained from the responses of the sample selected from the determined population to the research (Cresswell, 2012, p. 376). In the relational screening model, this situation not only creates a judgment, but also gives us the answer at what level some types of relationships are between the variables. In other words, using the relational screening model, researchers aim to determine the relationship between two or more variables. (Büyüköztürk, et al., 2014, p. 24).

Purpose of the Research

The aim of this study is to evaluate the relationship between exercise addiction and behavioural regulation in exercise and substance addiction awareness of weightlifting and boxing athletes and to examine these data in terms of demographic variables.

Population and Sample

The population of the research is composed of active athletes from weightlifting and boxing branches. The sample group consists of 333 people who were determined by the facilitation method from the research population.

Data Collection Tools

Four different forms were used to reach the data to be obtained within the framework of the research. These forms are “Personal Information Form”, “Exercise Addiction Scale”, “Scale of Behavioural Regulations in Exercise - 2” and “Substance Addiction Awareness Scale”.

Personal Information Form

The "Personal Information Form" prepared by the researcher in order to determine the personal data of the research group consists of 9 items. These items are gender, branch, mother's education, father's education, age, sports age, personal income, family income and weekly training hours.

Exercise Addiction Scale

The Exercise Addiction Scale is a measurement tool whose validity and reliability study were carried out by Tekkurşun Demir, Hazar and Cicioğlu in 2018, adapted to Turkish in order to use it in determining the exercise addictions of adults. This scale consists of 17 items and 3 sub-dimensions (1-Extreme Focus and Emotional Change, 2-Postponing Individual-Social Needs and Conflict, 3-Developing Tolerance and Passion). While the total Cronbach Alpha reliability coefficient of the scale was found to be 0.88, values of 0.83 for the 1st sub-dimension,

0.79 for the 2nd sub-dimension, and 0.77 for the 3rd sub-dimension were determined. (Tekkurşun Demir, et al., 2018).

Scale of Behavioural Regulations in Exercise - 2

The Scale of Behavioural Regulations in Exercise-2 is a measurement tool whose validity and a reliability study was carried out by Ersöz, Aşçı, and Altıparmak in 2012, adapted to Turkish for use in determining the behavioural adjustments of individuals during exercise. This scale consists of 19 items and 4 sub-dimensions (1-Intrinsic Regulation, 2-Introjected Regulation, 3-External Regulation, 4-Unmotivated). While the total Cronbach Alpha reliability coefficient of the scale was 0.90, values of 0.81 for the 1st sub-dimension, 0.77 for the 2nd sub-dimension, 0.67 for the 3rd sub-dimension, and 0.69 for the 4th sub-dimension were determined. (Ersöz, et al., 2012).

Substance Addiction Awareness Scale

The Substance Addiction Awareness Scale, developed by Özay Köse and Gül (2018), is a measurement tool that aims to determine the level of awareness about addictive substances in a person. The Cronbach Alpha reliability coefficient of this scale, which consists of 27 items and 4 sub-dimensions (1-Aid and Legal Regulations, 2-Symptoms and Effects of Substance Use, 3-Personal Attitudes and Opinions, 4-Factors Causing Addiction), was calculated as 0.88. At the same time, values of 0.86 for the 1st sub-dimension, 0.78 for the 2nd sub-dimension, 0.71 for the 3rd sub-dimension and 0.64 for the 4th sub-dimension were determined. (Özay Köse, & Gül, 2018).

Analysis of Data

The arithmetic means and standard deviations of the data obtained within the scope of the research were determined. Pearson Product Moments Correlation (r) Coefficient technique was used to determine the relationship between the variables of the research group and the sub-dimensions of the scales used in the research. As a result of the analyzes made, the level of significance was taken as 0.05.

RESULTS

Table 1: Point values obtained from the scales used in the study

Scale	Gender	Avarege Point	Branch	Avarege Point	Scale Total Score	Scale Average Score
Exercise Addiction Scale	Male	59,11	Weightlifting	57,61	19440	58,38
	Female	57,05	Boxing	59,68		
Scale of Behavioural Regulations in Exercise-2	Male	57	Weightlifting	56	18750	56,31
	Female	56	Boxing	57		
Substance Addiction Awareness Scale	Male	100,77	Weightlifting	100,06	33483	100,55
	Female	100,15	Boxing	101,38		

When Table 1 is examined, the score values obtained from the scales used in the research are seen. Accordingly, the total score obtained from the Exercise Addiction Scale was determined as "19440", the total score obtained from the Behavioural Regulations in Exercise-2 Scale was determined as "18750", and the total score obtained from the Substance Addiction Awareness Scale was determined as "33483". The score ranges of the Exercise Addiction Scale are evaluated as "1-17 normal groups, 18-34 low-risk groups, 35-51 risk groups, 52-69 dependent groups, 70-85 highly dependent groups" (Tekkurşun-Demir, Hazar, & Cicioğlu, 2018, p.873). c Ersöz, Aşçı, & Altıparmak (2012). It is stated that in the Scale of Behavioural Regulations in Exercise - 2, the individual's score for each subscale was found with the total score obtained from the relevant subscale. Accordingly, the highest score that can be obtained from the "Intrinsic Regulation" sub-dimension was 35, and the score of our research group was 29.69 ((male=29.89), (female=29.32), (weightlifting=29.51), (boxing=29.99)). The highest score that can be obtained from the sub-dimension "Introjected Regulation" is 20, the score of our research group is 13.92 ((male=14.14), (female=13.54), (weightlifting=13.58), (boxing=14.51)) has been identified. The highest score that can be obtained from the "External Regulation" sub-dimension is 20, the score of our research group is 6.72 ((male=6.80), (female=6.58), (weightlifting=6.81), (boxing=6.57)) has been identified. The highest score that can be obtained from the "unmotivated" sub-dimension is detected to be 20, the score of our research group is 5.95 ((male=5.80, female=6.23), (weightlifting=6.15), (boxing=5.62)). The higher the score on the Substance Addiction Awareness Scale, the higher the awareness. (Köse, & Gül, 2018, p.46). In this context, when our findings are evaluated according to the score range (27-135) that can be obtained from the scale, it is seen that the substance addiction awareness level of our research group is very high. In addition, the same result is encountered when evaluated in terms of gender and branch.

Table 2: Pearson correlation analysis results for age, sports age, personal income, family income, and weekly training hours variables and sub-dimensions of the exercise addiction scale

Variable		Extreme Focus and Emotional Shifts	Postponement of Individual-Social Needs and Conflict	Tolerance Development and Passion
Age	r	,066	,051	-,039
	p	,227	,358	,475
	n	333	333	333
Sports Age	r	,073	,097	-,011
	p	,183	,077	,845
	n	333	333	333
Personal Income	r	,046	-,015	-,082
	p	,405	,786	,136
	n	333	333	333
Family Income	r	-,132*	-,011	-,166*
	p	,016	,845	,002
	n	333	333	333
Weekly Training Hours	r	,000	,121*	,068
	p	,999	,027	,218
	n	333	333	333

According to Table 2, no relationship was found between age, sports age and personal income variables and the sub-dimensions of the Exercise Addiction Scale (p>0.05). While no relationship was found between the family

income variable and the "Postponement of Individual-Social Needs and Conflict" sub-dimension of the scale (p>0.05), a low negative correlation was found in the sub-dimension of "Excessive Focus and Change in Emotion" (p<0.05). In addition, a low negative correlation was found in the "Development of Tolerance and Passion" sub-dimension (p<0.05). According to this result, it is seen that there is an increase in the sub-dimensions of "Excessive Focus and Change in Emotion" and "Development of Tolerance and Passion" depending on the decrease in family income. While a low level of positive correlation was found between the weekly training hour variable and the "Postponing of Individual-Social Needs and Conflict" sub-dimension of the scale (p<0.05), no relationship was found between the "Extreme Focus and Emotion Change" and "Tolerance Development and Passion" sub-dimensions (p<0.05). According to this result, it is seen that there is an increase in the sub-dimension of "Postponement of Individual-Social Needs and Conflict" depending on the increase in weekly training hours.

Table 3: Pearson correlation analysis results regarding the total scores obtained from the scales used in the study

Variable		Substance Addiction Awareness Scale Total Score	Scale of Behavioural Regulations in Exercise - 2 Total Point
Exercise Addiction Scale Total Score	r	,215*	,556**
	p	,000	,000
	n	333	333

When Table 3 is examined, a low level positive correlation was found between the Exercise Addiction Scale total score and the Substance Addiction Awareness Scale total score, and a moderately positive positive correlation between the Exercise Behavior Regulations Scale-2 total score (p<0,05). In this context, it was concluded that, depending on the increase in the total score of the Exercise Addiction Scale, there was an increase in the total scores of the Substance Addiction Awareness Scale and the Scale of Behavioral Regulations in Exercise-2.

table 4: Pearson correlation analysis results on age, personal income, family income, and weekly training hours variables and the sub-dimensions of the scale of behavioral regulations in exercise-2

Variable		Intrinsic Regulation	Introjected Regulation	External Regulation	Unmotivated
Age	r	-,016	-,010	-,021	,110*
	p	,772	,849	,704	,045
	n	333	333	333	333
Personal Income	r	,019	,002	-,043	,066
	p	,732	,971	,439	,230
	n	333	333	333	333
Family Income	r	-,153*	-,025	,023	,089
	p	,005	,644	,681	,104
	n	333	333	333	333
Weekly Training Hours	r	,033	-,022	,031	,045
	p	,553	,683	,570	,408
	n	333	333	333	333

According to Table 4, no relationship was found between the variables of personal income and weekly training hours and the sub-dimensions of the Scale of Behavioural Regulations in Exercise-2 (p>0,05). On the other hand, while no relationship was found between the age variable and the sub-dimensions of "Intrinsic Regulation",

"Introjected Regulation" and "External Regulation" (p>0.05), a low positive correlation was found in the "Unmotivated" sub-dimension. (p<0,05). According to this result, depending on the increase in the age variable, an increase was reached in the "Unmotivated" sub-dimension. While no relationship was found between the family income variable and the sub-dimensions of "Introjected Regulation", "External Regulation" and "Unmotivated" (p>0.05), a low negative correlation was found in the "Intrinsic Regulation" sub-dimension (p<0.05). In this context, it is seen that there is a decrease in the "Intrinsic Regulation" sub-dimension, depending on the increase in family income.

Table 5: Pearson correlation analysis results on sports age, mother's educational status and father's educational status variables and total substance addiction awareness scale score

Variable		Sports Age	Mother Educational Status	Father Educational Status
Substance Addiction	r	,145*	-,016	,073
Awareness Scale	p	,008	,774	,186
Total Score	n	333	333	333

According to Table 5, a low positive correlation was found between the sports age variable and the total score of the Substance Addiction Awareness Scale (p<0.05). On the other hand, no relationship was found between the mother's education level and father's education level and the total score of the Substance Addiction Awareness Scale (p>0.05). In this direction, there is an increase in the total score of the Substance Addiction Awareness Scale depending on the increase in sports age.

DISCUSSION AND CONCLUSION

In this context, according to the results obtained in the research, significant positive correlation was found between the Exercise Addiction Scale total score and the Substance Addiction Awareness Scale total score, and the Scale of Behavioural Regulations in Exercise-2 total score. (p<0,05). In this context, it was concluded that, depending on the increase in the total score of the Exercise Addiction Scale, there was an increase in the total scores of the Substance Addiction Awareness Scale and the Scale of Behavioural Regulations in Exercise-2. The motivation causes the person's arousal level to increase at the point of exercise. The motivated person takes pleasure from the exercise and continues to do so. However, this situation can sometimes become a compulsive action and reach levels that can harm the person. While these harmful behavioural disorders were defined with the concepts of "running addiction", "morbid exercise" and "running anorexics" in the literature, they are now referred to as "exercise addiction". (Coverley Veale, 1987, p. 736). In this context, when the motivation that occurs during exercise becomes a compulsive action, it is thought that exercise addiction starts in the individual and that the substance addiction awareness of exercise addicts is higher.

While no relationship was found between the age variable and the "Intrinsic Regulation", "Introjected Regulation" and "External Regulation" sub-dimensions of the Scale of Behavioural Regulations in Exercise -2

(p>0.05), a low positive correlation was found in the "Unmotivated" sub-dimension (p<0,05). According to this result, depending on the increase in the age variable, an increase was reached in the "Unmotivated" sub-dimension. In parallel with the results of the study, Aktürk (2017, p. 51) determined that the age variable had an effect on behavioural adjustments in exercise, in his study of individuals who regularly participated in walking, swimming, tennis, cycling, step-aerobics, plates and fitness activities. Gümüş (2017, p. 48) stated that the sample group was composed of teachers, and Çavuşoğlu and Yılmaz (2020, p.108) stated that the age variable did not affect the motivation for exercise, according to the results of the study, the sample group of which was sports science students. It is thought that this difference arises from the sample groups. In addition, it can be said as an expected result that older athletes will experience a decrease in their motivation levels as a result of the disability in their sports history, not being able to achieve the desired successes, not being able to achieve financial gain, and the decrease in their intrinsic motivation due to the resulting boredom.

While no relationship was found between the family income variable and the "Introjected Regulation", "External Regulation" and "Unmotivated" sub-dimensions of the Scale of Behavioural Regulations in Exercise-2 (p>0.05), a low negative correlation was found in the "Intrinsic Regulation" sub-dimension (p<0,05). In this context, it is seen that there is a decrease in the "Intrinsic Regulation" sub-dimension, depending on the increase in family income. Although there is no study in the literature examining motivation in exercise in terms of family income variable, Çavuşoğlu and Yılmaz (2020, p.108) concluded that income does not affect motivation in exercise, according to the results of the study whose sample group consisted of university students. Gümüş (2017, p.48) reached similar results and stated that the factors that motivate teachers to exercise do not change according to income level. In this context, it can be said that athletes with high family income have lower intrinsic regulation in exercise compared to athletes with low family income. The reason for this is that the high level of family income in branches with high training intensity, intensity and process such as boxing and weightlifting can be said to negatively affect intrinsic regulation and motivation.

No relationship was found between age, sports age and personal income variables and the sub-dimensions of the Exercise Addiction Scale (p>0.05). When the literature is examined, supporting our data, Akgöl (2019, p.33) stated that the age of the participants who exercise in swimming pools, gyms and sports centres does not affect their exercise addiction levels. Kaya (2019, p.67) did not find a significant relationship between the age of prospective teachers and the total score of the Exercise Addiction Scale. Konus (2019, p.60) compared individuals who do active sports and those who quit sports, and no significant difference was found between the total score of the Exercise Addiction Scale according to the age variable. In the light of this information, it can be mentioned as a situation that can occur at any age because the age variable has no effect on exercise addiction and exercise addiction is a behavioural act. A similar result is encountered when the sport is examined in terms of age variable. Uzun (2019, p.29) stated that the exercise year did not affect exercise addiction. Yıldızçiçek (2019, p.64) stated that according to the results of the study of individuals who went to the fitness centre in the research group, exercise addiction did not differ according to the age of exercise. Birgönül (2019, p.51) stated that the sports

history of adult individuals does not affect their exercise addiction to tennis. In the context of personal income, when the literature is examined, Demirel (2019, p.41) concluded that the financial income status of senior athletes does not differentiate their exercise addictions. Er (2020, p.19) stated that there is no difference between the monthly income variables and exercise addictions of master-level athletes from various branches. According to the results of the study, in which the sample group of Gün (2018, p.64) was formed by BESYO (School of Physical Education and Sports) students, there is no difference between the economic level variable and the groups. In this context, it can be said that the exercise addiction levels of weightlifting and boxing athletes do not change according to their personal income. It can be said that the reason for this is that the individual takes pleasure from exercise, needs constant exercise, and feels deprived when he misses the training, regardless of income status.

While no relationship was found between the family income variable and the "Postponing of Individual-Social Needs and Conflict" sub-dimension of the Exercise Addiction Scale ($p>0.05$), a low negative correlation was found in the sub-dimension of "Excessive Focus and Emotional Change" ($p<0,05$). In addition, a low negative correlation was found in the "Development of Tolerance and Passion" sub-dimension ($p<0.05$). According to this result, it is seen that there is an increase in the sub-dimensions of "Excessive Focus and Change in Emotion" and "Development of Tolerance and Passion" depending on the decrease in family income. Kaya (2019, p.76) found a significant difference between the exercise addiction of teacher candidates and the family income variable. Paksoy (2021, p.23) found that there was a statistically significant difference between the sub-dimensions of the exercise addiction scale, depending on the economic status variable. In this respect, the fact that athletes with low family income see sports as a way out, salvation, and the purpose of earning a living can be explained as the reason for their excessive focus on exercise, emotional change, development of tolerance and high levels of passion.

While a low level of positive correlation was found between the participants' weekly training hours variable and the "Postponement of Individual-Social Needs and Conflict" sub-dimension of the Exercise Addiction Scale ($p<0,05$), no relationship was found between the sub-dimensions of "Extreme Focus and Emotion Change" and "Development of Tolerance and Passion". ($p>0,05$). According to this result, it is seen that there is an increase in the sub-dimension of "Postponement of Individual-Social Needs and Conflict" depending on the increase in weekly training hours. Turkmen, et al. (2021, p.201) concluded that there is a significant difference between the exercise addiction level of the participants and the frequency of exercise. Bavli et al. (2015, p.123) stated that there is a difference between the exercise addiction level of the dancers and the daily exercise time. Güven (2019, p.15) found that there was a difference between the groups in terms of physical activity level in all sub-dimensions of the Exercise Addiction Scale. There is an increase in training times in line with the goals of individuals throughout their sports life. In this process, athletes who want to be successful are expected to make sports become a part of their lives by thinking professionally and to organize their lives according to the

responsibilities required by their branches. In this context, it can be said that the athletes whose weekly training hours increase, postpone their individual and social needs more.

No relationship was found between the sub-dimensions of the Scale of Behavioral Regulations in Exercise-2 and the variables of personal income and weekly training hours. ($p<0,05$). Çavuşoğlu and Yılmaz (2020, p. 108) concluded that personal income does not affect motivation in exercise, according to the results of the study whose sample group consisted of university students. Gümüş (2017, p. 48) reached similar results and stated that the factors that motivate teachers to exercise do not change according to income level. In this direction, it can be said that personal income has no effect on the motivation of the athletes in exercise. The reason for this can be shown as the inability of the athletes to earn the desired level of income in amateur branches. Erşen (2019, p. 40) concluded that the duration of exercise did not predict motivation in exercise, according to the results of the study whose sample group consisted of university students. According to the results of the study in which behavioural adjustments in exercise were investigated, it was determined that people who were motivated in exercise by introjection did not continue to exercise for a long time (Pelletier, et al., 2001, p. 279). In this context, it can be said that the weekly training hour variable is not a criterion in determining the exercise motivation of the athletes.

SUGGESTIONS

Considering the data related to the research results, the following suggestions can be made for the relevant persons, institutions, and organizations:

- Based on both our research results and the data in the literature, it is recommended that family members and coaches organize awareness-raising events by the relevant sports federations or the ministry of sports, in order to have different effects of substance/exercise addiction in cases such as age and personal income variables.
- It is recommended that the subject of addiction should not be left only in the field of sports but should be moved to education and training institutions and awareness-raising activities should be started at an early age.
- It is recommended to carry out inspections at certain intervals (health control, pre- and post-competition sampling, etc.) for athletes to combat all kinds of substance use in the sports field.
- It is recommended to integrate sports into all methods applied for addiction treatment and to plan material and moral (family support work, psychological support, etc.) supports in this process in a way that will have a positive effect on the addict.
- Sports/exercise is a good tool to prevent any kind of addiction. However, it is necessary to raise awareness of coaches and parents about the negative situation and consequences of sports/exercise addiction.
- It is recommended to convey the harms of substance abuse to athletes with concrete examples.

- Conducting the study in different sports branches and populations of sports elements will contribute to the science of sports.

Ethics Text

In this article, during the research process, journal writing rules, publication principles, research and publication ethics rules, journal ethics rules were followed. Responsibility for any violations that may arise regarding the article belongs to the author. In the scope of the research ethics committee approval was obtained from Bayburt University Rectorate Ethics Committee. (Date January 7, 2021 and number E-51694156-050.99-644). Also Informed consent was obtained from the participants.

Conflict Of İnterest: There is no personal or financial conflict of interest between the authors in this study.

Author Contribution Rate: In this study, the contribution rate of the first author is 50%, while the contribution rate of the second author is 50%.

REFERENCES

Akgöl, Ö. (2019). *Egzersiz yapan yetişkinlerin egzersize olan bağımlılık düzeylerinin incelenmesi*. Yüksek Lisans Tezi, Manisa Celal Bayar Üniversitesi, Manisa.

Aktürk, A. (2017). *Yaşlı adayı ve yaşlılarda egzersiz güdülenmesi ve egzersizde temel psikolojik ihtiyaçların incelenmesi.* Yüksek Lisans Tezi, Kırıkkale Üniversitesi, Kırıkkale.

Bavlı, Ö., Işık, S., Canpolat, O., Aksoy, A., Bilgetekin, B. G., Gültekin, K., Katra, H., Uzun, M., & Ödemiş, M. (2015). Dansçilarda egzersiz bağimliliği semptomunun incelenmesi. *Uluslararası Spor, Egzersiz & Antrenman Bilimi Dergisi, 1*(2), 120-124.

Beaudoin, C. M. (2006). Competitive orientations and sport motivativation of professional women football players: an internet survey. *Journal of Sport Behavior, 29*(3), 201-212.

Birgönül, Y. (2019). *Tenis sporuna yönelik egzersiz bağımlılığı ve huzur ilişkisi*. Yüksek Lisans Tezi, Balıkesir Üniversitesi, Balıkesir.

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2014). Bilimsel Araştırma Yöntemleri (17. Baskı). Ankara: *Pegem Akademi*, s. 24.

Coverley Veale, D. M. (1987). Exercise dependence. *British Joumal of Addiction, 82*(7), 735-740.

Cresswell, J. W. (2012). Educational research: planning, conducting and evaluating qualitative and quantitative research (4th ed.). Boston: *Pearson Education Inc*.

Çavuşoğlu, G., & Yılmaz, A. K. (2020). Üniversite öğrencilerinin egzersizde motivasyonel düzenleme ve sosyal fizik kaygı düzeylerinin incelenmesi. *Spor Eğitim Dergisi, 4*(2), 106-114.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: human needs and the self determination of behavior. *Psychological Inquiry, 11*(4), 227-268.

Demirel, H. G. (2019). *Üst düzey sporcuların egzersiz bağımlılık düzeylerinin incelenmesi*. Yüksek Lisans Tezi, Gazi Üniversitesi, Ankara.

Er, K. (2020). *Bireysel ve takım sporları ile ilgilenen master sporcularda egzersiz bağımlılığının incelenmesi*. Yüksek Lisans Tezi, Muğla Sıtkı Koçman Üniversitesi, Muğla.

Ersöz, G., Aşçı, H., & Altıparmak, E. (2012). Egzersizde davranışsal düzenlemeler ölçeği-2: geçerlilik ve güvenilirlik çalışması. *Türkiye Klinikleri Spor Bilimleri Dergisi, 4(*1), 22-31.

Erşen, K. (2019). *Egzersizde hedef yönelimi, davranışsal düzenlemeler ve psikolojik ihtiyaçların ilişkisinin araştırılması*. Yüksek Lisans Tezi, Afyon Kocatepe Üniversitesi, Afyon.

Eysenck, H. J. (1997). Addiction, personality and motivation. *Human Psychopharmacology, 12*(2), 79-87.

Gümüş, E. (2017). *Egzersizde motivasyonel düzenlemelerin ve sosyal fizik kaygı düzeyinin, yaşam kalitesi bağlamında incelenmesi*. Yüksek Lisans Tezi, Afyon Kocatepe Üniversitesi, Afyon.

Gün, A. (2018). *Beden eğitimi ve spor yüksekokulu öğrencilerinin egzersiz bağımlılık durumlarına göre fiziksel aktivite ve vücut kitle indekslerinin karşılaştırılması*. Yüksek Lisans Tezi, Erzincan Binali Yıldırım Üniversitesi, Erzincan.

Güven, N. K. (2019). *Fiziksel aktivite düzeylerine göre egzersiz yapan bireylerin bedeni beğenme ve egzersiz bağımlılığının değerlendirilmesi*. Yüksek Lisans Tezi, Ege Üniversitesi, İzmir.

Karasar, N. (2012). Bilimsel Araştırma Yöntemi (23. Baskı). Ankara: *Nobel Yayın Dağıtım*, s. 77.

Kaya, Ö. (2019). *Öğretmen adaylarının egzersiz bağımlılıkları ve egzersize yönelik metaforik algıları*. Yüksek Lisans Tezi, Gazi Üniversitesi, Ankara.

Konuş, N. D. (2019). *Aktif sporcular ile spor yapmayı bırakmış bireylerin egzersiz bağımlılık düzeyleri ve spor kaynaklı etkilerinin incelenmesi (karma model).* Yüksek Lisans Tezi, Niğde Ömer Halisdemir Üniversitesi, Niğde.

Lichtenstein, M. B., & Hinze, C. J. (2020). Exercise addiction. *Adolescent Addiction*, 265–288.

Özay Köse E., & Gül Ş. (2018). Madde bağımlılığı farkındalık ölçeği: geçerlik ve güvenirlik çalışması. *İnönü Üniversitesi Eğitim Fakültesi Dergisi, 19*(3), 41-56. DOI: inuefd.327521

Paksoy, S. M. (2021). *Spor bilimleri alanında öğrenim gören üniversite öğrencilerinin egzersiz bağımlılığı düzeylerinin incelenmesi (Kahramanmaraş ili örneği).* Yüksek Lisans Tezi, Kahramanmaraş Sütçü İmam Üniversitesi, Kahramanmaraş.

Palmer, J., Vacc, N., & Epstein, J. (1988). Adult inpatient alcoholics: physical exercise as a treatment intervention. *Journal of Studies on Alcohol, 49*, 418–421.

Pelletier, L.G., Fortıer, M.S., Vallerand, R.J., Brıere, N.M. (2001). Associations among perceived autonomy support, forms of self-regulation, and persistence: a prospective study. *Motivation and Emotion, 25*: 279-306.

Sağlık Bakanlığı, Halk Sağlığı Genel Müdürlüğü, Uyuşturucu ile Mücadele Ulusal Strateji Belgesi ve Eylem Planı Erişim Tarihi: 01.01.2021, https://hsgm.saglik.gov.tr/tr/bagimliliklamucadele-haberler/2018-2023-uyu%C5%9Fturucu-ile-m%C3%BCcadele-ulusal-strateji-belgesi-ve-eylem-plan%C4%B1.html.

Smith, D., & Hale, B. (2005). Exercise-dependence in bodybuilders: antecedents and reliability of measurement. *Journal of Sports Medicine and Physical Fitness, 45*(3), 401-408.

Tekkurşun Demir, G., Hazar, Z., & Cicioğlu, H. İ. (2018). Egzersiz bağımlılığı ölçeği (EBÖ): geçerlik ve güvenirlik çalışması. *Kastamonu Education Journal, 26*(3), 865-874.

Terry, A., Szabo, A., & Griffiths, M. (2004). The exercise addiction ınventory: a new brief screening tool. *Addiction Research And Theory, 12*(5), 489-499.

Türkmen, M., Zorba, E., Aydos, L., Akman, O., & Yıldız, M. (2021). Antrenörlerin egzersiz bağımlılık düzeylerinin bazı değişkenlere göre incelenmesi. 4. Uluslararası Herkes İçin Spor Kongresi'nde sunulmuş sözlü bildiri. Ankara: Gazi Üniversitesi.

Uzun, U. (2019). *Spor bilimleri eğitimi alan yükseköğretim öğrencilerinin egzersiz bağımlılığının incelenmesi*. Yüksek Lisans Tezi, Trakya Üniversitesi, Edirne.

Yeltepe, H. (2010). *Alkol ve madde bağımlılığı tedavisi gören yetişkinlerde düzenli egzersizin depresyon ve yaşam kalitesine etkisi*. Doktora Tezi, Marmara Üniversitesi, İstanbul.

Yıldızçiçek, C. (2019). *Psikolojik bir rahatsızlık olan egzersiz bağımlılığının öz yeterlilik ile ilişkisinin incelenmesi*. Yüksek Lisans Tezi, Kütahya Dumlupınar Üniversitesi, Kütahya.

Genişletilmiş Özet

Çalışmanın Amacı

Egzersiz olgusunun insanın bedensel, ruhsal ve sosyal sağlığına olan faydaları konu ile ilgili çalışmalarla sabittir. Ancak egzersizin konu edinildiği çalışmalarda muhtemel zararlarına yeteri kadar değinilmediği düşünülmektedir. Bu araştırmanın temel amacı sporcuların egzersize yönelik güdülenme durumlarının ve buna bağlı oluşabilecek bağımlılık durumunun tespiti ve madde bağımlılığı farkındalık düzeyleri arasındaki ilişkiyi araştırmaktır.

Araştırma Soruları:

Araştırmanın soruları aşağıdaki gibidir;

Katılımcıların yaş, spor yaşı, kişisel gelir, aile geliri ve haftalık antrenman saati değişkenleri ile egzersiz bağımlılığı düzeyleri arasında ilişki var mıdır?

Katılımcıların egzersiz bağımlılığı düzeyi ile madde bağımlılığı farkındalık düzeyleri ve egzersizde davranışsal düzenlemeleri arasında ilişki var mıdır?

Katılımcıların yaş, kişisel gelir, aile geliri ve haftalık antrenman saati değişkenleri ile egzersizde davranışsal düzenlemeleri arasında ilişki var mıdır?

Katılımcıların spor yaşı, anne eğitim durumu ve baba eğitim durumu değişkenleri ile madde bağımlılığı farkındalık düzeyleri arasında ilişki var mıdır?

Literatur Araştırması: Egzersiz alışkanlığının kişide azalmasına eşlik eden birtakım olumsuzluklar, fiziksel aktivite davranışlarının başlamasını, yönlenmesini ve sürdürülmesini etkileyen niteliklere yönelik güdülenmenin ihtiyacını ve önemini beraberinde getirmiştir (Beaudoin, 2006, s. 202). Bahsi geçen bu güdülenmenin egzersize yönelik gerçekleşmesi için bireyde içsel ve dışsal faktörler etkilidir. Özgür irade teorisinde (Self-Determination Theory)

bahsedildiği gibi bu faktörler, birey bu faktörleri bir ödül kaynağı olarak algılar ve tercihlerini kendi kontrolünde yapar. Yapılan tercihler ise kişinin olumlu egzersiz alışkanlıklarını edinmesinde, hangi sıklıkta, hangi tür egzersize katılacağını tercih etme sürecinde etkin rol oynar (Deci, & Ryan, 2000, s. 230). Güdü, egzersiz noktasında kişinin uyarılmışlık düzeyinin artışına neden olur. Güdülenen kişi yaptığı egzersizden haz alır ve sürdürmeye devam eder. Ancak bu durum bazen kompulsif bir eylem halini alarak kişiye zarar verebilecek seviyelere gelebilir. Literatürde bu zarar verici davranış bozuklukları "koşma bağımlılığı", "morbid egzersiz" ve "koşan anoreksikler" kavramları ile tanımlanırken şimdilerde "egzersiz bağımlılığı" kavramı ile anılmaya başlanmıştır (Coverley Veale, 1987, s. 736). Egzersiz bağımlılığı belirli bir spor branşına özgü olmayıp çeşitli spor dallarında da meydana gelebildiği gerçeği ilgili araştırmalarla sabittir (Smith, & Hale, 2005, s. 407). Madde bağımlılığı ise, "Bitkisel kökenli veya kimyasal yollarla oluşturulmuş sentetik moleküllerden elde edilen, merkezi sinir sistemine fiziksel veya ruhsal yönde sakinleştirici etkisi olan, bireyde düzenli alıma bağlı olarak zamanla daha fazla alma isteği uyandıran ve alınmadığında eksiklik belirtileri gösteren tüm maddelerin yıkıcı sonuçlarına rağmen kullanıma devam edilmesi" şeklindeki ifadelerle tanımlanabilir. Madde bağımlılığı kişide yalnızca fizyolojik tahribata neden olmaz, beraberinde kişide sosyal, zihinsel, maddi ve güven sorunlarına neden olabilir. Yani kişi beden ve zihin sağlığına verdiği zarar kadar toplum içerisinde de kimliğine ve konfor alanına madde bağımlısı olarak zarar vermektedir. Çeşitli çalışmalar, egzersiz sıklığının artışının farklı bağımlılık sahibi kişilerin psikolojik sağlıkların olumlu etkiye sahip olduğunu rapor etmiştir. Palmer, Vacc ve Epstein'ın (1988) araştırmalarında, egzersiz esnasında depresyon ve durumluk kaygıda azalma görüldüğü rapor edilmiştir. Yerli literatürde ise Yeltepe (2010), düzenli fiziksel egzersizin bağımlı kişilerde kaygı seviyesinin düşmesinde etkili olduğunu, depresyon düzeyinde azalma, refah seviyesinde artış gibi pozitif yönlü değişimlere katkıda bulunduğunu belirtmiştir. Madde kullanımının zararları ve düzenli egzersizin faydaları, ilgili literatürde yer alan araştırmalara dayanarak şüphesiz sabittir. Öyle ki madde bağımlılığı hakkında kişinin farkındalığının yüksek olmasının ve düzenli egzersize katılım sağlamasının kazanımı çok olacaktır. Aynı zamanda bu kazanımlar eşliğinde yordanabilir ki kişinin egzersizde davranışsal düzenlemesi için de olumlu sonuçlar doğurabilir. Tüm bu veriler referans alınarak araştırmanın en temel amacı; halter ve boks sporcularının egzersiz bağımlılığı ve egzersizde davranışsal düzenlemeleri ile madde bağımlılığı farkındalıkları arasındaki ilişkinin incelenmesidir.

Yöntem: Bu çalışmanın amacına ulaşmak için tarama modelinden yararlanılmıştır. Araştırma grubunu 333 halter ve boks sporcusu oluşturmaktadır. Araştırma çerçevesinde elde edilecek verilere ulaşmak için dört farklı form kullanılmıştır. Bu formlar; "Kişisel Bilgi Formu", "Egzersiz Bağımlılığı Ölçeği", "Egzersizde Davranışsal Düzenlemeler Ölçeği-2" ve "Madde Bağımlılığı Farkındalık Ölçeğidir".

Sonuç ve Değerlendirme: Sonuç olarak, egzersiz sırasında oluşan güdü kompulsif bir eylem halini aldığında, bireyde egzersiz bağımlılığı başladığı ve egzersiz bağımlısı kişilerin, madde bağımlılığı farkındalıklarının daha yüksek olduğu düşünülmektedir.