

JOURNAL OF SPORTS SCIENCE ACADEMY

e-ISSN: 3062-2883 https://ssajournal.com DOI: 10.5281/zenodo.14756878

Original Article

Qualitative Research on the Experiences of Exercise-Addicted Individuals

Ahmet Yasuntimur^{1*}, Hüseyin Karayünlü², Vehbi Bayhan³

- ¹ Department of Sociology, İnönü University, Malatya- 44050, Türkiye.
- ²Department of Crime Studies, Turkish National Police Academy, Ankara- 06834, Türkiye.
- ³ Department of Sociology, Bandırma Onyedi Eylül University, Balıkesir, 10200- Türkiye.
- *Correspondence: Ahmet Yasuntimur; ahmetyasuntimur@gmail.com

Abstract

With the increasing scholarly focus on exercise addiction, the lived experiences of individuals affected by this condition remain underexplored. Existing studies have predominantly concentrated on screening tools and quantitative scale outcomes, often failing to thoroughly examine the causal relationships and the lived realities associated with exercise addiction. This underscores the importance of conducting qualitative and in-depth investigations to develop a comprehensive understanding of the phenomenon. Accordingly, this study aims to provide an alternative to the predominantly quantitative focus in the literature by analyzing the perspectives and experiences of individuals with exercise addiction and offering new insights into its psychosocial dynamics. Designed from a phenomenological perspective, the study collected data through in-depth interviews using a semi-structured interview form. The study group consists of 8 individuals residing in Malatya who identify themselves as exercise addicts. Findings revealed that while participants initially engaged in exercise for health and emotional benefits, their habits evolved into compulsive behaviors characterized by excessive frequency, prolonged durations, and withdrawal symptoms when unable to exercise. This addiction led to paradoxical effects, providing initial well-being but eventually causing physical exhaustion, psychological distress, and disruptions in social relationships. These results underscore the need for increased awareness, the development of diagnostic criteria, and the implementation of interventions to balance the benefits of exercise with strategies to prevent addic-

Keywords: Exercise addiction, Behavioral addiction, Exercise psychology.

Introduction

Although exercise provides physical and psychological benefits, excessive engagement can lead to exercise addiction (EA) (Weinstein & Szabo, 2023). In modern society, the growing popularity of physical activity has, for some individuals, turned exercise from a healthy habit into an addiction that negatively affects their lives. EA is defined as a behavior characterized by excessive exercise, loss of control, and negative consequences in the physical, psychological, or social domains of life (Juwono & Szabo, 2021; Cook et al., 2014). This condition manifests in individuals as compulsive and excessive exercise habits (Lui et al., 2023). Symptoms include exercising without rest, injuries, a focus on intense workouts, and withdrawal symptoms when unable to exercise (Adams, 2013). These symptoms can reduce the quality of life, leading to physical health issues and psy-

Original Hiller

Citation: Yasuntimur, A., Karayünlü, H., & Bayhan, V. (2025). Qualitative research on the experiences of exercise-addicted individuals. *Journal of Sports Science Academy*, 1(1), 19-30. https://doi.org/10.5281/zepodo.14756878

Received: 08.01.2025

Revised: 01.02.2025

Accepted: 03.02.2025

Published: 11.03.2025

This article is licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0).



chological distress. Like other addictions, EA is described as comprising six core components: salience, tolerance, mood modification, withdrawal, conflict, and relapse (Griffiths et al., 2005).

Research has shown that EA can have significant consequences at both the individual and public health levels. However, the nature, effects, and risk factors of EA remain poorly understood. Research on EA has developed since the 1970s, including case studies (Bamber et al., 2003), cross-sectional studies (İlbak & Altun, 2020), and systematic reviews (Colledge, 2020; Di Lodovico et al., 2019). These studies have examined the effects of EA on various groups, such as self-esteem (Katra, 2021), eating and substance use disorders (Cook, 2014), elite athletes (Cicioğlu et al., 2019; Demirel & Cicioğlu, 2020), coaches (Arslanoğlu et al., 2021), fitness participants (Kayhan et al., 2021; Özpolat & Hazar, 2023; Polat & Yıldırım Şimşek, 2015), and swimmers (Batu & Aydın, 2020). Recently, the relationship between EA and psychological factors among individuals engaging in fitness activities has been explored (Aygün & Karayol, 2024; Erdoğan et al., 2024).

However, there is no official clinical diagnosis for EA (Chhabra et al., 2024). For example, prominent medical references such as the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR; American Psychiatric Association, 2022) and the International Classification of Diseases, Eleventh Revision (World Health Organization, 2018) do not mention this disorder (Dinardi et al., 2021). This omission poses significant challenges for diagnosis and treatment processes and limits the comprehensive understanding of EA in scientific contexts. The lack of a clinical diagnosis is attributed to unclear diagnostic criteria and limited scientific evidence (Juwono & Szabo, 2020; Szabo & Kovacsik, 2019). Results from screening tools for assessing EA risk may also be influenced by individual traits such as passion, commitment, or perfectionism (Szabo & Demetrovics, 2022).

Previous studies have predominantly focused on screening tools and absolute scale results. These studies often fall short in explaining the causal relationships and lived experiences of individuals with EA. Therefore, qualitative and in-depth research is needed to better understand EA. In this context, this study aimed to provide an alternative approach to the quantitative focus in the literature by analyzing the perspectives and experiences of individuals with EA and shedding light on its psychosocial dynamics.

Material and Methods

Research Design

This study adopted a qualitative research methodology. This approach, characterized by its flexible structure and exploratory nature, was chosen to gain an in-depth understanding of under-researched topics and to develop new perspectives throughout the process (Neuman, 2012). The study is based on a case study design (Fossey et al., 2002). Known as the phenomenological approach, this design aims to thoroughly investigate phenomena that are noteworthy and broadly recognized yet require detailed analysis (Patton, 2002). Data collection began after approval was obtained from the İnönü University Scientific Research and Publication Ethics Committee (Session Date: 03-12-2024, Session Number: 21, Decision Number: 15).

Study Group

The study employed a purposive sampling method for participant selection (Patton, 2002). The inclusion criteria were defined as participants identifying themselves as exercise addicts, being over the age of 18, and voluntarily agreeing to participate in the study.

Among the inclusion criteria for this study, participants were required to have a minimum of three years of regular exercise experience and to engage in exercise at least three times per week over the past year. All participants were fully informed about the purpose, scope, and procedures of the research and provided their written consent by signing the participant consent form. To maintain confidentiality, participants were anonymized using coded identifiers based on their participant number, such as P1, P2, and P3. The characteristics of the study group are shown in table 1.

Table 1. Characteristics of the study grou

Participant Code	Gender	Age	Sports Discipline	Exercise Duration (Years)
P1	Male	28	Boxing	6
P2	Male	35	Swimming	10
Р3	Male	18	Football	5
P4	Male	40	Running	15
P5	Male	22	Basketball	8
P6	Male	50	Cycling	20
P7	Male	30	Bodybuilding	12
P8	Male	45	Tennis	18

When Table 1 is examined, it can be observed that all participants were male, with ages ranging from 18 to 50 years. The duration of exercise varied between 5 and 20 years. The sports disciplines included boxing, swimming, football, running, basketball, cycling, bodybuilding, and tennis.

Data Collection Tools

In this study, data were collected through a semi-structured interview form. The interview questions were developed following an extensive literature review and were shaped with feedback from both regular exercisers and field experts. The interview form was reviewed and validated by two independent experts in the field to ensure its content validity and appropriateness for the research objectives. The interviews were recorded with their permission. The interviews were conducted at locations selected by the participants, ensuring they felt comfortable and at ease during the process, such as cafes, restaurants, or similar neutral settings. To maintain consistency, all interviews adhered to a semi-structured format. The data collection process concluded when saturation was reached, and each interview lasted approximately 25 minutes. The interview questions are presented in figure 1.

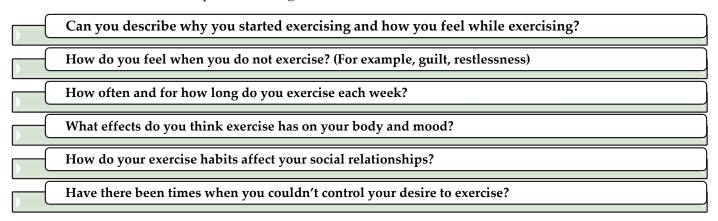


Figure 1. Interview questions.

Data Analysis

The audio recordings of each interview were transcribed into written texts by the researcher. After the transcription process was completed, the collected data were consolidated into a comprehensive document. These documents were analyzed using the thematic analysis method (Braun & Clarke, 2006). Data analysis stages are presented in Figure 2.

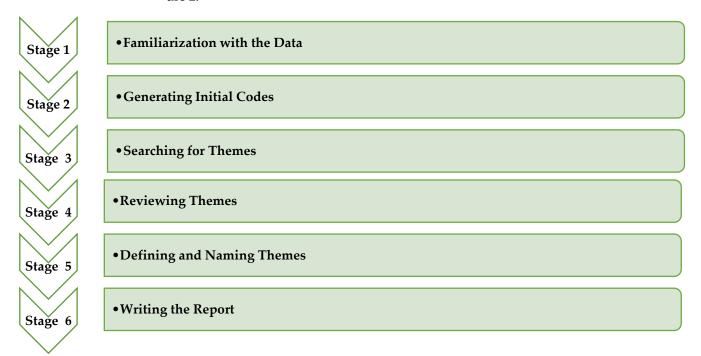


Figure 2. Stages of thematic analysis.

During the analysis process, the identified themes were constructed inductively, adhering closely to the participants' narratives and ensuring their voices were authentically represented. The thematic analysis was conducted by two researchers, who independently coded the data to enhance trustworthiness and inter-coder reliability. In instances where discrepancies in theme identification arose, the researchers engaged in reflective discussions to reconcile differences and achieve consensus, thereby ensuring the analytical process remained rigorous and grounded in the data. Various methods were applied to enhance the reliability of the research. Each phase of the process was carefully detailed, and the data obtained from the participants were thoroughly reviewed. Comparisons were made between participants' statements, ambiguities were clarified, and the consistency of the data was verified by asking the same questions in different ways.

Results

The findings of this study are categorized under five main themes, reflecting the multifaceted experiences of individuals with exercise addiction. These themes include motivations for starting exercise and feelings during exercise, emotional and physical distress when unable to exercise, frequency and duration of exercise routines, perceived effects of exercise on physical and mental health, and the impact of exercise habits on social relationships. Together, these themes provide a comprehensive understanding of the psychosocial dynamics of exercise addiction, illustrating how an initially beneficial activity can

evolve into a compulsive behavior with profound implications for individuals' well-being and social lives.

Motivations for Starting Exercise and Feelings During Exercise

Participants shared various reasons for starting exercise, including physical and psychological needs. Over time, exercise evolved from a routine habit into a dependency:

"Boxing is not just a sport for me; it's a way of life. I started to learn self-defense, but now I feel incomplete without stepping into the ring." (P1)

"I started playing football to burn off energy, but now it's a daily routine. When I don't play, I feel like something is missing." (P3)

"Swimming has always been a sanctuary for me. Being in the water makes me feel peaceful, but now I feel restless on days I don't train." (P2)

"I began running to lose weight, but now it feels like an addiction. On days I don't run, I feel irritable and unsettled." (P4)

Feelings When Unable to Exercise

Participants reported experiencing emotional and physical discomfort when they could not engage in exercise, highlighting one of the critical indicators of exercise addiction:

"If I miss a training day, it feels like I've wasted the entire day." (P7)

"When I don't run, my body feels restless, and my mind constantly reminds me that something is missing." (P4)

"On days I don't cycle, I feel physically sluggish and emotionally uneasy." (P6)

"When I skip swimming, it feels like I've done something wrong. This guilt pushes me back to the pool." (P2)

Frequency and Duration of Exercise

Individuals with exercise addiction tend to engage in frequent and prolonged exercise sessions, often neglecting the need for rest days:

"I train six days a week for 1-2 hours each day. I know I should rest, but I find it hard to stop." (P7)

"I run 5-6 days a week, covering about 5 kilometers each session. It's become a part of who I am." (P4)

"Cycling is a passion for me. I go on long weekend rides and even sneak in shorter ones during the week. On average, I cycle 10 hours weekly." (P6)

"I lose track of time while playing basketball. I train five days a week, with each session lasting around two hours." (P5)

Effects of Exercise on Physical and Mental Health

While exercise was initially perceived as a source of physical and mental well-being, its excessive nature led to notable adverse effects:

"Boxing makes me feel strong, but now I do it not because I need the strength but because I'm addicted to it." (P1)

"Running calms my mind, but it also exhausts my body. It's hard to stop, even when I know I should." (P4)

"Swimming keeps my body flexible and strong, but I fear losing this strength if I skip a session." (P2)

"Bodybuilding boosted my confidence, but it also took a toll on my social life." (P7)

Impact on Social Relationships

Participants noted that their exercise routines significantly influenced their social lives. While some formed social bonds within their exercise environments, others reported neglecting their relationships outside of these contexts:

"The friends I've made in the boxing gym feel like family. However, I realize I'm drifting away from my other social connections." (P1)

"Cycling tours have allowed me to meet new people, but I don't spend enough time with my family." (P6)

"I've built strong bonds with my basketball teammates, but I don't have much of a social life outside of it." (P5)

"Running groups are my primary social circle now, but I feel it distances me from other relationships." (P4)

Discussion

This qualitative study provided an in-depth exploration of the lived experiences of individuals with exercise addiction, shedding light on its physical, psychological, and social impacts. Participants shared that their initial motivations for engaging in exercise were rooted in physical and psychological needs. Initially, exercise was perceived as a health-promoting activity and a means to relieve stress, but over time, these activities transformed into an addiction. This finding is consistent with previous studies (İlbak & Altun, 2020; Weinstein & Szabo, 2023) that indicate, although individuals may experience positive outcomes initially, these habits become compulsory as time passes.

The inability to engage in exercise caused significant emotional and physical discomfort among participants. Most reported feeling irritability, restlessness, and internal distress when they were unable to exercise. This aligns with earlier findings, where the inability to exercise was associated with psychological issues such as anxiety and depression (Kun et al., 2022; Weinstein et al., 2015). In a study conducted by İlbak et al. (2025), individuals with exercise addiction were found to crave exercise due to concerns about the deterioration of their current physical appearance or exercise regimen.

Participants with exercise addiction reported engaging in physical activity five to six days a week, for several hours at a time, resulting in exercise becoming a lifestyle; this behavior demonstrates that individuals with exercise addiction typically engage in longer and more frequent exercise sessions compared to average individuals, exhibiting addictive behaviors. These findings are in line with the results of Berengüí et al. (2019), who found that individuals with a higher level of addiction exercised more days per week and spent more time on exercise. Additionally, a study by Özpolat and Hazar (2019) highlighted a positive and statistically significant relationship between exercise addiction, the duration of exercise, and concerns about social appearance.

While exercise was initially believed to have a health-improving effect, it was observed that excessive exercise led to physical fatigue, muscle pain, and psychological burnout among participants. Although exercise has beneficial effects, when taken to extremes, it can have negative consequences on both physical and psychological health, as highlighted in numerous studies addressing exercise addiction. Research has found that depressive disorders are highly prevalent among individuals with exercise addiction (Meyer et al., 2021; Tschopp et al., 2023). Furthermore, studies on recreational exercisers have shown that higher levels of depression and anxiety are linked to exercise addiction (Alcaraz-Ibáñez et al., 2022; Costa et al., 2013). In the study by Baltes-Flueckiger et al. (2024), it was found that depressive symptoms are a stronger predictor of exercise addiction in frequent exercisers than symptoms of Attention Deficit Hyperactivity Disorder (ADHD). Although individuals with ADHD may engage in intensive exercise, they may be at a lower risk of developing exercise addiction compared to those with depression. These findings contribute to understanding the complex psychiatric profile of individuals with exercise addiction and emphasize the need for further research to explore the relationship between mental disorders and exercise addiction.

Exercise addiction also significantly affected participants' social relationships. They reported forming new social connections within exercise environments, but these relationships weakened their connections with the outside world, particularly within their families. This finding is consistent with the study by Egorov and Szabo, (2013) suggesting that exercise addiction may lead to social isolation, with individuals focusing solely on their exercise community while neglecting other social ties. The study by Koçyiğit et al. (2022) also concluded that an increase in addiction levels among athletes can lead to physical, psychological, and social problems that negatively impact their performance.

This study has several limitations. Firstly, the participant group was identified as exercise addicts based solely on self-declaration, without formal diagnostic tests. Additionally, as a qualitative study, the findings are not generalizable due to the small sample size and the subjective nature of the data. Moreover, all participants were male, limiting the applicability of the results to other gender groups.

Conclusions

The findings of this study provide a comprehensive understanding of the psychosocial dynamics of exercise addiction, highlighting the multifaceted experiences of individuals engaged in compulsive exercise behaviour. The study revealed that exercise, initially undertaken for physical and psychological needs, gradually evolved into an addiction characterized by frequent, prolonged sessions, emotional distress when unable to exercise, and significant impacts on social relationships. While participants initially sought exercise for health improvement and stress relief, it became a lifestyle, with exercise often surpassing its original purpose of well-being. This transformation into compulsive behaviour reflects the key components of addiction, as participants exhibited withdrawal symptoms, such as irritability and restlessness, when they could not exercise.

The study also demonstrated that excessive exercise, although beneficial in moderation, can lead to negative physical and psychological consequences, aligning with previous research indicating the association between exercise addiction and mental health issues, such as depression and anxiety. Moreover, the social implications of exercise addiction were profound, as participants reported neglecting relationships outside their exercise environments, reinforcing the notion that exercise addiction can lead to social isolation.

These findings contribute to a deeper understanding of the complex relationship between exercise, addiction, and mental health. However, the study's limitations, such as the reliance on self-declaration for identifying exercise addiction, the small sample size, and the exclusive focus on male participants, suggest the need for further research to explore the diverse experiences of individuals with exercise addiction, particularly across different genders and using more robust diagnostic tools. Future studies could also investigate the long-term psychological and social effects of exercise addiction and its relationship with other mental health disorders.

Author Contributions: Authors of this article made the following contributions: conceptualization, A.Y. H.K. V.B.; methodology, A.Y. H.K. V.B.; software, A.Y. H.K. V.B; validation, A.Y.V.B.; formal analysis, A.Y.V.B.; investigation, A.Y.V.B.; resources, A.Y. H.K.; data curation, A.Y.V.B.; writing—original draft preparation, A.Y. H.K.; writing—review and editing A.Y.V.B.; visualization, A.Y. H.K.; supervision, V.B.; project administration, A.Y.V.B. All authors have read and agreed to the published version of the manuscript.

Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Ethical Approval Statement: This study was approved by the İnönü University Scientific Research and Publication Ethics Committee, Social and Humanities Sciences Subcommittee, on 03 December 2024, with decision number 15 taken during session 21.

Informed Consent Statement: Informed consent was obtained from all participants involved in the study.

Conflict of Interest: The authors declare no conflicts of interest regarding this study.

Data Availability Statement: Data supporting this study is available from the authors upon reasonable request.

References

Adams, J. (2013). Exercise dependence. In P. M. Miller (Ed.), Comprehensive addictive behaviors and disorders (Vol. 1, pp. 827-835). Academic Press.

Alcaraz-Ibáñez, M., Paterna, A., Sicilia, Á., & Griffiths, M. D. (2020). Morbid exercise behaviour and eating disorders: A meta-analysis. *Journal of Behavioral Addictions*, 9(2), 206–224. https://doi.org/10.1556/2006.2020.00027

American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). American Psychiatric Association.

Arslanoğlu, C., Acar, K., Mor, A., & Arslanoğlu, E. (2021). Geleceğin antrenörlerinde egzersiz bağımlılığı. *SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi*, 19(1), 137-146. https://doi.org/10.33689/spormetre.758693

Aygün, G., & Karayol, M. (2024). Fitness merkezlerinde spor yapan bireylerin egzersiz bağımlılığı ile depresyon, anksiyete ve stres düzeyleri arasındaki ilişkinin incelenmesi. *International Journal of Sport Exercise and Training Sciences - IJSETS*, 10(1), 62-72. https://doi.org/10.18826/useeabd .1447088

Baltes-Flueckiger, L., Wagner, A., Sattler, I., Meyer, M., Tschopp, A., Walter, M., & Colledge, F. (2024). How depression and ADHD relate to exercise addiction: A cross-sectional study among frequent exercisers. *Frontiers in Psychology*, 15, 1427514. https://doi.org/10.3389/fpsyg.2024.1427514

Batu, B., & Aydın, A. D. (2020). Elit yüzme sporcularının egzersiz bağımlılığı düzeylerinin incelenmesi. *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, 5(4), 399-412. https://doi.org/10.31680/gaunjss.805038

Berengüí, R., López-Gullón, J. M., & Angosto, S. (2021). Physical sports activities and exercise addiction during lockdown in the spanish population. *International Journal of Environmental Research and Public Health*, 18(6), 3119. https://doi.org/10.3390/ijer.ph18063119

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Chhabra, B., Granziol, U., Griffiths, M.D. et al. (2024). Prevalence of the risk of exercise addiction based on a new classification: A cross-sectional study in 15 countries. *Int J Ment Health Addiction*, https://doi.org/10.1007/s11469-024-01322-z

Cicioğlu, H.İ., Tekkurşun Demir G., Bulğay, C., & Çetin E. (2019). Elit düzeyde sporcular ile spor bilimleri fakültesi öğrencilerinin egzersiz bağımlılığı düzeyleri. *Bağımlılık Dergisi*, 20(1), 12-20.

Colledge, F., Sattler, I., Schilling, H., Gerber, M., Pühse, U., & Walter, M. (2020). Mental dis-orders in individuals at risk for exercise addiction - A systematic review. *Addictive Behaviors Reports*, 12, 100314. https://doi.org/10.1016/j.abrep.2020.10031

Cook, B., Hausenblas, H., & Freimuth, M. (2014). Exercise addiction and compulsive exercising: Relationship to eating disorders, substance use disorders, and addictive disorders. In T. D. Brewerton & A. B. Dennis (Eds.), Eating disorders, addictions and substance use disorders: Research, clinical and treatment perspectives (pp. 127–144). Springer-Verlag Publishing/Springer Nature. https://doi.org/10.1007/978-3-642-45378-6_7

Costa, S., Hausenblas, H. A., Oliva, P., Cuzzocrea, F., & Larcan, R. (2013). The role of age, gender, mood states and exercise frequency on exercise dependence. *Journal of Behavioral Addictions*, 2, 216–223. https://doi.org/10.1556/JBA.2.2013.014

Creswell, J. W., & Creswell, J. D. (2018). *Research design qualitative, quantitative, and mixed methods approaches* (5th ed.). Los Angeles: SAGE Publications, Inc.

Demirel, H. G., & Cicioğlu, H. İ. (2020). Üst düzey sporcuların egzersiz bağımlılık düzeylerinin incelenmesi. *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, *5*(3), 242-254. https://doi.org/10.31680/gaunjss.737158

Di Lodovico, L., Poulnais, S., & Gorwood, P. (2018). Which sports are more at risk of physical exercise addiction: A systematic review. *Addictive Behaviors*, 93, 257-262. https://doi.org/10.1016/j.addbeh.2018.12.030

Dinardi, J. S., Egorov, A. Y., & Szabo, A. (2021). The expanded interactional model of exercise addiction. *Journal of Behavioral Addictions*, 10(3), 626–631. https://doi.org/10.1556/2006.2021.00061

Egorov, A. Y., & Szabo, A. (2013). The exercise paradox: An interactional model for a clearer conceptualization of exercise addiction. *Journal of Behavioral Addictions*, 2(4), 199–208. https://doi.org/10.1556/JBA.2.2013.4.2

Erdoğan, R., Türkoğlu, F., & Akbulut, T. (2024). Fitness merkezlerine giden bireylerde egzersiz bağımlılığı ve fiziksel görünüş mükemmeliyetçiliği arasındaki ilişkinin belirlenmesi: Tanımlayıcı araştırma. *Türkiye Klinikleri Journal of Sports Sciences*, *16*(2), 209-219. doi: 10.5336/sportsci.2023-101025

Griffiths, M. D. Szabo, A., & Terry, A. (2005). The exercise addiction inventory: a quick and easy screening tool for health practitioners. *British Journal of Sports Medicine*, 39(e30). https://doi.org/10.1136/bjsm.2004.017020

İlbak, İ., & Altun, M. (2020). Sedanter olmayan bireylerin egzersiz bağımlılığı düzeylerinin incelenmesi. Çanakkale Onsekiz Mart Üniversitesi Spor Bilimleri Dergisi, 3(1), 11-19.

İlbak İ., Yasuntimur, A., Stojanovic, S., Düz, S., Rydzik, Ł., & Cepicka, L. (2025) Craving forexercise due to the disruption of daily routineby an earthquake. *Frontiers in Sports and Active Living*, 6, 1508317.doi: 10.3389/fspor.2024.1508317

Juwono, I. D., & Szabo, A. (2021). 100 cases of exercise addiction: More evidence for a widely researched but rarely identified dysfunction. *International Journal of Mental Health and Addiction*, 19, 1799-1811.

Katra H. (2021). Egzersiz yapan bireylerde egzersiz bağımlılığı ve benlik saygısı. *Bağımlılık Dergisi*, 22(4), 370-378. https://doi.org/10.51982/bagimli.897106

Kayhan, R.F., Kalkavan, A., & Terzi E. (2021). Fitness salonlarında spor yapan bireylerin egzersiz bağımlılığı düzeyleri ve ilişkili değişkenler. *Bağımlılık Dergisi*, 22(3), 248-256. https://doi.org/10.51982/bagimli.893414

Koçyiğit, B., Pepe, O., İçen, & Şahin, İ. (2022) Elit bisikletçilerde egzersiz bağımlılığı düzeylerinin incelenmesi. *Düzce Üniversitesi Spor Bilimleri Dergisi*, 2(2), 119-127.

Kun, B., Urbán, R., Szabo, A., Magi, A., Eisinger, A., & Demetrovics, Z. (2022). Emotion dysregulation mediates the relationship between psychological distress, symptoms of exercise addiction and eating disorders: A large-scale survey among fitness center users. *Sport, Exercise, and Performance Psychology*, 11(2), 198-213. https://doi.org/10.1037/spy 0000274

Meyer, M., Sattler, I., Schilling, H., Lang, U. E., Schmidt, A., Colledge, F., & Walter, M. (2021). Mental disorders in individuals with exercise addiction-a cross-sectional study. *Frontiers in Psychiatry*, 12, 751550. https://doi.org/10.3389/fpsyt.2021.751550

Neuman, L. W. (2014). *Basics of social research: Qualitative & quantitative approaches* (3rd ed.). Harlow, England: Pearson Education Limited.

Özpolat, Z., & Hazar, Z. (2023). Fitness yapan bireylerin sosyal görünüş kaygısı, yaşam tatmini ve egzersiz bağımlılığı düzeylerinin bazı değişkenlere göre incelenmesi (Ağrı İli Örneği). Sivas Cumhuriyet University Journal of Sport Sciences, 4(1), 8-15.

Patton, M.Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). United Kingdom: Sage Publication.

Polat, E., & Yıldırım, K. Ş. (2015). Spor merkezlerindeki bireylerin egzersiz bağımlılığı düzeylerinin incelenmesi: Eskişehir ili örneği. *The Journal of Academic Social Science*, 3(15), 354-369. doi: 10.16992/ASOS.765

Szabo, A. & Demetrovics, Z. (2022). *Passion and addiction in sports and exercise*. New York: Routledge.

Szabo, A., & Kovacsik, R. (2019). When passion appears, exercise addiction disappears: Should hundreds of studies not considering passion be revisited? *Swiss Journal of Psychology, 78*(3-4), 137–142. https://doi.org/10.1024/1421-0185/a00022 8

Tschopp, A., Meyer, M., Sattler, I., Walter, M., & Colledge, F. (2023). Exercise Addiction and Major Depressive Disorder - Clinical Diagnoses and Longitudinal Course. *Addiction & Health*, 15(2), 144-148. https://doi.org/10.34172/ahj.2023.1404

Weinstein, A., & Szabo, A. (2023). Exercise addiction: A narrative overview of research issues. *Dialogues in Clinical Neuroscience*, 25(1), 1-13. https://doi.org/10.1080/19585969.2023.2164841

Weinstein, A., Maayan, G., & Weinstein, Y. (2015). A study on the relationship between compulsive exercise, depression and anxiety. *Journal of Behavioral Addictions*, 4(4), 315–318. https://doi.org/10.1556/2006.4.2015.034

World Health Organization (WHO). (2018). Global action plan on physical activity 2018–2030: More active people for a healthier world Retrieved April 23, 2024 from www.who.int/publications/i/item/97892415141