

PAPER DETAILS

TITLE: Examining the Relationship between Body Image and Psychological Resilience in Individuals Who Do Fitness as Recreational Activity





AUTHORS: Melih Seyrek,Nurgül Tezcan,Fadime Ekici,Merve Özyildirim

PAGES: 26-32

ORIGINAL PDF URL: <https://dergipark.org.tr/tr/download/article-file/3547732>



Examining the Relationship between Body Image and Psychological Resilience in Individuals Who Do Fitness as Recreational Activity

Melih SEYREK¹  Nurgül TEZCAN²  Fadime EKINCI³  Merve ÖZYILDIRIM⁴ 

¹ Sakarya University of Applied Sciences, Faculty of Sport Sciences, seyrekmelih@hotmail.com

² Sakarya University of Applied Sciences, Faculty of Sport Sciences, nurqultezcan@subu.edu.tr

³ Sakarya University of Applied Sciences, Faculty of Sport Sciences, fadime1ekici1@gmail.com

⁴ Sakarya University of Applied Sciences, Faculty of Sport Sciences merveozyildirim@subu.edu.tr

✉ Corresponding Author: seyrekmelih@hotmail.com

Please cite this paper as follows:

Seyrek, M., Tezcan, N., Ekinci, F., & Özyıldırım, M. (2023). Examining the Relationship between Body Image and Psychological Resilience in Individuals Who Do Fitness as Recreational Activity. *International Journal of Recreation and Sport Science*, 7(1), 26-32. <https://doi.org/10.46463/ijrass.1393236>

Article History

Received:
20.11.2023
Accepted:
20.12.2023
Available online:
20.12.2023



ABSTRACT

The aim of the study is to examine the relationship between body image and psychological resilience in individuals who do fitness as recreational activity. The study group consists of individuals residing in Sakarya who do fitness as recreational activity. In this context, a total of 197 voluntary participants, including 50 females (25.4%) and 147 males (74.6%), took part in the research. The data collection tools employed in the study included a Personal Information Form, Body Appreciation Scale (BAS), and Psychological Resilience Scale (PRS). The Personal Information Form gathered information on age, gender, years of exercise experience, weekly exercise frequency, and daily exercise duration. Skewness and kurtosis test results were examined to determine whether the scales were normally distributed. Based on the test results, it was established that the collected data exhibited normal distribution, and therefore, pearson correlation test was applied for the relationship analysis. Descriptive analyses involved calculating percentages, frequencies and arithmetic means. The findings revealed a low-level positive correlation between BAS and PRS. Consequently, it was determined that as the body image scores of individuals who do fitness as recreational activity increased, their psychological resilience scores also exhibited an increase. As a result, as the body image scores of individuals who do fitness as recreational activity increase, their psychological resilience scores also increase

Keywords: Fitness, body image, psychological resilience, recreational activity

INTRODUCTION

Leisure time is the time spent by an individual outside working hours to meet their basic needs. Additionally, individuals use this time of their own free will to maintain and further enhance their physical and mental well-being (Ardahan, 2016). For this purpose, activities carried out during leisure time encompass recreational activities. These types of activities cover various branches, including examples such as exercise, music, dance, painting, social activities, outdoor activities, indoor activities, and many more. Fitness is one of these branches. The Turkish Language Association (TDK) defines the

word "fitness" as "healthy living" (TDK, 2023). Conceptually, it signifies physical fitness, meaning "the capacity of the body to perform physical activities without pain or injury" (Demir, 2023). Fitness primarily involves exercises aimed at specific muscle work to improve muscle performance and enhance physical appearance (Pulur and Gedik, 2021).

Considering the impact of fitness on external appearance, the concept of body image comes into play. According to Grogan (2008), body image is related to how a person's body is perceived by others or how an individual perceives their own body. Featherstone (2010) describes body image as a

mirror held up to one's external appearance. Evaluating one's own body parts and having positive or negative thoughts about them is also defined as body image (Gündoğan, 2006). Additionally, body image encompasses various factors such as age, gender, weight, health, and social environment (Neagu, 2015). Furthermore, having a positive body image implies being satisfied with one's body (Cash, 2004). The ability of individuals to be content with their bodies is closely tied to maintaining a healthy psychology. At the core of being content with one's body is how individuals perceive their bodies. Studies have shown that individuals with a higher body image and satisfaction with their bodies generally have more positive thoughts about maintaining and improving their health (Khorshid et al., 2007).

Another variable, psychological resilience, is examined under the umbrella of the term "health." The intriguing aspect of the term health is that it encompasses meanings such as well-being, positive and negative emotional states, quality of life, life satisfaction, psychological well-being, and personal well-being, which, while not entirely the same, are highly interconnected terms. This is because each of these terms is contingent on conditions for the positive functionality of the individual (Özen, 2010). The ability of an individual to lead a healthy life, to go through various developmental stages in a healthy manner throughout their life, and to exhibit behavior appropriate for social responsibilities is dependent on a healthy self and self-development. From this perspective, psychological resilience is formed by several elements, including the development process evaluated with each individual's demonstrated competence and psychological forms, the nature of challenges faced by the individual, personal and societal values, personal disappointments, risks or protective factors, responsibilities or health-preserving elements imposed on the individual by the

environment, and the ability to adapt. The adaptation of individuals in terms of the mentioned components can be measured in a healthy manner (Bahadır, 2009). Considering that a healthy psychology fundamentally exists in a healthy body, fitness, body image, and psychological resilience are interlinked.

When reviewing the relevant literature, research exploring the individual and combined workings of body image and psychological resilience can be found (Young et al., 2022; Zaccagni and Gualdi-Russo, 2023; Toselli et al., 2022; Tsitskari, 2023; Aydemir et al., 2023; Kim et al., 2023; Zhao et al., 2022). However, the lack of studies on individuals who do fitness as recreational activity has highlighted the need for the current research. It is considered important to contribute to the literature and serve as a source for future studies. Based on this information, this study aims to examine the relationship between body image and psychological resilience in individuals who do fitness as recreational activity.

METHOD

Research Model

The "relational scanning model" was employed in the study. "Relational scanning models are research models designed to determine the presence and/or degree of co-variation among two or more variables" (Karasar, 2018).

Participants

The study group consists of individuals residing in Sakarya province who do fitness as recreational activity. A total of 197 participants, including 50 females (25.4%) and 147 males (74.6%), volunteered to participate in the research using the convenience sampling method.

Table 1. Istatistical description of the participants

	N	Min	Max	\bar{x}	Sd
Age	197	17	50	22,62	5,57
History of exercise (In years)	197	0,6	18	3,50	3,31
Weekly frequency of exercise (In days)	197	1	7	4,22	1,21

The participants had an average of age 22.62 ± 5.57 ; history of exercise average 3.50 ± 3.31 ; weekly frequency of exercise of 4.22 ± 1.21 ; and average daily duration of exercise 1.70 ± 0.65 .

Data Collection

Prior to commencing the research, the necessary research approval was obtained from the Sakarya University of Applied Sciences of Ethics Committee

on September 8, 2023, with document number E.96235. Data were collected online through Google Forms.

Measurement Tools

The "Personal Information Form," "Body Appreciation Scale (BAS)" and "Brief Resilience Scale (BRS)" were utilized for data collection.

Personal Information Form:

This form includes information such as gender, age, exercise history, weekly exercise frequency of exercise and daily duration exercise.

Body Appreciation Scale (BAS):

This scale aims to determine individuals' feelings, thoughts, and attitudes towards their bodies, as well as their levels of body appreciation. The original version of the scale was developed by Tylka and Wood-Barcalow (2015), by Anlı, Akin, Eker and Özçelik (2015) the Turkish version was adapted. The Body Appreciation Scale consists of a total of 10

items and is a single-dimensional scale without reverse-coded items. The scale is in a 5-point Likert format, with the lowest possible score being 10 and the highest score being 50. An increase in the obtained score indicates an increase in the individual's level of body appreciation (Anlı et al., 2015).

Brief Resilience Scale (BRS):

To determine the participants' levels of psychological resilience, the Brief Resilience Scale (BRS), developed by Smith et al. (2008) and adapted into Turkish by Doğan (2015), was utilized. The scale is a single-dimensional scale consisting of a total of 6 items, with the 2nd, 4th, and 6th items being reverse-coded. The scale is in a 5-point Likert format, with the lowest possible score being 6 and the highest score being 30. An increase in the obtained score indicates an increase in the individual's level of psychological resilience (Doğan, 2015).

Table 2. Reliability analysis results of the scales.

Scales	Item Numbers	Cronbach Alpha
Body Appreciation Scale	10	,90
Brief Resilience Scale	6	,71

When Table 2 is examined, it is observed that the Cronbach's alpha coefficient for the Body Appreciation Scale is 0.90, while for the Brief Resilience Scale, it is 0.71. Both scales having values above 0.70 indicate the reliability of the scales (Bland and Altman, 1997).

Statistical Analyses

The data collected online were transferred from an Excel file to the SPSS 22.0 package program and

prepared for analysis. Percentages, frequencies, and arithmetic means were calculated for descriptive statistics. Before deciding on statistical analyses, skewness and kurtosis values were examined to assess whether the scales exhibited a normal distribution. According to the test results, it was determined that the existing data fell between +1.5 and -1.5, indicating conformity to a normal distribution (Tabachnick and Fidell, 2013). Therefore, Pearson Correlation analysis was applied.

Table 3. Distribution of scale scores.

Scales	Item Numbers	Mean	Sd.	Sk.	Kr.
Body Appreciation	10	40,85	6,87	-0,53	-0,58
Brief Resilience	6	20,44	4,15	0,17	1,17

Sk.: Skewness; Kr.: Kurtosis

When Table 3 is examined it is observed, the mean value for the Body Appreciation Scale is 40.85,

while the mean value for the Brief Resilience Scale is 20.44.

RESULTS

This section includes, tables of research findings.

Table 4. Analysis results between scale scores and age

Age	Brief Resilience	Body Appreciation
r	.128	.107
p	.074	.134

When Table 3 is examined it is observed there was no significant relationship found between age and psychological resilience and body image.

Table 5. Analysis results between scale scores and duration of exercise

History of exercise (In Years)	Brief Resilience	Body Appreciation
r	.144*	.008
p	.044	.915

Table 5 shows while there was a positively low-level significant relationship between years of exercise and psychological resilience, no significant relationship was found with body image.

Table 6. Analysis results between scale scores and weekly frequency of exercise

Weekly frequency of exercise	Brief Resilience	Body Appreciation
r	.113	.027
p	.114	.706

Table 6 shows there was no significant relationship found between weekly frequency of exercise and psychological resilience and body image.

Table 7. Analysis results between scale scores

	Brief Resilience
Body Appreciation	.155*
	.029

Table 7 shows a positively low-level significant relationship was found between body image and psychological resilience.

DISCUSSION AND CONCLUSION

In this study, conducted to examine the relationship between body image and psychological resilience in individuals do fitness as recreational activity, a positive and low-level significant relationship was found between body image and psychological resilience. Therefore, it can be said that as the psychological resilience of individuals who do fitness as recreational activity increases, their body image also improves.

The concept of psychological resilience expresses the positive aspects of responses to events in a

stressful life. Numerous studies demonstrating the effects of both sports and recreational activities have concluded that they reduce stress, positively affect happiness and life satisfaction (Yeltepe and Yargıç, 2011; Khazaeepool et al., 2015; Delestrat et al., 2016; Bağcı et al., 2019; Önmen, 2021; Yoon et al., 2020; Sarıkan, 2021). Studies also exist indicating that individuals who do sport have positive effects on their psychological resilience (Çelik and Çelik, 2019; Demir & Çifçi, 2020; Düzen and Özçelik, 2022) or positive body image (Sabiston et al., 2019; Özyıldırım et al., 2023; Yılmaz and Ağgön, 2023). Considering individuals who do fitness as recreational activity within this context, it is thought that individuals' psychological resilience increases.

Psychologically resilient individuals tend to have coping skills against various factors, contributing to positive feelings. Studies have shown that

individuals with a higher body image and satisfaction with their bodies generally have more positive thoughts about maintaining and improving their health (Khorshid et al., 2007). The positive relationship found between psychological resilience and body image is thought to stem from this situation. Examining the literature reveals studies demonstrating the relationship between psychological resilience and body image.

Kılıç (2019) identified a positive relationship between body image and psychological resilience in adolescents. Bergeron (2007) examined the relationship between body image dissatisfaction and psychological health in young men, finding that as body image dissatisfaction increased, psychological distress levels also increased. Zhang et al. (2021) determined that physical activity applied to alleviate body image concerns in elderly women who survived cancer was effective in increasing psychological resilience. In contrast, Amissah et al. (2015) found a negative relationship between body image and psychological resilience in sedentary university students.

No significant relationship was found between age and psychological resilience. It can be said that psychological resilience does not change with age. Tönbül (2020) did not find a significant relationship between age and psychological resilience levels, supporting this finding. In contrast to this finding, Atik (2013) found a statistically significant and positive relationship between psychological resilience and age. Çutuk et al. (2017) found a negative relationship between the psychological resilience levels of Judo athletes and their ages. Tural and Efe (2020) examined the correlation between psychological resilience levels and age, reaching the conclusion that as participants' age increased, their psychological resilience levels also increased.

No significant relationship was found between age and body image. It can be said that the perception of body image does not change with age. Similarly, Alagül (2004) found no significant relationship between body image and age in their study. In contrast to this finding, Karagöz and Karagün (2015) stated that as the age of the participants increased, their body image showed a positive increase.

A positively low-level significant relationship was found between the years of exercise and psychological resilience. It can be said that psychological resilience increases with the increase in the years of exercise. In contrast to this finding, Çelik et al. (2019) found in their study that the years of exercise (sports age) did not have an effect on the psychological resilience levels of adolescent athletes.

Similarly, Yavuz (2019) noted in their study on physically disabled athletes that there was no significant relationship between sports age and psychological resilience.

No significant relationship was found between the years of exercise and body image. It can be said that the perception of body image does not change depending on the years of exercise. Karagöz and Karagün (2015) found that despite the absence of significant results in their study, the body image scores of participants who had been exercising for 1-3 years were higher than those of participants who had been exercising for 13-15 years. In contrast, several studies have shown that participants with a longer sports history have higher body image scores than participants with no or less experience, and there are significant differences (Alagül, 2004; Aşçı et al., 1993; Koca et al., 2003).

No significant relationship was found between weekly exercise frequency and psychological resilience. It can be stated that the level of psychological resilience does not change based on weekly exercise frequency. This finding is supported by the qualitative nature of the study conducted by Düzen and Özçelik (2022), indicating that there is no significant relationship between weekly exercise frequency and psychological resilience. In the same study, it is noted that participants who exercise two or three days a week have higher levels of psychological resilience compared to non-exercisers. Similarly, Seğer and Çakmak Yıldızhan (2020) reported a low-level positive relationship between the physical activity levels and psychological resilience of university students. According to the results of the study, it can be said that as the level of physical activity increases, psychological resilience also increases.

No significant relationship was found between weekly exercise frequency and body image. It can be said that the perception of body image does not change depending on weekly exercise frequency. In a study by Köroğlu et al. (2023), it is mentioned that the body images of those who exercise for five days are higher than those who exercise for one day, indicating a significant difference in body image based on the frequency of going to the gym.

As a result, research results confirmed that liking oneself positively affects psychological health. Therefore, the physical appearance should not be overlooked in enhancing psychological resilience in individuals. One way to improve physical appearance is through regular exercise. Indeed, regular exercise enables weight control, a pleasing body image, and fosters self-acceptance. Consequently, creating

awareness and promoting the regular engagement of individuals in exercise is crucial.

It is important to note that this research is limited to individuals engaging in recreational fitness in the Sakarya province. To provide stronger evidence and contribute to the literature, it is recommended to conduct research that includes different disciplines, exercise groups, and even regions or provinces.

Note: This study has been supported by the TÜBİTAK 2209-A Research Project Support Programme for Undergraduate Students. Additionally, this study was presented as an oral presentation at the 7th International Exercise and Sport Psychology Congress held on October 28, 2023

Conflict of Interest

No potential conflict of interest was reported by the authors.

Ethical Approval

Approval for this study was obtained from Kocaeli University Social Sciences and Humanities Scientific Research and Publication Ethics Committee (decision dated 29/03/2022 and numbered 2022/04).

Note: This study has been supported by the TÜBİTAK 2209-A Research Project Support Programme for Undergraduate Students. Additionally, this study was presented as an oral presentation at the 7th International Exercise and Sport Psychology Congress held on October 28, 2023.

REFERENCES

- Alagül, Ö. (2004). *Farklı spor branşlarındaki sporcuların atılganlık ile beden algısı ilişkisi*, [Yüksek Lisans Tezi] Ege Üniversitesi.
- Amissah, C. M., Nyarko, K., Gyasi-Gyamerah, A. A., & Anto-Winne, M. N. (2015). Relationships among body image, eating behavior and psychological health of University of Ghana students. *International Journal of Humanities and Social Science*, 5(6), 192-203.
- Anlı, G., Akın, A., Eker, H., & Özçelik, B. (2015). Bedeni Beğenme Ölçeği: Geçerlik ve Güvenirlik Çalışması. *The Journal of Academic Social Science Studies*, 36, 505-511.
- Ardahan, F., Turgut, T., & Kaplan Kalkan, A. (2016). *Her yönüyle rekreasyon*. Ankara: Detay Yayıncılık, 215.
- Aşçı, F. H., Gökmen, H., Tiryaki, G., Aşçı, A., & Zorba, E. (1993). Sportif katılımın liseli erkek öğrencilerin beden bölgelerinden hoşnut olma düzeyleri üzerine etkisi. *Spor Bilimleri Dergisi*, 4 (3), 38-47.

- Atik, E. L. (2013). *Liseli ergenlerde bağlanma stilleri ve psikolojik sağlık düzeyleri arasındaki ilişkide öz-yansıtma ve içgörünün rolü*. [Yayınlanmamış Yüksek Lisans Tezi] İstanbul Bilim Üniversitesi.
- Aydemir, B., Kul, M., & Kırkbir, F. (2023). Investigation of the relationship between brief resilience levels of taekwondo players and their levels of state and trait anxiety. *Akdeniz Spor Bilimleri Dergisi*, 6(1-Cumhuriyet'in 100. Yılı Özel Sayısı), 1249-1260.
- Bağcı, R., Uslu, S., & Sarıçam, H. (2019). Rekreasyonel etkinliklere katılan ve katılmayan bireylerin mutluluk yönelimlerinin incelenmesi. *Uluslararası Spor Bilimleri Öğrenci Çalışmaları*, 1(1), 27-34.
- Bahadır, E. (2009). *Sağlıkla ilgili fakültelerde eğitime başlayan öğrencilerin psikolojik sağlık düzeyleri*. [Yüksek Lisans Tezi]. Hacettepe Üniversitesi.
- Bergeron, D. P. (2007). *The relationship between body image dissatisfaction and psychological health: An exploration of body image in young adult men* [Doctoral dissertation] The Ohio State University.
- Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. *Bmj*, 314(7080), 572.
- Cash, T. F. (2004). Body image: Past, present, and future. *Body image*, 1(1), 1-5.
- Çelik, O. B., Tekkurşun Demir, G., İlhan, E. L., Cicioğlu, İ., & Esentürk, O. K. (2019). Sporcu ergenlerde psikolojik sağlık. *CBÜ Beden Eğitimi ve Spor Bilimleri Dergisi*, 14 (2), 296-303.
- Çutuk, S., Beyleroğlu, M., Hazar, M., Akkuş-Çutuk, Z., & Bezci, Ş. (2017). The investigation of the relationship between psychological resilience levels and anxiety levels of judo athletes. *Niğde Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi*, 11(1), 109-117.
- Delextrat, A. A., Warner, S., Graham, S., & Neupert, E. (2016). An 8-week exercise intervention based on zumba improves aerobic fitness and psychological well-being in healthy women. *Journal of Physical Activity and Health*, 13(2), 131-139.
- Demir, A., & Çifçi, F. (2020). Covid-19 pandemi sürecinde egzersizin lise öğrencilerinin psikolojik sağlık düzeylerine etkisinin incelenmesi. *Sportmetre Beden Eğitimi ve Spor Bilimleri Dergisi*, 18(3), 169-179.
- Demir, Ş. (2023). *Fitness egzersizine katılan bireylerin ruh hali ile egzersiz bağımlılığı arasındaki ilişkinin incelenmesi* [Yüksek lisans tezi] Trakya Üniversitesi.
- Doğan, T. (2015). Kısa psikolojik sağlık ölçeği'nin Türkçe uyarlaması: Geçerlik ve güvenilirlik çalışması. *The Journal of Happiness & Well-Being*, 3(1), 93-102.

- Düzen, A. Ç., & Özçelik, İ. Y. (2022). Lise Öğrencilerinin Spor Yapma Durumuna Göre Psikolojik Sağlık ve Mutluluk Düzeylerinin İncelenmesi. *Akdeniz Spor Bilimleri Dergisi*, 5(2), 176-191.
- Featherstone, M. (2010). Body, image and affect in consumer culture. *Body & Society*, 16(1), 193-221.
- Grogan, S. (2008). *Body image: understanding body dissatisfaction in men, women, and children*. NewYork: Psychology Press.
- Gündoğan, F. (2006). *Sirozlu hastaların beden imajı ve benlik saygılarının değerlendirilmesi* [Yüksek Lisans Tezi] Abant izzet Baysal Üniversitesi.
- <https://sozluk.gov.tr/> (Accessed 09 November 2023).
- Karagöz, N., & Karagün, E. (2015). Profesyonel sporcuların beden imajı üzerine betimsel bir çalışma. *Sport Sciences*, 10 (4), 34-43.
- Karasar, N. (2018). *Bilimsel araştırma yöntemleri: Kavramlar, ilkeler ve teknikler*. (32. Baskı). Ankara: Nobel Yayın Dağıtım.
- Khazaeepool, M., Sadeghi, R., Majlessi, F., & Rahimi Froushani, A. (2015). Effects of physical exercise programme on happiness among older people. *Journal of Psychiatric and Mental Health Nursing*, 22(1), 47-57.
- Khorshid, L., Eşer, İ., Denat, Y., & Çınar, Ş. (2007). An investigation into the body image of women in menopause. *International Journal of Human Sciences*, 4(2), 1-14.
- Kılıç, P. (2019). *Ergenlerde beden imgesi ile psikolojik sağlık ve mutluluk düzeyleri arasındaki ilişki* [Doktora Tezi] Yıldız Teknik Üniversitesi.
- Kim, D. H., Kim, J. H., & Park, K. J. (2023). The impact of regular exercise, competition experience, and physical self-efficacy on psychological resilience. *Revista de Psicología del Deporte (Journal of Sport Psychology)*, 32(3), 1-19.
- Koca, C., Aşçı, F. H., & Oyar, Z. B. (2003). Elit sporcuların denetim odağı ve fiziksel benlik algısının cinsiyete, yapılan spor branşına ve spor deneyimine göre karşılaştırılması. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi*, 8 (4) , 3-10 .
- Köroğlu, M., Çelik, S., & Tüt, E. (2023). Spor merkezlerinde egzersiz yapan bireylerin beden imajı ve özgüven düzeylerinin incelenmesi. *Yalova Üniversitesi Spor Bilimleri Dergisi*, 2 (3), 137-160.
- Neagu, A. (2015). Body image: A theoretical framework. *In Proc. Rom. Acad. Series B*. (Vol. 17, No. 1, pp. 29-38)
- Önmen, H. (2021). *Rekreasyonel amaçlı egzersiz yapan bireylerin mutluluk düzeyleri ile yaşam doyumlarının incelenmesi* [Doktora Tezi] Necmettin Erbakan Üniversitesi.
- Özen, Y. (2010). Kişisel sorumluluk bağlamında öznel ve psikolojik iyi oluş (sosyal psikolojik bir değerlendirme). *Dicle Üniversitesi Sosyal Bilimler Enstitüsü Elektronik Dergisi*, 4, 46-58.
- Özyıldırım, M., Yaman, Ç., & Yaman, M. S. (2023). The effect of online exercises on adult female's mindfulness, mental well-being and body image. *The Online Journal of Recreation and Sports*, 12(4), 863-871.
- Pulur, A., & Gedik, A. (2021). Fitness merkezine giden bireylerin egzersiz bağımlılıklarının incelenmesi. *Sportive*, 4 (2), 12-23.
- Sabiston, C. M., Pila, E., Vani, M., & Thogersen-Ntoumani, C. (2019). Body image, physical activity, and sport: A scoping review. *Psychology of Sport and Exercise*, 42, 48-57.
- Sarıkan, Ü. (2021). Düzenli egzersiz yapan bireylerde ruh hali ve yaşam doyum düzeyleri arasındaki ilişkinin belirlenmesi. *Uluslararası Güncel Eğitim Araştırmaları Dergisi*, 7(2), 211-518.
- Seçer, E., & Yıldızhan, Y. Ç. (2020). The relationship between physical activity levels and psychological resilience of university students. *Revista Turismo Estudos e Práticas-RTEP/UERN*, (4), 1-12.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, 15, 194-200.
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). *Using multivariate statistics* (Vol. 6, pp. 497-516). Boston, MA: pearson.
- Toselli, S., Rinaldo, N., Mauro, M., Grigoletto, A., & Zaccagni, L. (2022). Body image perception in adolescents: the role of sports practice and sex. *International Journal of Environmental Research and Public Health*, 19(22), 15119.
- Tsitskari, E. (2023). Body image assessment of fitness centers' members & behavioral intentions: can we actually achieve members' retention? *Retos: Nuevas Tendencias en Educación Física, Deporte y Recreación*, (49), 270-278.
- Yavuz, S. (2019). *Bedensel engelli sporcuların psikolojik sağlık ve bilişsel esneklik düzeylerinin incelenmesi* [Yüksek Lisans Tezi] Aksaray Üniversitesi.