

## Investigation of University Students' Recreation Benefit Awareness and Physical Activity Levels

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### Abstract

Physical activity level is an important factor that affects health of people of all ages and awareness level about the benefits obtained from recreational activities may increase the frequency of participation. The objective of the study is to review the correlation between university students' recreation benefit awareness and their physical activity levels and to demonstrate whether or not there is a difference about this subject in terms of gender and faculty. A total of 909 university students 541 female students and 368 male students who studied at different universities in Turkey joined the study. Information Request Form, Leisure Benefit Scale and International Physical Activity Questionnaire were administered to the participants. The data obtained from the study were analyzed using Pearson Correlation Analysis and Independent Samples t Test. The study results indicate that there is a positive correlation between participants' recreation benefit awareness and their physical activity levels. Besides, it is seen that female participants' physical and psychological recreation benefit awareness was higher; however, as for the male participants their physical activity levels were higher. It was identified that of the participant students, those who studied on sports sciences had higher psychological and social recreation benefit awareness and physical activity levels. In light of the study findings, the fact that the university students' benefit awareness perception on recreational activities had increased made a positive contribution to their physical activity levels and dimensions of recreation benefit awareness and as a result, physical activity levels differed in terms of gender and the type of the faculty.

**Keywords:** Physical activity, Recreation benefit awareness, University students

## Üniversite Öğrencilerinin Rekreasyon Fayda Farkındalıkları ile Fiziksel Aktivite Düzeylerinin İncelenmesi

### Öz

Fiziksel aktivite düzeyi her yaşta bireyin sağlığına etki eden önemli bir faktördür ve rekreatif aktivitelerden elde edilen faydalar ile ilgili farkındalık düzeyi aktivitelere katılım sıklığını artırabilir. Üniversite öğrenim sürecinin rekreatif aktivite fırsatları açısından zengin bir dönem olduğu düşünüldüğünde araştırmamız üniversite öğrencilerinin rekreasyon fayda farkındalığı ile fiziksel aktivite düzeyleri arasındaki ilişkiyi tespit etmeği amaçlamaktadır. Araştırmaya Türkiye'nin farklı bölgelerinde üniversitelerde öğrenim gören 541 kadın, 368 erkek toplam 909 üniversite öğrencisi katılmış ve Kişisel Bigi Formu, Rekreasyon Fayda Farkındalığı ve Fiziksel Aktivite Düzeyleri ölçeklerinden oluşan anket formu ile veriler elde edilmiştir. Sayısal değişkenler arasındaki ilişkiler Pearson korelasyon analizi ve iki grup arasında nicel değişkeninin ortalamaları arasında anlamlı bir fark olup olmadığını sınamak için bağımsız örneklem t testi kullanılmıştır. Araştırma sonuçları katılımcıların rekreasyon fayda farkındalıkları ve fiziksel aktivite düzeyleri arasında pozitif ilişki olduğu göstermektedir. Ayrıca kadınların fiziksel ve psikolojik rekreasyon fayda farkındalıklarının, erkeklerin ise fiziksel aktivite düzeylerinin daha yüksek olduğunu görülmüştür. Katılımcılarından spor bilimleri alanında eğitim gören öğrencilerin psikolojik ve sosyal rekreasyon fayda farkındalıkları ile fiziksel aktivite düzeylerinin daha yüksek olduğu tespit edilmiştir. Sonuç olarak üniversite öğrencilerinin rekreatif aktivitelerde fayda farkındalık algısının artması fiziksel aktivite düzeylerine olumlu katkı sağlamaktadır. Ayrıca cinsiyet ve eğitim alanı bazı faktörler ile ilişkili olarak rekreasyonel fayda farkındalığı alt boyutlarında değişkenlik göstermektedir.

**Anahtar Kelimeler:** Fiziksel aktivite, Rekreasyon fayda, Farkındalık

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## INTRODUCTION

Today; with various reasons like reducing stress of daily life, socialization and health, people join different recreational activities such as artistic, cultural, social and physical recreational activities and go through different experiences. People should be aware of the positive and negative aspects and the benefits and risks that are related to the activity that they joined so that they can have a positive recreation experience (Barnett, 2005; Ryan and Deci, 2000). The term of recreation benefit awareness is defined in relation to experiential perception according to whether or not the participants achieve their goals or obtain some benefits when they participate in recreational activities (Kuo and Feng, 2013). The definition of recreation benefit awareness is rather broad and therefore this term is discussed in physiological, psychological and social perspectives (He et al., 2016). Additionally, Bright (2000) stated that recreational activities provide economical and social benefits to people's lives. People mainly obtain physiological and psychological benefits when they participate in recreational activities alone whereas they can experience more social benefits in addition to physiological and psychological benefits when they join these activities with an organized group or a party (Chang et al., 2018; Yeh et al., 2017).

Using social psychology theory; Ajzen (1991) reviewed benefits of participation in recreational activities and suggested that participants can benefit from recreational activities and – moreover- emphasized that participants having potential benefits of recreational activities at a higher level will show more positive participation attitude and more active participation behavior. The effect of benefit awareness about recreational activities upon active participation behavior may influence physical activity level positively, too. From another perspective; in addition to considering a recreational behavior as good or bad in terms of its benefits, people may consider the same recreational behavior as arousing good or bad feelings (Abelson et al., 1982). Those who believe that running provides some benefits for themselves in terms of health and physical fitness may still report that they do not like running and do not participate in running activities (Ajzen and Driver, 1991) and therefore, they may show a neutral correlation between recreational activity benefit awareness and physical activity level. This approach questions the significance of recreation benefit awareness when they recreationally join physical activities.

The term of recreation awareness has been studied in many studies in literature and its relation to such subjects as life satisfaction, liking one's own body, awareness, purchasing behavior styles has been investigated (Akyıldız-Durhan et al., 2022; Bülbül et al., 2021; Kurtipek et al., 2022; Öztürk, 2022). When the literature was focused on; it was seen that physical activity level among university students was examined in relation to such different topics as depression, anxiety, quality of life, smoking, academic success, healthy life styles (Murathan et al., 2013; Ölçücü et al., 2015; Pirinççi et al., 2020). However, within our knowledge, we have not so far seen any study reviewing the correlation between people's recreation benefit awareness and physical activity level. In the study of Haase et al. (2004) investigating the correlation between recreational physical activity level and health benefit awareness, risk awareness and national economical growth among university students coming from 23 countries; it was found that nearly half of the university students were not engaged in any physical activities and showed a limited health benefit awareness. In this study, benefit awareness was not assessed in relation to psychological and social aspects. In this sense, our study is a valuable study. In addition,

participation in recreational activities is expected to be at the highest-level during university education. Although it is known that regular participation in recreational activities gives numerous benefits, participation in recreational activities may decrease among the adults due to increasing responsibilities of professional life and starting a family life (Nimrod and Shrir, 2016). Therefore; to investigate the time period that is expected to be the most active one in one's lifespan –namely, “university students”- makes this study valuable.

Considering the importance of physical activity level for the health of people of all ages, to present the correlation between recreation benefit awareness –which is one of the factors influencing university students' physical activity levels- and physical activity levels will help those researchers who make researches on this field and those parties who work in this particular area.

In sum, the objective of the study was to demonstrate the correlation between university students' recreational benefit awareness and their physical activity levels. In line with this main objective, the differences between university students' recreational benefit awareness and their physical activity levels were also explored in terms of gender and faculty where the students studied. Hypothesis of the study were as follows:

- There is a significant relationship between the recreational benefit awareness and physical activity levels of university students.
- There is no gender difference between the recreational benefit awareness and physical activity levels of university students.
- There is no difference between the recreational benefit awareness and physical activity levels of university students according to their faculties.

## **METHOD**

### **Research Model**

This research was designed in a descriptive study model, using the questionnaire technique as a data collection tool. The study is in a descriptive survey model that questions university students' physical activity levels and awareness of recreational benefits (Gürbüz and Şahin, 2014).

### **Study Group**

In the study; a suitable sampling method -one of non-random sample sampling methods- was used (Gast and Ledford, 2018). The study group was composed of university students who studied at different departments of different universities in Turkey (Mersin, Çukurova, Afyon Kocatepe, Sakarya University) during 2021-2022 fall semester while the sampling was composed of a total of 909 students (541 female students (Female<sub>age</sub>: 21,55±4,03) and 368 male students (Male<sub>age</sub>: 22,42±4,35)).

### **Data Collection Tools**

In the study, Information Request Form, Leisure Benefit Scale (LBS) and International Physical Activity Questionnaire (IPAQ) were used as data collection tools. Data collection tools were voluntarily filled in by university students who studied at different departments of different universities online and face to face.

**Information Request Form:** The form included information about participants' age, gender, body weight, body height, faculties, and departments.

**International Physical Activity Questionnaire (IPAQ):** In the study, IPAQ short form –which was invented by Craig et al., (2003) and Turkish validity and reliability tests ( $r=76$ ) of which were performed by Öztürk (2005)- was employed. In IPAQ, values of 10 or more minutes of physical activities are taken as a criterion. Using the questionnaire; vigorous and moderate activities performed in the last seven days and walking durations are transformed into basal metabolic rate (MET) and total physical activity score is calculated (MET-min/week) (Craig et al., 2003). Total physical activity score (MET-min/week) = walking + moderate activities + vigorous activities.

**Leisure Benefit Scale:** Developed by Ho (2008), “Leisure Benefit Scale” is a 5 point Likert type scale with 24 items and 3 dimensions (physical, psychological, social). In 2018, Akgül, Ertüzün and Karaküçük adapted the scale into Turkish. The first seven items of the scale measure physical dimension, the following eight questions psychological dimension and the last nine questions social dimension. The items of the scale are scored by responding (5) absolutely agree (1) absolutely disagree. The internal consistency coefficient alphas in the present study ranged from .88 to .91.

### **Ethical Approval**

Ethical approval of the research was obtained with the decision of Mersin University Social and Human Sciences Ethics Committee dated 02.03.2023 and numbered 491.

### **Data Collection**

The research data were collected from Google form at university in the Mersin, Adana, Afyon and Sakarya provinces after the ethics committee approval was obtained.

### **Analysis of Data**

The data and findings attained in the study were processed using SPSS software. Descriptive statistics of the data and findings attained in the study were presented in means and standard deviation for numerical variables whereas for categorical variables, they were presented in frequency and percentage analyses. In the comparison of the scores obtained by the data collection tools in terms of demographic variables, the independent samples t-test was employed for the categorical variables of two groups. Welch's t-test was used in comparison of participants' awareness of recreation benefit and physical activity levels by faculties because there were no equal sample numbers in the comparison of sports sciences and other faculties. Additionally, correlations in numerical variables were assessed using Pearson correlation analysis. P value less than 0.05 was considered statistically significant.

## RESULTS

**Table 1.** Comparison of participants' awareness of recreation benefit and physical activity levels by gender

Variables		Gender	N	$\bar{X}$	S	p
Recreation Benefit Awareness	Physical	Female	541	4,35	0,55	0,003*
		Male	368	4,24	0,57	
	Psychological	Female	541	4,23	0,59	0,002*
		Male	368	4,10	0,61	
	Social	Female	541	3,97	0,71	0,217
		Male	368	3,91	0,65	
	Physical activity (MET-min/week)	Female	541	1667,73	1831,09	0,001**
		Male	368	2719,00	2603,69	

\*p<0,05; \*\*p<0,01 level is significant.

A statistically significant difference was found between the averages of physical and psychological recreation benefit awareness and physical activity levels of male and female participants in the research group (p<0.05; p<0.01). The physical and psychological benefit awareness of female participants and the average of physical activity level of male participants are higher.

**Table 2.** Comparison of participants' awareness of recreation benefit and physical activity levels by faculties

Variables		Gender	N	$\bar{X}$	S	p
Recreation Benefit Awareness	Physical	Sport Faculty	83	4,37	0,68	0,280
		Other Faculty	826	4,30	0,55	
	Psychological	Sport Faculty	83	4,32	0,67	0,027*
		Other Faculty	826	4,16	0,59	
	Social	Sport Faculty	83	4,16	0,74	0,003*
		Other Faculty	826	3,92	0,68	
	Physical activity (MET-min/week)	Sport Faculty	83	3368,95	2586,76	0,001**
		Other Faculty	826	1965,15	2158,35	

\*p<0,05; \*\*p<0,01 level is significant.

A statistically significant difference was found between the average of psychological and social recreation benefit awareness and physical activity levels of the students of the faculty of sports sciences and other faculties in the research group (p<0.05; p<0.01). The psychological and social benefits awareness and physical activity level averages of the students studying at the Faculty of Sport Sciences are higher.

**Table 3.** The Relationship between physical activity and recreation benefit awareness

Variables	1	2	3
1. Physical activity	r		
2. Physical	r	,116**	
3. Psychological	r	,122**	,781**
4. Social	r	,100*	,601**
			,739**

\*p<0,05; \*\*p<0,01 level is significant.

A statistically significant positive correlation was found between the physical, psychological and social recreation benefit awareness of the participants in the research group and their physical activity levels ( $r=0.116$ ;  $r=0.122$ ;  $r=0.100$ ;  $p<0.01$ ). It is observed that as university students' awareness of recreational benefits increases, their physical activity levels increase.

## DISCUSSION AND CONCLUSION

A positive correlation between participants' recreation benefit awareness and their physical activity levels was found and thus it was seen that as university students' recreation benefit awareness increased so did their physical activity levels. Even though there was no directly related study on the subject done with university students in literature as far as we know, some studies investigated the factors that affected recreational activity participation of people with health problems and explored their barriers to recreational activity participation and physical activity levels and benefit awareness, as well. In the meta-analysis study done by Williams et al., (2014) with people with spine injuries; they examined barriers to recreational physical activities, benefits and promoters and reported that awareness of recreational activity benefits kept motivating people to be physically active and people with spine injuries should be informed of these benefits so that multiple benefits of being physically active could motivate them to change exercise behaviors. Using relevant anecdotes to be narrated by peers was considered as a more effective way in order to communicate these benefits to the spine injury groups. Similar studies underlined the perceived advantages of recreational benefits in joining physical activities, the positive reactions and the encouraging feedbacks; which will facilitate first participation in recreational physical activities for those with health problems (Hammell 2007; Kehn and Kroll, 2009).

Although -in addition to physical benefit awareness- there is no study that indirectly examined the correlation between social and psychological benefit awareness and physical activity level, 421 people in Missouri-Rochepport who used race track regularly told that among the benefits of doing exercises, meeting new people and making social connections were the most important one (Bichis-Lupas and Moisey, 2001). Casey and his colleagues (2009) carried out a study in order to explore recreational physical activity participation among rural living adolescent girls and found that girls enjoyed community club sport and considered sports as an effective form of social interaction and thus their engagement in physical activities increased. Social and psychological benefit awareness can be associated with regular participation in physical activities in this sense and physical activity level may be increased. Yet, more relevant studies with healthy and different populations are needed to be done.

According to our study results, physical and psychological recreation benefit awareness of the female university students was higher than that of male university students. Body image perceived by female students and male students may have played a key role in affecting physical benefit awareness. Worries and concerns about body image may create awareness about physical health so that benefits that will lead to the desired body size can be achieved. The studies indicate that women suffer from higher level of body image dissatisfaction than men do (Ata et al., 2007; Tiggemann, 2005). It is estimated that nearly 50% of adolescent girls are dissatisfied with their bodies (Bearman et.al, 2006). A study done during COVID- 19 pandemic lockdown identified that women aged between 14 and 24 who followed Instagram

accounts on body image demonstrated higher scores in body image dissatisfaction and weakness as compared to those who reported to be following other types of Instagram accounts (Vall-Roqué et al., 2021). Besides, worries and concerns about body appreciation or body image are positively associated with female participation in regular exercises (Homan and Tylka, 2014) and therefore their participation in physical activities may be expected at higher levels.

However; even if LBS-subscales of physical and psychological benefit awareness were found to be higher among the female students in the current study, their physical activity levels were lower than male students. Many factors determine male and female participation in physical activities and are correlated with multifactorial conditions such as cultural, psychological, environmental, religious and living conditions. In the study of Van Tuyckom and his colleagues (2013) carried out with 25.000 participants from 27 European countries, they examined how physical activity level during leisure time changed in terms of gender in these countries. As the result of the study, no gender differences were found among the countries where there is a higher gender equality in terms of recreational physical activity level. In a similar study, Balish et al., (2016) compared gender equality and recreational physical activity level for both genders in 34 countries and argued that physical activity levels differed significantly both for women and men in these countries. Women who lived in the countries with high gender equality reported to be joining weekly recreational physical activities more than those women living in the countries with lower gender equality. World Economic Forum Global Gender Gap Report (World Economic Forum, 2018) shows that Türkiye ranked 130<sup>th</sup> out of 149 countries in gender inequality, which may have affected physical activity level -unlike men and other factors. In the study of Örnek (2021), gender equality and university students' attitudes were investigated and in general students demonstrated moderate egalitarian attitudes, which points out that traditional convictions still predominate.

Even in the adults who try to assume and live a physically active lifestyle, there often are barriers to physical activity participation. Of the most evident ones; old age, personal health status, socio-economic status, geography, social and physical environment, and physical barriers (Katzmarzyk et al., 2000; Kington and Smith, 1997; Seefeldt et al., 2002). The studies investigating university students' physical activity participation underlined lack of time the most as a barrier to participation (Capdevila et al., 2007; El-Gilany et al., 2011; Gawwad, 2008; Gómez et al., 2010; Lovell et al., 2010). Considering the fact that students live away from their families; increasing responsibilities and academic works may explain lack of time as a barrier to participation. In some studies, done with university students; fatigue and laziness are the internal barriers emphasized the most (Capdevila et al., 2007; Daskapan et al., 2006; Gómez et al., 2010; Ibrahim et al., 2013). In these studies, these barriers are similar for both genders whereas some studies report being a woman as a barrier perceived more in terms of gender (Martínez-Lemos et al., 2014; Sallis et al., 1992). In the current study, female students were also found physically to be more inactive as compared to male students. In conclusion, factors that prevent female university students from participating in physical activity independent of their awareness of recreational benefits should be taken into consideration and physical activity levels should be increased.

Lastly; among the university students, those who studied sports sciences showed higher psychological and social recreational benefit awareness and physical activity levels than other

students. Zhou and Tsai (2019) argue that university students may develop participation behaviors in leisure time activities by having recreation education, planning recreational activities and becoming aware of personal benefits of these activities and without being affected by recreational obstacles. As supported by the results of this research in the literature, activities that increase recreational awareness contribute to increasing physical activity levels and making them planned and programmed. Another study examined the correlation between recreation and stepping frequencies among the university students who completed recreation education and suggested that stepping frequency went up and an awareness was raised after the recreation education according to correlation analysis (Alpullu and Demir, 2019). The results of this research will contribute to the fact that experts in the field of recreation make some educational programmes that increase awareness of recreational benefits in university students.

Therefore, recreation education to be provided to the university students may play a key role in increasing their recreational benefit awareness and physical activity levels and can be ensured that educational programs that will increase recreational benefit awareness can be added to the curricula of other faculties other than the faculties of sports sciences. In addition, educational presentations that increase the awareness of recreational benefits can be organized by the recreation departments of the faculties of sports sciences within meetings related to the student clubs affiliated with the university. Moreover, in future studies, physical activity levels in different populations such as young or adult individuals who getting education to develop recreation benefit awareness can be revealed. In these studies, more objective data collection tools such as pedometers and accelerometer may be preferred to determine the level of physical activity.

**Conflicts of Interest :** All authors declare that they have no conflicts of interest.

**Author Contributions:** As the authors' contribution to the study, research design-YE; İY, data collection-YE; RZ, statistical analysis- İY; YE, preparation of the article, YE; İY; RZ.

### **Ethical Approval**

**Ethics Committee:** Mersin University Social and Human Sciences Ethics Committee

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## REFERENCES

- Abelson, R. P., Kinder, D. R., Peters, M. D., & Fiske, S. T. (1982). Affective and semantic components in political person perception. *Journal of Personality and Social Psychology*, 42(4), 619-630. <https://doi.org/10.1037/0022-3514.42.4.619>
- Ajzen, I., & Driver, B. L. (1991). Prediction of leisure participation from behavioral, normative, and control beliefs: An application of the theory of planned behavior. *Leisure Sciences*, 13(3), 185-204. <https://doi.org/10.1080/01490409109513137>
- Akgül, B. M., Ertüzün, E., & Karaküçük, S. (2018). Rekreasyon fayda ölçeği: Geçerlilik ve güvenilirlik çalışması. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi*, 23(1), 25-34.
- Akyıldız-Durhan, T., Kayhalak, F., & Kurtipek, S. (2022). Rekreasyon farkındalığının rekreasyonel satın alma tarzları üzerine etkisi. *Uluslararası Güncel Eğitim Araştırmaları Dergisi*, 8(2), 460-477.
- Apullu, A., & Demir, G. (2019). Investigation of the relationship between the leisure and stepping frequencies of the students receiving recreation education. *Journal of Education and Training Studies*, 7(2), 98-102. <https://doi.org/10.11114/jets.v7i2.3767>
- Ata, R. N., Ludden, A. B., & Lally, M. M. (2007). The effects of gender and family, friend, and media influences on eating behaviors and body image during adolescence. *Journal of Youth and Adolescence*, 36, 1024-1037. <https://doi.org/10.1007/s10964-006-9159-x>
- Balish, S. M., Conacher, D., & Dithurbide, L. (2016). Sport and recreation are associated with happiness across countries. *Research Quarterly for Exercise and Sport*, 87(4), 382-388. <https://doi.org/10.1080/02701367.2016.1229863>
- Barnett, L. A. (2005) Measuring the abcs of leisure experience: Awareness, boredom, challenge, distress. *Leisure Sciences*, 27(2), 131-155. <https://doi.org/10.1080/01490400590912051>
- Bearman, S. K., Presnell, K., Martinez, E., & Stice, E. (2006). The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. *Journal of Youth and Adolescence*, 35(1), 217-229. <https://doi.org/10.1007/s10964-005-9010-9>
- Bichis-Lupas, M., & Moisey, R. N. (2001). A Benefit Segmentation of Rail-Trail Users: Implications for Marketing by Local Communities. *Journal of Park and Recreation Administration*, 19(3), 78-92.
- Bright, A. D. (2000). The role of social marketing in leisure and recreation management. *Journal of Leisure Research*, 32(1), 12-17. <https://doi.org/10.1080/00222216.2000.11949878>
- Bülbül, A., Olcucu, B., & Akyol, G. (2021). Spor elemanlarının rekreasyon fayda farkındalığı ile bedenlerini beğenme düzeyleri arasındaki ilişki. *Karadeniz Uluslararası Bilimsel Dergi*, 1(50), 110-123. <https://doi.org/10.17498/kdeniz.934526>
- Capdevila, L. O., Maymí, J. N., Feliu, J. C., Vidal, J. M. L., Romero, E. P., Bassets, M. P., ... & Brosa, J. V. (2007). Exercise motivation in university community members: A behavioural intervention. *Psicothema*, 19(2), 250-255.
- Casey, M. M., Eime, R. M., Payne, W. R., & Harvey, J. T. (2009). Using a socioecological approach to examine participation in sport and physical activity among rural adolescent girls. *Qualitative Health Research*, 19(7), 881-893. <https://doi.org/10.1177/1049732309338198>
- Chang, Y. C., Yeh, T. M., Pai, F. Y., & Huang, T. P. (2018). Sport activity for health! The effects of karate participants' involvement, perceived value, and leisure benefits on recommendation

- intention. *International Journal of Environmental Research and Public Health*, 15(5), 953. <https://doi.org/10.3390/ijerph15050953>
- Craig, C. L., Marshall, A. L., Sjöström, M., Bauman, A. E., Booth, M. L., Ainsworth, B. E., ... & Oja, P. (2003). International physical activity questionnaire: 12-country reliability and validity. *Medicine and Science in Sports and Exercise*, 35(8), 1381-1395. <https://doi.org/10.1249/01.mss.0000078924.61453.fb>
- Daskapan, A., Tuzun, E. H., & Eker, L. (2006). Perceived barriers to physical activity in university students. *Journal of Sports Science and Medicine*, 5(4), 615-622.
- El-Gilany, A. H., Badawi, K., El-Khawaga, G., & Awadalla, N. (2011). Physical activity profile of students in Mansoura University, Egypt. *EMHJ-Eastern Mediterranean Health Journal*, 17 (8), 694-702.
- Gast, D. L., & Ledford, J. R. (2018). Research approaches in applied settings. In Jennifer R. Ledford, David L. Gast (Edts.), *Single case research methodology, applications in special education and behavioral sciences* (pp.1-26). Routledge.
- Gawwad, E. S. (2008). Stages of change in physical activity, self efficacy and decisional balance among Saudi University Students. *Journal of Family and Community Medicine*, 15(3), 107-115.
- Gómez-López, M., Gallegos, A. G., & Extremera, A. B. (2010). Perceived barriers by university students in the practice of physical activities. *Journal of Sports Science and Medicine*, 9(3), 374.
- Gürbüz, S., & Şahin, F. (2014). *Sosyal bilimlerde araştırma yöntemleri*. Seçkin Yayıncılık.
- Haase, A., Steptoe, A., Sallis, J. F., & Wardle, J. (2004). Leisure-time physical activity in university students from 23 countries: Associations with health beliefs, risk awareness, and national economic development. *Preventive Medicine*, 39(1), 182-190. <https://doi.org/10.1016/j.ypmed.2004.01.028>
- Hammell, K. (2007). Quality of life after spinal cord injury: a meta-synthesis of qualitative findings. *Spinal Cord*, 45(2), 124-139. <https://doi.org/10.1038/sj.sc.3101992>
- He, J., Yi, H., & Liu, J. (2016). Urban green space recreational service assessment and management: A conceptual model based on the service generation process. *Ecological Economics*, 124, 59-68. <https://doi.org/10.1016/j.ecolecon.2016.01.023>
- Ho, T. K. (2008). *A Study of leisure attitudes and benefits for senior high school students at Pingtung city and country In Taiwan*. Unpublished Doctoral Dissertation). United States Sports Academy, Daphne, AL.
- Homan, K. J., & Tylka, T. L. (2014). Appearance-based exercise motivation moderates the relationship between exercise frequency and positive body image. *Body image*, 11(2), 101-108. <https://doi.org/10.1016/j.bodyim.2014.01.003>
- Ibrahim, S., Karim, N. A., Oon, N. L., & Ngah, W. Z. W. (2013). Perceived physical activity barriers related to body weight status and sociodemographic factors among Malaysian men in Klang Valley. *BMC Public Health*, 13(1), 1-10. <https://doi.org/10.1186/1471-2458-13-275>
- Katzmarzyk, P. T., Gledhill, N., & Shephard, R. J. (2000). The economic burden of physical inactivity in Canada. *CMAJ: Canadian Medical Association journal*, 163(11), 1435-1440.
- Kehn, M., & Kroll, T. (2009). Staying physically active after spinal cord injury: A Qualitative exploration of barriers and facilitators to exercise participation. *BMC Public Health*, 9(1), 1-11. <https://doi.org/10.1186/1471-2458-9-168>

Ersöz, Y., Yildirim, İ., and Zeytun, R. (2023). Investigation of university students' recreation benefit awareness and physical activity levels. *Eurasian Journal of Sport Sciences and Education*, 5(2), 158-169.

Kington, R. S., & Smith, J. P. (1997). Socioeconomic status and racial and ethnic differences in functional status associated with chronic diseases. *American Journal of Public Health*, 87(5), 805-810.

Kuo, Y. F., & Feng, L. H. (2013). Relationships among community interaction characteristics, perceived benefits, community commitment, and oppositional brand loyalty in online brand communities. *International Journal of Information Management*, 33(6), 948-962. <https://doi.org/10.1016/j.ijinfomgt.2013.08.005>

Kurtipek, S., Güngör, N. B., & Durhan, T. A. (2022). Rekreasyonel faydanın açıklanmasında bilinçli farkındalığın rolü. *Akdeniz Spor Bilimleri Dergisi*, 5(2), 749-759. <https://doi.org/10.38021/asbid.1199206>

Lovell, G. P., Ansari, W. E., & Parker, J. K. (2010). Perceived exercise benefits and barriers of non-exercising female university students in the United Kingdom. *International Journal of Environmental Research and Public Health*, 7(3), 784-798. <https://doi.org/10.3390/ijerph7030784>

Martínez-Lemos, R. I., Puig Ribera, A., & García-García, O. (2014). Perceived barriers to physical activity and related factors in Spanish university students. *Open Journal of Preventive Medicine*, 4(4), 1-11. <https://doi.org/10.4236/ojpm.2014.44022>

Murathan, F., Murathan, T., Yetiş, Ü., Aktuğ, Z. B., & DüNDAR, A. (2013). Analyzing the physical activity levels and healthy lifestyle behaviors of university students. *Beden Eğitimi ve Spor Bilimleri Dergisi*, 7(2), 100-107.

Nimrod, G., & Shrira, A. (2016). The paradox of leisure in later life. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 71(1), 106-111. <https://doi.org/10.1080/01490400.2016.1189368>

Ölçücü, B., Vatansever, Ş., Özcan, G., Çelik, A., & Paktaş, Y. (2015). Üniversite öğrencilerinde fiziksel aktivite düzeyi ile depresyon ve anksiyete ilişkisi. *Uluslararası Türk Eğitim Bilimleri Dergisi*, 2015(4), 294-303.

Örnek, A. (2021). Toplumsal cinsiyet eşitliği ve üniversite öğrencilerinin tutumları. *Kültür ve İletişim*, 24(47), 286-323. <https://doi.org/10.18691/kulturveiletisim.783964>

Öztürk, M. (2005). *Üniversitede eğitim-öğretim gören öğrencilerde uluslar arası fiziksel aktivite anketinin geçerliliği ve güvenilirliği ve fiziksel aktivite düzeylerinin belirlenmesi (Yükseklisans Tezi)*. Hacettepe Üniversitesi, Sağlık Bilimleri Enstitüsü, Ankara.

Öztürk, Y. (2022). Rekreasyon fayda farkındalığı ve yaşam doyum düzeyi arasındaki ilişkinin incelenmesine yönelik bir araştırma. *Süleyman Demirel Üniversitesi Vizyoner Dergisi*, 13(36), 1237-1250. <https://doi.org/10.21076/vizyoner.109670>

Pirinççi, C. Ş., Cihan, E., ve Yildirim, N. Ü. (2020). Üniversite öğrencilerinde fiziksel aktivite düzeyinin yaşam kalitesi, kronik hastalık varlığı, sigara kullanımı ve akademik başarıyla olan ilişkisi. *Karatay Üniversitesi Sağlık Bilimleri Dergisi*, 1(1), 15-23.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-79.

Sallis, J. F., Hovell, M. F., & Hofstetter, C. R. (1992). Predictors of adoption and maintenance of vigorous physical activity in men and women. *Preventive Medicine*, 21(2), 237-251. [https://doi.org/10.1016/0091-7435\(92\)90022-A](https://doi.org/10.1016/0091-7435(92)90022-A)

Seefeldt, V., Malina, R. M., & Clark, M. A. (2002). Factors affecting levels of physical activity in adults. *Sports Medicine*, 32, 143-168. <https://doi.org/10.2165/00007256-200232030-00001>

Ersöz, Y., Yildirim, İ., and Zeytun, R. (2023). Investigation of university students' recreation benefit awareness and physical activity levels. *Eurasian Journal of Sport Sciences and Education*, 5(2), 158-169.

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Tiggemann, M. (2005). Body dissatisfaction and adolescent self-esteem: Prospective findings. *Body Image*, 2(2), 129-135. <https://doi.org/10.1016/j.bodyim.2005.03.006>

Vall-Roqué, H., Andrés, A., & Saldaña, C. (2021). The impact of COVID-19 lockdown on social network sites use, body image disturbances and self-esteem among adolescent and young women. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 110(1),1-6. <https://doi.org/10.1016/j.pnpbp.2021.110293>

Van Tuyckom, C., Van de Velde, S., & Bracke, P. (2013). Does country-context matter? A cross-national analysis of gender and leisure time physical inactivity in Europe. *The European Journal of Public Health*, 23(3), 452-457. <https://doi.org/10.1093/eurpub/cks009>

Williams, T. L., Smith, B., & Papathomas, A. (2014). The barriers, benefits and facilitators of leisure time physical activity among people with spinal cord injury: a meta-synthesis of qualitative findings. *Health Psychology Review*, 8(4), 404-425. <https://doi.org/10.1080/17437199.2014.898406>

World Economic Forum. (2018, May 25). Global Gender Report. [https://www3.weforum.org/docs/WEF\\_GGGR\\_2018.pdf](https://www3.weforum.org/docs/WEF_GGGR_2018.pdf)

Yeh, T. M., Chang, Y. C., and Lai, M. Y. (2017). The relationships among leisure experience, leisure benefits and leisure satisfaction of youbike users. *Journal Sport Leisure Hospitality Reserch* 12, 67-97.

Zhou, L., and Tsai, C. T. L. (2019). Research on leisure participation for university students: perspective of leisure education. *International Leisure Review*, 8(1), 31-48. [https://doi.org/10.6298/ILR.201907\\_8\(1\).0003](https://doi.org/10.6298/ILR.201907_8(1).0003)



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