



## THE RELATIONSHIP BETWEEN DIGITAL ADDICTION AND LIFE SATISFACTION OF PHYSICAL EDUCATION STUDENTS

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### **Abstract:**

The aim of this research is to determine the relationship between digital addiction levels and the life satisfaction of students of various Sports Sciences Faculty and Physical Education and Sports Schools. For this purpose, 670 students of the Faculty of Sports Sciences and School of Physical Education and Sports studying in the departments of Coaching Education, Sports Management, Recreation and Physical Education and Sports Teaching at Şırnak University, Çukurova University, Mardin University, Istanbul Topkapı University, Istanbul Gelisim University and Istanbul Rumeli University voluntarily participated in the study. In the study, the data were collected through "personal information form", "Digital Addiction Scale" developed by Arslan, Kırık, Karaman, and Çetinkaya (2015) and used in the study titled "Digital Addiction in High School and University Students" Digital Addiction Scale" developed by Arslan, Kırık, Karaman, and Çetinkaya (2015) to determine the digital addiction of students. In order to determine the life satisfaction of the students, the "Life Satisfaction Scale" developed by Diener, Emmons, Larsen and Griffin (1985) and the Turkish validity and reliability study conducted by Köker (1991) was used as a data collection tool. According to the findings obtained as a result of the study, significant differences were found between age groups in the sub-dimensions of play and impact on daily life; it was determined that the digital addiction scores of students in the 17-20 age group were higher. This finding reveals that young students tend to be more exposed to technology and digital content. According to another result, it is seen that gender creates a significant difference in the game sub-dimension of digital addiction, and the mean scores of males are higher.

**Keywords:** physical education, sport, digital addiction, life satisfaction

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## 1. Introduction

Physical education is a branch of education that aims to support individuals' physical, mental and social development. Physical education is structured with objectives such as protecting the individual's physical health, developing motor skills and increasing social interactions. For example, Sezgin (2023) defines the concept of physical education as a set of activities aiming to ensure the physical, mental and spiritual balance of the individual. Similarly, Aydın (2020) stated that physical education not only improves the physical health of individuals but also contributes to the development of social skills. Ertem (2018) stated that physical education has an important role in individuals gaining lifelong healthy living habits.

Physical activity is of critical importance in improving an individual's general health status and quality of life. Regular physical movement provides multifaceted benefits such as strengthening the cardiovascular system, preventing obesity and supporting the musculoskeletal system. In addition, the positive effects of physical activity on mental health are also noteworthy. For example, Güler *et al.* (2021) found that regular exercise reduces stress levels and helps individuals feel more energised. In addition, it was stated that the movement strengthens social ties and contributes to individuals leading happier lives (Demir, 2020). Serkan (2019) emphasised that physical activity encourages individuals to move away from digital devices and lead a more balanced life. It is also known that sports are of critical importance in strengthening social ties and improving interpersonal relationships. For example, Kılınc and Yılmaz (2022) emphasise that sport brings together individuals with different cultural and social backgrounds, contributing to the reduction of prejudices and the increase in empathy ability. In this context, sports activities allow individuals to expand their social circles and support social cohesion. School sports especially stand out as areas where young people both develop friendship relations and learn to be active individuals in society (Sezer, 2021).

Physical education and sports are also effective tools for individuals to acquire ethical values. Through sports, individuals learn values such as honesty, fair play, patience and discipline. Ergin and Kara (2020) state that sports instil a sense of responsibility in individuals, and this awareness increases solidarity at the social level. In addition, sports activities help individuals to organise themselves in a more disciplined way, which supports success in other areas of life (Yıldız, 2022).

The impact of physical education and sport on the family cannot be ignored. Sport strengthens family ties by encouraging family members to spend time together. For example, Çelik and Güler (2020) state that sports activities in which families participate together contribute positively to the social and emotional development of children by increasing communication within the family. In addition, families' teaching healthy living habits to their children through sports can create a more robust social structure in the long term. Physical education and sports improve the social skills of individuals, increase social solidarity and improve the overall quality of life. Öztürk *et al.* (2021) stated

that sport strengthens the social roles of individuals and enables them to be an active individual in society. Therefore, considering the multifaceted benefits of physical education and sports for both individuals and society, it is of great importance to promote these fields.

Digital addiction is a condition that causes physical, psychological and social problems in individuals due to excessive and uncontrolled use of technology. This situation is especially prevalent among young people. Studies reveal that digital addiction leads to deterioration in individuals' social relationships, sleep irregularities and decreases in academic success (Yıldırım, 2022). Kaya and Özdemir (2021) stated that digital addiction negatively affects the physical health of individuals in the long term and encourages a sedentary lifestyle. In addition, Ergin (2020) states that there is an inverse relationship between digital addiction and individuals' general life satisfaction. Physical education and physical activity can play an important role in reducing the negative effects of digital addiction. Serkan (2019) states that regular movement encourages individuals to lead a healthier lifestyles by distracting them from digital devices. In addition, Güler *et al.* (2021) stated that physical activities allow individuals to strengthen their social ties by moving away from the digital world. In this context, promoting physical education and physical activity both improves the physical health of individuals and improves the quality of life by reducing the harms of digital addiction.

Life satisfaction is defined as an individual's overall satisfaction with life and is related to the degree to which individuals' physical, mental and social needs are met. Studies examining the relationship between digital addiction and life satisfaction show that life satisfaction decreases when digital addiction increases. For example, Aksoy and Yılmaz (2020) emphasised that digital addiction negatively affects life satisfaction by increasing social isolation in individuals. Arslan (2021) stated that the increase in internet and social media use limits individuals' daily activities and social relationships, which reduces their overall satisfaction levels. In this context, encouraging physical activities such as physical education can increase individuals' life satisfaction by reducing the negative effects of digital addiction.

In conclusion, physical education and physical activity can be used as powerful tools in combating digital addiction and improving individuals' quality of life. Raising awareness of physical education students on this issue and integrating the importance of physical activities into their lives can create positive effects at both individual and social levels.

## **2. Method**

### **2.1 Research Model**

In line with the purpose of the study, the relational survey method, which is a research model aiming to determine the existence and/or degree of change between two or more variables (Karasar, 2017), and the causal comparison method, which is a survey model aiming to determine the causes of an existing/naturally occurring situation or event and

the variables affecting these causes or the results of an effect (Büyüköztürk *et al.*, 2008) were used. As a data collection method, a survey technique was applied and online and face-to-face data were collected on a voluntary basis. During the current research, the "Higher Education Institutions Scientific Research and Publication Ethics Directive" was followed.

## 2.2 Universe and Sample

The population of the study consists of the students of the Faculty of Sports Sciences and the School of Physical Education and Sports in Turkey in the 2023-2024 academic year.

The sample of the study consisted of 625 students of the Faculty of Sport Sciences and School of Physical Education and Sports studying in the departments of Coaching Education, Sport Management, Recreation and Physical Education and Sport Teaching at Şırnak University, Çukurova University, Mardin University, Istanbul Topkapı University, Istanbul Gelisim University and Istanbul Rumeli University.

After explaining the purpose of the study, the questionnaires were distributed to 700 students, who were selected by hand and using a random method. However, 30 incomplete, incorrect and incorrectly filled questionnaires were not taken into consideration. Therefore, the study sample consists of 670 students, taking this deficiency into consideration.

## 2.3 Data Collection

Questionnaires were used as data collection tools in the research. The questionnaire used in the research consists of three parts. In the first part, there are questions to determine demographic information, and in the second part, the "Digital Addiction Scale" developed by Arslan, Kırık, Karaman and Çetinkaya (2015) and used in the study titled "Digital Addiction in High School and University Students" was used to determine the digital addiction of the students. Arslan *et al.* (2015) determined the Cronbach Alpha reliability coefficient of the Digital Addiction Scale as 0.89. The Digital Addiction Scale was developed on the basis of a five-point Likert scale. The scoring of the statements on the five-point scale; "1: Strongly Disagree", "2: Disagree", "3: Undecided", "4: Agree", "5: Strongly Agree". In this study, the Cronbach Alpha value of the scale was found to be 0.902, 0.818 for the game sub-dimension, 0.887 for the social item sub-dimension and 0.85 for the effect on social life sub-dimension. In the last section, the "Life Satisfaction Scale" developed by Diener, Emmons, Larsen and Griffin (1985) and the Turkish validity and reliability study conducted by Köker (1991) were used to determine the life satisfaction of the students. The scale is a seven-point Likert-type scale. The scoring of the statements in the seven-point Likert-type scale was made as "1: Strongly Disagree", "2: Disagree", "3: Partly Disagree", "4: Undecided", "5: Partly Agree", "6: Agree" and "7: Strongly Agree". Köker (1991) obtained the consistency coefficient of the scale as 0.85. In the study, the Cronbach Alpha coefficient of the Life Satisfaction Scale was found to be 0.832.

## 2.4 Analysing the Data

The data obtained were analysed utilizing the SPSS 25.00 statistical package programme. In the study, demographic factors were subjected to frequency analysis. Independent group t-tests, one-way analysis of variance for multiple comparisons between different variables and Tukey test were used to determine the source of differences.

## 3. Findings

**Table 1:** Demographic Findings Related to the Students Participating in the Study

Variable	Frequency (n)	Percentage (%)
<b>Gender</b>		
Woman	310	40,7
Male	360	59,3
<b>Age</b>		
17-20	416	47,0
21-24	233	35,2
25 and above	21	17,8
<b>Studying Department</b>		
Sport Management	152	23,0
Coaching Education	215	24,1
Recreation	180	37,0
Physical Education and Sports Teaching	123	15,9
<b>Studying Class</b>		
Grade 1	261	33,7
Grade 2	162	30,4
Grade 3	151	30,0
Grade 4	96	5,9
<b>Total</b>	<b>670</b>	<b>100</b>

The distribution of the data obtained from the demographic variables of the students who participated in the study in terms of gender, age, the department they studied, the class they were students and the way they took the practical courses is presented in Table 1.

When we look at the demographic characteristics, 310 of the students participating in the study are female, and 360 are male students. While 416 of the students who filled out the questionnaire were between the ages of 17-21, 233 of them were between the ages of 21-24. 21 students are in the age range of 25 and above. When we look at the distribution of departments, 152 students study in Sports Management, 215 in Coaching Education, 180 in Recreation and 123 in Physical Education and Sports Teaching. If we look at the classes in which the students study, the majority of the research consists of 1st year students. 261 1st grade students, 162 2nd grade, 251 3rd grade and 96 4th grade students participated in the study.

**Table 2:** Results of Digital Addiction and Satisfaction  
with Life scores and Sub-dimension Levels

	N	Centre.	SS.	Min	Max
The Game	670	7,04	2,18	5,00	13,00
Social Media	670	4,17	1,87	3,00	9,00
<b>Digital Addiction</b>					
Impact on Daily Life	670	3,12	,85	3,00	8,00
Digital Addiction Total	670	3,55	1,25	3,00	9,00
<b>Life Satisfaction</b>	670	30,27	4,40	15,00	35,00

In Table 2, it is understood that the game score of the participants from the digital addiction sub-dimensions of the participants is above the middle level with Ort. = 7.04, the social media sub-dimension score is high with Ort. = 4.12, the entertainment sub-dimension score is high with Ort. = 6.21, the effect on daily life sub-dimension score is high with Ort. = 3.12, and the total mean score of Digital Addiction is quite high, with Ort. = 3.55. When the Life Satisfaction scale scores of the participants were analysed, it was found to be 30.27±4.40.

**Table 3:** t-Test Results According to the Gender  
Variable of the Students Participating in the Study

		Gender	n	$\bar{x}$	ss	t	p
<b>Digital Addiction</b>	The Game	Woman	167	6,254	1,197	3,230	,000
		Male	198	7,558	1,258		
	Social Media	Woman	167	5,411	1,007	2,510	,059
		Male	198	4,802	1,644		
	Impact on Daily Life	Woman	167	6,741	1,255	2,117	,077
		Male	198	4,963	1,874		
	Digital Addiction Total	Woman	167	3,566	,855	-,035	,972
		Male	198	3,112	1,251		
<b>Life Satisfaction</b>	Woman	167	30,358	34,355	0,418	,001	
	Male	198	32,143	34,490			

There is no statistically significant difference between the mean scores of social integration, social media and daily development sub-dimensions and gender variable  $p > 0.05$ . It was determined that there was a statistically significant difference in the game sub-dimension according to gender variable. It is noticeable that the mean scores of male students are higher than female students.

**Table 4.** One-Way Variance Analysis Results According to the Age Groups of the Students Participating in the Study

	Age	n	<i>x</i>	ss	F	p	Difference
The Game	17-20	416	8,255	7,072	3,839	0,023*	1 4>
	21-24	233	6,848	9,130			
	25 and above	21	6,307	8,871			
Social Media	17-20	416	4,235	6,733	0,920	0,400	
	21-24	233	7,553	9,346			
	25 and above	21	6,192	8,246			
Impact on Daily Life	17-20	416	9,255	7,747	32,79	0,000*	1 4>
	21-24	233	7,734	1,368			
	25 and above	21	7,695	1,665			
Digital Addiction Total	17-20	416	8,863	38,93	0,118	0,949	
	21-24	233	7,093	37,84			
	25 and above	21	7,595	39,36			

There is no statistically significant difference between the social integration social media sub-dimension and Digital Addiction Total score average and age variable  $p > 0.05$ . It was determined that there is a statistically significant difference in the sub-dimensions of games and their impact on daily life according to the age variable. It is noteworthy that the mean digital addiction scores of students aged 17-21 are higher than those of students aged 21-24. The digital addiction levels of students between the ages of 17-21 were found to be high.

**Table 5:** t-Test Results According to the Age Variable of the Students Participating in the Study

	Age	n	<i>x</i>	ss	F	p	Difference
Life Satisfaction	17-20	115	32,03	4,45	1,141	0,333	
	21-24	81	30,31	4,22			
	25 and above	72	31,54	3,79			

There is no statistically significant difference between the mean Life Satisfaction score of the students and the age variable  $p > 0.05$ .

**Table 6:** The Relationship Between Students' Digital Addiction and Satisfaction with Life (Pearson Correlation Analysis)

		1	2	3	4	5
The Game	r	1				
	p	-				
Social Media	r	,732**	1			
	p	,000	.			
Impact on Daily Life	r	,641**	,754**	1		
	p	,000	,000	.		
Digital Addiction Total	r	,850**	,914**	,906**	1	
	p	,000	,000	,000	.	
Life Satisfaction	r	-,097	-,144**	-,041	-,113*	1
	p	,068	,006	,436	,032	.

Table 6 shows the correlation analysis between Digital Addiction and Satisfaction with Life Scale. As a result of the correlation analysis between the effect of Digital Addiction and Life Satisfaction, there is no significant relationship between Life Satisfaction and Gaming ( $r = -.097$   $p > 0.01$ ), there is a significant and weak negative relationship between Life Satisfaction and Social Media ( $r = -.144$   $p < 0.01$ ), there is no significant relationship between Life Satisfaction and its effect on Daily Life ( $r = -.041$   $p > 0.01$ ), there is a significant and weak negative relationship between Life Satisfaction and Digital Addiction levels ( $r = -.113$   $p < 0.01$ ). In the literature, the following evaluations regarding the correlation relationship (Kul, 2021):

- $r < 0.2$  very weak relationship or no correlation,
- $r = 0.2-0.4$  weak correlation,
- $r = 0.4-0.6$  moderate correlation,
- $r = 0.6-0.8$  high correlation,
- $r > 0.8$  very high correlation.

#### 4. Conclusions and Recommendations

The findings of our study, which examined the relationship between digital addiction and the life satisfaction of physical education students, are significantly consistent with the results of the studies in the literature.

In Table 3, it was determined that the scores of male students were significantly higher than female students in the game sub-dimension according to gender variable ( $p < 0.01$ ). This finding is in parallel with the observations in the literature that playing digital games is more common among males (Bayraktar *et al.*, 2014). The fact that male students spend more time on digital games can be related to social norms and entertainment preferences (Kuru, 2000).

No significant difference was found in the sub-dimensions of social media and the effect of digital addiction on daily life according to gender variables. This may indicate that digital media use has become widespread among both genders in a similar way (Gülüm, 2019). However, it is seen that men have higher values in life satisfaction scores than women ( $p < 0.01$ ). This finding makes it possible to think that men may be less negatively affected by their life satisfaction despite their digital addiction behaviours (Yıldırım & Şahin, 2013)

In the analyses conducted according to the age variable, it was found that the digital addiction levels of students in the 17-21 age group were significantly higher than the other age groups ( $p < 0.05$ ). This finding coincides with studies supporting the predisposition of younger individuals to digital technology in the literature (Aydın *et al.*, 2017). Young individuals' commitment to digital games and social media may be related to the entertainment and socialisation preferences of this age group (Sezen-Balçıkınlı, 2012). In one study, it was found that students in the younger age group had higher levels of digital addiction and technology use. It is stated that the reason for this is that young individuals show more intense interest in social media and digital games (Chin *et al.*,



2021). It has been observed that physical activity motivation has an indirect effect on digital addiction, and students who regularly do sports have lower levels of technology addiction (Gürbüz & Şahin, 2020). This may explain a possible reason for lower addiction levels, especially for physical education students. It has been emphasised in many studies that social media addiction is higher among young individuals, and this has a negative impact on life satisfaction (Kuss *et al.*, 2021). A study conducted on university students shows that the level of digital addiction decreases with age. This can be explained by the fact that the time spent on digital content tends to decrease with advancing age, and individuals take more responsibility (Tosuntaş *et al.*, 2018). The literature findings obtained support the results of your research and reveal that young physical education students should gain more awareness about digital addiction. Such interventions can increase students' life satisfaction and reduce their addiction levels.

As a result of our research, it is seen that gender creates a significant difference in the game sub-dimension of digital addiction, and the mean scores of males are higher. Similarly, some studies show that the digital addiction levels of males are higher than females. For example, Eroğlu and Güllü (2021) found that the digital game addiction levels of males were significantly higher than females among physical activity students. This supports the findings that men spend more time in digital activities with game content. In the sub-dimensions of social media and its effect on daily life, studies that overlap with the finding that gender does not make a significant difference were found. For example, in another study, no statistically significant difference was found between the social media addiction levels of female and male students (Hazar & Senbakar, 2020). This may indicate that both genders develop social media usage habits at a similar level. According to the correlation analysis in Table 6, a significant but weak negative relationship was found between the total score of digital addiction and life satisfaction ( $r = -0.113$ ,  $p < 0.01$ ). This finding shows that digital addiction may negatively affect individuals' life satisfaction, but this effect is not very strong. Although there are various studies in the literature between digital addiction and psychological well-being, some studies have suggested that digital addiction may decrease life satisfaction by increasing social isolation (Demirhan & Altay, 2001; Çetinkanat, 1997).

The fact that there was no significant relationship between life satisfaction and digital games ( $p > 0.05$ ) may indicate that digital games are used as a means of entertainment and stress reduction (Avşar, 2004). However, the finding of a weak negative relationship between social media and life satisfaction ( $r = -0.144$ ,  $p < 0.01$ ) indicates the potential negative effects of social media on individuals. In the literature, this finding is supported by the findings that excessive increases in social media use may reduce individuals' life satisfaction (Korkut Owen & Bugay, 2014).

In conclusion, our study revealed that the relationships between digital addiction and life satisfaction may show significant differences according to various variables. Although our findings are consistent with various studies in the literature, they emphasize the need for further studies to understand the effects of digital addiction on individuals' lives.

### **Conflict of Interest Statement**

The author declares no conflicts of interest.

### **About the Author(s)**

Yasar Yasar holds a bachelor's degree in Recreation from Kocaeli University, a master's degree from Uludag University, and a PhD from Çukurova University, Turkey.

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