Acta Scientiae et Intellectus
An International Multidisciplinary Refereed Journal

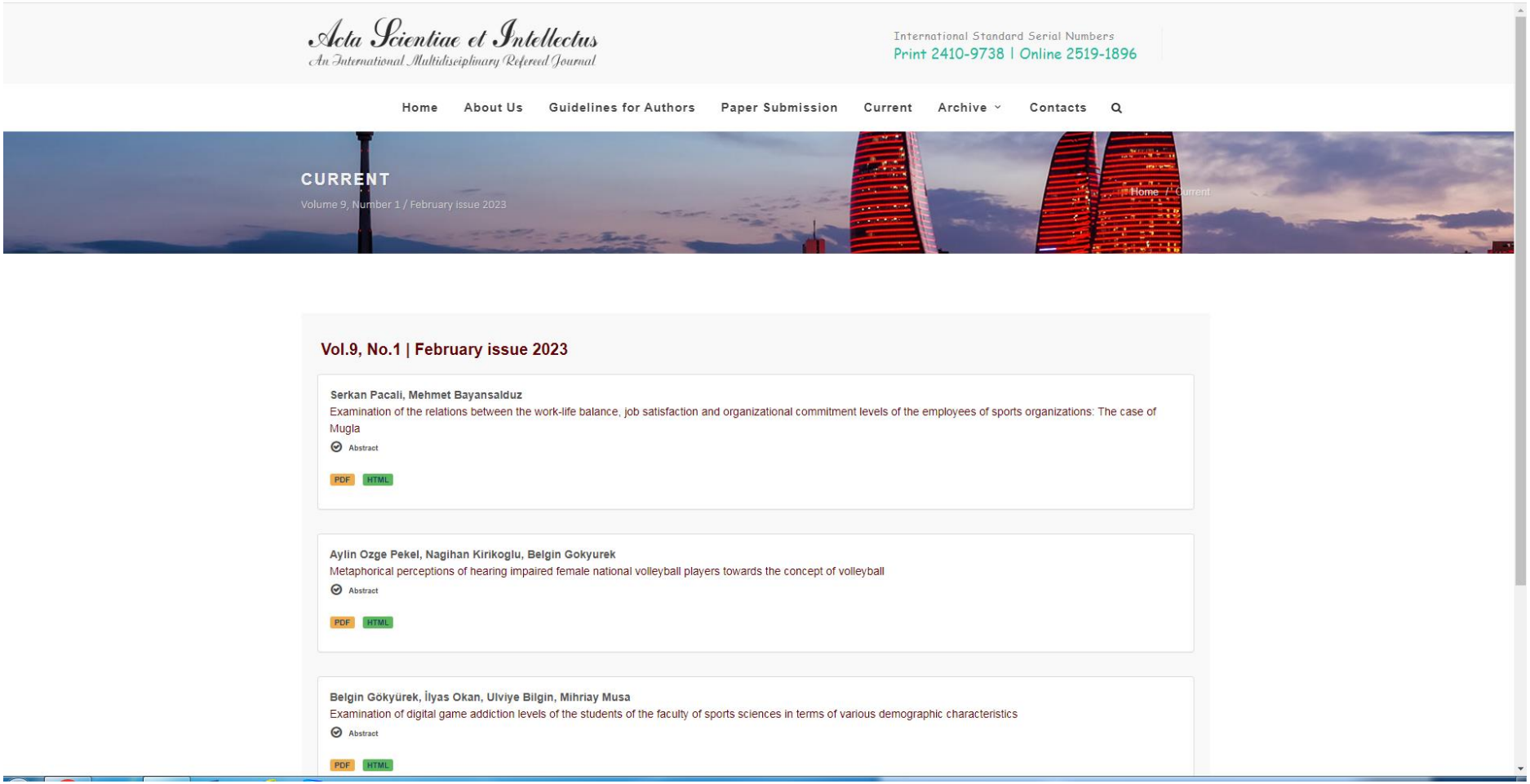
International Standard Serial Numbers
Print 2410-9738 | Online 2519-1896

P-ISSN 2410-9738 E-ISSN 2519-1896

Acta Scientiae et Intellectus

An International Multidisciplinary Refereed Journal

Science and Intellect



https://www.actaint.com/issue.php?go=february-2023

Belgin Gökyürek, İlyas Okan, Ulviye Bilgin, Mihriay Musa. Examination of digital game addiction levels of the students of the faculty of sports sciences in terms of various demographic characteristics. Acta Scientiae et Intellectus, 9(1); 2023, 32-57.

EXAMINATION OF DIGITAL GAME ADDICTION LEVELS OF THE STUDENTS OF THE FACULTY OF SPORTS SCIENCES IN TERMS OF VARIOUS DEMOGRAPHIC CHARACTERISTICS

Belgin Gökyürek[1], İlyas Okan[1], Ulviye Bilgin[1*], Mihriay Musa[2]

[1]*Gazi University, Faculty of Sports Sciences,* ***TURKIYE***
[2]*Usak University, Faculty of Sports Sciences,* ***TURKIYE***

*Corresponding author: inanb@gazi.edu.tr

ABSTARCT

The aim of this study is to examine the digital game addiction of sports science students in terms of various demographics. Relational screening method, one of the quantitative research designs, was used in the study. The population of the research consists of students studying at Usak University and Kahramanmaras Sutcu Imam University Faculties of Sports Sciences in the 2021-2022 academic year. There are 303 students in the research group, 188 male and 115 female, reached by random sampling method. The data were collected with the "Digital Game Addiction Scale for University Students" developed and adapted by Hazar and Hazar (2019). Descriptive statistics were used in the analysis of the data. Normality analysis was performed at a significance level of 0.05, and it was observed that the data were not normally distributed. Mann Whitney U and Kruscal Wallis test statistics at the 0.05 significance level were used for the analysis of the two-group and three or more-group variables regarding the mean difference between the variables. In the study, it has been seen that males has a higher level of digital game addiction than females. In addition, it has been determined that the mean of Usak province is highly addicted in digital game addiction.

Keywords: *Addiction, Digital Game, University Students*

INTRODUCTION

The fact that today's youth is intertwined with technology leads them to digital games more than traditional games. The concept of digital gaming is a general concept that refers to computer, mobile, network, console and video games. In addition, in digital games, there is a 'state of fantasy where reality is mixed with dreams', in which history, art, objects, symbols and all kinds of values can be plundered. So much so that the sense of time and space can be gathered (Unal & Bati, 2011).

Addiction is about the objects people use or the actions they take. It gets its user out of control, making it impossible to live without it. In other words, in use and action, the will of the individual is overridden. Even if he does not want to, he continues to use and behave addictive (Eker, 2016). Digital game addiction is one of the behavioral addiction types. Digital game addiction is defined as the obsessive and excessive use of computer and video games, which cannot be controlled by the gamer, despite causing social and emotional problems (Lemmens, Valkenburg, & Peter, 2009). Digital gaming addiction was discussed in the fifth issue of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) by the American Psychiatric Association (APA) in 2013, within the scope of Internet Gaming Disorder.

According to the Digital (2020) report, it has been determined that 95% of 2020 Turkey (ages 16-64) play video games. It has been seen as in Mobile: 35 Million Players, PC: 22 Million Players, Console: 17 Million Players; in Ages 18 - 24, 24.7%, Ages 25 - 34, 33.4%, Ages 35 - 44, 27.4%, Ages 45 - 54, 10.8%, Ages 55 - 64, 3.7%, as in female 45%, male 55%. Total Player Revenue 880,000,000 USD is constituted of Mobile revenue of 450,000,000 USD, PC revenue of 230,000,000 USD and console revenue of 200,000,000 USD. According to the level of income, high income constitutes 40.8%, middle income 29.5% and low income 29.8% (23).

Addiction can also be evaluated with sub-dimensions such as extreme focus, deprivation and seeking, change of emotion and immersion. The type of focus, which is seen as the concentration of attention or mental energy, despite all environmental stimuli, is called hyperfocus (hyperfocus). The focus has reached such high levels that the individual has lost all perceptions of what is going on around him (Lemmens et al, 2009; Bingol and Bayansalduz, 2016). Procrastination is a phenomenon that generally produces negative results in terms of personal well-being and performance (Kilbey, 2019). When the psychological dimension of addiction is evaluated, craving and excessive desire, the periods when these conditions cannot be controlled and the desire cannot be prevented are considered as the most important period of addiction and are explained with the concept of "crawing" (Klingsieck, 2013). As this period gets longer, it will start to be used more, as the enjoyment begins to decrease. This period is

expressed as the tolerance development period and is explained with the concept of "compulsiveness" (Uzbay, 2009).

Digital games drag individuals into an unreal world, causing them to lose control over their perception of time (Turton & Lingford-Hughes, 2016). Situations such as unawareness of time and overfocus are expressed as "immersion" (Williams et al, 2009). Digital games are a very common hobby today, especially among young people, and a healthy hobby for most users. However, in recent years, some digital games cause individuals to experience deterioration in their personal, social, educational and professional relationships and psychological problems. In addition, digital games cause major problems such as physical activity, unhealthy diet, vision and hearing-related diseases, bone problems, sleep disorders, depression, etc. (Uzunoglu, 2021). It is stated that the prevalence of digital gaming addiction is between 1.3% and 9.9% worldwide and continues to become widespread day by day. Recently, many researchers have suggested that psychosocial factors such as aggression, depression, and loneliness may cause individuals to become addicted to online games (E.J. Kim, Namkoong, Ku, & Kim, 2008; Lemmens, Valkenburg, & Peter, 2011; Mentzoni et al., 2011; Seay & Kraut, 2007; cited by Jeong et al., 2017). In studies on addiction, it is often associated with demographic characteristics and situations such as the type of game played and the duration of the game. Awareness level of digital game addiction is an important factor for the individual to be protected from digital game addiction (Griffiths, Davies & Chappell, 2004).

In this study, it was aimed to investigate the digital game addiction levels of sports science faculty students studying in different provinces according to their various demographic characteristics. Findings on the relationship between the digital game playing behaviors of university students and their demographic characteristics constitute an important aspect of the study in order to understand the threats posed by digital game addiction.

METHOD

Research Group

The population of the research consists of students studying in the Faculties of Sport Sciences of different universities in the 2021-2022 academic year. The research group consists of a total of 303 students, 188 male and 115 female, reached by random sampling method.

Collection of Data

Personal information form and Digital Game Addiction Scale were used to collect research data. In the personal information form, there are questions about the students'

age, grade, perceived income, the region of the university, the platform where the digital game is played, and the daily playing time. The Digital Game Addiction Scale was based on the "Digital Game Addiction Scale for Children" developed by Hazar and Hazar (2017) and was adapted by Hazar and Hazar (2019) over this scale. The scale is a 5-point Likert-type scale (1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Totally Agree) consisting of 21 items with 3 sub-dimensions: Overfocusing and Procrastination (11 items), Conflict, Deprivation and Seeking (6 items), Emotional Change and Immersion (4 items). When the internal consistency coefficients of the scale are examined, the internal consistency coefficient for "Overfocusing and Procrastination" was calculated as.93, for the second sub-dimension "Conflict, Deprivation and Seeking".88, and for the third sub-dimension "Emotional Change and Immersion" as.75 while it was determined as.92 for the grand total of the scale. While the internal consistency coefficients for this study were determined as.92 for the overall sum of the scale, as in the original, the internal consistency coefficient for "Overfocusing and Procrastination" is.88, the internal consistency coefficient for the second sub-dimension "Conflict, Deprivation and Seeking" is.87, and for the third sub-dimension "Emotional Change and Immersion" is.79. An increase in the score obtained from the scale indicates an increase in addiction. In addition, the scores obtained from the scale for digital game addiction were classified. Accordingly, the lowest score that can be obtained from the scale is "21" and the highest score is "105". In the grading of the scale scoring, it is evaluated as "1-21: Normal group, 22-42: Low-risk group, 43-63 Risky group, 64-84 Addicted group, 85-105 Highly addicted group".

Analysis of Data

In the analysis of the data, the distribution of the variables according to the groups was examined together with the descriptive statistics, and when the normality of the distributions and the homogeneity of the variances were evaluated, it was seen that the data were not suitable for the normal distribution. According to this result, it was decided to perform non-parametric tests in the analysis of the data. While descriptive statistics were given for personal information and digital game addiction classification, reliability analyzes were conducted to determine the internal consistency reliability coefficients between the scale items. In order to determine the difference between the students' digital game addiction levels in terms of independent variables such as gender, grade, perceived income, the region of the university, the platform where the digital game is played, and the mean rank scores in terms of daily digital game playing time, Mann-Whitney U analyzes were used for variables with two groups and Kruskal Wallis analyzes for variables with more than two groups. The significance level for the statistical analyzes was accepted as p<0.05.

FINDINGS

Digital Game Addiction Levels for University Students (UODO), sub-dimensions of digital game addiction levels as Level of Overfocus and Procrastination (AOE), Level of Conflict, Deprivation, and Seeking (CYA), Level of Emotion, Change, and Immersion (DDD) has been expressed in abbreviations at the tables.

Descriptive Statistics

	N	Min.	Max.	Weighted Mean	Standard Deviation
Digital Game Addiction Level	303	21	105	43.4554	21.4423
Overfocus and Procrastination Level	303	11	55	23.0792	11.27385
Level of Conflict, Deprivation and Seeking	303	6	30	11.3003	6.59562
Emotion Change and Level of Immersion	303	4	20	9.0759	4.55258
N	303				

In general, the Digital Game Addiction Levels of university students (X= 43,4554) are in the Risky Group. In the sub-dimensions of digital game addiction, university students are in the risky group with Overfocus and Procrastination Levels (X=23,0792). Conflict, deprivation and seeking levels (X=11,3003) are in the low-risk group and emotion change and immersion levels (X=9.0759) are in the risky group.

Cronbach's Alpha Reliability Analysis of Digital Game Addiction and Its Sub-Dimensions Scores

Cronbach's Alpha Value	Standard Cronbach's Alpha Value	Number of Items
0.861	0.973	4

The levels of digital game addiction, overfocus and procrastination, conflict, deprivation and seeking level, emotion change and immersion level for university students were found to be high with the scale representing the situation of university students (C.A.:0.973).

Normality test

	Kolmogorov-Smirnova		
	Value	sd	p
UODOBtop1	0.147	303	0,000
AOEsubdimension	0.143	303	0,000
CYAsubdimension	0.211	303	0,000
DDDsubdimension	0.133	303	0,000

Digital game addiction levels for university students did not show a normal distribution ($p<0.05$). Overfocus and procrastination levels did not show normal distribution ($p<0.05$). Conflict, deprivation and seeking levels did not show normal distribution ($p<0.05$). And the level of emotion change and immersion did not show normal distribution ($p<0.05$). For this reason, nonparametric test statistics were used in our analyses.

***Table 1**. Mann-Whitney U test regarding the difference between genders of digital game addiction levels, overfocus and procrastination level, conflict deprivation and seeking level, and emotional change and immersion levels for university students.*

Mann-Whitney U

	Gender	N	Weighted Mean	Mean Rank	M-W U	p
UODOBtop1	Male	188	47,3511	171.88	7072	0,000
	Female	115	37,0870	119.5		
	Total	303				
AOEsubdimension	Male	188	25,0798	171.19	7202	0,000
	Female	115	19,8087	120.63		
	Total	303				
CYAsubdimension	Male	188	12,2234	167.74	7851	0,000
	Female	115	9,7913	126.27		
	Total	303				
DDDsubdimension	Male	188	10,0479	171.94	7062	0,000
	Female	115	7,4870	119.41		
	Total	303				

There is a significant difference between the levels of digital game addiction and gender of university students ($p<0.05$). There was a significant difference between overfocus and procrastination levels and gender ($p<0.05$). There is a significant difference between the levels of conflict, deprivation and seeking and gender ($p<0.05$). And there is a significant difference between the levels of emotion change and immersion and their gender ($p<0.05$). Accordingly, female university students are less addicted to both digital game addiction and other sub-dimensions than male university students.

Table 2. *Mann-Whitney U test on the difference between the mean values of digital game addiction levels, overfocus and procrastination level, conflict deprivation and seeking level, emotion change and immersion levels for university students and their schools.*

	School	N	Weighted Mean	Mean Rank	M-W U	p
UODOBtop1	Usak	151	493841	174.01	8152.5	0,000
	Maras	152	37.5658	130.13		
AOEsubdimension	usak	151	25.9007	171.6	8516	0,000
	Maras	152	9.3553	132.53		
CYAsubdimension	Usak	151	13.2583	175.57	7917	0,000
	Maras	152	9.3553	128.59		
DDDsubdimension	Usak	151	10.2252	172.73	8346.5	0,000
	Maras	152	7.9342	131.41		
	Total	303				

There is a significant difference between the digital game addiction levels of university students and their schools ($p<0.05$). There is a significant difference between overfocus and procrastination levels and schools ($p<0.05$). There is a significant difference between conflict, deprivation and seeking levels and schools ($p<0.05$). And there is a significant difference between emotional change and immersion levels and schools ($p<0.05$). According to this situation, Maras University students are less addicted than Usak University students in both digital game addiction and other sub-dimensions.

Table 3. *Kruskal Wallis test on the difference between the mean values of digital game addiction levels, overfocus and procrastination level, conflict deprivation and seeking level, emotion change and immersion levels and income levels for university students.*

	Gelir	N	Weighted Mean	Mean Rank	X^2	sd	p
UODOB top1	2324 TRY and lower?	90	39.3556	134.74	14.447	4	0.006
	2325-2823 TRY	55	36.4727	131.4			
	2824-3323 TRY	41	45.5854	158.72			
	3324-3823 TRY	30	45.1333	157.85			
	3824 and over	87	50.5287	177.7			
	Total	303					
AOEsubdimension	2324 TL TRY and lower?	90	21.1222	134.94	14.494	4	0.006
	2325-2823 TRY	55	19.6182	131.8			
	2824-3323 TRY	41	23.9024	158.22			
	3324-3823 TRY	30	23.3333	155.57			
	3824 and over	87	26.8161	178.26			
	Total	303					
CYAsubdimension	2324 TL TRY and lower?	90	10.1000	134.41	15.668	4	0.003
	2325-2823 TRY	55	8.8909	130.33			
	2824-3323 TRY	41	12.0488	160.56			
	3324-3823 TRY	30	12.2000	161.43			
	3824 ad over	87	13.4023	176.61			
	Total	303					
DDDsubdimension	2324 TL TRY and lower?	90	8.1333	135.79	11.5	4	0.021
	2325-2823 TRY	55	7.9636	133.97			
	2824-3323 TRY	41	9.6341	160.3			
	3324-3823 TRY	30	9.6000	159.8			
	3824 and over	87	10.3103	173.56			
	Total	303					

There is a significant difference between the levels of digital game addiction and income levels of university students ($p<0.05$). There is a significant difference between overfocus and procrastination levels and income levels ($p<0.05$). There is a significant difference between conflict, deprivation and seeking levels and income levels ($p<0.05$). And there is a significant difference between the levels of emotion change and immersion and income levels ($p<0.05$). In this case, it is seen that digital game addiction increases as the income level increases.

Table 4. *Kruskal Wallis test on the difference between the mean values of digital game addiction levels, overfocus and procrastination level, conflict deprivation and seeking level, emotion change and immersion levels and grade levels for university students.*

	Grade	N	Weighted Mean	Mean Rank	sd	X^2	p
UODOB top1	1st Grade	95	38.9474	135.37	3	8.512	0.037
	2nd Grade	64	40.9375	144.45			
	3rd Grade	77	50.3247	172.15			
	4th Grade	67	44.3582	159.63			
	Total	303					
AOEsubdimension	1st Grade	95	20.6105	134.12	3	8.789	0.032
	2nd Grade	64	22.1094	147.56			
	3rd Grade	77	26.6883	172.77			
	4th Grade	67	23.3582	157.72			
	Total	303					
CYAsubdimension	1st Grade	95	10.0526	138.66	3	12.854	0.005
	2nd Grade	64	10.0781	132.63			
	3rd Grade	77	13.5714	176.08			
	4th Grade	67	11.6269	161.75			
	Total	303					
DDDsubdimension	1st Grade	95	8.2842	138.55	3	5.795	0.122
	2nd Grade	64	8.75	145.1			
	3rd Grade	77	10.0649	168.13			
	4th Grade	67	9.3731	159.12			
	Total	303					

There is a significant difference between the levels of digital game addiction and class levels of university students ($p<0.05$). There is a significant difference between overfocus and procrastination levels and grade levels ($p<0.05$). There is a significant difference between conflict, deprivation and seeking levels and grade levels ($p<0.05$). And there is no significant difference between emotional change and immersion levels and grade levels ($p>0.05$). In this table, it is seen that 3rd grade students have higher levels of digital addiction.

Table 5. *Kruskal Wallis test on the difference between the mean values of digital game addiction levels, overfocus and procrastination level, conflict deprivation and seeking level, emotion change and immersion levels and the platform they use for university students.*

	platform	N	Weighted Mean	Mean Rank	sd	X^2	p
UODOB top1	pc	58	51.9483	195.82	5	99.542	0,000
	phone	123	38.1057	137.08			
	tablet	11	56.2727	202.05			
	console	27	62.0741	226.74			
	all	16	70.8125	239.53			
	none	68	29.9853	83.24			
	Total	303					
AOEsubdimension	platform	58	27.8103	195.84	5	100.047	0,000
	pc	123	20.4634	138.98			
	phone	11	27.8182	187.32			
	tablet	27	32.5185	225.72			
	console	16	37.6875	243.53			
	all	68	15.8235	81.65			
	none	303					
CYAsubdimension	platform	58	12.9310	176.67	5	70.802	0,000
	pc	123	9.5935	134.9			
	phone	11	17.0000	221.18			
	tablet	27	16.7037	224.04			
	console	16	14.0625	226.66			
	all	68	8.1029	104.52			
	none	303					
DDDsubdimension	platform	58	11.2069	195.52	5	87.841	0,000
	pc	123	8.0488	135.7			
	phone	11	11.4545	198.55			
	tablet	27	12.8519	221.02			
	console	16	19.0625	233.78			
	all	68	6.0588	90.2			
	none	303					

There is a significant difference between the digital game addiction levels of university students and the platform they use ($p<0.05$). There was a significant difference between the overfocus and procrastination levels and the platform they used ($p<0.05$). There is a significant difference between conflict, deprivation and seeking levels and the platform they use ($p<0.05$). And there is a significant difference between the levels of emotion change and immersion and the platform they use ($p<0.05$). According to this table, when we look at the platform used, it is seen that the students who prefer "all" have higher levels of digital addiction.

***Table 6**. Kruskal Wallis test on the difference between the mean values of digital game addiction levels, overfocus and procrastination level, conflict deprivation and seeking level, emotion change and immersion levels and daily playing time for university students.*

	daily game play	N	Weighted Mean	Mean Rank	sd	X^2	p
UODOBtop1	none	104	29.125	85.73	5	160.577	0,000
	1-2 hours	104	38.1923	140.83			
	3-4 hours	43	53.3256	208.83			
	5-6 hours	23	66.7391	249.7			
	7-8 hours	11	69	245.27			
	9-10 hours	6	93	289.83			
	11 hours and over	12	85.0833	277.88			
	Total	303					
AOEsubdimension	none	104	15.5385	86.38	5	159.638	0,000
	1-2 hours	104	20.5	140.41			
	3-4 hours	43	28	209.02			
	5-6 hours	23	35	250.07			
	7-8 hours	11	35.1818	238.18			
	9-10 hours	6	48.6667	288.17			
	11 hours and over	12	46.4167	281.83			
	Total	303					
CYAsubdimension	none	104	7.7308	102.3	5	130.401	0,000
	1-2 hours	104	9.2404	132			
	3-4 hours	43	13.7442	199.59			
	5-6 hours	23	17.913	233.67			
	7-8 hours	11	20.4545	262.27			
	9-10 hours	6	26.1667	285.75			
	11 hours and over	12	22.8333	260.96			
	Total	303					
DDDsubdimension	none	104	5.8558	88.5	5	139.366	0,000
	1-2 hours	104	8.4519	145.45			
	3-4 hours	43	11.5814	204.84			
	5-6 hours	23	13.8261	241.04			
	7-8 hours	11	13.3636	222.55			
	9-10 hours	6	18.1667	289.92			
	11 hours and over	12	15.8333	265.54			
	Total	303					

In the analysis of the data, the distribution of the variables according to the groups was examined together with the descriptive statistics, and when the normality of the distributions and the homogeneity of the variances were evaluated, it was decided to perform non-parametric tests. While descriptive statistics were given for personal information and digital game addiction classification, reliability analyzes were conducted to determine the internal consistency reliability coefficients between the scale items. Mann-Whitney U and Kruskal Wallis analyzes were used to determine the difference between the students' digital game addiction levels in terms of independent variables such as gender, grade, perceived income, the region of the

university, the platform on which digital games are played, and the mean rank scores in terms of daily digital game playing time. The significance level for the statistical analyzes was accepted as 0.05.

DISCUSSION

The digital age, which has influenced the whole world, has led to great changes both in the industry and in the social life of individuals. Individuals forming different societies have been affected in different ways. The addiction levels of the students in the faculty of sports sciences, which is the research subject of our study, to digital games, which are a product of the digital age, were determined. In this context, the digital game addiction level, overfocus and procrastination level, conflict deprivation and seeking levels, and emotion change and immersion levels of the sample individuals were determined. The differences of these variables, which we accepted as dependent variables, were determined according to the independent variables such as gender, the university they are a student at, their income levels, grade levels, the platform from which they enter the digital game and the daily playing times. The analyzes carried out led us to the following findings. The concept of digital game addiction is "the obsessive and excessive use of computer and video games in an uncontrolled manner by the individual playing the game, although it causes social and emotional problems" (Lemmens, Valkenburg, & Peter, 2009). When we look **at Table 1 within the limits** of meaning, female university students show less uncontrolled behavior than male university students, and therefore they play digital games less obsessively and excessively. In extreme focus and procrastination levels, female university students are better at both salience and problem than male university students. In terms of clarity, it is seen that the digital game has become the most important focus of male university students compared to female university students. In terms of problems, male university students have more problems in life areas such as social life due to playing digital games. Considering the sub-dimensions of overfocus and procrastination, conflict deprivation and seeking, and emotion change and immersion, female university students are in a better position than male university students in terms of conflict, deprivation and seeking. In terms of withdrawal, male university students exhibit more unpleasant psychological and physiological behaviors such as abrupt moodiness and irritability during the game. In terms of conflict, male university students also have conflicts with other individuals around them and lie more to those around them, especially than female university students, in order to continue playing. In terms of relapse, male university students are less able to control excessive gaming behavior than female university students. This leads them to play

games over and over again. In terms of emotion change and immersion, female university students are in a better position than male university students. In terms of situation change, it is observed that female university students are more satisfied with the life they live than male university students. Because they are less bored with the life they have lived. Male university students, on the other hand, express in-game fun individually and experience many emotional states at a high level, and as a result, they tend to play more in order to get rid of their troubles. In terms of tolerance, female university students spend less time and frequency of playing games than male university students. When other studies on this subject in the literature are examined, it is seen that male students have higher digital game playing attitudes than female students (Derelioglu et al., 2021). The results obtained in the study of Goldag (2018) and that the level of digital game addiction is higher in male individuals (Wittek et al., 2016) support our research. It has been determined that male students' game addiction score averages are higher than female students. According to the results of their study, Kneer et al. (2014) emphasized that according to the gender variable, which they consider important, males are more easily influenced by game addiction than females, however, boys are more inclined to play digital games than girls. In some of the studies in which different results were obtained in our research, Blinka and Mikuska (2014) revealed that there was no significant difference in terms of gender variable with the groups that play high levels daily and are seen as risk groups. According to the results of the research conducted by Musluoglu (2016), it was emphasized that the digital game addictions of the students did not show a significant difference according to the gender variable. The results that the state of not using technology consciously may lead to addiction and harmful behaviors (Hazar and Ekici, 2021), the state of playing games, which turns into addiction, may cause problems such as obesity, muscle and joint problems, which affect the person who is inactive for a long time, physiologically (Uzunoglu, 2021), the anxiety level of students with game addiction is found to be significantly higher than those who are not addicted (Gezer, 2019), digital game addiction of participants who do not participate in physical activity is higher (Guvendi et al. 2019), uncontrolled digital games can affect psychology negatively and at the same time, educational and instructive digital games can contribute to development in a controlled state (Irmak and Erdogan, 2016), in this process, individuals who are called addicts neglect their social lives (Young, 2009) are reached.

As seen in **Table 2.**, it is thought that Kahramanmaras University students can compensate for their psychological effects while playing digital games compared to Usak university students. Meeting the needs of Usak university students, which are not met in real life, causes Usak university students to play more digital games and digital game addiction occurs through continuous reinforcement. In order to understand this

situation, when we look at the studies examining the demographic, economic and social characteristics of the population, it is seen that Kahramanmaras and Usak regions belong to provinces with medium urbanization level, Kahramanmaras region is characterized as an agricultural center and Usak region is characterized as an industrial center settlement in their study (Yucesahin and Ozgur, 2008). Based on this information, we believe that digital game addiction is higher because Usak University students are more fortunate in terms of accessing the internet, owning and using digital tools. The individual determines the lower and upper limits of his behavior with his basic tendencies. Environmental conditions, on the other hand, determine at what point the behavior will occur between the lower and upper limits. According to Heidegger, people first make sense of their environment by locating there and giving emotional reactions, and then they want to measure their behavior and actions through science and technology (Sharr, 2013). When we look at the sub-dimensions of overfocus and procrastination, conflict deprivation and seeking, and emotion change and immersion, Kahraman Maras University students are in a better position than Usak University students. Usak University students exhibit uncontrolled and intolerable psychological and physiological states. They are also more prone to conflict when these people make decisions to make the playing time last longer. As a result, it exhibits situations such as unawareness of time, excessive focus and immersion. As long as their needs are met by playing digital games, university students will use the internet more and eventually become addicted to digital games. In the study conducted by Ekinci et al. (2007), there was no difference in game addiction according to the region of residence. In the study conducted by Bekir (2018), in the province of Izmir, it was determined that the place of residence does not affect digital game addiction and the reason for this result is that there is access to devices and games in every region. In the study of Gulbetekin et al. (2021), a significant difference was found in the sub-dimension of "Overfocus and Conflict on Playing Digital Games" according to the place where the children live. It has been determined that there is a difference between the children living in the village and the children in the other group, to the detriment of the children living in the village. It is believed that the reason for the obtained result is the difficulty of accessing the Internet in the villages.

As can be seen in **Table 3**, it is understood that university students with a high economic level have higher needs and desires for digital game playing. The reason for this is that high-income university students have difficulties in social environments, exhibit depressive behaviors and have difficulty in establishing relationships when they are not playing digital games. Their lack of financial hardship shows that they achieve satisfactory results while playing, regardless of their digital play time. This situation increases the level of digital game addiction in university students.

Considering the sub-dimensions of overfocus and procrastination, conflict, deprivation and seeking, emotion change, and immersion, it was determined that university students with high income levels had a higher level of digital game addiction than university students with low income. As the income level rises, they stay away from physical activities and spend most of their time in the digital environment. While this situation is more closely related to digital game satisfaction of some needs, some needs are more closely related to digital game satisfaction. It can be said that university students with high income levels do not meet their psychological demands sufficiently in real life, therefore they turn to digital games to meet their psychological demands. Some of these are psychological problems such as depression, anxiety and anxiety. In addition, it is thought that conflicts arising from anxiety and stress in this situation may cause them to lie (Bayansalduz, 2014). They try to reflect mood pressures by exhibiting repetitive digital gaming behaviors. Students with high incomes spend more time on their digital games, immerse themselves in games, and this causes control disorders. Wenzel et al. (2009) showed that there is a relationship between the level of playing digital games and a better economic situation. However, in a different study, it was determined that digital game addictions were higher than students with poor socioeconomic status, since students with good socioeconomic status had a higher chance of accessing technological devices (Yigit and Gunuc, 2020). According to the income level variable of the families, it was determined that the level of dependency increased as the income level increased. (Horzum, 2011; Cavus, Ayhan & Tuncer, 2016). It has been stated that individuals with a high socioeconomic level have a high level of game addiction, and this is generally explained by the possession and active use of computers or other digital tools.

As seen in **Table 4**, it has been determined that the reason for digital game addiction of 3rd year university students is the lack of real need satisfaction (psychological physiological needs) is an important reason for digital game addiction. In general, it has been determined that 3rd grade students play more digital games to meet their psychological needs such as realistic emotional compensation and expression, interpersonal communication and team belonging. An individual's behavioral experience often influences behavioral motivation. When individuals experience positive experiences, behavioral motivation is likely to increase. Individuals who experience more digital gaming experience may be more motivated to play. Therefore, the stronger the motivation for digital games, the higher the addiction tendency. Considering the sub-dimensions of overfocus and procrastination, conflict deprivation and seeking, and emotion change and immersion, 3rd grade students show more digital game addiction than 1st, 2nd and 4th grade students. Digital gaming leads to positive emotional experiences in 3rd grade students. And it has been found that it

makes them feel fun during the game. It is the ability to compensate for the deficiencies they feel. On the other hand, digital game addiction can disrupt real-life relationships, hinder academic development and increase aggression. When 3rd year university students play digital games, it is highly likely that they will exhibit behaviors such as getting bored with life, delaying or forgetting their individual needs, as it leads to happy experiences and certain expectations that satisfy them. Since digital games meet their psychological expectations, many emotional states such as dreaming of playing digital games during the lesson and searching for tools to play digital games when they go anywhere outside the home are experienced at a high level. It is thought that it is a good source of inspiration for 3rd grade students who focus on digital games not to interfere with their digital game play. According to the results of a study conducted by Çakir et al. (2011), no significant difference was found in terms of game addictions of university students according to class or game type. In a similar study conducted on high school students, no significant difference was found in game addiction between grades (Tas et al., 2014). In a study conducted on secondary school students, a significant difference was found between grade levels and game addiction levels. In addition, it was concluded that game addicted students have a higher sense of loneliness (Oncel & Tekin, 2015). According to the findings of Melike et al., (2022), the digital game addiction scores of high school 4th grade students are lower than the addiction scores of students from other grades. This situation can be interpreted as the digital game addictions of the students begin to decrease due to the emergence of thoughts about exams, professional anxiety and gaining sense of responsibility at the point of starting life as students approach the end at every stage of their education.

As seen in **Table 5**, it has been determined that the students who prefer "all" in the platform preference used by university students while playing digital games have a higher level of digital game addiction. This situation increases the level of participation in the game, especially after individuals have a positive experience in the game. Repetitive activities have the potential to be addictive. As they continue to experience the pleasure that digital games bring to them, they gradually become addicted to digital games. It has been determined that the students who are addicted to digital games are weaker in life planning and the formation of their perspective on life and values compared to the students who are not addicted to digital games or who are less risky. Considering the sub-dimensions of overfocus and procrastination, conflict deprivation and seeking, and emotion change and immersion, students who prefer all of them in the platform they use while playing digital games are more likely to engage in games to compensate for their lack of real self. It allows them to occupy most of their lifespan. It can be said that students with high addiction to digital games have high sensitivity to removing restrictions and boredom, and are more prone to sensory

adaptation and tolerance. The reason why university students prefer all of them in platform preference shows that they are more willing to spend time and energy and become more prone to internet addiction over time. Therefore, enabling university students to participate in various healthy activities (such as sports and music) and directing them to these activities helps in the intervention and treatment of their digital game addictions. Akbaba (2022), digital game addiction scores of students who use computers and tablets while playing games were found to be significantly higher than those who use phones, game consoles, PS, X-box etc. Sen (2023) found that students who play games with a computer or console have higher levels of digital game addiction than students who play games with a smart phone. Mustafaoglu and Yasaci (2018) found that people with digital game addiction use tablets the most. It is thought that the effect of the global pandemic process on this situation has increased the usage time of these devices and caused individuals using technological devices such as tablets, computers and smartphones to be in the risky group.

As seen in **Table 6**, university students who play digital games for 9-10 hours exhibit more addictive behavior. Excessive or less time playing digital games is a very sensitive indicator in distinguishing normal people from addicted people. Addicted people give up long-term benefits (happiness, social relationships, etc.) for their instant pleasure. They exhibit more pronounced instinctive behaviors than normal people. Individuals with a lack of time interval selection exhibit more addictive behavior. In our study, university students who play digital games for 11 hours or more show that they experience withdrawal after reaching satisfaction compared to university students who play games for 9-10 hours. Considering the sub-dimensions of excessive focus and procrastination, conflict deprivation and seeking, emotion change and immersion, it has been determined that digital games have become the focal point of the lives of university students whose digital game play time is 9-10 hours. The instinctive behavior of addicts in choosing the time they use to play digital games is related to the reduction of living spaces such as school and social life. For this reason, he has problems with the people around him because he experiences stress and anxiety. It has been determined that playing digital games for 9-10 hours has become an indispensable element in satisfying the most important desires of university students. It has been determined that university students who play digital games for 9-10 hours are not sensitive to time while playing and experience loss of appetite and restlessness when they do not play digital games. It has been determined that individuals who constantly dream of playing digital games increase the likelihood of repeating the behavior and experience difficulties in academic studies. It is thought that university students' playing digital games for a long time is due to lack of self-control. University students who play digital games for 9-10 hours interpret the time spent playing the

game according to the positive emotions they feel at that moment. University students who spend most of their time playing digital games exhibit more addictive behavior because they have difficulty in time management. It is closely related to the satisfaction of psychological needs. When the difficulties they encounter in real life and their controls cannot be satisfied, it is likely that they enter the virtual world in search of satisfaction and become overly dependent on the virtual world by disconnecting from the real world, leading to digital game addiction. Therefore, allowing college students to experience real-life control and challenges may be beneficial in the intervention and treatment of college students' digital game addiction. In the study of Kneer et al. (2014), a significant difference was observed in the addiction levels of students according to the duration of daily computer game play, it has been determined that the digital game addiction levels of male students who use the internet for more than 6 hours and between the ages of 18-21 are high although the digital game addiction levels of the students are low. In similar studies, it is stated that as the time spent in the digital game environment increases during the day, students' addiction levels increase in the same direction (Barut, 2019; Tetik, 2020; Bozkurt et al. 2019; Gulbetekin et al. 2021; Goldag, 2018; Ekinci et al., 2017; Hazar et al., 2017; Guvendi et al., 2019). It can be said that this situation is caused by the fact that the individual constantly repeats an activity that he likes and enjoys spending time with, that such conversations are at the forefront in the circle of friends, that the individual's desires in this direction increase and that makes the process more attractive. Based on these results, it is thought that the factors affecting the digital game addiction levels of university students should be examined from different perspectives.

CONCLUSION

In general, it was determined that university students' digital game addiction levels were in the risky group, while university students were in the digital game addiction sub-dimensions; overfocus and procrastination levels were in the risky group, conflict, deprivation and seeking levels were in the low-risk group, and emotion change and immersion were in the risky group. In addition, it has been observed that digital game addiction is higher due to the fact that Usak University students are more fortunate in terms of accessing the internet, owning and using digital tools.

SUGGESTIONS

In this study, digital game addiction levels of sports science faculty students studying in different provinces were examined in terms of various demographics

according to gender, province, income level, grade level, platform they use and daily game time variability. For different addicted groups, it should be considered that the application of clinical treatment and differentiated intervention methods may have better, curative effects. Early diagnosis and determination of the right targets will help increase the effectiveness of interventions for digital game addiction. Also, group therapy combined with emotion education can improve self-emotional awareness and negative emotion regulation behaviors. Digital game addiction encourages interpersonal tension and discussion, barriers to emotional communication can be improved through empathy training. Interpersonal communication skills will be more conducive to avoiding addictive behaviors. The fact that today's youth is intertwined with technology increases their addiction. Addiction counseling centers in all provinces should increase their service efforts, provide timely assistance, encourage young people to adopt positive emotion regulation strategies and solutions, and develop young people's skills in coping with stress and using the Internet wisely so that they can get rid of addictions and get treatment. Careful and continuous follow-up and implementation of the above-mentioned sıggestions will benefit university students in the prevention and treatment of addiction disorders.

REFERENCES

1) Akbaba. D. (2022). Üniversite öğrencilerinin dijital oyun bağımlılığını yordamda yaşantısal kaçınma, ait olma ve psikolojik iyi oluşun rolü. Yayınlanmamış Yüksek Lisans Tezi. Akdeniz Üniversitesi. Eğitim Bilimleri Enstitüsü Eğitim Bilimleri Ana Bilim Dalı Rehberlik ve Psikolojik Danışmanlık Bilim Dalı
2) Akbaba. D (2022). The role of experiential avoidance, belonging and psychological well-being in predicting digital game addiction of university students. Unpublished Master Thesis. Akdeniz University. Institute of Educational Sciences Department of Educational Sciences Guidance and Psychological Counseling
3) Barut, B. (2019). Ergenlerde dijital oyun bağımlılık düzeyi ile algılanan sosyal destek ve doygu düzenleme arasındaki ilişkinin incelenmesi, Yayınlanmamış Yüksek Lisans Tezi. Hasan Kalyoncu Üniversitesi Sosyal Bilimler Enstitüsü Psikoloji Ana Bilim Dalı, Gaziantep.
4) Barut, B. (2019). Examining the relationship between the level of digital game addiction and perceived social support and satisfaction regulation in adolescents, Unpublished Master Thesis. Hasan Kalyoncu University, Institute of Social Sciences, Department of Psychology, Gaziantep.

5) Bayansalduz, M. (2014). An Investigation into the State-Trait Anger Expression Level of Taekwondo Students Attending High School, The Anthropologist, 18:3, 921-926, DOI: 10.1080/09720073.2014.11891624
6) Bekir, S. (2018). Üniversite öğrencilerinde çevrimiçi oyun bağımlılığı düzeyinin duygusal şemalar, eylemli kişilik ve bazı değişkenler açısından incelenmesi (Yüksek lisans tezi). Sakarya Üniversitesi, Sakarya.
7) Bekir, S. (2018). Examining the level of online game addiction in university students in terms of emotional schemas, active personality and some variables (Master's thesis). Sakarya University, Sakarya.
8) Bingol, E. & Bayansalduz, M. (2016). Evaluating the Level of Exercise Dependence and Psychological Resilience of Athletes from Different Branches, The Anthropologist, 24:3, 827-835, DOI: 10.1080/09720073.2016.11892079
9) Blinka, L., & Mıkuška, J. (2014). The role of social motivation and sociability of gamers in online game addiction. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 8(2).
10) Bozkurt, T.M., Dursun, M. ve Arı, Ç. (2019). Spor bilimleri fakültesi öğrencilerinin dijital oyun oynamaya yönelik tutumların incelenmesi. Journal of Human Sciences, 17 (1): 11-21.
11) Bozkurt, T.M., Dursun, M. and Ari, C. (2019). Examination of the attitudes of the students of the faculty of sports sciences towards playing digital games. Journal of Human Sciences, 17 (1): 11-21.
12) Çakır, Özlem; Ayas, Tuncay Ve Horzum, Mehmet Barış (2011). "Üniversite Öğrencilerinin İnternet ve Oyun Bağımlılıklarının Çeşitli Değişkenlere Göre İncelenmesi", Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, cilt: 44, sayı: 2, p. 95-117.
13) Cakir, Ozlem; Ayas, Tuncay and Horzum, Mehmet Baris (2011). "Examination of University Students' Internet and Game Addiction According to Various Variables", Journal of Ankara University Faculty of Educational Sciences, vol: 44, issue: 2, p. 95-117.
14) Çavuş, S., Ayhan, B. & Tuncer, M. (2016). Bilgisayar oyunları ve bağımlılık: Üniversite öğrencileri üzerine bir alan araştırması. İletişim Kuram ve Araştırma Dergisi, (43).
15) Cavus, S., Ayhan, B. & Tuncer, M. (2016). Computer games and addiction: A field study on university students. Journal of Communication Theory and Research, (43).

16) Derelioğlu, M., Çankaya, S., ve Saki, Ü. (2021). Lise öğrencilerinin dijital oyun tutumlarının incelenmesi. Kayantaş, İ ve Ilkım, M. (Ed.). Spor Bilimlerinde Araştırma ve Değerlendirmeler – I(S. 258). Gece Kitaplığı
17) Derelioglu, M., Cankaya, S., and Saki, U. (2021). Examination of high school students' digital game attitudes. Kayantaş, I and Ilkim, M. (Ed.). Research and Evaluation in Sport Sciences – I (P. 258). Night Library
18) Eker, Ö. (2016). Lise Öğrencilerinin Akıllı Telefon Bağımlılıkları ile Öznel İyi Oluşlarının İncelenmesi. Nişantaşı Üniversitesi, Sosyal Bilimler Enstitüsü Yüksek Lisans Tezi (s. 36). içinde İstanbul.
19) Eker, O. (2016). Investigation of High School Students' Smartphone Addictions and Subjective Well-Being. Nisantası University, Institute of Social Sciences Master's Thesis (p. 36). in Istanbul.
20) Ekinci N.E., Yalçın I, Ozer O. ve Kara T. (2017). An investigation of the digital game addiction between high school students. International Journal of Human Sciences,14 (4): 4989-4994.
21) Ekinci N.E., Yalcın I, Ozer O. and Kara T. (2017). An investigation of the digital game addiction between high school students. International Journal of Human Sciences, 14 (4): 4989-4994.
22) Gezer, H. (2019). Ortaokul ve lise öğrencilerinin oyun bağımlılığı ile anksiyete ve empatik eğilimleri arasındaki ilişkinin incelenmesi; Sancaktepe örneği. (Yayımlanmamış yüksek lisans tezi). Üsküdar Üniversitesi Adli Bilimler Anabilim Dalı, İstanbul.
23) Gezer, H. (2019). Examining the relationship between game addiction and anxiety and empathic tendencies of secondary and high school students; Sancaktepe example. (Unpublished master's thesis). Uskudar University, Department of Forensic Sciences, Istanbul.
24) Göldağ B. (2018). Lise öğrencilerinin dijital oyun bağımlılık düzeylerinin demografik özelliklerine göre incelenmesi. YYÜ Eğitim Fakültesi Dergisi, 15 (1): 1287-1315.
25) Goldag B. (2018). Examination of high school students' digital game addiction levels according to their demographic characteristics. YYU Journal of Education Faculty, 15 (1): 1287-1315.
26) Griffiths, M. D., Davies, M. N., & Chappell, D. (2004). Online computer gaming: a comparison of adolescent and adult gamers. Journal of adolescence, 27(1), 87-96.
27) Griffiths, M., & Davies, M. (2005). Videogame Addiction: Does it Exist? J. Goldstein, & J. (Eds) Raessens içinde, Handbook of Computer Game Studies. Boston: MIT Pres, s. 359-368.

28) Gülbetekin, E, Güven, E ve Tuncel, O. (2021). Adolesanların Dijital Oyun Bağımlılığı ile Fiziksel Aktivite Tutum ve Davranışlarını Etkileyen Faktörler. Bağımlılık Dergisi, 2021; 22(2):148-160. Doi: 10.51982/bagimli.866578
29) Gulbetekin, E, Guven, E, and Tuncel, O. (2021). Factors Affecting Adolescents' Digital Game Addiction and Physical Activity Attitudes and Behaviors. Journal of Addiction, 2021; 22(2):148-160. DOI: 10.51982/slave.866578
30) Güvendi, B, Tekkurşun Demir, G, Keskin, B. (2019). Ortaokul öğrencilerinde dijital oyun bağımlılığı ve saldırganlık. OPUS Uluslararası Toplum Araştırmaları Dergisi, 11(18), 1194-1217. DOI: 10.26466/opus.547092
31) Guvendi, B, Tekkursun Demir, G, Keskin, B. (2019). Digital game addiction and aggression in middle school students. OPUS International Journal of Society Studies, 11(18), 1194-1217. DOI: 10.26466/opus.547092
32) Hazar, Z. & Hazar, E. (2019). Üniversite Öğrencileri İçin Dijital Oyun Bağımlılığı Ölçeği (Uyarlama Çalışması). Spor Bilimleri Araştırmaları Dergisi, 4 (2), 308-322. DOI: 10.25307/jssr.652854
33) Hazar, Z. & Hazar, E. (2019). Digital Game Addiction Scale for University Students (Adaptation Study). Journal of Sport Sciences Research, 4 (2), 308-322. DOI: 10.25307/jssr.652854
34) Hazar, Z. ve Ekici, F. (2021). Ortaokul öğrencilerinin dijital oyun bağımlılığı ile zorbalık bilişleri arasındaki ilişkinin incelenmesi. Gazi Beden Eğitimi ve Spor Bilimleri Dergisi, 26(1), 1-15. Retrieved from https://dergipark. org.tr/en/pub/gbesbd/issue/59393/787712
35) Hazar, Z. and Ekici, F. (2021). Examining the relationship between secondary school students' digital game addiction and bullying cognitions. Gazi Journal of Physical Education and Sport Sciences, 26(1), 1-15. Retrieved from https://dergipark. org.tr/en/pub/gbesbd/issue/59393/787712
36) Hazar, Z., Demir, G. T., Namlı, S. ve Türkeli, A. (2017). Ortaokul öğrencilerinin dijital oyun bağımlılığı ve fiziksel aktivite düzeyleri arasındaki ilişkinin incelenmesi. Niğde Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi, 11 (3), 320-332.
37) Hazar, Z., Demir, G. T., Namlı, S. and Turkeli, A. (2017). Examining the relationship between secondary school students' digital game addiction and physical activity levels. Nigde University Journal of Physical Education and Sport Sciences, 11 (3), 320-332.
38) Horzum, M. B. (2011). İlköğretim öğrencilerinin bilgisayar oyunu bağımlılık düzeylerinin çeşitli değişkenlere göre incelenmesi. Eğitim ve Bilim, 36(159), 56-68.

39) Horzum, M. B. (2011). Examining the computer game addiction levels of primary school students according to various variables. Education and Science, 36(159), 56-68.
40) https://www.gaminginturkey.com/files/pdf/turkiye-oyun-sektoru-raporu-2020.pdf
41) Irmak, A.Y., & Erdoğan, S. (2016). Ergen ve genç erişkinlerde dijital oyun bağımlılığı: Güncel bir bakış. Türk Psikiyatri Dergisi, 27(2), 128-137.
42) Irmak, A.Y., & Erdogan, S. (2016). Digital game addiction in adolescents and young adults: A current view. Turkish Journal of Psychiatry, 27(2), 128-137.
43) Jeong, E. J., Kim, D. J. and Lee, D. M. (2017). Why do some people become addicted to digital games more easily? A study of digital game addiction from a psychosocial health perspective. International Journal of Human–Computer Interaction, 33(3), 199-214.
44) Kavlak, M., Sarılır, A. İ. ve Tönbol, B. (2022). Dijital oyun bağımlılığı yalnızlığı tetikler mi? Necmettin Erbakan Üniversitesi Ereğli Eğitim Fakültesi Dergisi, 4(1), 1-13.
45) Kavlak, M., Sarilir, A. I. and Tonbol, B. (2022). Does digital game addiction trigger loneliness? Necmettin Erbakan University Journal of Ereğli Education Faculty, 4(1), 1-13.
46) Kilbey E, 2019. Çocuğunuz dijital dünyanın esiri olmasın. Ankara, Paloma Yayınları.
47) Kilbey E, 2019. Do not let your child be a prisoner of the digital world. Ankara, Paloma Publications.
48) Kim, E. J., Namkoong, K., Ku, T. and Kim, S. J. (2008). The relationship between online game addiction and aggression, self-control and narcissistic personality traits. European psychiatry, 23(3), 212-218.
49) Klingsieck KB, 2013. Procrastination: When good things don't come to those who wait. European Psychologist, 18(1), 24–34.
50) Kneer J, Rieger D, Ivory J.D. ve Ferguson C. (2014). Awareness of risk factors for digital game addiction: interviewing players and counselors. Int J Ment Health Addict; 12 (8), 585–599.
51) Lemmens, J. S., Valkenburg, P. M. ve Peter, J. (2009). Development and validation of a Game Addiction Scale for Adolescents. Media Psychology, 12(1), 77-95. doi: 10.1080/15213260802669458
52) Mentzoni, R. A., Brunborg, G. S., Molde, H., Myrseth, H., Skouverøe, K. J. M., Hetland, J. and Pallesen, S. (2011). Problematic video game use: estimated prevalence and associations with mental and physical health. Cyberpsychology, Behavior and Social Networking, 14(10), 591-596.

53) Musluoğlu, M. (2016). 15-19 Yaş Arası Öğrencilerden Oluşan Bir Lise Örnekleminde Bağlanma Stilleri İle İnternet Ve Dijital Oyun Bağımlılığının İlişkisinin İncelenmesi. Doctoral dissertation, Yüksek Lisans Tezi. Beykent Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul
54) Musluoglu, M. (2016). Investigation of the Relationship between Attachment Styles and Internet and Digital Game Addiction in a High School Sample Consisting of Students aged 15-19. Doctoral dissertation, Master Thesis. Beykent University, Institute of Social Sciences, Istanbul
55) Mustafaoğlu, R. ve Yasacı, Z. (2018). Dijital Oyun Oynamanın Çocukların Ruhsal ve Fiziksel Sağlığı
56) Mustafaoglu, R. and Yasaci, Z. (2018). Mental and Physical Health of Children from Playing Digital Games
57) Öncel, Mustafa Ve Tekin, Ahmet (2015). "Ortaokul Öğrencilerinin Bilgisayar Oyun Bağımlılığı ve Yalnızlık Durumlarının İncelenmesi", İnönü Üniversitesi Eğitim Bilimleri Enstitüsü Dergisi, Cilt 2, Sayı 4, s. 7-17.
58) Oncel, Mustafa and Tekin, Ahmet (2015). "Investigation of Computer Game Addiction and Loneliness of Secondary School Students", İnönü University Journal of Educational Sciences Institute, Vol 2, No 4, p. 7-17.
59) Seay, A. F., & Kraut, R. E. (2007). Project massive: Self-regulation and problematic use of online gaming. Paper presented at the Proceedings of the SIGCHI conference on Human factors in computing systems
60) Sharr, A. (2013), Mimarlık İçin Heidegger, çev: Volkan Atmaca, 1. Baskı, İstanbul, Yem Yayınları.
61) Sharr, A. (2013), Heidegger for Architecture, trans: Volkan Atmaca, 1st Edition, Istanbul, Yem Publications
62) Şen, İ. (2023). Lise Öğrencilerinin Dijital Oyun Bağımlılığı: Kırıkkale Lise Öğrencileri Üzerine Bir Araştırma, Yayınlanmamış Yüksek Lisans Tezi. Aksaray Üniversitesi Sosyal Bilimler Enstitüsü İletişim Bilimleri Anabilim Dalı.
63) Sen, I. (2023). Digital Game Addiction of High School Students: A Research on Kirikkale High School Students, Unpublished Master's Thesis. Aksaray University Institute of Social Sciences Department of Communication Sciences.
64) Taş, İbrahim; Eker, Halime ve Anlı, Gazanfer (2014). "Orta Öğretim Öğrencilerinin İnternet ve Oyun Bağımlılık Düzeylerinin İncelenmesi", Online Journal of Technology Addiction & Cyberbullying 1 (2), s. 37-57.
65) Tas, İbrahim; Eker, Halime and Anlı, Gazanfer (2014). "Examination of Secondary School Students' Internet and Game Addiction Levels", Online Journal of Technology Addiction & Cyberbullying 1 (2), p. 37-57.

66) Tetik, G. (2020). Ergenlerde algılanan ebeveyn tutumu ve duygusal zeka arasındaki ilişkide, dijital oyun bağımlılığının aracı rolünün incelenmesi, Yayınlanmamış Yüksek Lisans Tezi. Işık Üniversitesi Klinik Psikoloji Ana Bilim Dalı, İstanbul.
67) Tetik, G. (2020). Examining the mediating role of digital game addiction in the relationship between perceived parental attitude and emotional intelligence in adolescents, Unpublished Master's Thesis. Isik University, Department of Clinical Psychology, Istanbul.
68) Turton S, Lingford-Hughes A, 2016. Neurobiology and principles of addiction and tolerance. Medicine, 44(12), 693-696.
69) Uzbay İT, 2009. Madde bağımlılığının tarihçesi, tanımı, genel bilgiler ve bağımlılık yapan maddeler. Türk Eczacıları Birliği Meslek İçi Sürekli Eğitim Dergisi, 21- 22, 5-15.
70) Uzbay IT, 2009. History of substance addiction, definition, general information and addictive substances. Turkish Pharmacists Association Journal of Continuing Vocational Education, 21- 22, 5-15.
71) Uzunoğlu, A. (2021). Dijital oyun ve bağımlılık. Yeni medya, (11), 116-131. Retrieved from https://bit.ly/3KDgyLk
72) Uzunoglu, A. (2021). Digital game and addiction. New media, (11), 116-131. Retrieved from https://shorturl.at/jtvz9
73) Ünal, T.G. ve Batı, U., (2011). Dijital Oyunlar, Derin Yayınları.

i. Unal, T.G. and Bati, U., (2011). Digital Games, Derin Publications.

74) Wenzel, H., Bakken, I., Johansson, A., Gotestam, K. & Oren, A. (2009). Excessive computer game playing among Norwegian adults: Self-reported consequences of playing and association with mental health problems. Psychological Reports, 105(3), 1237-1247.
75) Williams D, Consalvo M, Caplan S, Yee N, 2009. Looking for gender: Gender roles and behaviors among online gamers. Journal of Communication, 59, 700–725.
76) Wittek, C. T., Finserås, T. R., Pallesen, S., Mentzoni, R. A., Hanss, D., Griffiths, M. D. & Molde, H. (2016). Prevalence and predictors of video game addiction: A study based on a national representative sample of gamers. International journal of mental health and addiction, 14(5), 672-686
77) Yiğit, E., & Günüç, S. (2020). Çocukların dijital oyun bağımlılığına göre aile profillerinin belirlenmesi. YYÜ Eğitim Fakültesi Dergisi, 17(1), 144-174. doi:10.33711/yyuefd.691498

78) Yigit, E., & Gunuc, S. (2020). Determination of family profiles according to children's digital game addiction. YYU Journal of Education Faculty, 17(1), 144-174. doi:10.33711/yyuefd.691498
79) Young, K. (2009). Understanding online gaming addiction and treatment ıssues for adolescents. The American Journal of Family Therapy, 37(5), 355–372.
80) Kneer J, Rieger D, Ivory J.D. ve Ferguson C. (2014). Awareness of risk factors for digital game addiction: interviewing players and counselors. Int J Ment Health Addict; 12 (8): 585–599.
81) Yüceşahin, M. ve Özgür, E. (2008). Türkiye kentlerin kentleşme düzeylerinin demografik, ekonomik ve sosyal değişkenlerle belirlenmesi. Coğrafya bilimleri dergisi, 6(2), 115-139.
82) Yucesahin, M. and Ozgur, E. (2008). Determination of urbanization levels of Turkish cities with demographic, economic and social variables. Journal of geographical sciences, 6(2),115-139.