




The More Digital You Are, The More Your Child is Addicted to Digital Games: A Correlational Study

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Abstract

A major concern in the socio-psychological development of today's students is gaming addiction, which is one of the risks associated with the use of digital technologies. It is the responsibility of parents to help their children deal with this problem as best they can. Students' health and behaviour may be negatively affected by parents' lack of knowledge about digital parenting awareness. This study aims to investigate the relationship between gaming addiction in middle school students and their parents' awareness of digital parenting. 371 students aged 11-14 and their parents participated in the study. A one-way variance test, dependent t-tests and descriptive statistical analysis were used to analyse the data collected using the Digital Parenting Awareness Scale and the Digital Game Addiction Scale. This led to the observation that students' digital game addiction is generally low. Time spent in a digital environment and gender have a significant impact on students' digital game addiction. Parents are moderately aware of their role as negative role models, neglect of digital devices and effective use of these devices. There was a low level of negative correlation between students' digital game addiction and parents' awareness of digital parenting in terms of digital neglect and protection from risks, and a low level of positive correlation in terms of negative modelling and effective use. As a result, suggestions were made about how digital parenting awareness can protect students from the risks associated with digital technology use.

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INTRODUCTION

The use of digital technologies creates convenience and differences in our lives, but their unconscious use can also create some negative effects (Aydemir, 2020). Technology such as the internet, computers, and mobile phones have many negative physiological or psychological effects, especially on individuals (Bekir, 2019). It is common for users to experience addictions (such as gaming, internet use, phone use), harmful content, cyberbullying, cyberfraud, and cyber harassment in this area (Hasebrink, Livingstone, Haddon & Olafsson, 2009; Van den Heuvel, Van den Eijnden, Van Rooij and Van de Mheen, 2012; Ybarra, 2004). Digital games are becoming increasingly popular among students, and the risk of being exposed to them increases as the number of students playing them increases.

There are some positive educational aspects of digital games, as well as some negative situations (Freitas, 2018), among which a significant majority of students spend a great deal of time. Digital games are one of the most prominent addictive elements on the internet, and playing games is the most common reason for individuals to prefer the internet. Research has shown that playing digital games excessively may result in many physical and psychological problems such as obsessive and aggressive behaviors (Mentzoni et al., 2011), signs of mechanisation and violence in players (Fischer, Kastenmüller & Greitemeyer, 2010), personality idioms, low level of emotions, hyperactivity (Gentile, Swing, Lim, Khoo, 2012), learning disorders, psychomotor disorders (Ballard, Gray, Reilly & Noggle, 2009; Jacobs, Hudak & McGiffert, 2009), health problems caused by lack of physical movement (King et al. 2013; Fullerton, Taylor, Dal Grande & Berry, 2014), anti-social behaviors, loss of free thinking and desire, tendency to conflict with teachers and friends, decreased academic achievement (Anand, 2007), increased level of anxiety, deterioration in interpersonal relationships, avoidance of reality and life, loss of vision, loss of sensation, and confusion between dream and reality (Wack, Tantleff-Dunn, 2009). Students playing digital games are subject to risks brought by these technologies, and parents have an important duty to protect them from these hazards. The way parents approach their children can be influenced by how they understand digital technologies. Thus, the study was conducted within a framework that included basic structures such as digital games, digital parenting, and their relationships (Lemmens, Valkenburg, & Peter, 2009).

Digital game addiction supports the view that gender is a remarkable factor (Nazlıgül et al., 2018; Király et al., 2018; Ko et al., 2005; Chou and Tsai, 2007). Some studies show that boys show more interest in digital games and showed that they tend to spend more time on this topic (Amendola et al., 2019; Uçur & Dönmez, 2021). In a mixed study conducted by Hazar, 2019, it was found that the scale total scores and subscale average scores of male participants were higher and the difference was statistically significant. The main reason for this difference was that digital games are more attractive to male individuals in terms of content and accessibility (game rooms, etc.). He stated that he might come. However, these findings may reflect individual differences rather than generalizations. The complexity of research on digital game addiction highlights the importance of context, culture, and individual factors. More research and studies that include diverse contexts are needed to better understand the gender-related relationship on digital game addiction. On the other hand, it has been stated that adolescents who spend too much time on social media become lonely and experience communication problems (Kırık, 2014). It is considered to be related to internet addiction and digital game addiction resulting from uncontrolled use of social media. As a matter of fact, in their study, Kudubes & Efe (2023) claimed that spending more than 3 hours in daily virtual games, being influenced by influencers followed on social media, and adolescents being influenced by social media in daily life are related to the average digital game addiction and social media addiction scores.

DIGITAL GAMES AND DIGITAL PARENTING

Individuals' educational, psychological, emotional and social needs are met by their parents, with whom they first and most often interact. Individuals develop their personalities, self-esteem, identities, adaptabilities, attitudes towards people, and emotional skills through their relationships.

The attitudes and behaviors of family members towards each other, parents' approaches to their children, the way children relate to other people in the future, have an important place in the interpretation of emotional and cognitive processes (Kırık, 2014). Children's interactions with digital games can also be shaped by parents' approaches. According to Rosen et al., (2014), parents have a responsibility to minimize the risk of children becoming addicted to digital games. Accordingly, some researchers suggest that especially parental attitudes may contribute to gaming addiction (Te'eni, 2017; Abedini, Zamani, Kheradmand & Rajabzadeh 2012).

Some of these tasks include being aware of what children are doing, warning them, and informing them. Similarly, Aksoy and Koçtürk (2019) studied parents who were able to control their children's unconscious play and those who were not. This study determined that children of conscious parents are more likely to experience internet addiction than children of unconscious parents. Studies have shown that when parents fail to meet the affective needs of their children, children become addicted to technology (Huang, Li, Chen & Straubbhaar, 2018; Büyükşahin Çevik & Çelikkaleli, 2010). In a study on gaming addiction, Kırık (2014) notes that most parents are busy with their own work and don't follow their children while they're online. Children who play digital games without family control have higher gaming addiction levels than children who play them under family control (Göldağ, 2018). Parents sometimes unwittingly direct their children to play digital games in addition to neglecting their control over their children when they play digital games. In today's society, it is quite common for children to get used to digital games without realizing it, especially since they love devices like tablets and phones so much at such a young age, because they can make some successful transactions or not disturb their parents. According to Livingstone, Mascheroni, Dreier, Chaudron and Lagae (2015), parents' education levels have a significant impact on their children's digital game play. As a result, they claim that parents with low digital literacy are more likely to use restrictive strategies, and they suggest offering this education through guidance. It is believed that parents with this education can accompany their children more often and reduce the risks.

In today's society, parents often neglect the controls regarding their children's play of digital games due to their intense workload. Despite these controls, parents may be limited in their knowledge of how to give their children necessary warnings. It has been observed that children rarely take their parents' suggestions into account for problematic uses (Sümer, Gündoğdu Aktürk & Helvacı, 2010). The positive use of digital games by children can be enhanced by knowing that some games can be useful in certain situations. In order to raise digital parenting awareness, it is necessary to address all the roles that parents play. Therefore, this study has been guided by the idea that parents' digital parenting awareness and their risk of playing digital games may be related. Parents and educators can therefore determine their children's level of digital awareness and their children's level of gaming addiction in order to determine precautions to take. Additionally, it can contribute to the understanding of the structural features of indicators related to digital awareness and digital game addiction levels when it is combined with the analysis of relationships between parental digital awareness and children's digital game addiction levels. It is possible to develop suggestions based on this relationship by revealing the structural relationship between the two variables, if any. Educators, parents, and researchers can use the findings of the research to raise healthy generations, especially in the digital age.

This study was conducted to investigate the relationship between children's gaming addiction and the level of digital parenting awareness among parents of middle school children. Accordingly, the following research questions guided the study:

RESEARCH QUESTIONS

- 1) What is the level of digital game/gaming addiction among middle school students?
 - a. Do middle school students' digital game addiction levels differ in terms of different variables (gender, having a computer at home, use of mobile phone, time spent in digital environment)?

- 2) What is the digital parenting awareness level of parents of middle school students?
 b. Do the digital parenting awareness levels of the parents of middle school students differ in terms of different variables (gender, having a computer at home, use of mobile phone, time spent in the digital environment)?
 3) What is the relationship between the digital parenting awareness level of the parents of middle school students and the game addiction level of the students?

METHOD

RESEARCH DESIGN

Correlational design, one of the quantitative research methods, was used within the current study. Correlational design tries to determine whether the variables change together, and if they do, to determine how this happens. In this study, this research model was used as the relationship between digital parenting awareness levels and students' digital game addiction will be examined.

STUDY GROUP

In this research, was chosen appropriate sampling method. This method involves selecting individuals who are readily accessible and available within the researcher's reach. The research was conducted with 175 male and 196 female students in a secondary school and their parents (50 males, 321 females: 371 in total). 137 of the students did not have a computer and 164 do not have a telephone. The demographic information of the students is shown in Table 1.

Table 1. Demographic Characteristics of Students

		<i>f</i>	%
Gender	Male	175	47,2
	Female	196	52,8
Having a computer	Yes	234	63,1
	No	137	36,9
Use of moile phone	Yes	207	55,8
	No	164	44,2
Average Daily Time Spent in Digital Environment	1-2 hours	223	60.1
	3-4 hours	113	30.5
	5-7 hours	30	8.1
	7+ hours	5	1.3

Demographic characteristics of the parents is presented in Table 2.

Table 2. Demographic Characteristics of Parents

		<i>f</i>	%
Gender	Male	50	13.5
	Female	321	86.5
Age	20-40	183	50.1
	40-50	165	45.2
	50-65	17	4.7
Having a computer	Yes	231	62.3
	No	140	37,7
Average Daily Time Spent in Digital Environment	1-2 hours	295	79.5
	3-4 hours	67	18.1
	5-7 hours	7	1.9
	7+ hours	2	0.5

There are 183 parents aged between 20 and 40, 165 parents aged between 40 and 50, and 17 parents aged between 50-65. While the number of parents who do not have their own computer is 140, only 1 parent does not have a phone.

DATA COLLECTION

Digital Parenting Awareness Scale and Digital Game Addiction Scale were used for data collection. During the data collection process, these scales were sent via internet and voluntary participation of parents and students was ensured.

DIGITAL PARENTING AWARENESS SCALE

The Digital Parenting Awareness Scale (DPAS) was used to determine parents' digital awareness. This scale was developed by Manap and Durmuş (2020) and validity and reliability studies were conducted. DPAS includes 16 items and four sub-dimensions as "Protection from Risks" (PR, 4 items); "Effective Use" (EU, 4 items), "Negative Modeling" (NM; 4 items) and "Digital Neglect" (DN, 4 items). It is a five-point Likert-type scale and scored as 1 (Never), 2 (Rarely), 3 (Sometimes), 4 (Often), and 5 (Always). The sub-dimensions of DPAS are evaluated independently of each other, and the scores that can be obtained from the sub-dimensions vary between 4 and 20. The high scores obtained from the Risk Protection and Effective Use sub-dimensions indicate high level of digital parenting awareness while high scores on Negative Modeling and Digital Neglect sub-dimensions indicate that low level of digital parenting awareness (Manap, & Durmuş, 2020). The Cronbach alpha value of the data from this study is $\alpha=.701$

DIGITAL GAME ADDICTION SCALE

Digital Game Addiction Scale (DGAS) was used to determine students' digital game addiction levels. It is a 5-point Likert-type scale including 7 items and one dimension. This scale was developed by Lemmens et al. (2009) and adapted into Turkish by Irmak and Erdoğan (2016). The validity and reliability values of the scale were determined as .92 for Cronbach's alpha, .904 for CFI, .053 for RMSEA (90% CI=.049 and .056). The Cronbach alpha value of the data from this study is $\alpha=.772$

DATA ANALYSIS

Before analysing the data, evaluations were made about whether the data obtained from both scales were normally distributed. The data obtained from DGAS showed skewness as .966 and kurtosis as .756. Digital parenting awareness scale had skewness values of -.260, -.370, -.226, and -.460, and kurtosis values of 1.184, -.033, .879, and -.216 for sub-dimensions of NM, DN, EU, and PR, respectively. According to Tabachnick and Fidell (2013), these values are sign of normality if they are between -1.50 and +1.50. In this context, the analysis techniques of the normally distributed data obtained from both scales are shown in Table 3 for each of the research questions.

While descriptive analysis, independent samples t-test, one-way ANOVA and one-way MANOVA were used for the descriptive analysis of the data, Pearson correlation analysis was used to determine the relationship between the variables.

Table 3. Data Analysis Techniques across Research Questions

Research Question	Data Collection	Data analysis
1. What are the digital game addiction levels of middle school students?	Digital game addiction scale	Descriptive analysis
a. Do middle school students' digital game addiction levels differ in terms of different variables (gender, having a computer at home, use of mobile phone, time spent in digital environment)?		t- test and One-way Anova
2. What is the digital parenting awareness level of parents of middle school students?	Digital parenting awareness scale	Descriptive analysis
a. Do the digital parenting awareness levels of the parents of middle school students differ in terms of different variables (gender, having a computer at home, use of mobile phone, time spent in the digital environment)?		t- test and One-way Manova
3. What is the relationship between the digital parenting awareness level of the parents of middle school students and the game addiction level of the students?		Pearson Correlation

FINDINGS

The findings of the research are presented under three headings as parents' digital parenting awareness levels, students' digital game addiction levels, the relationship between digital parenting awareness and digital game addiction within the scope of research questions.

WHAT ARE THE DIGITAL GAME ADDICTION LEVELS OF MIDDLE SCHOOL STUDENTS?

The digital game addiction levels of middle school students are presented in Table 4 across with the scale items.

Table 4. Students' Perceptions of Digital Game Addiction

	N	\bar{x}	SD
Have you thought about playing a video game all day long?	371	1,77	1,035
Have you gradually increased the time you spend playing the game?	371	2,28	1,015
Have you ever played games to get away from daily life?	371	2,07	1,145
Have people close to you (such as family members, friends) failed to reduce your play time?	371	2,21	1,282
Did you feel bad when you couldn't play games?	371	1,87	1,111
Have you quarreled with people close to you (such as family members, friends) about the time you spend in the game?	371	1,97	1,156
Have you neglected other important activities (such as school, work, sports) to play games?	371	1,44	,885
Students' Perceptions of Digital Game Addiction	371	1,94	,712

1.00-1.79=Very low, "1.80-2.59=Low", "2.60-3.39=Moderate", 3.40-4.19=High", 4.20-5.00=Very High

Table 4 shows that students' digital game addiction levels are low with an average of 1.94 points. When the items of the scale are examined separately, the average (2.28) of the item "Did you gradually increase the time you spent for the game?" is higher than the others and that (1.44) of the item "Have you neglected other important activities (such as school, work, sports) to play games? is quite low. The game addiction levels of the students are evaluated below in the context of different variables.

GENDER

An independent t-test was conducted to examine the differentiation of students' digital game addiction levels according to gender, and the findings obtained from the test are presented in Table 5.

Table 5. Digital Game Addiction Levels of Students by Gender

		<i>N</i>	\bar{x}	<i>Sd</i>	<i>df</i>	<i>t</i>	<i>p</i>
Digital Game Addiction	Male	175	2,0882	0.75	369	3.733	.000
	Female	196	1.8163	0.65		3.702	

Table 5 shows that the level of digital game addiction of males (2.08) is higher than that of females (1.81). It is also found that students' digital game addiction levels differ significantly by gender ($p < .05$).

TIME SPENT IN DIGITAL ENVIRONMENT

The differentiation of levels of digital game addiction according to the amount of time students spent in the digital environment was analysed using the one-way ANOVA test, and the results of the analysis are presented in Table 6.

Table 6. Digital Game Addiction Levels by Time Spent by Students in Digital Environment

	<i>N</i>	\bar{x}	<i>Ss</i>	<i>p</i>
1-2 hours	223	1.7085	0.572	.000
3-4 hours	113	2.1530	0.630	
5-6 hours	30	2.6714	0.883	
7+ hours	5	1.9446	1.000	

When Table 6 is examined, it is seen that the game addiction averages (2.67) of the students who spend time in the digital environment between 5-6 hours are higher than the rest. While it is expected that the addiction levels of students who spend 7 hours or more in the digital environment is higher, it has been observed that there is a decrease in the average after 5-6 hours. Students' digital game addiction levels ($p < .05$) differed significantly according to the time they spent in the digital environment. By checking the homogeneous distributions of groups since the variances were not equal, the nonparametric test, Tamhane post hoc, was used. The results of the Tamhane Post Hoc test performed to determine the source of the significant difference are shown in Table 7.

Table 7. Comparing the Time Spent in Digital Environment

<i>Time Spent in Digital Environment (I)</i>	<i>Time Spent in Digital Environment (J)</i>	<i>Mean difference</i>	<i>Sd</i>	<i>p</i>
1-2 hours	3-4 hours	-,444*	,070	.000
	5-6 hours	-,962*	,165	.000
	7+ hours	-1,691	,452	.112
3-4 hours	1-2 hours	,444*	,070	.000
	5-6 hours	-,518*	,171	.027
	7+ hours	-1,247	,454	.264
5-6 hours	1-2 hours	,962*	,165	.000
	3-4 hours	,518*	,171	.027
	7+ hours	-,728	,478	.712
7+ hours	1-2 hours	1,691	,452	.112
	3-4 hours	1,247	,454	.264
	5-6 hours	,728	,478	.712

It is seen that the difference in students' digital game addiction levels according to the duration of digital media use is in favor of students who spend 1-2, 3-4 and 5-6 hours a day in digital media. It is understood that the usage time of students who use 7 hours or more has no effect on the differentiation of digital game scores between groups.

WHAT IS THE DIGITAL PARENTING AWARENESS LEVEL OF PARENTS OF MIDDLE SCHOOL STUDENTS?

The digital parenting awareness levels of the parents were described and the average scores they had are presented in Table 8 across with the items.

Table 8. *Digital Parenting Awareness Levels*

	N	\bar{x}	SS
It happens that I don't listen to what my child is saying while I'm fiddling with my phone	371	1,68	,864
I also have the behaviors that I criticize in my child when using the phone/tablet	371	2,35	,967
My child witnesses that I spend too much time with my phone	371	4,45	,844
I deal with my phone instead of contacting my child	371	3,75	1,146
<i>Negative Modeling (Total)</i>	<i>371</i>	<i>3,05</i>	<i>,4546</i>
If my child insists too much, I can't stand it and let him use a phone/tablet.	371	1,57	,751
When my child is cranky, I calm his/her down with a phone/tablet	371	1,44	,746
I allow my child to use the phone/tablet intensively outside and inside the home (guest, shopping, friend environment, etc.).	371	4,15	,995
While I am busy with my work, I allow my child to spend time with the phone/tablet.	371	3,80	1,525
<i>Digital Neglect (Total)</i>	<i>371</i>	<i>2,74</i>	<i>,5433</i>
I tell my child about the benefits and harms of the internet and the situations that need attention.	371	1,73	,870
I examine the effects (positive or negative) of digital tools (Smart Phone, Tablet, TV, etc.) on my child	371	1,90	,953
I show the articles, videos or photos that I think are useful to my children from my own device	371	3,93	1,059
I analyze the benefits and risks of technological innovations for my children	371	4,23	1,072
<i>Effective Use (Total)</i>	<i>371</i>	<i>2,94</i>	<i>,5381</i>
I can protect my child from the risks of the internet	371	1,16	,481
If my child encounters content that may harm him/her while surfing the internet, I will take legal action	371	1,91	,901
I will be notified if my child encounters disturbing videos (sexual, violent) while watching videos on the internet	371	4,03	1,026
I use security packages or antivirus programs that will protect my child from the risks of the internet	371	3,53	1,620
<i>Protection from Risks (Total)</i>	<i>371</i>	<i>2,65</i>	<i>,5416</i>

Not: .00-1.79=Very low, 1.80-2,59=Low, 2.60-3.3.39=Moderate, 3.40-4.19= High, 4.20-5.00= Very High

Table 8 shows that the average scores (3.05) of the parents in the "Negative Modeling" sub-dimension are higher than the other dimensions. The item "I deal with my phone instead of communicating with my child" in this sub-dimension had a higher average than the other items. On the other hand, it is quite remarkable that the sub-dimension of "Protection from Risks" has a lower average score (2.77) than the other sub-dimensions and that the item "I can protect my child from the risks of the internet" in this sub-dimension has the lowest average (1.16).

Findings regarding the differentiation of parents' digital awareness levels according to different variables are presented in terms of gender and time spent in the digital environment.

GENDER

The results of the MANOVA test, which was conducted to examine the differentiation of parents' digital awareness levels according to gender, showed no statistically significant difference according

to the gender in any sub-dimension. Statistics showing parental awareness levels by gender variable are presented in Table 9.

Table 9. Digital Parenting Awareness Levels by Gender

		N	X	Sd	p
Negative Modeling	Male	50	3,10	,4198	.426
	Female	321	3,04	,4599	
Digital Neglect	Male	50	2,73	,6296	.923
	Female	321	2,74	,5297	
Effective Use	Male	50	2,88	,6332	.405
	Female	321	2,95	,5223	
Protection from Risks	Male	50	2,77	,51715	.113
	Female	321	2,63	,54400	

When the digital parenting awareness levels of the parents by gender was analyzed according to the sub-dimensions, it was determined that the averages of males and females were very close to each other, but males had a higher average than females in the sub-dimensions of Negative Modeling (3.10) and Protection from Risks (2.77). On the other hand, females had a higher average than males in the sub-dimensions of Digital Neglect (2.74) and Effective Use (2.95). When the significant levels ($p_1 = .426$, $p_2 = .923$, $p_3 = .405$, $p_4 = .113$), in each sub-dimension are examined, it can be seen that the sub-dimensions of parents' digital parenting awareness do not differ significantly according to gender.

TIME SPENT IN DIGITAL ENVIRONMENT

Digital parenting awareness levels according to the time spent in the digital environment is shown in Table 10.

Table 10. Digital Parenting Awareness Levels by Time Spent in Digital Environment

		N	X	Sd	p
Negative Modeling	1-2 hours	295	3,0314	,46207	.195
	3-4 hours	67	3,1604	,42796	
	5-6 hours	7	3,1429	,31810	
	7+ hours	2	3,1250	,17678	
Digital Neglect	1-2 hours	295	2,6822	2,6822	.000
	3-4 hours	67	2,9888	2,9888	
	5-6 hours	7	2,6429	2,6429	
	7+ hours	2	3,6250	3,6250	
Effective Use	1-2 hours	295	2,8915	2,8915	.001
	3-4 hours	67	3,1157	3,1157	
	5-6 hours	7	3,3214	3,3214	
	7+ hours	2	3,6250	3,6250	
Protection from Risks	1-2 hours	295	2,6271	2,6271	.034
	3-4 hours	67	2,7687	2,7687	
	5-6 hours	7	2,6071	2,6071	
	7+ hours	2	3,5000	3,5000	

When the sub-dimensions of digital parenting awareness levels were examined according to the duration of time spent in the digital environment, it was seen that Negative Modeling scores did not differ significantly ($p > .05$) according to the time spent in the digital environment. The average scores of Digital Neglect ($p < .05$), Effective Use ($p < .05$) and Protection from Risks ($p < .05$), differed significantly according to the time spent in the digital environment.

THE RELATIONSHIP BETWEEN THE DIGITAL PARENTING AWARENESS LEVEL OF THE PARENTS OF MIDDLE SCHOOL STUDENTS AND THE GAME ADDICTION LEVEL OF THE STUDENTS

The relationship between students' digital game addiction and parents' digital parenting awareness was determined using the Pearson correlation test. The relationships between the variables are presented in Table 11 within the sub-dimensions of digital parenting awareness.

Table 11. *The Relationship between Students' Digital Game Addictions and Digital Parenting Awareness*

		NM	DN	EU	PR
Students' Digital Game Addictions	r	,028	-,004	,170**	-,014
	p	,595	,940	,001	,786
	N	371	371	371	371

Negative Modeling (NM); Digital Neglect (DN); Effective Use (EU); Protection from Risks (PR)

Table 11 shows that there is a low-level positive correlation between parents' levels of negative modelling and effective use and students' levels of digital game addiction. On the other hand, there is a low-level negative correlation between the levels of digital neglect and protection from risks and students' digital game addiction.

DIGITAL GAME ADDICTIONS BY DIGITAL PARENTING AWARENESS DIMENSIONS

The data obtained through the sub-dimensions of NM, DN, EU, and PR in the Digital Parenting Awareness Scale are considered important to deal with Digital Parenting Awareness in these dimensions in detail. Accordingly, the relationship between all the items in each of the sub-dimensions and digital game addiction has been examined.

The relationship between students' digital game addiction and the items in Negative Modeling is shown in Table 12.

Table 12. *The Relationship Digital game addiction among students and Negative Modeling of Parents*

		M1	M5	M9	M13
Digital game addiction among students	r	0,52	,312**	,027	-,279**
	p	,314	,000	,601	,000
	N	371	371	371	371

Table 12 shows that there is a low positive relationship between students' digital game addiction and M1 and M9. While a moderate positive relationship was found between students' mean scores of digital game addiction and mean scores of responses to item M5, this relationship was found to be moderately negative with M13. Looking at the results, it can be seen that there is a positive and moderate relationship between the mean score of the responses to the item 'I also do the things I criticise my child for doing when using the phone/tablet' (M5) and the mean scores of the students' digital game addiction. On the other hand, this relationship was found to be negative and low for the item 'I use my phone instead of communicating with my child' (M13). This suggests that parents who spend more time on the phone instead of communicating with their children do not have a negative effect on their children and do not increase their digital game addiction.

The relationship between the digital game addiction of students and the Digital Neglect sub-dimension is presented in Table 13.

Table 13. *Relationship between Digital Game Addictions of Students and Digital Neglect of Parents*

		M2	M6	M10	M14
Students' Digital Game Addictions	r	,154**	,240**	-,057	-,162**
	p	,003	,000	,277	,002
	N	371	371	371	371

It was observed that there was a low level of positive correlation between the students' digital game addiction levels and the average scores of M2 and M6, and a low level of negative correlation for M10 and M14. This indicates that there is a positive relationship between the students' digital game

addiction and the average scores of the items "If my child insists too much, I can't stand it and let him use the phone/tablet" and "When my child is cranky, I calm him down with the phone/tablet". On the other hand, there is a negative correlation between the students' digital game addiction and the average scores of the items "I allow my child to use the phone/tablet extensively outside and inside the home (guests, shopping, friend environment, etc.)" and "I allow my child to spend time with the phone/tablet while I am busy with my work". Hence, it can be said that allowing their children to use a phone or tablet while the parents are busy with a work in non-continuous situations does not increase the digital game addiction of the students.

The relationship between the digital game addiction levels of the students and Effective Use sub-dimension is shown in Table 14.

Table 14. *The Relationship Between Students' Digital Game Addictions and Parents' Effective Use*

		M3	M7	M11	M15
Students' Digital Game Addictions	r	,240**	,303**	,022	-,145**
	p	,000	,000	,676	,005
	N	371	371	371	371

There is a low level positive correlation between the students' digital game addiction levels, and M3 and M11. Similarly, it was determined that there was a moderate level positive relationship and a low negative relationship with the mean scores obtained from M7 and M15, respectively. There is a positive relationship between students' digital game addiction levels and the average scores of the item "I examine the effects of digital tools (Smart Phone, Tablet, TV, etc.) on my child (positive or negative)" (M7). This indicates that students' digital game addiction increases as parents examine the effects of digital tools for their children. There is a negative relationship between the average scores of the item "I analyze the benefits and risks of technological innovations for my children" (M15) and the digital game addiction levels of the students.

The relationship between students' digital game addiction and Protection from Risks sub-dimension is presented in Table 15.

Table 15. *The Relationship Between Digital Game Addictions of Students and Protection from Risks*

		M4	M8	M12	M16
Students' Digital Game Addictions	r	,140**	,201**	-,121*	-,096
	p	,007	,000	,020	,065
	N	371	371	371	371

Table 15 indicates that there is a low level positive correlation between the students' digital game addictions, and M4 and M8 and a low level negative correlation between the students' digital game addictions, and M12 and M16. There is a positive relationship between the average scores of the items "I can protect my child from the risks of the internet" and "If my child encounters content that may harm him while surfing the internet, I will take legal action" and the average scores of the students' digital game addiction. This indicates that parents try to protect their children from the risks of the internet and take legal action in case of a negative situation on the internet, which increases students' addiction to digital games. On the other hand, the students' digital game addiction and the items "If my child encounters disturbing videos (sexual, violent) while watching videos on the internet, I will be informed" and "I use security packages or antivirus programs to protect my child from the risks of the internet" was negatively correlated. Hence, it can be said that the ability of parents to protect their children from risks in situations that may pose a negative example in the internet environment does not increase students' digital gaming addictions.

Overall, students' digital gaming addiction is low, and parents' awareness of negative modelling, digital neglect, effective use and protection from risks is moderate. Students' digital game addiction differs significantly according to gender and time spent online. There is a low-level negative relationship between students' digital game addiction and parents' awareness of digital parenting in

the sub-dimensions of digital neglect and protection from risks, while there is a low-level positive relationship in the sub-dimensions of negative modelling and effective use.

DISCUSSION, CONCLUSION AND IMPLICATIONS

This study examined the relationship between middle school students' game addiction and their parents' awareness of digital parenting. When evaluated in general, it is remarkable that the students are addicted to games at a low level. It has been seen that parents' digital parenting awareness levels are moderate in terms of negative modeling, effective use, digital neglect and protection from risks. It was concluded that while the digital awareness levels of the parents were higher in the Negative Modeling sub-dimension than the other dimensions, it was lower in the Protection from Risks sub-dimension than the other dimensions. The low scores in the sub-dimension of protection from risks indicate that the parents' digital awareness in this dimension is high according to the nature of the scale. Therefore, the fact that the scores in this dimension are lower than the other dimensions can be interpreted as higher parental awareness compared to other dimensions. Spending time in the digital environment did not only make a significant difference in the negative modeling sub-dimension, but for other sub-dimensions, it was also determined that the scores of the parents differed according to their time spent in the digital environment. Hence, it can be interpreted that although the time spent by the parents in digital environments is more or less, the parents consider these times as not a negative modeling, and that they do not make a negative modeling assessment based on the time spent. A study by Lauricella, Wartella, and Rideout (2015) discussed the relationship between the digital use of children aged 0-8 and their parents' digital use. The current study differs partially from that study, as their results showed that there is a high level of correlation between the duration of parents' use of digital devices and their children's use of digital devices. Looking at it from another perspective, Hazar, 2019, in his study examining children's addiction levels of playing digital games and evaluating their parents' views on playing digital games, found that the addiction of participants with parents who play digital games and poor family relationships was higher than other participants.

As a result of analyzing parents' digital parenting awareness in relation to the sub-dimensions of "Being a Negative Model" and "Avoiding Risks", it has been found that males have a higher average than females, while females have a higher average in the sub-dimensions of "Digital Neglect" and "Effective Use." It is clear from the studies that children also mimic and take role models their parents' use smart devices. It can be said that parents' attitudes toward digital tools and their own use also affect children's digital play processes (Ataman Yengin, 2019; Chaudron, Geneiatakis, Kounelis & Di Gioia, 2019; Siibak & Nevski, 2019; Lauricella et al., 2015). As a matter of fact, the study, which aims to understand parents' attitudes, mediation and monitoring behaviors towards the digital games their children play, suggested that parents' digital parenting approaches have effects on the risks that students may experience in digital games. (Fidan, Güneş & Karakus, 2021)

Overall, the digital game addiction level of the students was low, and the males had a higher game addiction level than the females. Students' digital game addiction increased as they spent more time in digital environments, and the average of gaming addiction for students who spent 5-6 hours in digital environments was higher than the other time averages. At this point, Spagnuolo Lobb, Sciacca, Jacono Isidoro and Hichy (2022) found that children with fewer restrictions on their internet usage spend more time online than those with more restrictions, which supports the finding of this study.

Students' digital game addiction and parents' awareness of digital parenting have a low-level negative relationship in the dimensions of digital neglect and protection from risks. In its broadest sense, digital neglect occurs when parents are unable to ignore or follow their child's excessive use of digital media while performing their daily tasks, as well as to resist the insistent attitude of their child (Manap & Durmuş, 2020). In accordance with this definition, parents' high levels of digital neglect may

contribute to their children's high levels of gaming addiction. According to Rode (2009), parents' negligent behaviors increase children's problematic internet use and negatively influence children's digital behaviors. Interestingly, in this study, parents' awareness of digital neglect has a negative relationship with students' digital gaming addiction levels.

An example of a negative modeling would be not taking care of the child while talking on the phone, excessively using digital media, and having difficulties communicating with the child. Hence this study concluded that there is a low level positive relationship between the negative modeling sub-dimension and the game addiction levels of students. Parents warn their children to use these environments appropriately, but their own misuse of these environments can lead to the warnings losing their meaning and causing negative effects. The study by Manap and Durmuş (2020) also found that negative parental role models are associated with their children's internet addiction. Children's internet addiction and unsafe internet use can be influenced by parents using digital media negatively (Rode, 2009). Although parents may try to control or prevent their children when necessary, this situation may cause them to fail sometimes. A possible explanation for this situation can be found in a study by Sümer et al., (2010), which suggests that children take what parents do more than what they say. Considering that digital awareness is an important part of parents' roles, an individual's behavior is negatively affected by parents' misguided use of their roles and being a negative role model (Çivitci, Çivitci, & Fiyakalı, 2009). As a matter of fact, Beyazıt & Bütün Ayhan (2019) in his study, he suggested that as the neglectful behavior of parents increases, the digital game addiction levels of adolescents also increase.

In the digital neglect sub-dimension of parents' digital awareness, it is striking that the average scores obtained from the item "I allow my child to spend time with my phone/tablet while I am busy with my work" are high. However, the level of awareness of parents concerning this item did not appear to be related to the children's addiction to digital games. Children who are persistent and grumpy are more likely to become addicted to digital games if their parents neglect them and let them use phones or tablets. The results of a similar study show that children who play digital games without family control have higher levels of game addiction than those who play under family control (Göldağ, 2018). Parents are believed to be able to reduce their children's gaming addiction by analyzing both the positive and negative aspects of technological tools. As a result of parents' awareness of the importance of focusing on the positive aspects of devices instead of prohibiting them, they can reduce their children's addiction to games in a positive way. In addition, high digital parent awareness is associated with parents paying close attention to their children, spending time with them, and especially the mother having a positive communication with her children (Yiğit, 2017).

Students' addiction to digital games is at a low level, while parents' awareness levels are moderate in terms of negative modeling, digital neglect, effective use and protection from risks. There is a low-level negative relationship between students' digital game addiction and parents' digital parenting awareness in the dimensions of digital neglect and protection from risks, and a low-level positive relationship in the dimensions of negative modeling and effective use. Chaudron et al. (2019) states that parents' ignorance about their children's use of digital tools causes them to devote less time to their daily activities and may cause children to continue their playing habits. Although not directly focusing on gaming addiction, Huang et al. (2018) evaluated in a study that children with disinterested parents had high internet addiction scores, as they did not have information about how much time they spent on the internet and did not control this time. This result is not in line with the findings of current study. As a matter of fact, in the study conducted by Şenol, Şenol and Yaşar (2024), the level of digital game addiction tendency is related to parents' digital game manipulation strategies. He stated that active parental guidance strategy prevents children's tendency towards digital game addiction, while digital-focused guidance and free parental strategies increase the tendency towards addiction.

Parents who are not sufficiently aware of their digital parenting role can negatively influence children's game addiction, although it is not high. Parents can prevent their children from developing characteristics of gaming addiction by not setting negative examples, using digital media consciously and following their children's lead. In this regard, training for parents should focus on digital parenting roles, especially in specific areas such as gaming addiction. Ultimately, parents who fulfil their family roles in a healthy way can both use digital tools effectively and protect their children from risks. We hope that this study will provide insight into parents' awareness of their children's use of game-based technologies in terms of their digital parental awareness.

While convenience sampling served the immediate needs of this study, it is essential to acknowledge its limitations. The sample may not be fully representative of the entire population, and caution should be exercised when generalizing the findings. Future research endeavors may explore more extensive sampling methods for a more comprehensive understanding. Additionally, in future studies, the research question can be addressed more comprehensively by conducting interviews with parents and using the observation method.

AUTHOR CONTRIBUTION

Individual contributions of authors should be specified in this section to give appropriate credit to each author.

i.e.

- First author have made substantial contributions to conception and design, or acquisition of data, or and interpretation of data, final approval of the version to be published
- Second author have acquisition of data, or analysis and interpretation of data
- The third author have analysis of data given, design, final approval of the version to be published
- The fourth author have been involved in drafting the manuscript or revising it critically for important intellectual content

REFERENCES

- Abedini, Y., Zamani, B. E., Kheradmand, A., & Rajabizadeh, G. (2012). Impacts of mothers' occupation status and parenting styles on levels of self-control, addiction to computer games, and educational progress of adolescents. *Addiction & health*, 4(3-4), 102. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3905542/>
- Aksoy, A. N., & Koçtürk, M. (2019). Ebeveyn tutumlarını algılama ve internet bağımlılığı arasındaki ilişkinin incelenmesi. *Anemon Muş Alparslan Üniversitesi Sosyal Bilimler Dergisi*, 7(4), 63-70. <https://doi.org/10.18506/anemon.473873>
- Amendola, S. (2023). Discussing evidence on the components model of addiction. A commentary on Fournier et al. (2023). *Addictive Behaviors*, 107764. <https://doi.org/10.1016/j.addbeh.2023.107764>
- Anand, V. (2007). A study of time management: The correlation between video game usage and academic performance markers. *CyberPsychology & Behavior*, 10(4), 552-559. <https://doi.org/10.1089/cpb.2007.9991>
- Ataman Yengin, D. (2019). Dijital oyun bağımlılığı. *Dijital Hastalıklar*, 124. <https://hdl.handle.net/11499/35100>
- Aydemir, B. (2020). *The relationship between internet addiction symptoms and attachment characteristics, friend relationships and self-control skills in adolescents* [Unpublished master's thesis]. Istanbul Gelişim University. <https://hdl.handle.net/11363/2672>
- Ballard, M., Gray, M., Reilly, J., & Noggle, M. (2009). Correlates of video game screen time among males: body mass, physical activity, and other media use. *Eating behaviors*, 10(3), 161-167. <https://doi.org/10.1016/j.eatbeh.2009.05.001>
- Bekir, S. (2019). *Examining the level of online game addiction in university students in terms of emotional schemas, active personality and some variables*. (Doctoral dissertation, Sakarya Üniversitesi (Turkey)). <https://www.proquest.com/docview/2700374961/abstract/7A9DBC376B5B4C8DPQ/1?accountid=211178>

- Beyazıt, U., & Ayhan, A. B. (2019). The relationship between digital game addiction and being neglected by parents in adolescence. *Ankara Sağlık Bilimleri Dergisi*, 8(2), 86-95. <https://dergipark.org.tr/tr/pub/ausbid/issue/50617/635354>
- Büyükaşahin Çevik, G., & Çelikkaleli, Ö. (2010). Examination of Adolescents' Friend Addiction and Internet Addiction According to Gender, Parental Attitudes and Parental Education Levels *Journal of the Cukurova University Institute of Social Sciences*, 19(3). <https://dergipark.org.tr/en/pub/cusosbil/issue/4385/60224>
- Chaudron, S., Geneiatakis, D., Kounelis, I., & Di Gioia, R. (2019). Testing internet of toys designs to improve privacy and security. *The Internet of Toys: Practices, affordances and the political economy of children's smart play*, 223-239. https://doi.org/10.1007/978-3-030-10898-4_11
- Chou, C., & Tsai, M. J. (2007). Gender differences in Taiwan high school students' computer game playing. *Computers in Human Behavior*, 23(1), 812-824. <http://dx.doi.org/10.1016/j.chb.2004.11.011>
- Civitci, N., Civitci, A., & Fiyakali, N. C. (2009). Loneliness and Life Satisfaction in Adolescents with Divorced and Non-Divorced Parents. *Educational Sciences: Theory and Practice*, 9(2), 513-525. <https://eric.ed.gov/?id=EJ847764>
- Fidan, A., Güneş, H., & Karakus, T. (2021). Investigating the Digital Parenting Behaviors of Parents on Children's Digital Game Play. *Cukurova University Faculty of Education Journal*, 50(2), 833-857. <https://doi.org/10.14812/cuefd.933215>
- Fischer, P., Kastenmüller, A., & Greitemeyer, T. (2010). Media violence and the self: The impact of personalized gaming characters in aggressive video games on aggressive behavior. *Journal of Experimental Social Psychology*, 46(1), 192-195. <https://doi.org/10.1016/j.jesp.2009.06.010>
- Freitas, D. (2018). *Consent on campus: A manifesto*. Oxford University Press.
- Fullerton, S., Taylor, A. W., Dal Grande, E., & Berry, N. (2014). Measuring physical inactivity: do current measures provide an accurate view of "sedentary" video game time? *Journal of obesity*, 2014. <https://doi.org/10.1155/2014/287013>
- Göldağ, B. (2018). Examining the digital game addiction levels of high school students according to their demographic characteristics. *Van Yüzüncü Yıl University Faculty of Education Journal*, 15(1), 1287-1315. <http://dx.doi.org/10.23891/efdyyu.2018.105>
- Hasebrink, U., Livingstone, S., Haddon, L., & Olafsson, K. (2009). *Comparing children's online opportunities and risks across Europe: Cross-national comparisons for EU Kids Online*. EU Kids Online, The London School of Economics and Political Science. http://eprints.lse.ac.uk/24368/1/D3.2_Report-Cross_national_comparisons-2nd-edition.pdf
- Hazar, Z. (2019). Children's Digital Game Addiction and Opinions about Their Parents' Playing Digital Games (a Mixed Method Study). *Journal of Education and Training Studies*, 7(1), 85-93. <https://doi.org/10.11114/jets.v7i1.3785>
- Huang, G., Li, X., Chen, W., & Straubhaar, J. D. (2018). Fall-behind parents? The influential factors on digital parenting self-efficacy in disadvantaged communities. *American behavioral scientist*, 62(9), 1186-1206. <https://doi.org/10.1177/0002764218773820>
- Irmak, A. Y., & Erdoğan, S. (2016). Digital game addiction in adolescents and young adults: A current perspective. *Turkish Journal of Psychiatry*, 27(2), 128-137. <https://doi.org/10.5080/u13407>
- Jacobs, K., Hudak, S., & McGIFFERT, J. (2009). Computer-related posture and musculoskeletal discomfort in middle school students. *Work*, 32(3), 275-283. <https://doi.org/10.3233/WOR-2009-0826>
- Kırık, A. M. (2014). The place of the Internet in family and child relationships: a qualitative research. *Journal of Education and Training Research*, 3(1), 337-347. Google Scholar
- King, D. L., Gradisar, M., Drummond, A., Lovato, N., Wessel, J., Micic, G., ... & Delfabbro, P. (2013). The impact of prolonged violent video-gaming on adolescent sleep: an experimental study. *Journal of sleep research*, 22(2), 137-143. <https://doi.org/10.1111/j.1365-2869.2012.01060.x>
- Király, O., Griffiths, M. D., Urbán, R., Farkas, J., Kökönyei, G., Elekes, Z., & Demetrovics, Z. (2014). Problematic internet use and problematic online gaming are not the same: findings from a large nationally representative adolescent sample. *Cyberpsychology, Behavior, and Social Networking*, 17(12), 749-754. <https://doi.org/10.1089/cyber.2014.0475>

- Ko, C. H., Yen, J. Y., Chen, C. C., Chen, S. H., & Yen, C. F. (2005). Gender differences and related factors affecting online gaming addiction among Taiwanese adolescents. *The Journal of Nervous and Mental Disease*, 193(4), 273–277. <https://doi.org/10.1097/01.nmd.0000158373.85150.57>
- Kudubes, A. A., & Efe, Y. S. The predictive power of game addiction and social media addiction on adolescents' lifestyle. *Psychology in the Schools*. <https://doi.org/10.1002/pits.23096>
- Lauricella, A. R., Wartella, E., & Rideout, V. J. (2015). Young children's screen time: The complex role of parent and child factors. *Journal of Applied Developmental Psychology*, 36, 11-17. <https://doi.org/10.1016/j.appdev.2014.12.001>
- Lemmens, J. S., Valkenburg, P. M., & Peter, J. (2009). Development and validation of a game addiction scale for adolescents. *Media psychology*, 12(1), 77-95. <https://doi.org/10.1080/15213260802669458>
- Livingstone, S., Mascheroni, G., Dreier, M., Chaudron, S., & Lagae, K. (2015). How parents of young children manage digital devices at home: The role of income, education and parental style.
- Manap, A., & Durmuş, E. (2020). Development of the digital parenting awareness scale. *İnönü University Faculty of Education Journal*, 21(2), 978-993. <https://doi.org/10.17679/inuefd.711101>
- Mentzoni, R. A., Brunborg, G. S., Molde, H., Myrseth, H., Skouverøe, K. J. M., Hetland, J., & 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. <https://doi.org/10.1089/cyber.2010.0260>
- Nazlıgül, M. D., Baş, S., Akyüz, Z., & Yorulmaz, O. (2018). Internet gaming disorder and treatment approaches: A systematic review. *Addicta: The Turkish Journal on Addictions*, (5), 13–35. <https://doi.org/10.15805/addicta.2018.5.1.0018>
- Rode, J. A. (2009). Digital parenting: designing children's safety. *People and computers XXIII celebrating people and technology*, 244-251. <https://www.scienceopen.com/hosted-document?doi=10.14236/ewic/HCI2009.29>
- Rosen, L. D., Lim, A. F., Felt, J., Carrier, L. M., Cheever, N. A., Lara-Ruiz, J. M., ... & Rökkum, J. (2014). Media and technology use predicts ill-being among children, preteens and teenagers independent of the negative health impacts of exercise and eating habits. *Computers in human behavior*, 35, 364-375. <https://doi.org/10.1016/j.chb.2014.01.036>
- Siibak, A., & Nevski, E. (2019). Older siblings as mediators of infants' and toddlers'(digital) media use. *The routledge handbook of digital literacies in early childhood*, 123-133.
- Spagnuolo Lobb, M., Sciacca, F., Iacono Isidoro, S., & Hichy, Z. (2022). A measure for psychotherapist's intuition: Construction, development, and pilot study of the Aesthetic Relational Knowledge Scale (ARKS). *The Humanistic Psychologist*. <https://doi.org/10.1037/hum0000278>
- Sümer, N., Gündoğdu Aktürk, E., & Helvacı, E. (2010). Anne-baba tutum ve davranışlarının psikolojik etkileri: Türkiye'de yapılan çalışmalara toplu bakış. *Türk Psikoloji Yazıları*, 13(25), 42-59.
- Şenol, Y., Şenol, F.B. & Can Yaşar, M. (2024) Digital game addiction of preschool children in the Covid-19 pandemic: social emotional development and parental guidance. *Curr Psychol (43)*, 839–847 <https://doi.org/10.1007/s12144-023-04323-8>
- Tabachnick, B. G., Fidell, L. S. (2013). *Using multivariate statistics*. Boston, MA: pearson.
- Te'eni, D. (2017). Digital natives and immigrant editors, and special issues. *European Journal of Information Systems*, 26(3), 237-239. <https://doi.org/10.1057/s41303-017-0050-5>
- Uçur, Ö., & Dönmez, Y. E. (2021). Problematic internet gaming in adolescents, and its relationship with emotional regulation and perceived social support. *Psychiatry research*, 296, 113678.
- Van den Heuvel, A., Van den Eijnden, R. J., van Rooij, A. J., & van de Mheen, D. (2012). Meeting online contacts in real life among adolescents: The predictive role of psychosocial wellbeing and internet-specific parenting. *Computers in Human Behavior*, 28(2), 465-472. <https://doi.org/10.1016/j.chb.2011.10.018>
- Wack, E., & Tantleff-Dunn, S. (2009). Relationships between electronic game play, obesity, and psychosocial functioning in young men. *CyberPsychology & Behavior*, 12(2), 241-244 <https://doi.org/10.1089/cpb.2008.0151>

Ybarra, M. L. (2004). Linkages between depressive symptomatology and Internet harassment among young regular Internet users. *CyberPsychology & Behavior*, 7(2), 247-257. <https://doi.org/10.1089/109493104323024500>

Yiđit, E. (2017). *Çocukların dijital oyun bađımlılıđında ailelerin bazı deđişkenler açısından incelenmesi* [Unpublished Master's Thesis]. Yüzüncü Yıl Üniversitesi. <https://gcris.pau.edu.tr/handle/11499/26389>