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Examination of Relation between High School Students' Online Game Addiction, Loneliness, Aggression and Depression Tendency

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Abstract: Playing online games is one of the most popular Internet activities of our time. With the widespread use of the Internet, interest in online games has also increased. While it is formerly mostly limited to game centers, online gaming habits can now be maintained at any time of day thanks to the smartphones. One of the reasons why interest in online games increased is online games of nowadays render the possibility of playing with multi-player. Apart from online game playing, this interest also proceeds on virtual social groups through social network activities such as sharing videos of games they play, discussion of them, learning new strategies. Although online games have cognitive, emotional, motivational and social benefits, they also lead to undesirable situations like game addiction. Therefore, it should be taken into account that online game addiction can bring about many physical, mental and psychological problems. In the researches carried out, online game addiction leads excessive anxiety, intolerance, hasty behavior, anger, mood swings, and behavioral changes. For this reason, determining the factors associated with online gaming addiction may be a guide to preventing addiction. The aim of this research is to examine the online game addiction status of high school students and to examine the relationship of online game addiction and feeling of loneliness, aggression and depression tendencies. The research was carried out according to the correlational research model and was conducted on the students of an Anatolian High School located in a province center in the Western Black Sea Region. Participants of this study consist of 276 high school students. Data of study; Online Game Addiction Scale that is to determine addiction status of high school students, the UCLA Loneliness Scale that is to determine students' loneliness status, BUSS-PERRY Aggression Scale that is to determine students' aggression tendencies, BECK Depression Scale that is to determine students' depression tendencies. It has been questioned whether the data obtained within the scope of the study can meet the normal assumptions; as a result it has been seen data is normally distributed. Findings from the researches are; there is a low positive significant correlation (r = .26; p <.01) between high school students' online game addiction and their feeling loneliness, there is a moderately positive significant correlation (r = .44; p <.01) between online game addiction and aggression tendencies, there is a low positive significant correlation (r =

.28; p <.01) between online game addiction and depression tendencies. When the relations of other scales are examined; it has been seen, there is a moderately positive significant correlation between feeling loneliness and aggression tendencies (r = .47; p <.01), there is a low significant positive correlation between depressive tendencies and feelings of loneliness (r=.15; p<.01), there is moderately positive significant relation between depression tendency and aggression tendency (r=.34; p<.01). According to findings obtained from the research, due to the increase of online gaming addiction it can be said, students' feeling loneliness increased a bit, their aggression behaviour increased and depression tendency an increased a bit. In reducing online game addiction; taking preventative measures can be taken to decrease online game playing addiction and to reduce addicted user's feelings of loneliness, their tendency to engage in depression and aggression tendencies. It was discussed what can be done in order to decrease the game addiction of the students in the direction of the findings obtained from the research. Various suggestions have been given to teachers, parents and policy makers.

Keywords: High school students, Online game addiction, Loneliness, Aggression, Depression

Introduction

In the 21st century, digital tools are used in many areas such as e-commerce, e-health applications as well as the use of educational teaching processes. Along with the many benefits provided by these tools, it also brings together many risk factors, especially addiction. Some of these are problematic internet use, telephone addiction and game addiction (Karaoglan Yilmaz, Yilmaz, Teker, & Keser, 2014). Karaoğlan Yılmaz, Dilen and Durmuş (2018) determined that 88.7% of high school students had internet access. This indicates that students are open to many risks on mobile and online. One of these risks is related to digital gaming addiction. Digital game addiction is a situation where an individual cannot stop playing the game for a long time, relate the game to his real life, do not carry out his responsibilities due to the games, and prefer it to other daily activities (Eni, 2017). In the game addiction process; depending on the increase of the pleasure, the more pleasure is got as the game played, more game is played as the pleasure is got. Therefore computer game addiction emerges as a result (Horzum, Ayas, & Çakır Balta, 2008). In this context, Horzum (2011) lists the results the addiction of game not to leave game, think it constantly, relate it to real life, leave his task responsibilities away, prefer playing games to other daily activities. When the literature is viewed, it is stated that game addiction can lead to many physical and psychological negative effects on individuals, especially adolescents (Kaplan, 2017; Kaya, 2013). For this reason, it is important to determine the factors that causing game addiction in adolescents in order to determine the measures that should be taken to struggle addiction.

In this context, in this study it is aimed to examine the online gaming addiction status of high school students and to examine the relationship of online game addiction and

feeling loneliness, aggression and depression tendencies. For this aim, the following questions were sought:

- What is status of high school students' online game addiction?

- Is there a statistically significant correlation between high school students' online game addiction and their feeling loneliness?

- Is there a statistically significant correlation between high school students' online game addiction and aggression tendencies?

- Is there a statistically significant correlation between high school students' online gaming addiction and depression tendencies?

Method

In this part of the study, it's given the model of the researcher, the data collection tools, the analysis of the data and the interpretation of the data.

Research Model

In this study, it was utilized from correlational research to examine the online game addiction status of high school students and to examine the relationship of online game addiction and loneliness and depression tendencies. Correlational research is the study of the correlation between two or more variations in any way without interfering with these variations (Büyüköztürk et al., 2008). This study was conducted on Anatolian High School students in a province center in Western Black Sea Region during the spring semester of 2016/2017 academic year.

Data Collection Tools

Data of research; Online Game Addition Scale that is used to determine high school students' online game addition status, UCLA Loneliness Scale to determine loneliness status, BUSS-PERRY Aggression Scale to determine aggression tendency status of students, BECK Depression Scale to determine status of depression tendency. The online game addiction scale, developed by Kaya (2013), consists of 21 items in five-point likert type. The UCLA Loneliness Scale is adapted to Turkish by Demir (1989) and consists of 20 items of the four-point likert type. The Buss-Perry Aggression Scale is adapted to Turkish by Madran (2012) and consists of 29 items of the five-point Likert type. The Beck Depression Tendency Scale was adapted to Turkish by Hisli (1989) and consists of 21 items of the four-point likert type.

Analysis of Data

It has been examined whether data obtained in the study meet the normal assumptions or not and it has been determined it is between-1 and +1 of Skewness and Kurtosis values. In this case it has been determined that the data are normally distributed. For

this reason, Pearson Correlation method that is one of parametric tests was used in the analysis of data. In the significance tests (**) in the study, the reliability level of .01 was considered

Results

Purpose of this study is to examine status of high school students' online game addiction and here are the findings of research conducted on the relationship of online gaming addiction and feeling loneliness, aggression, and depression tendencies and comments of them.

Descriptive statistics related to online gaming addiction status, loneliness, aggression and depression tendencies of high school students are given in Table 1 as the sub-result of the research.

Table 1. Score distribution on high school students' status on online game addiction, loneliness, aggression and depression tendency

Scales	Number of items	Lowest score	Highest score	$\overline{x}$	ss	$\overline{x}/k$
Online Game Addiction	21	25.00	100.00	42.61	17.76	2.03
Loneliness	20	20.00	77.00	51.24	9.97	2.56
Aggression Tendency	29	29.00	136.00	73.79	22.02	2.54
Depression Tendency	21	21.00	76.00	31.33	10.47	1.49

As seen in Table 1, descriptive statistics of online gaming addiction status, feeling loneliness, aggression and depression tendencies of high school students are given. According to Table 1, the average score of the high school students' online gaming addictive scale is 42.61 (2.03 out of 5). The total score obtained from the loneliness scale is 51.24 (2.56 out of 4). The total score obtained from the aggression scale was 73.79 (2.54 out of 5), while the score obtained from the depression tendency scale was 31.33 (1.49 out of 4). In this context, it can be said that high school students have low levels of online gaming addiction, moderate levels of loneliness, low levels of aggression, and low levels of depression tendency.

The Pearson correlation analysis results are seen in Table 2 to examine the online game addiction status of high school students in the direction of the research purpose and to determine whether there is a significant relations of students' online game addiction and loneliness, aggression and depression tendencies.

Table 2. Correlation results of online game addiction situations of high school students and loneliness, aggression and depression tendency

		Online Game Addiction	Loneliness	Aggression Tendency	Depression Tendency
Online Game Addiction	r	1	.26**	.44**	.28**
	p		.000	.000	.000
	N	276	276	276	276
Loneliness	r	.26**	1	.47**	.15**
	p	.000		.000	.002
	N	276	276	276	276
Aggression Tendency	r	.44**	.47**	1	.34**
	p	.000	.000		.000
	N	276	276	276	276
Depression Tendency	r	.28**	.15**	.34**	1
	p	.000	.002	.000	
	N	276	276	276	276

When correlations in Table 2 are examined; there is low positive significant correlation between high school students' online gaming addiction and feeling loneliness (r=.26; p<.01),there is moderate positive significant correlation between online gaming addiction and aggression (r=.44; p<.01),there is low positives significant correlation between online gaming and depression tendency (r=.28; p<.01).When other scales are examined, there is moderate positive significant correlation between loneliness and aggression (r=.47; p<.01), there is low positive significant correlation between loneliness and depression tendency (r=.15; p<.01), there is moderate positive significant correlation between aggression and depression (r=.34; p<.01). It can be said that, according to the findings obtained from the research, the students increased their feeling loneliness due to the increase of online gaming addiction, they also increased their aggression behavior due to the increase of online gaming addiction and they increased their depression tendency a bit depending on the increase of online gaming addiction. In reducing online game addiction; taking preventative measures can be taken to decrease online game playing addiction and to reduce addicted user's feelings of loneliness, their tendency to engage in depression and aggression tendencies.

Discussion and Conclusion
The results of this research conducted to examine the online game addiction status of high school students and to examine the relationship of online game addiction and loneliness, aggression and depression tendencies of students reveal that the addictive status of high school students is low. It was observed there is also a low positive significant correlation between online gaming addiction and loneliness, a moderate positive significant correlation between online game addiction and aggression

tendencies, and a low positive significant correlation between online gaming addiction and depression tendencies. When these findings are taken into consideration, it is seen that the aggression is the highest variation of correlation between online game addiction and the other variations.

When the literature is examined, it is seen that there are various research results which are similar to the results of this research. According to the research results made by Eyyüpoğlu (2017); computer game addiction and internet addiction predicted adolescence disobedience separately and together - there is strong relations of adolescence disobedience, computer game addiction and internet addiction positively. And a result of our research, it is found that there is a moderate positive significant correlation between online game addiction and aggression tendencies. According to the results of Odabaş (2016), online game addiction and subjective happiness have a significant negative correlation. And as a result of our research, it was found that there is a low positive correlation between high school students' online game addiction and their feeling loneliness, and a low positive correlation between online game addiction and depression tendencies. When the tendency of loneliness and depression are evaluated as predictors of unhappiness, findings can be said to be consistent with the results of the research done by Odabaş (2016).

It can be said that in the direction of the findings obtained from the research in reducing the aggression behaviors seen in high school students, it is beneficial to decrease their game addictions. In this case, parents and teachers should keep an eye on the habits and addictive situations of adolescents showing aggressive behavior. Depression and loneliness can also be seen as variations contributing to adolescents' game addiction status. For this reason, social support for adolescents in this situation may be useful in reducing gaming addictions. Besides in their research Yılmaz, Karaoğlan Yılmaz, Öztürk and Karademir (2017) indicate that the majority of the students are insufficient regarding information security and computer usage awareness and they could be under risk in online settings towards the threats. For these reasons, parents of students who are playing online games should be more careful and direct their children. Karaoğlan Yılmaz and Çavuş Ezin indicate that through the necessary institutions and organizations to prevent damage to parents and children, preventing and raising awareness is required. Teachers who are one of the most important instructors in this area should also be aware of online risks and cyber bullying (Sezer, Yilmaz, & Karaoglan Yilmaz, 2015). Because online games platforms contain many risks in terms of information security and cyber bullying.

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