

Investigation of Digital Gaming Addiction and Loneliness of University Students

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Abstract

In this study, it is aimed to examine the relationship between digital gaming addiction and loneliness levels of undergraduate students receiving education in the field of health science. Sample group consisted of 483 students attending undergraduate studies in the field of health sciences. Researchers used UCLA Loneliness Scale (ULS-8) developed by Russel, Peplau, and Ferguson (1978) and adapted to Turkish by Doğan, Çötök, and Tekin (2011) and Digital Gaming Addiction Scale developed by Arslan, Kırık, Karaman, and Çetinkaya (2015). Data is analyzed by using one way analysis of variance (ANOVA), t-test, and Pearson correlation coefficient. As a result, it was found that male students have higher levels of digital addiction and loneliness than female students, and students with higher levels of digital addiction and loneliness spend more time on the internet. It was also found that there was a significant positive relationship between digital addiction and loneliness levels.

Keywords: Digital Gaming Addiction, Loneliness, College students

Introduction

Children's play and socialization habits have changed because of the reasons such as the rapid progress of technology, the increasing number of digital tools and applications in our daily life, urbanizations, and inadequacy of playgrounds. In the process of time, traditional games were replaced by computer games and digital games played via the Internet. The most important effect of digital games is psychological and physiological dependence. Digital game addiction can be defined as excessive use of computer or digital games that cause social and emotional problems and inability to control themselves. Digital game addiction points out negative results emerged. The studies carried out in this area are based on two basic views. The first is that games can make positive contributions to the mental development of children and youngsters at certain points and the second is that an uncontrollable desire to play game can cause addiction and problems in social life (Arslan et al., 2015; Irmak & Erdoğan, 2016; Öncel & Tekin, 2015). When the causes of playing games are examined, it seems that the reasons such as the desire to evaluate his/her leisure time and to escape and struggle, the desire to get rid of the negative conditions of the individual, the need to communicate different persons, and want to escape the real life and be in fantastic atmosphere, activity request that can be focused for a long time can be appear (Horzum et al., 2008).

Research has emphasized that persons who have digital game addiction has symptoms similar with individuals who have behavioral or chemical dependency. It is suggested that digital game addiction can be defined as gaming disorders which is played on the Internet in Chapter 3 of DSM-5 (Savcı & Aysan, 2017). In another study conducted that on the subject, 1 out of 5 university students is at risk of game addiction. 1 out of 3 students spend time at the game for hours, at least 1 hour each day (Çavuş,

Ayhan, & Tuncer, 2016). It was found to be associated with depression, impulsivity, loneliness, sleep quality, anxiety, social isolation, vigilance of communication skills, well-being, self-esteem, academic performance and psychological and sociological disturbances (Şahin & Tuğrul, 2012; Savci & Aysan, 2017). It is thought that especially loneliness which is felt by university students who are trying to get used to a new atmosphere cause technological addiction.

Loneliness is the unpleasant feeling that results from the difference between an individual's social relationship and the desired social relationship (Elkin, 2017). When the factors affecting loneliness are examined, some problems arising from family, home or school environment are striking. Among these are moving away from home or close friend, disappearing of an owned object, broken family, the death of an important person or a pet are the factors stem from home environment affecting the loneliness of children; school change, rejection by close friends, difficulty in acquiring new friends, and personal characteristics such as lack of social skills or shyness, anxiety and low self-esteem are the factors that cause feelings of loneliness in the school environment (Çakır & Oğuz, 2017; Duyan et al.,2008; Duyan, Var & Kılıç, 2015; Korkmaz, Usta & Kurt, 2014).

Being a member of a group, having a job and directing the future, adapting to a new school and environment bring with many problems in the young people who come away from their families for university. It is quite important to establish satisfactory relationships in this period. In this context, this research which aims to determine the relation between digital game addiction and loneliness levels is thought to contribute positively to the elimination of the risks of digital dependency emerging in recent years. It is expected that young people, especially in the health field, will be more sensitive to health issues. For this reason, the following questions were answered in this study which has participants received education the health science.

1. Are digital game addiction and loneliness levels of undergraduate students in the field of health science differentiated by sex?
2. Are digital game addiction and loneliness levels of undergraduate students in the field of health science differentiated by frequency of use?
3. Is there a meaningful relation between digital game addiction and loneliness levels of undergraduate students studying in health field?

Method

Design

This study is descriptive survey model and based on quantitative data not intended to reflect the situation as it is.

Participants

Scales was administered to 483 students received education in Faculty of Health Science- Health Science University in the city center of Istanbul by using convenience sampling method. 84.1 % of the students are female students and 15.7 % are male students. It is found that 19% of the students use Internet 1-2 hours, 58,4% of the students use Internet 3-5 hours, 20,3% of them use 6-9 hours and 2,1% use more than 9 hours in a day.

Data Collection Tools

Demographic Information Form, UCLA Loneliness Scale- Short Form, and Digital Addiction Scale were used to collect data in the study.

UCLA Loneliness Scale (ULS-8) Short Form

UCLA Loneliness Scale was developed by Russel, Peplau and Ferguson (1978). Validity and Reliability test of UCLA Loneliness Scale Short Form was studied by Doğan et al. in 2011. The ULS-8 had a positive correlation with social-emotional loneliness and depression and a significantly negative

correlation with perceived social support. The correlation between ULS-8 and the UCLA Loneliness Scale was .88 ($p < .001$). The internal consistency of the scale was good with a Cronbach's Alpha of .72.

Digital Addiction Scale

The scale is developed by Arslan, Kırık, Karaman ve Çetinkaya (2015). The scale has a framework of three factors consisting of 29 items. These three factors constitute the dimensions; "Video Game Addiction" consisting of items 1-11, "Social Media Addiction" consisting of items 12-23 and "Effects in Daily Life" consisting of items 24-29.

Data Collection and Analyze

Undergraduate students who want to participate voluntarily in the collection of data are requested to fill the questionnaires. Data is analyzed by using SPSS 20 package program in the computer setting. The normality distribution of the data was analyzed by the Kolmogorov Smirnov Test and the data were analyzed by one way analysis of variance (ANOVA), t-test and Pearson Correlation Coefficient.

Findings

Table 1. reports the mean scores, standard deviation, and t-values of female and male students in relation to the loneliness and digital addiction.

Table 1. UCLA and DGA t-test Scores on Gender

	Gender	N	Mean	Std. Deviation	t	p
UCLA	Female	405	15,00	2,78	-3,019	0,000*
	Male	75	16,12	3,71		
DGA	Female	405	77,05	18,70	-1,880	0,720
	Male	75	81,57	19,20		

According to Table 1, there is a significant difference between gender variables considering UCLA scores ($p < 0,05$). Loneliness levels of male students are higher than females. There is no significant difference between gender of participants on DGA scores ($p > 0,05$). However, the average DGA score of males' is higher than females'. According to this, although digital dependence is not significantly affected by gender, it can be said that male students have higher level of digital dependency.

Table 2. UCLA and DGA ANOVA Results on Frequency of Use

	Frequency of Use	N	Mean	Std. Deviation	F	p
UCLA	1-2 hours	92	14,72	2,78	5,27	0,001*
	3-5 hours	280	15,16	3,02		
	6-9 hours	98	15,26	2,72		
	9 – hours	10	18,60	3,68		
	Total	480	15,17	2,97		
DGA	1-2 hours	92	68,51	17,42	24,55	0,000*
	3-5 hours	281	76,37	16,29		
	6-9 hours	97	89,24	19,60		
	9- hours	10	90,30	30,40		
	Total	480	77,75	18,83		

According to Table 2, there is a meaningful relationship between the frequency of use and UCLA and DGA. Participants' loneliness level and digital addiction level are significantly affected by frequency

of use. When group differences are examined, it is seen that there is a significant difference between UCLA as well as DGA scores of internet users who use more than 9 hours and who use 1-2, 3-5, and 6-9 hours.

Table 3. Pearson Correlation Coefficients of UCLA and DGA

		UCLA
DGA	R	,237**
	P	,000
	N	479

According to Table 3, the relationship between UCLA and DGA scores of participants are statistically significant ($p < 0,001$). This relationship has positive direction ($r = 0,237$). As UCLA scores are increasing, the participants' DGA scores also increase. According to this, level of digital addiction of the participants increase, the level of loneliness increase.

Discussion

As a result of the study, it was determined that there was no significant relation between digital game addiction and gender in undergraduate students in the field of health science, but the average Digital Addiction score of male students was more than female students'. In addition, loneliness levels were significantly affected by gender variable; so, male students have more loneliness score than females'.

It seems that males have digital game addiction more than females in similar research on digital gaming addiction and internet addiction (Çavuş, Ayhan & Tuncer, 2016; Derin & Bilge, 2016; Esen & Siyez, 2011; Gökçeaslan & Günbatar, 2012; İnan, 2010; Tan, Cömert & Ogel, 2009; Üneri & Tamdır, 2011). It was determined that there is no significant difference in terms of gender in a research on smartphone addiction (Aktaş & Yılmaz, 2017).

In the study of loneliness, it was determined that there was a significant positive correlation between smartphone addiction and loneliness as well as shyness (Aktaş & Yılmaz, 2017). Another study found that there is a meaningful relationship between loneliness level and internet addiction in adolescents (Esen & Siyez, 2011; Özcan & Buzlu, 2005). A study stated that individuals who feel alone are addicted to the internet and that they are not alone because of the internet addiction (Ceyhan, Ceyhan & Gürcan, 2007).

Communication skills and socialization tendencies of individuals who spend a significant part of their time on the internet are affected adversely due to technological dependence (Öğel, 2012; Savcı & Aysan, 2017). This situation increases loneliness level of individuals. As a result of increasing awareness and sensitivity towards digital addiction, it can be said that the level of loneliness of individuals will decrease and so communication skills will enhance. At the top of these individuals are healthcare providers who are particularly in intensive communication with people. It was necessary for students who receive education in health science to be aware of the effects of digital addiction and social and psychological problems that arise from this dependence on the individuals as well as environment and to raise awareness of public about necessary precautions to be taken.

Suggestions

It is thought that future studies with different sample groups and research designs will contribute to the evaluations of digital dependency. Carrying out on larger samples will allow generalization of the results of the research. These studies will contribute to diversity and enrichment of literature related to digital game addiction in Turkey. Also, it is important to prepare educational workshops for families and youngsters in the issues of conscious and safe internet use, and spending quality time with the aim of rising awareness about digital addiction. In addition, studies on the reasons that push young people to digital game addiction will help to prevent it.

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