Original Article

Internet Addiction in High School Students and the Related Factors

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Abstract

Aim: The aim of this study was to examine the internet addition in students studying in state high schools and the related factors.

Materials and Methods: This is a descriptive-correlational study. The study was conducted with 1537 high school students. The data were collected using the questionnaire prepared by the researchers and internet addiction test developed by Young (1998) and the weight and height of the students were measured in order to determine their body mass index. The data were evaluated by number, percentage, mean, chi-square, and logistic regression analysis (Enter method) methods.

Results: The internet addiction prevalence of the students was 1.9%. It was seen that the risk of internet addiction was higher in the students who had a broken family, used internet in the evening and at night, used internet unnecessarily, used internet for 3 hours or more, were dissatisfied with their height and weight ratio than the other groups and the difference was statistically significant (p<0.05). According to the logistic regression analysis, the risk factors that were determinant in Internet addiction were the father's low education level, Internet use of 3 hours or more, using the Internet in the evening, at night and all the time and dissatisfaction with the weight.

Conclusion: Some sociodemographic and behavioral characteristics of the students increased internet addiction. In the future, it should be considered to establish programs aiming to teach adolescents to use the internet properly in school health nursing practices.

Key Words: internet, behavior, addictive, students

Introduction

Internet use is common in Turkey. According to the household use of information technology survey conducted by Turkish Statistical Institute (TSI) in 2019, it was determined that 90.8% of individuals aged between 16-24 years use internet, 94.8% were male and 86.6% were female (Turkish Statistical Institute, 2019). Internet addiction has emerged with the widespread use of the Internet and has signs such as being anxious while using the internet; increasing the duration of the use of the internet; failing to discontinue the use of the internet; feeling unhappy when discontinuing the use of the internet; disrupting education, work, and relationships because of the use of the internet; and using the internet to overcome unhappiness (Young, 1996). The time spent on the internet and the purpose for using the internet are the important determinants of most ınternet addiction. internet addicts spend excessive time on the Internet, mostly on chat, movie, music, game, community, or pornography sites (Cao & Su, 2007; Gunuc & Kayrı, 2010; Young, 1996). Young people are prone to Internet addiction because their cognitive controls and their ability to limit their behaviors are developing (Casey, Tottenham, Liston, & Durston 2005; Liu & Potenza, 2007). The prevalence of Internet addiction among young people in different countries ranges from 10.1% to 36.1% also shows that Internet addiction is widespread among young people and that young people represent a risk group in terms of Internet addiction (Ahmadi & Saghafi, 2013; Gunuc & Kayrı, 2010).

According to studies conducted, Internet dependence of high school and university students are associated with variables such as hopelessness (Simsek, Kılıc-Akca, Simsek,

2015), psychological well-being (Lai et al., 2015), purpose of Internet use (Gunuc, 2013), duration of Internet use, tendency for violent behavior, sex (Babacan-Gumus, Sıpkin, Tuna, & 2015), and success at (Eldeleklioglu & Vural-Batık, 2013). In addition, Internet addiction can lead to adopting a negative lifestyle such as a decrease in physical and social activities, unbalanced nutrition, and inadequate sleep (Lin, Chen, Chang, & Lin 2013). According to a study in China, Internet addiction in secondary school students is a risk factor for obesity (Li, Deng, Ren, Guo, & He 2014). In the studies conducted in Turkey, Internet addiction was determined to be a risk factor for obesity (Canan et al., 2014), and body mass index (BMI) increased as the time spent on watching television (TV) and using the Internet increased among high school students (Aksoydan & Cakır, 2011, Buyukbaykal, 2007). The issues about correct internet use of children and adolescents are now involved in school health programs of school health nurses. Today, ever-increasing internet addiction is seen as problems that should be addressed by school health nurses (Health Ministry of Turkish Republic, 2008; Loschiavo, 2015; Herrman, 2014). Additionally, the number of internet addiction studies conducted with high participation of high school students in Turkey is very limited. Therefore, the purpose of this study

is to investigate the internet addiction among students studying in public high schools and the related factors.

Methods: This was a descriptive-relationship study and the study population included 5374 high school students (from the 9th, 10th, 11th, and 12th grades) who studied in state high schools located in a province center in Turkey (state schools providing religious vocational education and technical vocational education were excluded). The rate of Internet addiction in Turkey was determined to be 19.9%, and the sample size was determined to be 1537 using the prepared charts of the World Health Organization (WHO), with a margin of error of 0.02 and 95% confidence interval (Lemeshow, Hosmer, Klar, & Lwanga, 1990). In the sample selection of the study, the stratified sampling method from probability sampling methods was used in the first stage and systematic sampling method was used in the second stage. For sample selection, systematic sampling method, which is a random selection method, was used (Sumbuloglu & Sumbuloglu, 2009). The study sample was formed by determining 1537 students randomly selected by starting from the fourth student in each class list (N/n: 5374/1537=3.83≈4) and by jumping four students. The number of students to be included in high schools is summarized below.

High	Number of	Layer weight	Number of
Schools	students		students to be
			sampled
1. Lise	145	0.026	40
2. Lise	484	0.090	137
3. Lise	653	0.121	185
4. Lise	83	0.015	23
5. Lise	342	0.137	46
6. Lise	416	0.077	118
7. Lise	525	0.097	148
8. Lise	432	0.060	92
9. Lise	123	0.022	33
10. Lise	654	0.121	185
11. Lise	563	0.104	158
12. Lise	429	0.079	119
13. Lise	419	0.077	117
14. Lise	274	0.050	75
15. Lise	80	0.014	21
16. Lise	150	0.027	40
Toplam			1537

Data collection tools: The data collection tools comprised a questionnaire form that was prepared by researchers who investigated the literature and included questions regarding sociodemographic characteristics and an Internet addiction scale (Ahmadi & Saghafi, 2013, Canan et al., 2014; Gunuc & Kayrı, 2010; Gur, Yurt, Bulduk, & Atagoz, 2015; Simsek, Kılıc-Akca, Simsek, 2015). In addition, BMI with respect to age was determined by measuring the height and weight of the students.

Internet addiction scale: In this study, Internet dependence of the students was assessed using the Internet addiction scale developed by Young (1998). The Cronbach's alpha coefficient of the scale, whose Turkish adaptation and validity and reliability determination were performed by Bayraktar in 2001, was found to be 0.91 (Bayraktar, 2001). As the validity and reliability of the Turkish version of this scale was based on adolescents aged 12-17 years, it can measure Internet addiction levels of the adolescent group (Bayraktar, 2001; Young, 1998). In addition, various studies have used the Internet addiction scale for adolescent groups in Turkey (Esen & Gundogdu, 2010; Yuksel & Yılmaz, 2016). Within the scope of this information, the Internet addiction scale was used in this study as a data collection tool to determine Internet addiction among high school students. The scale comprised 20 questions, and the response options were as follows: never, rarely, occasionally, frequently, and always. These response options were given 0, 1, 2, 3, 4, and 5 points. The total score that could be obtained was 0-100, and the respondents with scores of ≥80 points were defined as Internet addicts, 50–79 points as those with limited signs, and ≤49 points as those with no symptoms (Bayraktar, 2001; Young, 1998). In this study, the Cronbach's alpha coefficient of the Internet addiction scale was 0.88.

Data collection methods: Before collecting data, five students each from the 9th, 10th, 11th, and 12th grades of a school not included in the study were selected, and a pre-application performed with the 20 students. The preapplication revealed that the application of the data collection tools took 25 min, the questions were clear, and the data obtained were enough to collect the data required for the research. Data were collected from 1537 students between February 8 and June 10, 2019 in the spring semester of the 2018-2019 academic year. With the permission of the school principal and the course teacher, the questionnaires were distributed during class hour to students who were selected by the systematic sampling method. After the completed questionnaires were collected, the height and weight measurements of the high school students for calculating BMI were performed by fourth-grade nursing department students who were trained for the research. For each class, the duration of completing the questionnaire and measuring the weight and height was approximately 45 min. During data collection and height and weight measurements, the researchers were present in the classroom environment.

Data analysis: SSPS 22.0 package program was used for statistical analysis of the data. Number, percentage, average, chi-square regression analysis (Enter method) methods were used to evaluate the data. The level of significance was set at p values of <0.05. By evaluating the answers given to the questions in Internet Addiction Test (IAT), IAT score was calculated between 0-100 points. While evaluating the internet addition score, points below 49 points were accepted as normal, the points between 50-79 as "limited symptoms", and more than 80 points as "pathological internet use". In further analysis, pathological internet users and those showing limited symptoms were evaluated together and expressed as "Internet addition risk". In addition to the variables determined to affect IAT score significantly in univariate analysis, the variables determined to affect internet addiction in the literature were also included in the logistic regression analysis.

Ethical considerations: Before initiating the study, written permission from the Provincial Directorate of National Education and ethical committee approval from the University Ethics Committee (37/03) were obtained. Written and verbal approvals were obtained from the students participating in the research after explaining the purpose of the study. An informative brochure was also sent to the students' families through the Provincial Health Directorate.

Results

In this study conducted to investigate the internet addiction among high school students and the related factors, it was determined that 82.8% of the students did not show any symptom in terms of internet addiction, 15.3% showed limited symptoms, and 1.9% were addicted to internet (Table 1). It was found that 64.7% of the students included in the study were in the age range of 14-16 years and their age average was 16.01 ± 0.98 .

51.3% of the students were female and 81.4% had a nuclear family. The BMI of 70.1% of the students was normal (between +1 SD and -2 SD) and 55.4% were satisfied with their weight. 97.3% of the students perceived their economic status as "medium-poor" and 35.5% perceived their school success as "moderate-poor". It was determined that 2.0% of the mothers and 1.6% of the fathers of the students were illiterate. When the internet use status of the students was evaluated, 94.2% of them were connecting to the internet via cell phones and 90.4% could connect to the internet through their computer. When the daily internet use time of the students was evaluated, it was up to 2 hours daily in 56.3% of the students, 3 hours and more daily in 43.7% of them and its total daily average use was 2.89±2.71 hours. 55.0% of the students stated that they connected to the internet in the evenings and the most common reasons for using the internet were social sharing (47.4%),entertainment-music-movie-game (21.1%),research, studying (15.7%), following daily events (7.8%). surfing (4.5%)and communication, chat (3.4%) (Table 2).

The correlation between the internet addition risk status of the students and independent variables

evaluated with chi-square analysis. was According to the analysis results, those who had a broken family, used internet in the evening, at night and all the time, were using internet without any need, using internet for 3 hours and more, and dissatisfied with their height and weight ratio experienced internet addiction risk condition more than the other groups and the difference statistically significant (p<0.05). statistically significant difference was found between the groups in terms of the students' ages, genders, school success perceptions, BMI, parent's education level, socioeconomic status perception, using internet through cell phone, and having internet connection in the computer (p>0.05) (Table 3).

In the study, logistic regression analysis was performed to determine risk factors. In this study, the risk factors that are determinant in internet addiction were the low education level of fathers (OR: 2.714 CI: 1.014-7.263), internet use of 3 hours and more (OR: 5.756 CI: 4.171-7.943), using internet in the evening, at night and all the time (OR: 1.829 CI: 1.085-3.083) and dissatisfaction with the weight (OR:1.515 CI: 1.124-2.041). The other variables were not considerable risk factors (p>0.05) (Table 4).

Table 1. Score distributions of the students in Internet Addiction Test (n=1537)

Scale scores	n	%	$\overline{x} \pm ss$
80 and higher scores "Internet addict"	29	1.9	
Scores between 50-79 "Limited symptoms"	235	15.3	30.17 ± 20.31
49 and lower scores "No symptom"	1273	82.8	

Table 2. Distribution of Students According to Sociodemographic and Some Determinants That May Cause Internet Addiction

Socio-demographic	Number	(%)	Socio-demographic	Number	(%)
Characteristics			Characteristics		
Gender			Perception of socio-economic sit	uation	
Female	789	51.3	Good-Very good	42	2.7
Male	748	48.7	Moderate-Poor	1495	97.3
Age			Internet Access through Cell ph	one	
14-16 years	994	64.7	Yes	1448	94.2
17-19 years	543	35.3	No	89	5.8
School success perception			Internet Connection From Computer		
Moderate-poor perception	545	35.5	Yes	1389	90.4
Good- very good perception	992	64.5	No	148	9.6
Family type			Spending time on the Internet		
Nuclear family	1251	81.4	Up to 2 hours	865	56.3
Extended family	223	14.5	More than 2 hours	672	43.7
Broken Family	63	4.1			
BMI			The time period of using the Int	ernet	
Weak (between -2 SD and -	140	9.1	Morning	32	2.1

3SD)					
Normal (between +1 SD and -2	1078	70.1	Noon	160	11.0
SD)				169	11.0
Over-weight (between +2 SD	263	17.1	Evening	946	<i>55</i> 0
and $+1 SD$)			-	846	55.0
Obese (higher than +2 SD)	56	3.6	Night	250	16.3
,			all the time	240	15.6
Mother's education level			The most common reason to use	the Internet	
Illiterate	31	2.0	Research-study	241	15.7
T :tamata	31	2.0	Entertainment-music-movies-	325	21.1
Literate			games		
Primary school	563	36.6	Social network	729	47.4
Secondary school	360	23.4	Communication-chat	53	3.4
High school	400	26.0	Surfing	69	4.5
University	152	9.9	Following daily events	120	7.8
Father's Education Level			Height-to-weight ratio		
Illiterate	24	1.6	Satisfied with	852	55.4
Literate	21	1.4	Not satisfied with	685	44.6
Primary school	313	20.4			
Secondary school	320	20.8	Age	mean±SD	16.01±0.98
High school	488	31.8	Spending time on the Internet	mean±SD	2.89 ± 2.71
University	371	24.1			

Table 3. Distribution of internet addiction risk status of the students by their various characteristics

Characteristics	Internet a	ddiction risk	Characteristics	Internet addiction risk		
	Yes	No		Yes	No	
	Number	Number		Number	Number	
	(%)	(%)		(%)	(%)	
Gender			Socio-economic situ	iation percepti	on	
Female	142 (18.0)	647 (82.0)	Good+very good	258 (17.3)	1237 (82.7)	
Male	122 (16.3)	626 (83.7)	Moderate+Poor	6 (14.3)	36 (85.7)	
Significance Test	$\chi 2=0.768$	P=0.381		$\chi 2=0.254$	P=0.615	
Age			Accessing the Interne	et through a Cel	l Phone	
14-16 years	180 (18.1)	814 (81.9)	Yes	243 (16.8)	1205 (83.2)	
17 years and over	84 (15.5)	459 84.5)	No	21 (23.6)	68 (76.4)	
Significance Test	$\chi 2=1.719$	p=0.190		$\chi 2 = 2.736$	P=0.098	
School success percepti	on		Internet Connection From Computer			
Moderate-Poor perception	103 (18.9)	442 (81.1)	Yes	232 (16.7)	1157 (83.3)	
Good-Very good perception	161 (16.2)	831 (83.8)	No	32 (21.6)	116 (78.4)	
Significance Test	$\chi 2=1.762$	p=0.184		$\chi 2=2.275$	P=0.131	
Family type			The time period of us	ing the Internet		
Nuclear and extended family	244 (16.6)	1230 (83.4)	Morning/Noon	19 (9.5)	182 (90.5)	
Broken Family	20 (31.7)	43 (68.3)	Evening/night/always	` ,	1091 (81.7)	
Significance Test	$\chi 2 = 9.802$	p=0.002		$\chi 2 = 9.697$	P=0.002	
Body mass index	205 (150)	1012 (02.2)	The most common re			
Weak and normal	205 (16.8)	1013 (83.2)	Using for needs	23 (9.5)	218 (90.5)	
Overweight and obese	59 (18.5)	260 (81.5)	Using unnecessarily	241 (18.6)	1055 (81.4)	
Significance Test	χ2=0.492	p=0.483		χ2= 11.705	P=0.001	

Mother's education lev	el		Internet use duration	1	
Illiterate	6 (19.4)	25 (80.6)	Up to 2 hours	59 (6.8)	806 (93.2)
Literate, primary	258 (17.1)	1248 (82.9)	3 hours and more	205 (30.5)	467 (69.5)
education and above					
Significance Test	$\chi 2=0.106$	p=0.745		$\chi 2 = 149.135$	P=0.000
Father's Education Le	vel		From height to weigh	it ratio	
Illitamoto	= (20 2)	4 = (=0.0)			
Illiterate	7 (29.2)	17 (70.8)	Satisfied	124 (14.6)	728 (85.4)
Literate, primary	7 (29.2) 257 (17.0)	17 (70.8) 1256 (83.0)		124 (14.6) 140 (20.4)	728 (85.4) 545 (79.6)
	,	, ,	Satisfied Dissatisfied	` ,	, ,

Table 4. Factors Affecting Internet Addiction Status in Students

Independent variables	OR	%95 Confidence	р
_		Interval	_
Gender is male	0.958	(0.715-1.284)	0.774
Being between the ages of 14-16	1.221	(0.902-1.655)	0.197
Perceiving school success as moderate-poor	0.951	(0.706-1282)	0.743
Having a broken family	1.776	(0.964-3.272)	0.065
Being overweight and obese	1.079	(0.755-1.542)	0.676
Mother's low education level	1.224	(0.457 - 3.284)	0.687
Father's low education level	2.714	(1.014-7.263)	0.047
Perceiving socioeconomic status as poor	1.266	(0.473 - 3.384)	0.639
Having Internet Connection from Mobile Phone	0.606	(0.341-1.076)	0.087
Having Internet Connection from Computer	0.807	(0.508-1.281)	0.363
Using Internet for 3 hours or more	5.756	(4.171-7.943)	0.000
Internet use in the evening, at night and all the time	1.829	(1.085 - 3.083)	0.023
Using the Internet unnecessarily	1.403	(0.865-2.275)	0.170
Being dissatisfied with weight	1.515	(1.124-2.041)	0.006
-2 Loglikelihood	1226.035	R ² :0.188	

Discussion

In this study conducted to determine the internet addiction and the related factors among the students studying in public high schools, prevalence of the internet addiction was 1.9% (Table 1). In the studies conducted in many parts of the world, the prevalence of internet addiction varies. In a study including China, Hong Kong, Japan, South Korea, Malaysia and Philippines, the prevalence of internet addiction was found as 36.1% (Lai et al., 2015). In a study conducted in Iran, internet addiction prevalence of high school students was found as 22.2% (Ahmadi, 2014), it was found to be 3.9% in a study conducted with high school students in Italy (Bruno, et al., 2014). In many studies conducted in Turkey, prevalence of internet addiction varies between 3.6-61.5% in high school students (Canan et al., 2013; Canan et al., 2014; Gunuc & Kayrı, 2010; Gur, Yurt, Bulduk, & Atagoz, 2015; Simsek, Kılıc-Akca, Simsek, 2015; Yilmaz, Sahin, Haseski, & Erol, 2014; Gunay, Ozturk, Ergun-Arslantas, & Sevinc, 2018). In this study, prevalence of internet addiction was lower than the studies conducted in Turkey and in the world. This may be associated with regional, social and cultural differences.

In some studies, internet addiction is more common in adolescents who are younger and studying in lower classes (Durualp, & Cicekoglu, 2013; Gunay, Ozturk, Ergun-Arslantas, & Sevinc, 2018; Yılmaz, Sahin, Haseski, & Erol, 2014). While IAT scores of older students were found to be higher than the younger students in some studies (Ni, Yan, Chen, & Liu, 2009; Uneri, & Tanıdır, 2011). there are also studies finding the correlation between the age and internet addiction as statistically insignificant (Aslan and Yazici 2016; Yen et al., 2008). In the study, while the internet addiction risk was found to be higher in percentage for the students in younger age group (14-16 years) than the students aged 17 and over, the correlation was not found to be statistically significant. Additionally, it was not found as one of the risk factors determining the internet addiction in logistic regression analysis. These different results may be related to the age distribution of the study groups, differences between the societies in which the studies were conducted and the periods when the study was conducted. It can be explained by the fact that psychosocial problems experienced in adolescent period among students in younger age groups affect students more and loneliness along with introversion increase the internet addiction. In addition, due to the fact that children nowadays start to use smart phone, tablet etc. at earlier ages, being in a young age will become a risk factor in future for internet addiction. However, the fact that the target group of the study was high school students appeared as a restrictive factor in evaluating the age variable in a wide range.

Although there was no significant difference between the students, who perceived their school success as moderate-poor, and those, who perceived their school success as good-very good, in terms of internet addiction, perceiving the school success as moderate-poor was not found to be a risk factor for internet addiction. The fact that the internet addiction was common among students with poor and good school success, internet was used for informational purposes and parents encouraged them to watch educational videos and research on the internet may be among the reasons for students' internet addiction.

It was seen in the study that internet addiction was more common in the students having broken families and the students having other family structures. Divorce affects children the most as a growing situation worldwide. In fact, in the qualitative study conducted by Usakli (2013) it was reported that introversion, absence, and aggression behaviors were mostly observed in the children whose mothers were separated from their husbands. Students having broken families may experience intense feelings of loneliness as well as many negative emotions and because of this feeling, they may turn to virtual world by perceiving internet as an environment where they can establish social relationships.

As an interesting result in the study, while low education level of father was determined as a risk factor for internet addiction, low education level of mother and perceiving socioeconomic status as poor were not determined as risk factors. In their study conducted with university students, Gunay, Ozturk, Ergun-Arslantas, and Sevinc, (2018) found that the students expressing socioeconomic

status of their families as poor had higher IAT mean score than those with good and moderate status but the effect socioeconomic socioeconomic status on internet addiction risk was not found to be significant according to logistic analysis. In a study conducted with high school students, it was reported that 94.5% of the fathers of adolescents with possible internet addiction (PIB) were working in a job while this rate was 88.9% in adolescents without PIB (Kocaman, Aktepe, & Sönmez, 2017). The low education levels of mother and father may affect the profession they have and lower the family's monthly income. However, internet access is getting easier and socioeconomic differences has started to disappear in Turkey. It can also be thought that parents with low education level could not communicate enough with their children to inform about negative consequences of internet. overuse and problematic use of internet.

Internet addiction can lead to overweight and obesity as a result of over-eating, malnutrition, and consuming packaged foods and quick snacks without realizing how they consume due to the inability to leave the device connected to the internet. In the study, 20.7% of the students are overweight or obese (Table 2). As an interesting result, while the internet addiction risk of the students who were not satisfied with their weight increases 1.5 times greater (OR: 1.515 Cl:1.124-2.041) and overweight and obesity were not identified as risk factors. Accordingly, it can also be asserted in the study that internet addiction may cause gaining weight and also significantly affect the way students perceive their weight. Because, "body" is present at the focal point in today's consumption societies. Therefore, young people are constantly exposed to and affected by the ideal body descriptions such as good-looking, beautiful, thin, sexy, clean etc. over Internet (Imren, 2018). Internet is thought to affect weight perception of adolescents due to the reasons such as redefining ideal body sizes, wide availability of clothing, cosmetics and aesthetic issues in the internet. Therefore, it is believed that social media, one of the most important socialization tools of young people, affects significantly ideal weight perception of young people, they are satisfied with their weight as long as it is close to ideal body sizes which increases the internet addiction. Excessive internet use can lead to internet addiction. If 5 of the 8 criteria defined by Young are met, the person is diagnosed as

"internet addict". One of the Diagnostic Criteria Young Recommends for Internet Addiction is to stay on the internet longer than originally planned (Young, 1996). Tao et al., (2010) determined one of the diagnostic criteria of internet addiction (seven clinical criteria) as time (addiction continuing for at least 3 months and less than 6 hours unnecessary daily internet use). In their study, Taylan and Isik (2015) reported that each hour of internet use increased internet addiction by .057 points. In another study, the average weekly computer use hour was found to be 3.2±2.6 in computer users, 11.0 ± 5.4 problematic internet users, and 20.6±10.2 in addict users (Canan et al., 2013). It was stated in the study by Dinc and Askin (2018) that 27.1% of the students connected to the internet for 4 to 7 hours, 39.5% connected to it for more than 8 hours, and they connected to it for averagely 8.2 ± 7.2 hours per day. It was determined in the study that almost half of the students (43.7%) had a daily internet use duration of 3 hours and more and they spend approximately 3 hours a day on the internet and using the internet for 3 hours and more (OR: 5.756 Cl: 4.171-7.943) determined as one of the risk factors that are determinant in internet addiction. In the study, in addition to the prevalence of internet addiction, low duration of internet use was also a pleasing result. However, the fact that the students have an internet connection on both their phones and computers makes it easier to access the internet. Also, unlimited internet connection is thought to lead to excessive use of the internet. It was determined in the study that more than half of the students (55.0%) connected to the internet in the evening and the most common reasons for them to use internet were social sharing (47.4%). It was reported in a study that the students use the internet mostly to do homework/study with the rate of 26.0% and 21.5% use it for social media (Saglam et al., 2017). In their study, Aslan and Yazici (2016) found that the most frequently used internet activities in internet addiction were chat and social sharing; whereas, they were research and news websites in the group without internet addiction. Based on these results, the use of internet without a goal and students' inability to control themselves about internet use were considered as an important factor in internet

Conclusion: According to the results of the study, the factors that increase the internet addiction among high school students were the

low education levels of the fathers, internet use of 3 hours and more, internet use in the evening, at night and all the time and dissatisfaction with the weight. Again, it was seen that internet addiction risk was experienced more in those using internet without any need and those who had a broken family. Based on these results, it should be considered to establish programs aiming to teach young people to use the internet properly in school health nursing practices in the future.

References

- Ahmadi, K., & Saghafi, A. (2013). Psychosocial profile of Iranian adolescents'internet addiction. *Cyberpsychol Behav Soc Netw*, 16(7), 543-548.
- Aksoydan, E., & Cakır, N. (2011). Evaluation of nutritional behavior, physical activity level and body mass index of adolescents. *Gulhane Med J.*, 53, 264-270.
- Aslan, E.& Yazıcı, A. (2016). Internet addiction among university students and related sociodemografic factors. *J Clin Psy.* 19(3), 109-117.
- Babacan-Gumus, A., Sıpkin, S., Tuna, A., & Keskin, G. (2015). The relationship between problematic internet use, violence trend and some demographic variables among university students. *TAF Prev Med Bull.*, 14(6), 460-467.
- Bayraktar, F. (2001). The role of internet usage in the development of adolescents (Unpublished Master Thesis, Ege University Institute of Social Sciences). Retrieved
 - $from\ https://tez.yok.gov.tr/UlusalTezMerkezi$
- Buyukbaykal, G. (2007). The effects of television on children. *İstanbul University Faculty of Communication Journal*, 28, 31-44.
- Bruno, A., Scimeca, G., Cava, L., Pandolfo, G., Zoccali, R.A., & Muscatello, M. (2014). Prevalence of internet addiction in a sample of southern Italian high school students. *Int J Ment Health Addiction*, 12, 708-715.
- Canan, F., Yildirim, O., Yildirim-Ustunel, T., Sinani, G., Hisarvant-Kaleli, A., Gunes, C., & Ataoglu, A. (2014). The relationship between internet addictionand body mass index in Turkish adolescents. Cyberpsychol Behav Soc Netw, 17(1), 40-45.
- Canan, F., Yildirim, O., Sınanı, G., Ozturk, O., Ustunel, T.Y., & Ataoglu, A. (2013). Internet Addiction And Sleep Disturbance Symptoms Among Adolescents. *Sleep and Biological Rhythms*, 11, 210–213.
- Casey, B.J., Tottenham, N., Liston, C., & Durston, S. (2005). Imaging the developing brain: What have we learned about cognitive development? *Trends Cogn Sci.* 9(3), 104-110
- Cao, F., & Su, L. (2007). Internet addiction among Chinese adolescents: Prevalence and psychological features. *Child Care Health Dev.*, 33(3), 275-281.
- Durualp, E., & Cicekoglu, P. (2013). Investigation of the loneliness levels of the adolescents who are living in an orphanage in term of internet addiction and various variables. *DEU Journal of GSSS*, 15(1), 29-46.

- Dinc, A., & Askın, A. (2018). Internet addiction among vocational students in Canakkale; example of Biga Vocational School. *Journal of Human Sciences*, 15(1), 112-122.
- Eldeleklioglu, J., & Vural-Batık, M. (2013). Predictive effects of academic achievement, internet use duration, loneliness and shyness on internet addiction. *H. U. Journal of Education*, 28(1), 141-152.
- Esen, B.K., & Gundogdu, M. (2010). The relationship between internet addiction, peer pressure and perceived social support among adolescents *IJERs*, 2(4), 26-33.
- Gunay, O., Ozturk, A., Ergun-Arslantas, E., & Sevinc, N. (2018). Internet addiction and depression levels in Erciyes University students. *Dusunen Adam The Journal of Psychiatry and Neurological Sciences*, 31 (1),79-88.
- Gunuc, s., & Kayrı, M. (2010). The profile of internet dependency in Turkey and development of internet addiction scale: Study of validity & reliability. *H. U. Journal of Education*, 39, 220-232.
- Gur, K., Yurt, S., Bulduk, S., & Atagöz, S. (2015). Internet addiction and physical and psychosocial behavior problems among rural secondary school students. *Nurs Health Sci.*, 17(3), 331-338.
- Gunuc, S. (2013). Cart and chaid analysis of some variables that predict internet addiction. *Turkish Journal of Psychology*, 28(71), 88-101.
- Health Ministry of Turkish Republic. (2008). *Book of School Health Services in Health Services*. (pp. 140-141). Ankara: Yucel Press.
- Herrman, J.W. (2014). Fast facts on adolescent health for nursing and health professionals: A care guide in a nutshell. USA: Springer Publishing Company.
- Imren, M. (2018). That's my identity: On the role of the fashion and media on women' construction of identity and discourses of ideal body. *Ahi Evran University Institute of Social Sciences Journal*, 4(1), 103-111.
- Kocaman, O., Aktepe, E., & Sönmez, Y. (2017). An examination of the relationship between possible internet addiction and the levels of aggression and empathy among high school students in Isparta province). Anatolian Journal of Psychiatry. 18(6), 602-610.
- Lai, C.M., Mak, K.K., Watanabe, H., Jeong, J., Kim, D., Bahar, N., Ramos, M., & Chen, S.M. (2015). The mediating role of Internet addiction indepression, social anxiety, and psychosocialwell-being among adolescents in six Asiancountries: A structural equation modellingapproach. *Public Health*, 129 (9), 1224-1236.
- Loschiavo, J. (2015). Fast facts for the school nurse, school nursing in a nutshell. Second edition. USA: Springer Publishing Company.
- Li, M., Deng, Y., Ren, Y., Guo, S., & He, X. (2014). Obesity status of middle school students in Xiangtan and its relationship with internet addiction. *Obesity* (*Silver Spring*), 22(2), 482–487.

- Lemeshow, S., Hosmer, D.W., Klar, J., & Lwanga, S.K. (1990). Under the title adequacy of sample size in health studies. England: John Wiley&Sons.
- Lin, C.H., Chen, S.K., Chang, S.M., & Lin, S.S. (2013). Cross-lagged relationships between problematic Internet useand lifestyle changes. *Computers in Human Behavior*, 29(6), 2615–2621.
- Liu, T., & Potenza, M.N. (2007). Problematic Internet use: Clinical implications. CNS Spectr., 12(6), 453-466.
- Ni, X., Yan, H., Chen, S., & Liu, Z. (2009). Factors influencing Internet addiction in a sample of freshmen university students in China. *Cyberpsychol Behav*, 12 (3), 327-330.
- Saglam, R., Atay, E., Demirtas, Z., Öcal, E.E., Arslantas, D., & Unsal, A. (2017). Evaluation of internet addiction and dry eye disease among secondary and high school students. *Euras J Fam Med*, 6(3), 117-26.
- Simsek, N., Kılıc-Akca, N., & Simsek, M. (2015). Internet addiction and hopelessness in high school students. *TAF Prev Med Bull.*, 14(1), 7-14.
- Sumbuloglu, K., & Sumbuloglu, V. (2009). *Biostatistics*. Ankara: Hatipoglu Press.
- Taylan. H.H., Isik, M. (2015). Internet addiction among secondary school and high school students in Sakarya. *Turkish Studies*, 10(6), 855-874.
- Tao, R., Huang, X., Wang, J., Zhang, H., Zhang, Y., & Li, M. (2010). Proposed diagnostic criteria for internet addiction. *Addiction*, 105(3), 556-564.
- Turkish Statistical Instutite (2015). Use of Household Information Technologies. Retrieved from: http://www.tuik.gov.tr/PreTablo.do?alt_id=1028 in 2019, February 17.
- Usaklı, H. (2013). The problems of children in terms of divorced mothers. *Karabuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 3(2),195-208.
- Uneri, O. S., & Tanıdır, C. (2011). Evaluation of internet addiction in a group of high school students: a cross-sectional study. *Duşunen Adam The Journal of Psychiatry and Neurological Sciences*, 24(4),265-272
- Yen, J.Y., Ko, C.H., Yen, C.F., Chen, S.H., Chung, W.L, & Chen, C.C. (2008). Psychiatric symptoms in adolescents with Internet addiction: comparison with substance use. *Psychiatry Clin Neurosci*. 62(1), 9-16.
- Yuksel, M., & Yılmaz, E. (2016). The investigation of the relationship between internet addiction and problem solving skills of high school students in terms of several variables. *Elementary Education Online*, 15(3), 1031-1042.
- Yılmaz, E., Sahin, Y.L., Haseski, H.İ., & Erol, O. (2014). An analysis of internet addiction among high school students with respect to several variables: Balıkesir province sample. *Journal of Educational Sciences Research*, 4(1), 133-142.
- Young K.S. (1996) Internet addiction: The emergence of a new clinical disorder. *Cyberpsychol Behav*, 1(3), 237-244.
- Young, K.S. (1998). The relationship between depression and internet addiction. *CyberPsychology & Behavior*, (1)1, 25-28.