

Full Length Research Paper

Internet addiction among adolescence

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Each innovation brings along many risks. One of the risks related with the Internet use is Internet addiction. The aim of this study is to examine Internet addiction in adolescence in terms of gender, Internet access at home and grades. The research design used was survey method. The study population consisted of second stage students attending primary school in Konya in 2010-2011 education years. To form the sample, 3 primary schools from high, medium and low socio-economic level were randomly chosen. The sample group was composed of 300 [150 (50%) females; 150 (50%) males; 6th graders (n: 110, 36.7%), 7th graders (n: 118, 39.3%) and 8th graders (n: 72, 24%)]; age range was between 13 to 15. The findings of the study showed that adolescent males are more addicted to the Internet compared to females; 8th graders are more addicted to the Internet compared to the 6th graders; and adolescents who have computers at home are more inclined to be Internet addicts.

Key words: Internet, addiction, adolescence.

INTRODUCTION

It is an obvious fact that the means of communication have reached masses of people at an incredibly fast rate. As regards the time period that different types of means have covered to meet 50 million audiences, it is 38 years for radio, 13 years for television while it is only 5 years for the Internet. The Internet was introduced to Turkey in 1994 and it has been widely used after its introduction. Today the Internet is a product of technology which is widely used by people of all ages and which is a dynamic source of information renewed every day (tr.wikipedia.org, 2012).

The rapid introduction and spread of computers in all areas of life and its ubiquity even in cell phones, access to all kind of information became easier and more information started to be shared on-line. Such easiness and accessibility made it virtually an indispensable part of people's life. When numerical data are considered, in Turkey the use of Internet is increasing day by day. The 13.3% Internet use in the previous 3 months in Turkey in 2004 raised up to 37.6% as of the year 2012 (www.royalpingdom.com). It is stated that in Europe, Turkey ranks the 7th in terms of the number of Internet users and ranks top in terms of the time spent on the Internet (www.comscore.com). On the other hand, the rate of Internet use at any time in 2010 without considering the last time it was used is 41.6%. The computer and Internet is most commonly used by age

group of 16 to 24. The number of Internet users in the world was 1.97 billion in 2010 and 2.1 billion in 2011. In the world, 45% of the Internet users are younger than 25 (www.royalpingdom.com). The use of Internet is very common among youths all over the world.

Each innovation brings along many risks. One of the risks related with the Internet use is Internet addiction. Researchers have used different terms to describe very similar types of behavior. These include problematic Internet use (Caplan, 2002; Davis et al., 2002), pathological Internet use (Morahan-Martin and Schumacher, 2000), Internet dependency (Anderson, 1998; Scherer, 1997) and Internet addiction (Beard and Wolf, 2001; Griffiths, 1996; Young, 1996). Hanley and Wilhelm (1992) define addictive behavior as any activity, substance, object, or behavior that has become the major focus of a person's life to the exclusion of other activities, or that has begun to harm the individual or others physically, mentally, or socially. The internet connection is researched as a serious problem in different countries all over the world. For example, Internet addiction is currently becoming a serious mental health problem among Chinese adolescents. Chou and Hsiao (2000) reported that the incidence rate of the Internet addiction among Taiwan college students was 5.9%. Wu and Zhu (2004) identified 10.6% of Chinese college students as Internet addicts. During the last decades, the interactive

applications of Internet such as IM, chatting rooms, e-mail, discussion forums etc. have gained too much popularity among adolescents (Işiklar et al., 2011).

In identifying the Internet addiction the most frequently used definitions are as follows: Excessive use of the Internet, uncontrolled and destructive Internet use (Morahan-Martin and Schumacher, 2000); a psychiatric disorder involving non-adaptive thinking process and several pathological symptoms (Davis, 2001); excessive Internet use that causes problems in family, business, school, social and psychological life of the individuals (Beard and Wolf, 2001); a new and unidentified clinical disorder that may affect the individual's Internet use, controlling ability and thus leading to personal, professional and social problems (Young, 2007). The term "addiction" has been used to refer to a range of excessive behaviors, such as gambling (Griffiths, 1990), video game playing (Keepers, 1990), media use (Horvath, 2004; Kubey et al., 2001) and Internet addiction (Beard and Wolf, 2001; Griffiths, 1996; Young, 1996).

In one of the studies conducted to define the pathological Internet use, Young (1996) developed a brief eight-item questionnaire which modified criteria for pathological gambling to provide a screening instrument for addictive Internet use:

1. Do you feel preoccupied with the Internet (think about previous on-line activity or anticipate next on-line session?)
2. Do you feel the need to use the Internet with increasing amounts of time in order to achieve satisfaction?
3. Have you repeatedly made unsuccessful efforts to control, cut back, or stop Internet use?
4. Do you feel restless, moody, depressed, or irritable when attempting to cut down or stop Internet use?
5. Do you stay on-line longer than originally intended?
6. Have you jeopardized or risked the loss of significant relationship, job, educational or career opportunity because of the Internet?
7. Have you lied to family members, therapist, or others to conceal the extent of involvement with the Internet?
8. Do you use the Internet as a way of escaping from problems or of relieving a dysphoric mood (for example, feelings of helplessness, guilt, anxiety, depression?) (Young, 1996).

Patients were considered "addicted" when answering "yes" to five (or more) of the questions and when their behavior could not be better accounted for by a Manic Episode. Addictive behaviors may be triggered or cued in reaction to an unpleasant situation in a person's life (Fanning and O'Neill, 1996; Peele and Brodsky, 1979).

In studies on Internet addiction, it was found that Internet addicts have characteristic features like emotional sensitiveness, maladaptation, insomnia and not being able to express themselves (Young and Rodgers, 1998), lack of self-confidence (Bayraktar, 2001), inade-

quacy in revealing self (Caplan, 2005), academic, social problems (Niemz et al., 2005). Individuals who are dissatisfied or upset by a particular area or multiple areas of their lives have an increased likelihood of developing Internet addiction because they do not understand another way of coping (Young and Rodgers, 1997a, b).

Internet connection is now especially significant risk for 12 to 18 age groups (Öztürk et al., 2007). In studies conducted on this issue, it is pointed out that adolescent males use the Internet more and get addicted more compared to their female counterparts (Young, 1996; Bayraktar, 2001; Young and Rodgers, 1998; Morahan-Martin and Schumacker, 2000; Lin and Tsai, 2002; Oh, 2003; Simkova and Cincera, 2004; Dinicola, 2004; Özcan, 2004; Chou et al., 2005; Bayraktar and Gün, 2007; Yang and Tung, 2007; Çakir-Balta and Horzum, 2008; Tahiroğlu et al., 2008; Canbaz et al., 2009; Lam et al., 2009; Yilmaz, 2010; Işiklar, 2012). Some other studies on this issue (Brenner, 1997; Soule et al., 2003; Ferraro et al., 2007; Balci and Gülner, 2009; Orhan and Akkoyunlu, 2004; Ceyhan, 2011) found that there were no significant differences in terms of gender. In their study, Orhan and Akkoyunlu (2004) found that Internet use increased in puberty and adolescence as their age increased. In a study by Aslanbay (2006), it was found that using the Internet at home increased tendency to addiction.

The aim of this study is to examine Internet addiction in adolescence in terms of gender, Internet access at home and grades. In line with this aim, the problem statement is formulated as follows: do Internet addiction levels of primary school students vary according to gender, socio-economic level, Internet access at home and grade? The sub-problems are given as follows:

- 1) Do Internet addiction levels of participants vary in terms of gender?
- 2) Do Internet addiction levels of the participants vary according to existence Internet access at home?
- 3) Do Internet addiction levels of participants vary according to grade?

The fundamental prediction of the study is that Internet addiction of adolescents will vary according to the variables mentioned earlier.

MATERIALS AND METHODS

Survey model was used as the study method. Survey studies aim to determine the certain characteristics of a group. In survey model, individual or object mentioned in a study is defined as it is in its own conditions (Karasar, 2009). Therefore, since the research measured internet addiction among adolescents in terms of several variables, it is a relational survey model, one of the quantitative research paradigms.

Sample

The universe of the study is composed of second stage students

Table 1. The test results of the participants' Internet addictions levels in terms of gender.

Gender	n	\bar{X}	Sd	t	p
Female	150	23.79	19.80	-2.76	0.00
Male	150	31.17	25.99		

($p < 0.05$).

Table 2. t test results of participants' internet addiction levels in terms of having computer at home.

Do they have a computer at home?	n	%	\bar{X}	Sd	t	p
Yes	73	24.3	11.22	11.87	-7.43	0.00
No	227	75.7	32.71	23.75	-10.22	

($p < 0.05$).

attending primary school in Konya in 2010 to 2011 education years. Sample of the research was selected using random sampling method. Participants participated in the research voluntarily. To form the sample, 3 primary schools from high, medium and low socio-economic level were randomly determined. The sample group is composed of 300 [150 (50%) females; 150 (50%) males; 6th graders (n: 110, 36.7%), 7th graders (n: 118, 39.3%) and 8th graders (n: 72, 24%); age range: 13 to 15]. When the case of Internet access at home is considered, it was revealed that 75.7% of the students had computers at home and 24.3% of them did not have computers at home.

Data collection

In this study, "Internet Addiction Assessment Scale" and personal information form developed by the researcher were used. In the personal information form, gender, grades and internet accessibility at home were asked.

Internet addiction assessment scale

The "Diagnosis Scale" which was developed by Young (1996) by adopting the criteria in DSM- IV "Pathological Gambling" was later developed into "Internet Addiction Assessment Scale" with 20 items. It was translated into Turkish and validated by Bayraktar (2001) with reliability level alpha 0.91 and Spearman – Brown 0.87 (Bayraktar, 2001). Besides, in this study Cronbach alpha coefficient was calculated to be 0.90.

Data collection

In data collection, graduates of the department and the researcher collected data face- to-face. The personal information form consisted of questions about gender, and having a computer at home and grade. Out of 325 forms administrated, 300 were completely filled and assessed.

Data analysis

The data obtained were statistically analyzed using SPSS 17

software. Gender and having computer at home or not was tested with t-test and one-way variance analysis (Anova-F test) and LSD test was used to determine difference between grades. Significant level of 0.05 was taken as criterion.

RESULTS

In Table 1, t test analysis results of Internet addiction levels of participants in terms of gender are given.

Table 1 shows that there was significant difference between the scores received from Internet addiction scale ($t = -2.76$; $p = 0.00$). It is seen that significant difference is in favor of males. It was found that males are more inclined to Internet addiction.

Table 2 shows the variability of Internet addiction levels in terms of having computer at home.

When the scores received on the Internet addiction scale are examined, it was seen that there was significant difference in terms of having computer at home. It was found out that the difference is in favor of those who have computer at home ($t = -10.22$; $p = 0.00$). It was determined that those who have computers at home are more inclined to be Internet addicts.

In Table 3, results of Internet addiction examination in terms of grade are given.

When grade levels are compared, it was seen that the difference between grades was significant ($F = 3.20$; $p = 0.04$). The difference between the 6th grade and 8th grade was significant. It was determined that the significant difference was in favor of 8th grade ($X = 33, 18$).

DISCUSSION

In this study, the Internet connection levels of students at second stage of primary education are examined in terms of gender, grade and having computer at home. The results of the study are given as follows:

Table 3. Descriptive statistics with regard to grades.

ANOVA				
Grade	n	X	F	P
6 th grade	110	24.36		
7 th grade	118	26.90	3.20	0.04
8 th grade	72	33.18		
Total	300	27.48		

LSD				
Grade	Grades	Mean difference	Std error	P
6 th grade	7 th grade	-2.54	3.07	0.40
	8 th grade	-8.81*	3.51	0.01*
7 th grade	6 th grade	2.54	3.07	0.40
	8 th grade	-6.27	3.46	0.07
8 th grade	6 th grade	8.81*	3.51	0.01*
	7 th grade	6.27	3.46	0.07

(p<0.05); *p<0.05.

When Internet connection levels were compared in terms of gender, it was found that males are highly addicted to the Internet than females. This result is in parallel with the results of some studies (Young, 1996; Bayraktar, 2001; Young and Rodgers, 1998; Morahan-Martin and Schumacker, 2000; Lin and Tsai, 2002; Oh, 2003; Simkova and Cincera, 2004; Dinicola, 2004; Özcan, 2004; Chou et al., 2005; Bayraktar and Gün, 2007; Yang and Tung, 2007; Çakir-Balta and Horzum, 2008; Tahiroğlu et al., 2008; Canbaz et al. 2009; Lam et al., 2009; Yilmaz, 2010; Işıklar, 2012), but different from the results of some other studies (Brenner, 1997; Soule et al., 2003; Ferraro et al., 2007; Balci and Gülnar, 2009; Orhan and Akkoyunlu, 2004; Ceyhan, 2011). Males have more chance to get access to the Internet in places like Internet Cafes. In Turkey, Internet cafes are mostly male dominant places (Bölükbaş and Yildiz, 2005). There are studies which indicate that males prefer Internet cafes more than females (Koç, 2006; Wu and Cheng, 2007; Tahiroğlu et al., 2008). The gender difference reports in studies can be attributed to differences in study methods and sample groups.

There are significant differences found in Internet addiction levels of participants in terms of existence of computer at home; and it was seen that those who have computers at home have higher levels of Internet addiction compared to those students without computers at home. In another study, Gençer (2011) found that 78% of Internet addicts have access to the Internet at home or dormitory. It is seen that Internet addicts mostly access Internet at home, which is followed by Internet cafe. This can be attributed to the fact that adolescents do not have to pay for each hour of Internet access at home and there

is limitless Internet access at home. The results bring along the question of parents' control over Internet use at home. In Turkey, families may want to keep their children at home to protect them from streets, negative environments and risks. Parents think that their children are more controlled at home and try to provide more secure environment at home. This can make parents more flexible about and tolerant to computer and the Internet use at home, which can make children to become addicted.

When participants' internet addiction and grades were compared, there was significant difference between grades. It was seen that more participants from the 8th grade are addicted to the Internet. As the grade level increases, Internet addiction increased as well. This result is in parallel with the result of a study by Orhan and Akkoyunlu (2004). As grade and age increase, adolescents learn more about computers and their skills of computer and internet usage develop. Increase in computer knowledge and skills can lead to adolescents becoming more addicted. Moreover, as grade levels of adolescents increase, their social circle is enlarged, which can lead to problems with their peers. As adolescents tend to use the Internet more to avoid the problems in face-to-face communication, they can become addicted.

CONCLUSION AND SUGGESTIONS

In this study, the Internet addiction levels of second stage primary school students are examined in terms of gender, grade and having computer at home. The results of the study indicated that adolescent males are more addicted

to the Internet compared to females; 8th graders are more addicted to the Internet compared to the 6th graders; and adolescents who have computers at home are more inclined to be Internet addicts.

In line with this result, the following suggestions are made:

- 1) Psychological counseling services can be provided for male students who have higher levels of Internet addiction.
- 2) Parents can be informed about the ways to control computer and Internet use at home.
- 3) Different activities can be planned for children to lessen their time on the computer and the Internet.
- 4) Students and parents' awareness about Internet addiction can be raised.
- 5) Further and more comprehensive studies can be carried out to examine the relation between Internet addiction levels and such variables like parents' education level, having divorced or single parents, and socio-economic level.

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