Investigation of University Students' Internet Addiction Levels and Social Media Use Characteristics: A Descriptive Study

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Abstract. The widespread use of the internet can cause internet addiction and technology-related cyber bullying behaviors, especially among young people, and this may lead to some academic and psychological problems. Peer awareness studies constitute an important part of research, information, intervention, and prevention efforts on this subject. The aim of the study was to examine the internet addiction levels and social media usage characteristics of university students. This study is the second stage of the İzmir Universities Platform Administration Era of Dokuz Eylul University (2019), Social Responsibility Project; Digital Citizenship: Do Not Be Addicted and Bully, Use the Internet Consciously and Safely. The sample of the study consisted of 1644 university students. The data were acquired through an Interview Form and Internet Addiction Scale. The research results revealed that Internet addiction was higher in male students than in female students, and the students who used the Internet more than 4 hours a day had high levels of loss of control, desire to stay online, and social relationship breakdowns. The students used the Internet mostly for social interaction/communication, listening to music, and watching movies rather than educational and academic purposes. The results of the study revealed the situation regarding internet usage among university students.

According to this study data, the initiative and activities for university students to use the internet consciously will increase the awareness of young people and affect their usage behaviors in a positive way.

Keywords: Internet addiction; Cyber bullying; Social media.

Introduction

Today, it is well-known that many processes from daily life to multidimensional scientific studies are conducted online with computers. People can easily meet most of their needs such as communication, shopping, education, gaming, and chat through the Internet. It is known that 4.57 billion people used the Internet in the world in 2020, and the use of the Internet has reached very significant rates (We Are Social, 2020). As the area of use of the Internet grows, some problems can come out in addition to the significant benefits. In particular, Internet addiction is a major problem currently for young people, who use the Internet intensely and keep in touch with the digital world through their mobile phones (Hawi & Samaha, 2020). Although, there are many definitions of Internet addiction, it can shortly be described as individuals' proceeding with Internet use even though they encounter many problems in the short or long term (Ko et al., 2010). Internet addiction can have a wide range of impacts on individuals such as academic performance problems, depression, anxiety, and other emotional problems (Ceyhan, Ceyhan & Kurtyılmaz, 2012; Nassehi et al., 2016; Ostovar et al., 2016; Young et al., 1999). Cyber bullying is another problem encountered in the digital world lately along with Internet addiction. Cyber bullying is defined differently by many researchers but the common definition can be summarized as individuals' or groups' aggressive acts towards a person to cause harm on the Internet (Manap, 2012; Tanrıkulu, 2013; Young et al., 1999). Young people who use communication technologies and Internet applications widely are the ones who are exposed to and commit cyber bullying. The increasing use of technology and number of social networks are considered as determinants of cyber bullying (Cicioğlu, 2014). The number of young people who are exposed to bullying on the Internet is constantly increasing and this affects their lives on different levels. Therefore, it is important to take precautions against bullying by conducting solution-oriented studies in terms of developing attitudes and behaviors that will decrease the individual's exposure to cyber bullying.

Internet addiction and cyber bullying take various forms, leading to problems in the lives of individuals in social, psychological, academic, and other areas, and have cognitive, emotional, and behavioral signs. This variety is reflected in the study methods as well. Peer education is among the methods used in the Internet addiction studies. Researchers employ peer education in many fields due to the strong effects of peers and easy communication among peers. Peer education is used in nursing education programs (Özlem, Gökdemir & Çiçekoğlu, 2016), medical faculty education programs (Yeniçeri, Özçakar, Mevsim & Güldal, 2003), and vocational education of teachers (Seferoğlu, 2001). This type of education was used in different age groups for informative purposes regarding Internet use and consequently positive outcomes were acquired (De Leeuw et al., 2010; Korkmaz & Kiran-Esen, 2012; Walther, Hanewinkel & Morgenstern, 2014).

The study aimed to examine the internet addiction levels and characteristics of the social media usage of the university students studying in nine universities located in İzmir, the third largest city of Turkey.

Method

The present study is a second part of the activity conducted within the İzmir Universities Platform Administration Era of Dokuz Eylül University (2019) Social Responsibility Project: Digital Citizenship: Do not Be an Addict and a Bully, Use the Internet Consciously and Safely. In the project, the Digital Citizenship Peer Awareness Training 1st Stage: IUP (İzmir University Platform) Peer Awareness Training Program was organized. —The descriptive study was conducted as the second stage of "Examining the Effect of Peer Awareness Training Conducted for Internet Addiction and

Cyber Bullying" (Hotar et al., 2020) in the fall and spring semesters of the 2018-2019 academic year. The population consisted of students from nine universities within the country's third largest city, which is located in the west of Turkey. The sample of the study consisted of 1644 students, of whom 188 students, who were receiving peer education, were contacted through random sampling within peer awareness training. Individuals who were 18 years old or older, receiving undergraduate education in state or private universities, and who volunteered to participate and had no communication disability were included in the study.

Data Collection Tools

Interview form

The form created by the researchers, based on the literature, consisted of two parts. In the first part, there are questions about sociodemographic characteristics (age, sex, university, year). The second part consists of a total of eight questions, which can be answered with yes/no and a five-point Likert structure, regarding daily internet usage time, internet usage purposes, social network usage status, security measures taken on the internet and social network usage, and problems experienced. (Demir & Seferoğlu 2016; Nassehi et al., 2016; Tanrıkulu, 2013; Taş & Ayas, 2015; Young, 2004; Young, 2007).

Internet addiction scale

This was developed by Hahn and Jerusalem (2001) to measure the Internet addiction levels of individuals and adapted to Turkish by Sahin and Korkmaz (2011). The scale consists of 19 items and three sub-dimensions and is answered with a five-point Likert scale. The scale score can be a minimum of 19 points and maximum of 95. Higher scores indicate higher levels of Internet addiction. Cronbach's alpha was 0.93 for the original scale and 0.858 for the Turkish version (Sahin & Korkmaz, 2011). In the present study, Cronbach's alpha was 0.91.

Data Collection

The data of this study, which is the second stage of research entitled "Examination of Peer Awareness Training Held Regarding Internet Addiction and Cyber Bullying" (Hotar et al., 2020), were obtained from 1644 university students, of whom 188 were undergraduate students, who had received a certificate for participating in peer education training from nine universities. The students were contacted via random sampling and those meeting the inclusion criteria were interviewed. Face-to-face interviews were conducted by students who had received the peer education training, either in class, the canteen, or the dormitory, between November 2018 and January 2019.

Ethical Committee

Approval for the study was obtained from the research ethics committee (87347630/42104268/2989, dated 13.07.2020 and numbered 9) at Dokuz Eylül University. Written consent was obtained from the students. Permission to use the scales was obtained from their authors.

Data Analysis

The data were analyzed using SPSS 25.0 and $p < 0.05$ was considered statistically significant. Frequencies, percentage, arithmetic mean, and standard deviation were the descriptive statistics of the data used. In accordance with the central limit theorem, the t-test and one-way analysis of variance were used in the comparative analysis.

Results

The mean age of the interviewed 1644 students was 20.64±1.60 (min: 18; max: 29); 62% (n: 1019) were female and 38% were male. The students' mean total score on the IAS was 41.91±14.13, and mean subscale scores can be seen in Table 1.

Table 1.
Internet addiction scale points

Sub-dimensions	X±SD	Min.-Max.	Cronbach's alpha
Loss of control	17.58±6.05	7-53	0.787
Desire to stay online more	9.89±4.02	4-24	0.827
Social relationship breakdowns	14.43±6.48	8-40	0.894
Total scale score	41.91±14.13	19-95	0.912

There was no significant correlation between IAS score and student age ($p>0.05$). It was identified that the mean total IAS scores varied based on sex ($p=0.010$) and the mean score of males was higher than that of females (Table 2). Furthermore, the social relationship breakdowns subscale scores by sex were higher in males (15.72±7.22) than in females (13.72±5.88) ($p=0.0001$). As can be seen in Table 2, the student's year and the type of their university (state or private) did not cause a difference in mean IAS scores ($p>0.05$). Similarly, no difference was identified by the student's age, year and university type in subscales of the IAS.

Table 2.
Comparison of IAS total scale scores according to some characteristics of students (n = 1644)

	n (%)	IAS Score (X±SD)	Test, p
Sex			
Female	1019 (62.0)	41.40±13.72	[a]t=-2.60
Male	625 (38.0)	43.29±14.75	p=0.010
University			
State university	1211 (73.7)	42.30±14.17	
Private university	433 (26.3)	41.61±14.04	p>0.05
Year			
1st	447 (27.2)	42.69±14.38	
2nd	595 (36.2)	42.80±13.72	
3rd	343 (20.9)	41.30±14.96	p>0.05
4th	259 (15.8)	40.65±13.45	
Daily Internet use time			
1 hour or less or non-user	77 (4.7)	35.40±14.62	
2-3 hours	524 (31.9)	42.69±14.38	[b]F=38.122
4-5 hours	571 (34.7)	42.57±13.59	p=0.0001
6 hours or more	472 (28.7)	46.83±14.81	
IAS scores according to the number of social platforms used			
Non-user	25 (1.5)	38.48±15.40	[b]F=8.773
1	293 (17.8)	39.37±11.98	p=0.0001

2	439 (26.7)	39.27±13.28
3	530 (32.2)	42.80±14.23
4 or more	357 (21.7)	44.03±14.15

[a] *t= Independent Samples T Test*
[b] *F= One Way ANOVA*
*19 people do not use the Internet at all.

It was determined that the IAS scores showed a difference according to the daily Internet use of the students and that the mean scores of the YIA scale of those using the Internet 4-5 hours (p=0.001) and 6 hours or more per day (p=0.0001) were higher than those of students who used it for other durations (p=0.0001). The IAS loss of control sub-dimension score of students using the Internet 4-5 hours per day (p=0.0001) or 6 hours or more (p=0.0001) was higher than that of students using it less (p=0.0001). The IAS desire to stay online sub-dimension score of students using the Internet 4-5 hours per day (p=0.001) or 6 hours or more (p=0.0001) was higher than that of students using it less (p=0.0001). The IAS social relationship breakdown sub-dimension score of students using the Internet 6 hours or more per day was higher than that of students using it less (p=0.0001). There was a difference between the loss of control (p=0.0001), desire to stay online (p=0.017), and social relationship breakdowns (p=0.001) sub-dimension scores when the IAS scores were examined based on the number of social media platforms used.

Table 3.
Students' daily Internet use time, intended use, and safety measures used (n=1644)

Intended use	Never n (%)	Rarely n (%)	Sometimes n (%)	Often n (%)	Very often n (%)
Education/academic study	60 (3.6)	246 (15.0)	505 (30.7)	508 (30.9)	325 (19.8)
Social interaction/communication	15 (0.9)	68 (4.1)	207 (12.6)	541 (32.9)	813 (49.5)
Listening to music/watching movies	25 (1.5)	97 (5.9)	269 (16.4)	497 (30.2)	756 (46.0)
Accessing news/information	57 (3.5)	208 (12.7)	467 (28.4)	541 (32.9)	371 (22.6)
Shopping	268 (16.3)	470 (28.6)	428 (26.0)	281 (17.1)	197 (12.0)
Playing games	638 (38.8)	362 (22.0)	246 (15.0)	192 (11.7)	206 (12.5)
Safety measures used when using the Internet					
Using a nickname in social media/Internet posts	618 (37.6)	308 (18.7)	332 (20.2)	187 (11.4)	199 (12.1)
Logging out from the websites that they logged into	220 (13.4)	234 (14.2)	325 (19.8)	285 (17.3)	580 (35.3)
Using a virtual credit card when shopping	550 (33.5)	239 (14.5)	317 (19.3)	249 (15.1)	289 (17.6)
Using passwords that no one can guess	79 (4.8)	146 (8.9)	310 (18.9)	436 (26.5)	673 (40.9)
Definitely checking if the website is secure	123 (7.5)	197 (12.0)	369 (22.4)	367 (22.3)	588 (35.8)
Using the "remember password" function of browsers	325 (19.8)	256 (15.6)	364 (22.1)	224 (13.6)	475 (28.9)
Not entering websites requiring a password on public computers/networks	206 (12.6)	323 (19.6)	457 (27.8)	268 (16.3)	390 (23.7)

The students stated that they used Internet mostly for social interaction/communication (49.5%) and listening to music/watching movies (46%). Only 19.8% of them used the Internet often

for educational/academic purposes. The most common safety measures used when using the Internet were listed as using passwords that are hard to guess (40.9%), checking if the site is secure (35.8%), and secured logging out from the websites (35.3%). The status of accessing personal data on social platforms was asked, and it was observed that 79.4% of the students allowed their full names to be accessible by everyone, 49.5% their school details, and 18.2% their photos (Table 4).

Table 4.
Number of social platforms used actively and status of access to the personal data in social platforms (n=1644)

	No one	My Friends	Friends of my Friends	Everyone
Full name	53 (3.2)	177 (10.8)	108 (6.6)	1306 (79.4)
Address and phone info	1076 (65.5)	411 (25.0)	58 (3.5)	99 (6.0)
School info	280 (17.0)	369 (22.4)	181 (11.0)	814 (49.5)
Posts (general posts)	87 (5.3)	1055 (64.2)	184 (11.2)	318 (19.3)
Photos	107 (6.5)	1048 (63.7)	190 (11.6)	299 (18.2)

The most common problems experienced by students during Internet use were determined as sleeping disorders (69.3%), school/exam failure (45.3%), not being anywhere on time (39.7%), and family problems (30.5%). The problems experienced due to the use of social networks were being harassed by an unknown person (54.2%) and being upset by the posts about themselves (30%). Legal problems were experienced by 3.7% of the students (Table 5).

Table 5.
Problems on using the Internet and social networks (n=1644)

	n (%)
Problems experienced due to Internet Use	
Material damage	313 (19.0)
School/exam failure	744 (45.3)
Sleep problems	1139 (69.3)
Problems with friends	415 (25.2)
Problems with family	501 (30.5)
Not being able to go/going late to a place they should be	653 (39.7)
Legal problems	60 (3.6)
Problems experienced due to social network use	
Feeling upset due to some posts about you	494 (30.0)
Someone else's feeling upset due to your posts (about themselves)	301 (18.3)
Aggressive/hurtful comments on your posts	276 (16.8)
Being bothered by an unknown person	891 (54.2)
Your account being hijacked	365 (22.2)
Legal problems	61 (3.7)

Table 6 shows the experiences from Internet use.

Table 6.
Experiences from Internet use

	Strongly disagree n (%)	Do not agree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)
My Internet use affects my life negatively	335 (20.4)	499 (30.4)	494 (30.0)	214 (13.0)	102 (6.2)
My Internet use affects my financial status negatively	619 (37.7)	513 (31.2)	257 (15.6)	152 (9.2)	103 (6.3)
Not being able to connect to the Internet makes me angry	332 (20.2)	366 (22.3)	408 (24.8)	301 (18.3)	237 (14.4)
My physical health is negatively affected by my Internet use	535 (32.5)	494 (30.0)	309 (18.8)	196 (11.9)	110 (6.7)
My mental health is negatively affected by my Internet use	520 (31.69	470 (28.6)	336 (20.4)	194 (11.8)	124 (7.5)
My Internet use prevents me from fulfilling some responsibilities	328 (20.0)	360 (21.9)	439 (26.7)	352 (21.4)	165 (10.0)
My family/friends tell me that I spend a lot of time on the Internet	407 (24.8)	428 (26.0)	362 (22.0)	270 (16.4)	177 (10.8)
I would not want anyone to see some of my photos in the digital environment	370 (22.5)	335 (20.4)	304 (18.5)	268 (16.3)	367 (22.3)
I feel more important on the Internet	748 (45.5)	494 (30.0)	238 (14.5)	108 (6.6)	56 (3.4)
I can be freer on the Internet	408 (24.8)	392 (23.8)	397 (24.1)	279 (17.0)	168 (10.2)
I can easily meet someone I met on the Internet	659 (40.1)	366 (22.3)	316 (19.2)	154 (9.4)	149 (9.1)

Discussion

The first finding of the present study was that the IAS scores of male students were higher than the female students and the IAS scores were higher when daily use time was over 4 and 6 hours. This finding conforms to the literature. In most studies conducted with university students, males scored high on the Internet addiction scale (Goel, Subramanyam, and Kamath, 2013; Kabasakal, 2015; Hanımoğlu & Çelik, 2020). This can be associated with the fact that Internet use is more common among male students and it results in addiction. Planning initiatives by taking these

behaviors of males into consideration in studies to be carried out for young people would be appropriate for problem solving.

Students in the study, those whose daily use exceeded 6 hours and who were members of many social networks experienced more breakdowns in social relations. Social world use statistics indicate that the mean daily use time is 3.24 hours (We Are Social, 2020). Researchers consider Internet use time as an important determinant of Internet addiction (Odacı and Kalkan 2010; Young, 2004; Young, 2007). There are studies emphasizing the relationship between Internet use time and Internet addiction. It also coincides with the results of this study (Manap, 2012; Tanrıkulu, 2013). Therefore, long-term Internet use can be seen as an area to be studied in terms of short- and long-term problems.

The participants in the study mostly used the Internet for purposes such as social networks, communication, watching videos, and listening to music. Similar results were reported in recent studies (Hanımoğlu, & Çelik, 2020) and We Are Social 2nd quarter reports. In the We Are Social 2nd Quarter report, Internet users' monthly online activities included 90% video watching, 51% Vlog broadcasts, and social network use mostly. Sixty four percent of the target audience of Instagram ads cover the age range of between 18 and 34 and this provides information about the age range of the users (We Are Social, 2020). Considering the age range for the activities to be planned in terms of addiction will increase their effectiveness.

Another result of the study was that the participants emphasized sleep problems, academic problems, and family problems among the harms of Internet and social network use. As stated in studies on the effects of Internet use, this finding conforms to results of intense Internet use such as sleep problems (Choi et al., 2009; Li et al., 2017), social life problems (Dalbudak and Evren, 2013; Kuss et al., 2014; Taş and Ayas, 2015), academic problems (Anlayışlı and Serin, 2019; Çok and Kutlu, 2018; İyitoğlu and Çeliköz, 2017), and domestic communication problems (Kabasakal, 2015; King & Delfabro; Xiuqin, 2010; Wei et al., 2018).

The positive relationship between Internet addiction and cyber bullying is also considered an important finding. Emphasis is placed on the importance of information and awareness activities in reducing cyber bullying (Ata Adnan, 2016). In the future, the method of awareness training for young people will contribute to the development of positive behavior towards internet use, protection from cyberbullying, or fighting against cyberbullying.

In conclusion, findings consistent with the results of other publications within the literature were obtained in this study, which reflected the results of the second phase of the digital citizenship project. Considering the prevalence of internet usage and its short and long-term effects, various ways can be resorted to for creating awareness activities for university students. As a whole, the peer education method applied within the scope of the project can also be considered as another method.

Recommendations

According to the data of this study, initiatives and activities for university students to use the internet consciously will increase the awareness of young people and affect their usage behaviors in a positive way. In accordance with the lifelong learning principle in continuing education centers affiliated with higher education institutions, online training or information meetings can be organized for controlled Internet and social media use. It can be useful to organize research on the projects that student communities can conduct with community members on Internet addiction and cyber

bullying. There are different awareness studies in the method part of Hotar et al.'s (2020) study. Similarly, studies on spreading awareness among young people, who are among the main groups at risk of Internet addiction, may be beneficial. It may be effective to conduct studies that will enable parents, teachers, and peers to be a part of the process at the basic education level in order to increase the effectiveness of awareness and informative activities on Internet addiction. It can be considered important to address the risk factors at environmental levels that contribute to the onset and development of Internet addiction.

Acknowledgments

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