Tıp Fakültesi Öğrencilerinde İnternet Bağımlılık Düzeyi Ve Etkileyen Faktörlerin Değerlendirilmesi

Evaluation of Internet Addictıon Level of Medical Faculty Students And Affecting Factors

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Anahtar Sözcükler: İnternet bağımlılığı, üniversite öğrencileri, tıp fakültesi öğrencileri, problemli internet kullanımı, bağımlılık

Keywords: *Internet addiction, university students, medical faculty students, problematic internet use, addiction*

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Aim: Internet addiction is a growing disease and has increased especially among adolescents and young adults. In this study, it was aimed to investigate internet addiction of 1.-3. grade Medical Faculty students and related factors.

Materials and Methods: 1.-3. grade Medical Faculty students were included in this cross-sectional study, 407 students (80.1%) participated. A questionnaire including 42 questions about internet usage and Young's Internet Addiction Scale was used to collect socio-demographic data. The internet addiction of the students was determined by the Likert Scale. After obtaining the ethics permission, the questionnaire was applied between April 1 - May 31, 2018.

Results: 99.5% of the participants were using internet. Young Internet Addiction Test mean score was found to be 29.92±16.33. 19.4% of the students (79 people) were possible addicts and 3%(12 people) were addicts. Between addicted students and others there was a significant difference according to use of internet for; more than two hours a day, searching information, lesson-training-research, news reading, video conversation and having complaints of sleeplessness because of internet usage. In terms of ways which students use to connect to the internet, there was no significant difference between wireless and mobile phone at home however, connections from library, university, cafe-restaurant networks were found to be significantly higher in addicted and probable addicted students than others.

Conclusion: The internet addiction among the Medical Faculty students was found to be low. New studies on risk factors and measures are needed to prevent internet addiction among students.

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ÖZET

Amaç: *İnternet bağımlılığı, son yıllarda tanımlanan, giderek artan bir hastalıktır. İnternet bağımlılığı, özellikle ergenlik çağındaki çocuklar ve genç yetişkinler arasında artmıştır. Bu çalışmada Tıp Fakültesi dönem I-III öğrencilerinde internet bağımlılık düzeyi ve internet bağımlılığı ile ilişkili faktörleri araştırmak amaçlanmıştır.*

Gereç ve Yöntem: *Bu çalışma, kesitsel bir çalışma olup Tıp Fakültesi dönem I-III öğrencileri araştırma kapsamına alınmıştır. Çalışmaya 407 öğrenci (%80.1) katılmıştır. Sosyo-demografik bilgiler, internet kullanım durumlarına yönelik 42 soru ve Young'ın "İnternet Bağımlılığı Ölçeğinin" Türkçe çevirisi sorularını içeren anket kullanılmıştır. Öğrencilerin internet bağımlılık durumları Likert Ölçeği ile saptanmıştır. Etik izin alındıktan sonra 1Nisan- 31 Mayıs 2018 tarihleri arasında gönüllü öğrencilere sınıf ortamında anket uygulanmıştır.*

Bulgular: *Çalışmaya katılanların %99,5'i internet kullanmaktaydı. Young İnternet Bağımlılık Testi puan ortalaması 29,92 ±16,33 olarak bulundu. Öğrencilerin %19,4 ü (79 kişi) muhtemel internet bağımlısı, %3'ü (12 kişi) ise internet bağımlısı olarak bulundu. İnternet bağımlısı olarak saptanan öğrencilerle, diğer öğrenciler arasında; internette günde iki saatten fazla zaman geçirilmesi, bilgi aranması, ders-eğitim-araştırma yapılması, haber okunması, görüntülü konuşma yapılması ve internet kullanımına bağlı uykusuzluk şikâyetlerinin olması açısından anlamlı fark bulundu ($p<0,05$). İnternete bağlanma yeri olarak, evde wireless veya cep telefonundan internete bağlanma açısından anlamlı fark bulunmamışken ($p>0.05$); kütüphane, üniversite ağı, kahve-restoran gibi yerlerden internete bağlanma, bağımlı ve muhtemel bağımlı öğrencilerde diğer öğrencilere göre anlamlı olarak daha yüksek bulunmuştur ($p<0,05$).*

Sonuç: *Tıp Fakültesi öğrencileri arasında internet bağımlılığı düşük bulundu. Öğrenciler arasında internet bağımlılığının engellenmesi için risk faktörleri ve tedbirler konusunda yeni çalışmaların yapılmasına ihtiyaç vardır.*

INTRODUCTION

Addiction is the inability to reduce or stop irresistible, repetitive impulses, despite a serious negative impact on the physical, mental, social and economic situation of the individual. Internet addiction (IA), defined in the 1990s and is increasing worldwide, can be defined as the clinical and emerging disorders of individuals due to excessive and unbearable impulses of Internet use. These people spend more time on the Internet than they plan and feel serious discomfort when they cannot reach the Internet. Negative physical, psycho-social and behavioral influences are seen as a result of difficulty and inability to control the time spent on the Internet (1-5).

Young (2) , described IA as an impulse control disorder without a intoxicating substance. In recent years, with the widespread use of electronic devices and the use of the Internet, the need to examine the excessive use to the extent that adversely affects human health has come to the forefront. Overuse of the internet, which is considered as a public health problem, has led definitions such as pathological internet use, internet addiction, internet addiction disorder, behavioral addiction to emerge.1-3. While the majority of excessive internet users are adolescents and young adults, it is reported that internet usage increases in the elderly

population too (6-8).

Although IA has not yet been included in the International Classification of Diseases (ICD) and in the Diagnostic and Statistical Manual of Mental Disorders (DSM), internet gaming addiction is in the third chapter of DSM 5 (9-10). In addition, IA is reported to be refractory, chronic and recurrent. Frequent recurrence is attributed to the internet being indispensable and easy to access in professional and academic settings (11).

The widespread use of smart mobile phones in recent years has facilitated access to the Internet. The rate of internet usage during all day for communication, games, shopping and information is increased. According to the Turkey Statistical Institute's 2016 survey of households use of information technology, computer use in individuals between the ages of 16-74 was 54.9% and internet use was 61.2%. These rates were 64.1% and 70.5% in males, respectively, and 45.9% and 51.9% in females. 83.5% of individuals using the Internet in Turkey went on the Internet every day (12).

While IA in the world is reported as 1.5-8.2%, in the literature it is stated that there are differences between countries (1% in Norway, 3% in Germany, 12% in Turkey, 1-12% in the Middle East, 2-11% in China, 7-23% in Hong Kong, 18% in the UK, 0.3-26% in USA) and regions in terms of internet usage and addiction (1,3,13,14).

In the literature, there are very few studies conducted on the medical faculty students about IA. Studies on this subject have been done frequently in Central Asia and Far East countries (15-18). In the studies, it has been reported that among the medical students, the ratio of IA is between 9.5% and 57.8% and it is seen more frequently among male students (17,18).

In this study, we researched whether the 1-3 class students have IA or not and the factors related with IA.

MATERIALS and METHODS

This cross-sectional study was conducted with 407 (80.1%) out of 508 1-3 grade Medical Faculty students of Fırat University. The students were visited in their classrooms and informed about the research and the questionnaires were completed by face-to-face interviews with students who wanted to participate in the study. Before starting the study, approval was obtained from Fırat University Faculty of Medicine Ethics Committee of Initiatives (22.03.2018/06/16) and where necessary, the questionnaire was applied between 1 April-31 May 2018.

A 42- item questionnaire was prepared by searching the literature by the researchers to show the socio-demographic information, smoking and internet usage status of the students. In order to measure the levels of IA for all students, the Internet Addiction Test (IAT) consisting of the criteria of "Pathological Gambling' of Young's 20-point DSM 4, which was adapted to Turkish by Balta (19) was applied. In the validity and reliability analysis of Young's IAT, 1 item (10th item) which was found to reduce the reliability was excluded from the scale. The internal consistency coefficient of the scale consisting of 19 items was found to be 0.895 with the Cronbach α Test. In this study, this 19-item scale was used. This scale was a self-report scale. The internet addiction status of the students was determined by Likert Scale (20). With the Likert Scale, students were asked to answer for each question with a response expressing their own situation: never, rarely, sometimes, mostly, very frequently and continuously. These options were scored as 0,1,2,3, 4 and 5, respectively. Those with a total score of between 70 and 100 were defined as addict, those between 40 and 69 were

probable addict and 39 or below were defined as non-addict (8,21).

SPSS 22.0 packaged software was used for statistical evaluation of the findings obtained in our study. T test, chi-square and anova tests were used for statistical analysis and $p<0.05$ was considered statistically significant.

RESULTS

Of the 407 students who participated in the study, 52.6% (214) were women with a mean age of 20.47+1.88 years (min.18, max.45). The socio-demographic characteristics of the students are given in Table 1. 99.5% (n = 405) of the students used internet. The IAT mean score of all the students was 29.92±16.33 (1-95). According to IAT, 3% (n = 12) of the students were addicts and 19.4% (n = 79) were probable addicts and 77.5% (n = 314) were not addicts (Table 2).

There was no statistically significant difference in the demographic data of addicts, probable addicts and non-addict students ($p> 0.05$).

The internet usage characteristics and addiction status of the students are given in Table 3. Students with internet addiction stated that the internet took their time more than other students ($p<0.001$). The time spent on the Internet for more than two hours a day was significantly higher in addict students than others ($p<0.001$). Excessive internet use for information search, course-training-research, video conversation and suffering from sleeplessness related to internet use were found to be significantly higher in the addicts and probable addicts than other groups ($p <0.05$). In terms of other parameters, there was no significant difference between addicts, probable addicts and non-addict students ($p>0.05$).

The ways in which students connect to the Internet and their addiction status are given in Table 4. Addicted and probable addicted students' connections to the Internet from university, cafe-restaurant-cafeteria and school library networks were found to be significantly higher ($p<0.05$), there was no significant difference between groups in terms of connecting rates to Internet via wireless and mobile phone ($p>0.005$).

In our study, 97.8% of the students stated that the internet made life easier. Of the students with internet addiction, 79.4% had no smoking history and 82.1% had no alcohol history and; no significant relationship was found between alcohol, smoking and IA ($p>0.05$). In Internet addicts, it was found that there were no significant good or bad changes in their social relations (family, friends) due to internet usage.

DISCUSSION

In our study, the mean of the IAT scores was 29.92 ± 16.33 (min = 1, max 95). 77.5% (n = 314) of the students were non-IA, 19.4% (n = 79) were probable IA, and 3% (n = 12) were IA. In the different studies conducted on the Medical Faculty students in Turkey, the mean of the IAT score was reported to be 34, while the rate of probable addiction was reported to be 5.2%, the addiction rate was 0.8% and the rate between probable addiction and addiction was reported as 24.7% (22-23). In a different study, the mean IAT score was 40.3 and the risky internet use was reported as 24.7% and internet addiction was not detected (24). Internet addiction was found to be 10% (8% as moderate and 2.8% as severe) in the study of Ghamari et al (25), on 426 medical faculty students and Tsimtsiou et al. (26) reported in their study on 585 medical faculty students of all classes up to sixth grade that 24.5% were at mild level, 5.4% were at moderate level and 0.2% in severe level. In our study, 99.5% of the students were using internet.

The fact that the ratios are so varied can be attributed to the differences in the methodology of the tests that measure internet addiction, the socio-cultural and demographic characteristics of the student groups and the periods in which the studies are conducted.

Looking at the relationship between age and internet addiction, the mean age of students was found to be 20.47±1.88 years (18-45 years) and the majority of them were using the internet for more than 7 years. Studies investigating the age-related relationship between internet addiction and age were conducted on different age groups. In addition to the reports that the problematic internet usage ages started in the early period of childhood and early adolescence, there are publications reporting that they developed in the end of 20s and early 30s and that they were related to internet use for more than 10 years (3,27). In addition to this, there are also literature studies reporting that there is no significant relationship between age of students and internet addiction (22). Similarly to the literature, it was found that most of the students started using the Internet from the age of teens and there was no statistically significant relationship between age of students and IA.

When we look at the relationship between sex and IA, there was no statistically significant difference between male and female students ($p<0.05$). In the literature, there are studies reporting that men have higher levels of IA (17,24,25,28,29). However, there are also reports stating that IA occurs at similar rates in both sexes (30). As a medical school student, the widespread use of the Internet due to the necessity of access to information may have eliminated the gender gap in IA.

In our study, there was no significant difference between the classes in terms of IA ($p>0.05$). In the literature, no significant difference was reported between the classes similar to our study in terms of IA (22,24,31). However, Chathoth et al. (32) reported that the IA of the first-grade students was higher.

When the relationship between internet addiction and the time spent on the Internet daily was evaluated, it was found that probable addict and addict students spent more than two hours on the internet daily and this was statistically significant ($p<0.001$). Similar to our study, risky internet users spend more time on the internet than normal users in different studies; It has been reported that using internet more than 2 hours daily and 15 hours per week is associated with IA (24,32). In addition, there are also reports that the time spent on the Internet cannot be attributed to a pathology (27).

In our study, when we look at the relationship between time of the day of the internet usage and IA, it was seen that the students were more likely to go on the Internet during the night hours, but there was no statistically significant difference between these ($p>0.05$). In the literature, it has been reported that IA is associated with internet use at night and at midnight (31). The fact that the daily course schedules of the medical faculty students were intense and it is required to attend the classes caused the majority of students to shift their use of internet to the night hours, so that the difference in terms of IA could have disappeared.

In our study, when we look at the relationship between IA and the aim of internet usage, it was found that internet addicts used internet for video call, information search, lesson-education-research and news tracking and this situation was statistically significant compared to non-addicted ones ($p<0, 05$). In the literature, there was a significant difference between IA and entertainment, playing games, chat and shopping (21,22). In addition to the publications

which reported that the use of internet for academic information research and education in medical faculty students are high, there are also publications reporting that there is no relationship between education, scientific and academic studies and IA (24,28,29,31,32).

In our study, there was no statistically significant relationship between social media use rates and IA ($p>0.05$). In the literature, it has been reported that the most frequently used applications of internet addicts are social media (24). Although there are no gold standard tests that test social media addiction, in the literature, social media addiction among university students is reported as 1.6-34% (33-35). There are also publications stating that there are social media addiction among medical faculty students (36).

When we look at the relationship between the internet connection way and the IA, there was a significant relationship between connecting using the library, university network, coffee-restaurant-cafeteria and IA. In terms of connecting to the internet from mobile phones, there was no significant difference between addicts and non-addicts ($p> 0.05$). In a study conducted by Balcı (37), it was reported that there was no significant difference between IA and the place and status when connecting to internet. In our study, the presence of sleeplessness complaint due to internet usage was found to be statistically and significantly high ($p<0.05$). In the literature, it has been reported that there are decrease in sleep hours, worsening of sleep quality and sleep disorders associated with insomnia associated with internet use (38). In a study conducted in Turkey, this rate was found to be 22% (39). There is little research on the effects of excessive internet use on sleep. In a study conducted with polysomnography, it was observed that there was a decrease in NREm sleep and the transition to sleep in excessive internet users (5). In a study conducted on medical faculty students, the relationship between worsening of sleep quality due to the IA caused by the use of social media with mobile phone has been mentioned (40).

When we look at the relationship between internet addiction and change in social relations (family, friend), it was found that there were no significant good or bad changes in social relations of addict students. In the literature, it was reported that excessive internet use caused social isolation in students (25).

There was no statistically significant relationship between the education level, working status, smoking and alcohol use of parents, the amount of pocket money taken by the students and IA. In the literature, it was reported that the mean IAT score of the smokers was significantly higher than the non-smokers (41). However, there are also publications showing that there is no relationship between smoking and IA (22,24). Ghamari et al.(25) reported in their study on 426 medical faculty students that there was a relationship between IA and gender, marital status, father's job, knowledge about computer and internet, and education level.

LIMITATIONS

Regarding the limitations of our study, the scale we use does not assess the contents of internet usage (social media, gambling, entertainment, games, news reading, sub-components such as information searching). The most important limitation of our study was that it was conducted in a single university and the universe consisted of 1.-3. grades. A scale that has been used internationally and whose validity and reliability is proven in Turkey constitutes the strong side of our study.

CONCLUSION

As a result, in this study which can be accepted as one of the comprehensive studies conducted on the medical faculty students in our country, the risky and addictive internet usage rate among the medical students was found to be low. However, studies involving more participants are needed to elaborate on the factors affecting IA. It is very important to know the risk factors for the prevention of IA, which becomes a public health problem. We believe that with the transpire of the current psychosocial risk factors that increase the susceptibility to IA and monitoring and arranging the internet usage in individuals at risk, the excessive internet usage will be highly limited.

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Table 1. Socio-Demographic Characteristics of Students

Socio-Demographic Characteristics (n=407)	Number	%
Grade		
I	134	32.9
II	133	32.7
III	140	34.4
Gender		
Woman	214	52.6
Male	193	47.4
Age Groups		
18-20 years	209	51.4
21-23 years	188	46.2
24 years and over	10	2.5
Family Residence		
Village	15	3.7
Town	51	12.5
City	341	83.8
Mother's Education		
Illiterate	36	8.8
Literate	35	8.6
Primary School	104	25.6
Middle School	49	12
High school	77	18.9
College / Faculty	106	26
Father's Education		
Illiterate	9	2.2
Literate	8	2
Primary School	60	14.7
Middle School	47	11.5
High school	95	23.3
College / Faculty	188	46.2
Mother's Working Status		
Not working	298	73.2
Working	76	18.7
Retired	29	7.1
Died	4	1
Father's Working Status		
Not working	21	5.2
Working	286	70.3
Retired	89	21.9
Died	11	2.7
Allowances Receive Status		
Not receiving	34	8.4
250 TL or less	40	9.8
251-750 TL	239	58.7
751 TL and above	94	23.1

Table 2. Evaluation of Internet Addiction of Students

Total Young Points		Groups				p
		Non-addict n (%)	Risky Addict n (%)	Addict n (%)	Total n (%)	
	39 and below	120 (100)	0 (0,0)	0 (0,0)	120(100)	<0.001
	40-69	194 (77,3)	57 (22,7)	0 (0,0)	251(100)	
	70 and above	0 (0,0)	22 (64,7)	12 (35,3)	34 (100)	
Total		314 (77,5)	79 (19,5)	12 (3,0)	405 (100)	

Table 3. Internet Usage Characteristics and Addiction Status of Students

Internet Usage Characteristics (n=407)	Non-addict Number (%)	Probable Addict Number (%)	Addict Number (%)	Total Number	p
Does Internet use take your time?					
Yes	216 (72,2)	71 (23,7)	12 (4)	299	<0,001*
No	98 (92,5)	8 (7,5)	0 (0)	106	
Internet access time					
Daytime	48 (77.4)	13 (21.0)	1 (1.6)	62	
Night	226 (77.6)	66 (19.2)	11 (3.2)	343	0.767
Time / day spent on the Internet					
2 <	131 (87.9)	18 (12.1)	0 (0)	149	
>2	183 (71.5)	61 (23.8)	12 (4.7)	256	<0,001*
Frequency of Internet use					
Many times a day	285 (76.8)	74 (19.9)	12 (3.2)	371	
Once or twice a day	22 (84.6)	4 (15.4)	0 (0)	26	
Once or twice a week	5 (83.3)	1 (16.7)	0 (0)	6	
I almost never use	2 (100)	0 (0)	0 (0)	2	0.908
Year of use					
Under 4 years	4 (57.1)	3 (42.9)	0 (0.0)	7	
4-6 years	26 (70.3)	11 (29.7)	0 (0.0)	37	
Over 7 years	284 (78.7)	65 (18.0)	12(3.3)	361	0,164
Does the Internet make your life easier?					

Yes	117 (95.9)	247 (98.4)	32 (94.1)	396	
No	3 (2.5)	4 (1.6)	2 (5.9)	9	0,087
Where do you get medical information?					
Mostly from Turkish resources	111 (91.0)	220 (87.6)	30 (88.2)	361	
Mostly from English resources	11 (9.0)	31 (12.4)	4 (11.8)	46	0,632
For distance learning					
Never / rarely	238 (78.8)	55 (18.2)	9 (3.0)	302	0,53
Often / usually	76 (73.8)	24 (23.3)	3 (2.9)	103	
For bank transactions					
Never / rarely	180 (80.0)	39 (17.3)	6 (2.7)	225	
Often / usually	134 (74.4)	40 (22.2)	6 (3.3)	180	0.412
For Social Media					
Never / rarely	73 (81.1)	15 (16.7)	2 (2.2)	90	
Often / usually	241 (76.5)	64 (20.3)	10 (3.2)	315	0.643
For video conversation					
Never / rarely	186 (83.4)	33 (14.8)	4 (1.8)	223	
Often / usually	128 (70.3)	46 (29.7)	8 (4.4)	182	0.006*
For chatting					
Never / rarely	54 (78.3)	13 (18.8)	2 (2.9)	69	
Often / usually	260 (77.4)	66 (19.6)	10 (3.0)	336	0.987
For shopping					
Never / rarely	209 (79.8)	49 (18.7)	4 (1.5)	262	
Often / usually	105 (73.4)	30 (21.0)	8 (5.6)	143	0.053
For Email					
Never / rarely	187 (78.6)	45 (18.9)	6 (2.5)	238	
Often / usually	127 (76.0)	34 (20.4)	6 (3.6)	167	0.753
Entertainment, music, games					
Never / rarely	33 (86.8)	5 (13.2)	0(0.0)	38	
Often / usually	281 (76.6)	74 (20.2)	12 (3.3)	367	0.276
For information search					
Never / rarely	66 (67.3)	27 (27.6)	5(5.1)	98	
Often / usually	248 (80.8)	52 (16.9)	7 (2.3)	307	0.018*
For course-training-research					
Never / rarely	101 (72.7)	30 (21.6)	8 (5.8)	139	
Often / usually	213 (80.1)	49 (18.4)	4 (1.5)	266	0.035*
For news					
Never / rarely	108 (69.7)	44 (28.4)	3 (1.9)	155	
Often / usually	206 (82.4)	35 (14.0)	9 (3.6)	250	0.01*
Sleeplessness due to internet use					
Yes	136 (72.0)	44 (23.3)	9 (4.8)	189	
No	178(82.4)	35 (16.2)	3 (1.4)	216	0.019*
Do you own a computer?					
Yes	218 (76.0)	59 (20.6)	10 (3.5)	287	*0.411*
No	96 (81.4)	20 (16.9)	2 (1.7)	118	
Use of social media					
Yes	290 (76.7)	77 (20.4)	11 (2.9)	378	
No	24 (88.9)	2 (7.4)	1 (3.7)	27	0.258

Table 4. Students' Ways of Connecting to the Internet and Their Addiction Status.

Way of Connecting to the Internet	Non-addict Number (%) a	Probable Addict-Addict* Number (%) b	Total Number	p
Connecting from a library to the Internet				
Never / rarely	236 (80.5)	57 (19.5)	293	
Often / usually	78 (69.6)	34 (30.4)	112	0.019**
Using university network				
Never / rarely	219 (83.6)	43 (16.4)	262	
Often / usually	94 (66.2)	48 (33.8)	142	<0.001**
Using wireless network at home				
Never / rarely	94 (77.0)	28 (23.0)	122	
Often / usually	220 (77.7)	63 (22.3)	283	0.879
Cafe-restaurant-cafeteria				
Never / rarely	242 (81.5)	55 (18.5)	297	
Often / usually	72 (66.7)	36 (33.3)	108	0.002**
Using mobile phone				
Never / rarely	32 (80.0)	8 (20.0)	40	
Often / usually	282 (77.3)	83 (22.7)	365	0.693