



# Internet Addiction, Psychosocial Variables and Perceived Social Support in University Students

## Üniversite Öğrencilerinde İnternet Bağımlılığı, Psikososyal Değişkenler ve Algılanan Sosyal Destek

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### ABSTRACT

**Aim:** The aim of this study was to examine socio-demographic data and perceived social support that predict internet addiction in university students.

**Materials and Methods:** Randomly selected 399 university students living in İstanbul, the data collection tools were delivered over the internet, were included.

**Results:** The frequency of internet use has been determined that 31.83% of the participants use the internet for five hours or more a day, and 72.18% use the internet seven days a week. It was determined that there was a significant difference between the internet addiction level of the participants and their age ( $p=0.010$ ) and marital status ( $p=0.017$ ). No significant difference was found between marital status and perceived social support level ( $p=0.845$ ). It was determined that the level of perceived social support had a negative and significant effect on internet addiction at the level of  $-0.199$  ( $p=0.000$ ).

**Conclusion:** The results of our study indicate that as the perceived social support level in university students increases, the level of internet addiction decreases. Studies are needed to determine the mediating factors between perceived social support and internet addiction.

**Keywords:** Internet addiction, problematic internet use, perceived social support

### ÖZ

**Amaç:** Bu çalışma ile üniversite öğrencilerinde internet bağımlılığını yordayan bazı sosyo-demografik veriler ile algılanan sosyal desteğin incelenmesi amaçlanmıştır.

**Gereç ve Yöntem:** Araştırmaya hazırlanan veri toplama araçlarının internet üzerinden ulaştırıldığı, rastgele seçilmiş, İstanbul'da yaşayan 399 üniversite öğrencisi dahil edilmiştir. Katılımcılara Sosyo-demografik Veri Formu, Young İnternet Bağımlılık Ölçeği, Çok Boyutlu Algılanan Sosyal Destek Ölçeği uygulanmıştır.

**Bulgular:** İnternet kullanma sıklıklarına baktığımızda katılımcıların %31,83'ünün günde beş saat ve üzerinde, %72,18'inin haftada yedi gün internet kullandıkları tespit edilmiştir. Katılımcıların internet bağımlılık düzeyi ile yaş ( $p=0,010$ ) ve medeni durumları ( $p=0,017$ ) arasında anlamlı bir farklılık olduğu tespit edilmiştir. Medeni durum ile algılanan sosyal destek düzeyi ( $p=0,845$ ) arasında ise anlamlı bir fark saptanmamıştır. Algılanan sosyal destek düzeyinin internet bağımlılığı üzerinde  $-0,199$  düzeyinde negatif yönlü anlamlı etkiye sahip olduğu tespit edilmiştir ( $p=0,000$ ).

**Sonuç:** Çalışmamızın sonuçları üniversite öğrencilerinde algılanan sosyal destek düzeyi arttıkça internet bağımlılığı düzeyinin düştüğüne işaret etmektedir. Algılanan sosyal destek ve internet bağımlılığı arasındaki aracı faktörlerin belirlenmesine yönelik çalışmalara ihtiyaç bulunmaktadır.

**Anahtar Kelimeler:** İnternet bağımlılığı, problemlerli internet kullanımı, algılanan sosyal destek

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## INTRODUCTION

The main purpose of the occurrence of the internet around the world is to increase communication. The fact that the Internet is an addictive tool was put forward in a study conducted by Goldberg<sup>1</sup> in 1996. Which was seen to have entered the international literature for the first time with the concept of "internet addiction", was later named with different concepts by different clinicians and researchers<sup>2,3</sup>. In recent years, problematic internet use has become a preferred concept in the literature<sup>4</sup>. In the studies performed, use for longer than 5 to 6 hours a week and for relatively long continuous periods of time are generally taken into account. Long-term use may be related to the craving for internet and/or the need to connect to the internet in case of negative emotions such as loneliness and sadness<sup>5</sup>.

When the psychosocial factors related to the excessive use of internet are examined, loneliness appears as a research area. Chou and Hsiao<sup>6</sup> stated in a study they conducted that increases in internet usage rates reduce the time needed to be devoted to real social relationships and face-to-face relationships, cause social isolation, and increase loneliness. Hamburger and Ben-Artzi<sup>7</sup>, on the other hand, emphasized that internet addiction did not increase loneliness levels and that internet addiction emerged as a result of loneliness. Social support can be briefly expressed as helping individuals by the people around them. In situations such as crisis and emotional tension, individuals need to rely on family members, friends and surroundings, who are seen as natural helpers<sup>8,9</sup>. Individuals whose social support needs are adequately met feel safe and have good goals. The students who cannot get the necessary social support from their environment try to fill the support gap with other methods. One of the important variables is perceived social support in the literature on internet addiction. People can seek support in the virtual world via the internet<sup>10</sup>.

Young<sup>11</sup>, created the first diagnostic criteria for internet addiction, argued that internet created addiction like gambling and that internet addicts had some symptoms of impulse control disorder. Pathological Internet users had "behavioral impulse control disorder" and this impulse control disorder did not involve the intake of a chemical substance. Therefore, Young<sup>11</sup> adapted the "pathological gambling diagnostic criterion" that best fits this definition to pathological internet use. Thus, he created and published the first serious diagnostic criteria for Internet addiction.

Many studies emphasized that the internet is a stand-alone action to improve people's social networks<sup>12</sup>. Individuals with high social anxiety levels, who think that communication in the virtual environment carries less risk than face-to-face communication, spend more time on the internet<sup>13</sup>. Sanders

et al.<sup>14</sup>, examined whether high levels of internet use were associated with social loneliness and depression in high school students, and it was found that high internet use was associated with weak social ties. However, the direction of the relationship could not be determined. In addition, the relationship between the level of internet use and depression is significant<sup>15</sup>.

In this context, there is a need to examine the internet usage patterns of young people, who are thought to be an important risk group for problematic internet use. The aim of this study is to obtain information about the frequency and purpose of internet use among university students, to determine the relationships between internet addiction and social support. Another aim of the study is to determine the relationships between internet addiction and demographic variables such as gender, age and marital status.

## MATERIALS AND METHODS

This study was designed in the general screening model based on quantitative data. The scale form prepared for the research was randomly selected and sent via e-mail to 500 university students living in Istanbul, 399 of whom participated in the research by filling out this form sent to them. Being under the age of 18 years, not being a university student and having any mental illness were determined as exclusion criteria. Ethics committee approval of the study (no: 021/2017, date: 11.01.2017) was received from Nişantaşı University, Social Sciences Institute, Social and Human Sciences Ethics Committee. The study was conducted in accordance with the Declaration of Helsinki and informed consent was obtained from the participants.

### Data Collection Methods

#### Socio-demographic Data Form

It was created by the researcher to obtain information about the demographic characteristics of the participants, the frequency and purpose of internet use.

#### Young's Internet Addiction Scale

A "diagnostic questionnaire" was created by Young<sup>11</sup> by adapting the Pathological Gambling Criteria of the DSM-IV, then it was developed and turned into a 20-question self-report scale. In the questionnaire consisting of Likert type questions, one of the options "never", "rarely", "occasionally", "often", "very often" and "continuously" is required to be marked. Scoring is done as 0, 1, 2, 3, 4, and 5, respectively. A total score of 80 or more is defined as "internet addiction". A score between 50 and 79 is defined as "risky internet use", and those with a score of 49 and below are defined as an "average internet user" who does not have problems related to internet use. The scale was

adapted to Turkish by Bayraktar<sup>16</sup>, and the standardized Alpha value is 0.91, the Spearman-Brown value is 0.87.

### Multidimensional Scale of Perceived Social Support

The multidimensional scale of perceived social support was developed by Zimet et al.<sup>17</sup>, as an easy-to-use, short scale, subjectively evaluating the adequacy of social support from three different sources. The scale consists of 12 items and includes 3 subgroups, each of which consists of 4 items, related to the source of the support. In the subgroups; "family" (items 3, 4, 8 and 11), "friend" (items 6, 7, 9 and 12) and "special person" (items 1, 2, 5 and 10) group. Each item was rated using a 7-point scale. Each item is scored between 1 and 7. The subscale score is obtained by adding the scores of the 4 items in each subscale, and the total scale score is obtained by adding all the subscale scores.

### Statistical Analysis

In this study, the quantitative data obtained from both groups were analyzed with the Statistical Package for the Social Sciences 23 package program. Frequency, percentage and mean values were given for the demographic characteristics of the participants. Normality test was performed to see whether the measurement variables were normally distributed. The Kruskal-Wallis H and Mann-Whitney U tests were conducted to determine whether demographic characteristics differed from perceived social support sub-levels and internet addiction levels. In the last part, multivariate regression analysis was performed to determine the predictive effect of perceived social support level on internet addiction.

## RESULTS

The participants were determined that 52.63% were female, 44.11% were between the ages of 21 and 24 years, and 94.74% were single.

83.71% of the participants had been using the internet for 5 years or more. 31.83% of them used the internet for 5 hours or more a day, and 72.18% of them used the internet 7 days a week.

When the participants' internet usage purposes were examined, it was detected that 41.60% used internet sometimes for homework, 37.34% mostly for research, 30.08% mostly for movies, 35.09% never for games, 40.10% always for music, and 44.61% always to establish social communication (mail, msn, etc.).

Considering the websites used by the participants, it was observed that 75.69% of them used social media (Twitter, Facebook), 57.14% of them used movie/music sites, 5.51% of them used adult sites and 8.77% of them used chat sites.

There was no significant difference between gender and family support level ( $p=0.169$ ), friend support level ( $p=0.315$ ), a special one's support level ( $p=0.528$ ), perceived social support level and internet addiction level ( $p=0.790$ ).

There was no significant difference between age and family support level ( $p=0.598$ ), friend support level ( $p=0.355$ ), a special one's support level ( $p=0.407$ ) and perceived social support level ( $p=0.619$ ). A significant difference was found between age and internet addiction level ( $p=0.010$ ).

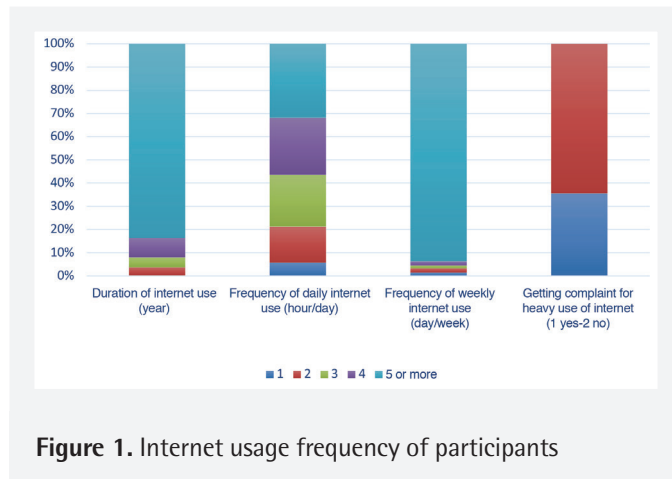


Figure 1. Internet usage frequency of participants

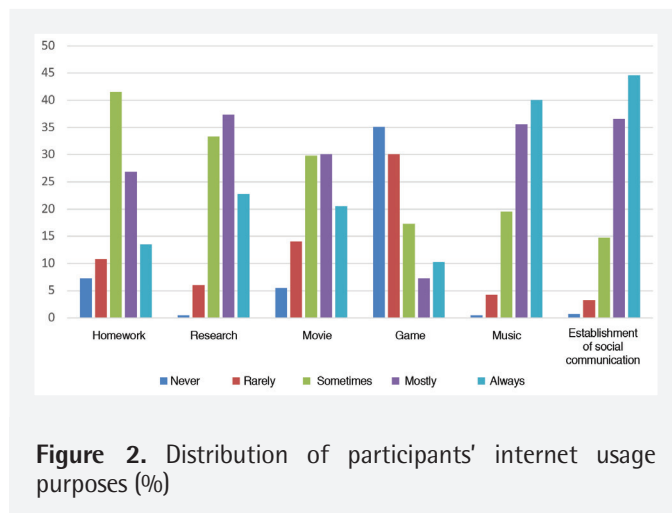


Figure 2. Distribution of participants' internet usage purposes (%)

		f	%
Age	18-20	146	36.59
	21-24	176	44.11
	25 years and over	77	19.30
Gender	Female	210	52.63
	Male	189	47.37
Marital status	Single	378	94.74
	Married	20	5.01
	Divorced	1	0.25

A significant difference was found between marital status and internet addiction level ( $p=0.017$ ). Single individuals [ $\bar{x}=29.92$ ; standard deviation (SD)=16.64] were found to have a higher level of internet addiction than married individuals ( $\bar{x}=22.52$ ; SD=16.03).

As a result of the regression analysis performed to determine the effect of perceived social support level on internet addiction, it was revealed that the perceived social support level had a negative significant effect on internet addiction at the level of  $-0.199$  ( $p=0.000$ ). While the regression model, in which the perceived social support level is the independent variable, was found to be significant ( $F=16.354$ ,  $p=0.000$ ), it was revealed that this model explained 40% of the change in the level of internet addiction.

### DISCUSSION

The results of our study indicate that there is a significant difference between the level of internet addiction and age and marital status in university students, and as the level of perceived social support increases, the level of internet addiction decreases. In the literature, there are many studies

addressing the differences in the frequency and purpose of internet use between biological gender<sup>18</sup>. According to the findings of our study, gender does not affect internet addiction and perceived social support level. However, in the study conducted by Esen and Gündoğdu<sup>19</sup>, it was determined that internet addiction scores varied according to gender, and women’s internet addiction scores were lower than men. Esen and Siyez<sup>20</sup> remarked that the variables of gender, academic achievement, loneliness and perceived social support from the family predicted internet addiction in adolescents. While some of the studies in the literature, in parallel with the results obtained in the research, report that men are more internet addicted than women<sup>21</sup>, some of them show that internet addiction does not show a significant difference according to gender<sup>22</sup>. Karasu et al.<sup>23</sup> examined the relationship between internet addiction of university students and social support and a statistically significant difference was found between the gender status of the students and the mean scores of internet addiction. The mean scores of internet addiction in male students were found to be statistically significant compared to female students. Different results in current studies may be due to the way of measuring internet addiction and/or variables such as cultural differences.

According to the results of our study, as age increases, the level of internet addiction decreases. The studies emphasize that the majority of internet users include young adults, especially between the ages of 18 and 24 years. It should be noted that the majority of university students are in this age range<sup>24,25</sup>. Litwin and Landau<sup>26</sup> found that friendship networks decrease as age increases, family networks increase as education level decreases, and friendship networks increase as education level increases. In another study, it was found that there was a statistically significant difference between age and the perception of social support, the support of friends decreased as the age progressed, and the highest level of support from the family was perceived at the beginning of adolescence<sup>27</sup>. The results of the systematic review by Blasco et al.<sup>28</sup> indicate

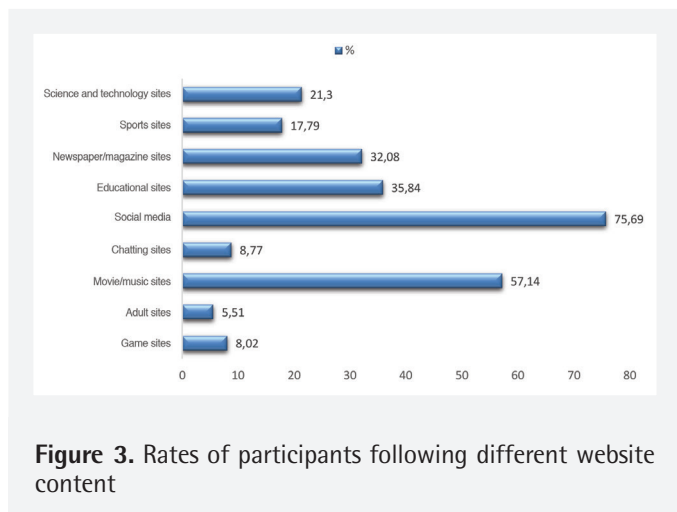


Figure 3. Rates of participants following different website content

Social support sublevels	Gender	N	Mean	Standard deviation	U	z	p
Family support level	Female	210	22.69	5.92	18280.500	-1.375	0.169
	Male	189	21.70	6.43			
Friend support level	Female	210	22.58	5.89	18701.500	-1.006	0.315
	Male	189	21.49	6.83			
Someone's special support level	Female	210	22.67	5.96	19133.500	-0.631	0.528
	Male	189	21.76	6.91			
Perceived social support level	Female	210	67.94	15.31	18353.500	-1.299	0.194
	Male	189	64.96	17.74			
Internet addiction level	Female	210	28.69	14.45	19539.500	-0.266	0.790
	Male	189	30.48	18.82			

Mann-Whitney U test, correlation significant at  $p<0.05$  significance level

that internet addiction increases in new generations, and that the increase in individuality and the decrease in socialization and acculturation play a role in this result.

In our study, there was a significant difference between marital status and internet addiction level. It has been determined that single individuals have a higher level of internet addiction than married individuals. In the study of Jovic et al.<sup>29</sup>, individuals who were married or had a partner and those who did not have a partner differed in terms of the duration and purposes of internet use. Individuals living with their partners mostly used the internet for leisure activities such as playing games as

well as browsing pictures and music. While single participants spent more than 8 hours on the internet, participants who were more prone to addictive activities (playing games) were those living with their partners. In the study of Karasu et al.<sup>23</sup>, no statistically significant difference was found between the department, class, age, family type, marital status, place of residence, mother's education, father's education, father's occupation, mother's occupation, and family income and the mean scores of internet addiction. In a study conducted by Sancar<sup>30</sup> on internet addiction in women, it was detected that the most frequent internet use was among engaged women.

**Table 3. Comparison of the relationship between social support sub-levels and internet addiction by age groups**

Social support sublevels	Age	N	Mean	Standard deviation	X <sup>2</sup>	p
Family support level	18-20	146	22.16	6.24	1.027	0.598
	21-24	176	22.44	6.26		
	25 and over	77	21.84	5.92		
Friend support level	18-20	146	21.75	6.17	2.069	0.355
	21-24	176	22.31	6.40		
	25 and over	77	22.09	6.70		
Someone's special support level	18-20	146	21.82	6.42	1.799	0.407
	21-24	176	22.41	6.62		
	25 and over	77	22.66	6.07		
Perceived social support level	18-20	146	65.73	16.65	0.958	0.619
	21-24	176	67.15	16.71		
	25 and over	77	66.60	16.16		
Internet addiction level	18-20	146	31.66	17.48	9.278	0.010
	21-24	176	29.88	16.18		
	25 and over	77	24.73	15.39		

Kruskal-Wallis H test, correlation significant at p<0.05 significance level

**Table 4. Comparison of the relationship between social support sub-levels and internet addiction according to marital status**

Social support sublevels	Marital status	N	Mean	Standard deviation	X <sup>2</sup>	p
Family support level	Single	378	22.24	6.14	3885.500	0.870
	Married	21	21.90	6.96		
Friend support level	Single	378	22.14	6.27	3704.000	0.602
	Married	21	20.67	7.93		
Someone's special support level	Single	378	22.25	6.41	3881.500	0.862
	Married	21	22.00	7.07		
Perceived social support level	Single	378	66.63	16.40	3868.500	0.845
	Married	21	64.57	19.52		
Internet addiction level	Single	378	29.92	16.64	2739.000	0.017
	Married	21	22.52	16.03		

Kruskal-Wallis H test, correlation significant at p<0.05 significance level

**Table 5. Perceived social support level and internet addiction**

Model	Beta	Standard error	Beta	t	p
(Stable)	42.857	3.395	-	12.624	0.000
Perceived social support level	-0.200	0.050	-0.199	-4.044	0.000

It was stated that 93% of the engaged ones used the internet every day. The second most common internet user group includes married women. It is observed that widowed/divorced women have access to the internet at a high rate of 82% every day. Less frequent use is observed to be quite low in all groups. Different results of studies showing the relationship between internet addiction levels according to marital status may be due to mediating factors such as marital satisfaction or intercultural differences.

According to the results of our study, the increase in perceived social support level in university students reduces the level of internet addiction. An increasing number of supporting groups are formed on the Internet. However, social networks play an important role in creating the perception of social support<sup>31</sup>. Similarly, Joinson<sup>32</sup> (1999) stated that the internet provided adolescents with the opportunity to establish new social relationships and adolescents who could not develop appropriate coping methods to solve the problems in family relationships preferred the internet to meet their needs for establishing close relationships. In another study, it was observed that as peer pressure levels decreased, the level of internet addiction of adolescents also decreased<sup>21</sup>. In addition, it was observed that as family and teacher support increased, internet addiction scores decreased. In the study conducted by Gunuc and Dogan'in<sup>33</sup> on adolescents, it was observed that adolescents who spent time with their mothers had higher perceived social support and lower internet addiction. Similarly, Karaer and Akdemir<sup>34</sup> emphasized the importance of improving parenting, social support and emotion regulation in the prevention and treatment of internet addiction in adolescents. Also, Naseri et al.<sup>35</sup> stated that university students with low self-esteem were more vulnerable to internet addiction.

It is possible to say that the virtual communication environment is perceived as an environment where social relations are less risky and easier, together with the increasingly widespread use of the internet<sup>36</sup>. This turns the internet into one of the resources where individuals can easily find support from others. In a period when the Internet penetrates into every field of daily life and almost the real and virtual worlds compete with each other, it is seen that individuals can postpone their face-to-face relations and put the Internet in the first place among the resources they provide social support<sup>37</sup>. The fact that virtual social support, which is seen to be provided via the Internet, cannot be transformed into permanent relationships in real life also causes social problems, while dissatisfaction in social relations can increase the orientation to the virtual world and create a vicious circle<sup>38</sup>. In the study of Chou and Hsiao<sup>6</sup>, it was found that the increase in internet use reduced the time devoted to real social relations and face-to-face relations, and caused social isolation; it was also detected that such people

increased their loneliness. Hamburger and Ben-Artzi<sup>7</sup> found that internet addiction did not increase the level of loneliness, and that internet addiction emerged as a result of loneliness. Cui and Chi<sup>39</sup> revealed that the rate of internet addiction was high in students with low perceived social support and social support level, and low social support was among the risk factors for internet addiction. In addition to studies showing a negative relationship between perceived social support and internet addiction, there are also studies indicating that the internet improves social networking and increases social interaction and support<sup>40,41</sup>. Our study also indicates that there is a negative relationship between perceived social support and internet addiction among university students.

### Study Limitations

The limitation of this study is that the sample was not screened for psychiatric symptomatology. Having a diagnosis of any mental illness was determined as an exclusion criterion. The results of the research are limited to the measurement tools used.

### CONCLUSION

The results of our study indicate that as the perceived social support level of university students increases, the level of internet addiction decreases. Studies are needed to determine the mediating factors between perceived social support and internet addiction.

### Ethics

**Ethics Committee Approval:** Ethical approval was received from the Social and Human Sciences Ethics Committee of Nişantaşı University (no: 021/2017, date: 11.01.2017).

**Informed Consent:** The study was conducted in compliance with the principles of Declaration Helsinki. Informed consent was obtained from all individual participants included in the study.

**Peer-review:** Externally peer-reviewed.

### Authorship Contributions

Concept - Design - Data Collection or Processing - Analysis or Interpretation - Literature Search - Writing: M.M., S.Ç.

**Conflict of Interest:** No conflict of interest was declared by the authors.

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