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# Prevalence of Internet Addiction in Students of Sabzevar University of Medical Sciences in 2015

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## Abstract

**Background:** One of the factors jeopardizing individual and social status of persons is internet over-use. Considering the importance of the internet to learn new information, faster relationships between people, and widespread use among students, more precise knowledge regarding the potential harms of internet over-use is necessary.
**Methods:** This descriptive cross-sectional study included 1000 medical students in 2015 from Sabzevar University. The collected data include demographic information and a standard evaluation of internet addiction, called the Young questionnaire. Data were analyzed by SPSS software (version16) with the help of Pearson's correlation test and Independent t- test. P value $< 0.05$ was considered statistically significant.
**Results:** The age average of 638 participants was 21.1 $\pm$ 3.5 years (72.8% female). 22.9% were married and 47.9% were from Sabzevar originally. The average internet addition score was mild, about 27.9 $\pm$ 18.2. Thirty-six percent (n = 229) had used the internet normally, 51.1% (n = 325) had mild addiction, 12.3% (n = 78) had moderate addiction, and 0.6% (n = 4) had severe addiction. There was a significant relationship between internet addiction and sex (P = 0.003), marital status (P = 0.006) and indigenous status (P = 0.03). There was no significant relation between age and internet addiction in this population (P = 0.329).
**Conclusions:** A significant number of students are at risk of internet addiction and its related physical and psychological harms. It is necessary to take the appropriate steps to prevent internet addiction. Educating students in terms of qualified use of the internet may be very effective for this purpose.

*Keywords:* Student, Addiction, Internet, University

## 1. Background

Internet access is one of the major indexes of scientific, social and economic facilities that Information Technology (IT) has provided. The internet is an enormous worldwide network that links humans, information and computers. It is also one of the primary mediums for accessing data. Nowadays it is used by students in education settings in different ways, such as E-mail, scientific article sharing, course home page, connecting to E-learning websites (1). One of the individual and social harms is overusing the Internet, known as virtual addiction or "internet addiction disorder." It can be argued that the most common factors jeopardizing families, especially teenagers, nowadays is internet addiction. Internet addiction is defined as unreasonable, hyper-usage of the Internet. People with internet addiction spend days and hours in virtual world, cannot cease this connection, don't tend to get rid of their computers, sleep little, forget their social relations, and finally their real life activities and social behaviors collapse (2).

Internet addiction is an interdisciplinary phenomenon; many disciplines, such as medicine, IT, sociology, law, ethics, and psychology have assessed it from various positions (3). Internet addiction is defined as a psychological disorder in medical psychology, which is referred to in several studies (4). Today the prevalence of Internet addiction is increasing and is reported to be up to 22%. The prevalence of Internet usage mainly among the youth is also increasing in Iran (5). Virtual addiction has harmful effects in terms of mental and behavioral aspects.

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Uncontrolled usage of computers jeopardizes physical growth, social and mental development of teenagers (6). Internet addiction makes people unbound and effects their social relations. The efficiency of the Internet users declines because of the Internet overusing because they go to work late and work less (7).

Sadeghian says the best way of promote mental growth of a teen is to interact with others and to learn through experience, but when a teen spends much time on the Internet, their tendency to interact with others declines as well as their ability to maintain true friendships. They also spends less time talking with the family, loneliness increases eventually and finally depression appears. Keisler and Beisler believe that the reason why people spend more time alone talking with strangers and develop shallow relationships on the Internet is the ease of access to the Internet communications. For this reason, they engage in fewer face-to-face conversations and have fewer friendships. According to some surveys, social relationships through the Internet are much weaker than real-world ones and results in social isolation, depression and jeopardizing of psychological health of individuals (2).

Previous studies have shown relationships between Internet addiction and both personality and background factors. Universities, especially medical science universities, use the Internet so much and pay a high cost for the Internet each year. Today, academic society is widely dependent upon information. Thanks to the worldwide web, access to scientific and medical websites, access to international and local databases and using the full texts of all kinds of journals is easily available nowadays. Due to the important role of the Internet in accessing data and establishing and maintaining connections between scientists, understanding and studying its potencies and users' problems while using it seems inevitable (8). According to work conducted in other countries, Internet addiction among university students is increasing (9). Due to the huge number of university students in Sabzevar, we assessed the Prevalence of the Internet addiction among students of Sabzevar University of Medical Sciences in 2015.

## 2. Methods

This descriptive cross-sectional study was conducted as a census in 2015. The statistical society in this study was all of the university students of Sabzevar University of Medical Sciences in 2015. Upon completing the questionnaire, all of the volunteers were assured that, in order to uphold ethic responsibility, their information would remain confidential. The questionnaires were distributed among the students and were returned to the researcher by the representative. The questionnaire had two parts. The first part included demographic variables of students such as age, sex, grade, major, marital status, and whether they were a resident of Sabzevar. The second part measured symptoms of Internet addiction using Younge's questionnaire. The validity and persistency of this questionnaire is supported in previous studies In measuring the psychometric properties of this questionnaire, Alavi showed that Cronbach's $\alpha = 0.88$ and r = 0.82 (10). Dargahi et al. also showed this questionnaire benefits from good validity and reliability in Iran (reliability ratio of 0.88) (11). This scale is a 20-item self-assessment evaluation and its responses are: always (5 points), usually (4 points), generally (3 points), sometimes (2 points) and rarely (1 point). The exam score range is from zero to 100 with higher scores suggestinggreater Internet addiction. The dependence rate according to the scores goes into four levels of normal (less than 21), mild addiction (21 - 49), moderate addiction (50 - 79) and severe addiction (80 - 100). Then the data were analyzed using SPSS -18 software using descriptive tests and a P value $< 0.05$ was considered statistically significant.

## 3. Results

638 questionnaires were returned to the researcher in a complete form. The average age was $21.1 \pm 3.5$ years (72.8% female). 22.9% (n = 174) were married and 47.9% (n = 305) were originally from Sabzevar. Most of the participants (19.9%) were freshmen and most were studying in nursing (13.9%), anesthesiology (12.9%), and operating room technician (12.1%). The average score for the Internet addition was mild, about $27.9 \pm 18.2$. Thirty-six percent (n = 229) used it normally, 51.1% (n = 325) had mild addiction, 12.3% (n = 78) had moderate addiction and 0.6% (n = 4) had severe addiction. Based on our data, Internet addiction is more common among males compared with females (P = 0.003). Moreover, there was a significant relationship between Internet addiction and marital status (P = 0.006) and indigenous status (P = 0.03).

## 4. Discussion

Internet access is an increasing phenomenon among people (7). In this study the prevalence of the Internet addiction with respect to normal, mild and severe cases were calculated. Most of the participants were in the normal group. Students overusing the Internet spent most of their time on social networks and different websites and preferred the Internet to spending time with the family and friends. They used the Internet for several hours without the consideration of time passing and therefore they hear their family's complaints. In other studies, such

as Lashkar-ara and Nasti-zayi, the cut-off point was considered 49 and the prevalence was calculated due to this which amount was reported 33 and 34 respectively (4, 12). According to the study, 12.9% of student in our study had addiction. Therefore the prevalence of the Internet addiction among students of Sabzevar University of Medical Sciences is less than the dormitory students of Tehran and Sistan-va-Baluchestan, which may be because of the effect of larger cities. University students are the major users of the Internet. That is because aside from accessing the information and entertainment, students can connect with their professors and other students through the Internet. Studies showed that the use of the Internet is much more among youth than any other age category (1, 7). In this study, there was no relationship between age and Internet addiction. Solhi et al. studied bachelor's degree students and found that 18% were Internet addicted within the age range of 18 - 25 (5). Research showed that the Internet addiction is more dangerous in younger ages. The age narrow range our study may be contradiction reason. Sex is another factor that affects the level of the Internet addiction. The need for the Internet is different among males and females (6). Based on our study, Internet addiction is more common among males compared with females. This result is similar to what Solhi et al. had reported, such that there was a higher level of addiction to the Internet in men than in women (5). Lashgarara et al. found that the addiction was higher among girls but the difference was not meaningful (4). In Beheshtian's study, boys were much less addicted to the Internet than girls (13). Khatib-e-zanjani claims that the Internet use is higher among males than females, but this difference is not meaningful (9). In Pirzade's study in Payam-e-noor University of Isfahan, there was no significant relationship between the Internet addiction and age and sex (14). Alavi et al. reported significant difference between Internet addiction and sex (10). A study in Turkey also showed meaningful difference between these two (15). Zboralski et al. work in Netherlands showed the Internet use in men is more dangerous than in women (16). A study in Lebanon showed that girls usually use the Internet for messaging, communication, scientific purposes, listening to music and watching movies and boys usually use it for entertainment and gaming (17). Mondle also suggests men and women are equally in danger of the Internet addiction but women complain more (14). It is necessary to conduct further research on different ways of use of the Internet between men and women (18).

In this study, Internet addiction was higher among dormitory students. Lapely believes that going to university in other cities for students results in being away from the family and friends and this guarantees a kind of adaption with new life changes (19). Accessing the Internet is much easier in dormitories, therefore Internet addiction is more probable (4).

In this study, most of the participants were single and the relationship between marital status and the Internet addiction was significant. It seems students use the Internet to forget the loss of their families. In this study, most of the participants had mild addiction to the Internet and just 0.6% suffered from severe addiction, which is in line with Hasan-zade et al. and Nodoushan et al. (19). In Pirzadeh's study, most of the participants were in the normal group and just 8.3% of them had mild addiction (14).

Research shows that depression, anxiety, suicidal thoughts, ADHD, aggression and anti-social behaviors is more common in students with Internet addiction (7, 20, 21). Lashkar-ara's studies in Tehran showed that the general health of students with Internet addiction under the scales of depression and fear was more hazardous than ordinary students were. He reported a prevalence of 34% among the residents of Tehran dormitories (4). It is claimed that there is a meaningful relationship between the mental health score and the weekly use of the Internet. Nodoushan suggests that 90%, 9.6%, 0.4% of students of Qom University of Medical Sciences in 1390 had minor, mild, and severe Internet addiction, respectively (19). "Internet addiction" is much more common among the youth because of their educational and entertainment needs and having more time to spare (9). According to the results, although the Internet addiction among the students of Sabzevar University of Medical Sciences is slight, a considerable population is in danger. In order toto prevent Internet addiction, suitable actions must be taken. The need for positive and negative reinforcement in education and benchmarking leading men are important points in educational psychology that can be used for students (22). Finally familiarizing the young generation with the physical and mental consequences of inappropriate use of this technology is suggested.

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## References

1. Mohamadbeigi A, Ghazavi A, Ghamari F, Saeidi A. Effect of internet addiction on educational status of Arak University of medical sciences students, spring 2009. *Arak Med Univ J.* 2010;**12**(4):95–102.

2. Heidari Sorshogani S. The relationship between Internet addiction and mental health at home in Ahvaz Published the first National Congress of cyberspace and social problems emerging in 1391 2012. Available from: www.civilica.com/Paper-NOPADID01-NOPADID_036.html.
3. Wang WEI. Internet dependency and psychosocial maturity among college students. *Int J Human Comput Stud.* 2001;**55**(6):919–38.
4. Lashgarara B, Taghavi Shahri M, Maheri AB, Sadeghi R. Internet addiction and general health of dormitory students of TehranUniversity of Medical Sciences in 2010. *J School Public Health Inst Public Health Res.* 2012;**10**(1):67–76.
5. Solhi M, Farhandi H, Armoon B. Internet addiction among B. SC. students in Health Faculty, Tehran university of Medical Sciences. *Razi J Med Sci.* 2013;**20**(106):40–7.
6. Golshekoh F. Relationship between social isolation, anxiety, depression and sleep disorders among internet user. *J Soc Psychol.* 2010;**5**(16):41–53.
7. Mirzaian B, Baezzat F, Khakpoor N. The addiction among students and its effect on mental health. *Inf Commun Technol Educ Sci.* 2011;**2**(1):141–60.
8. Bagherzadeh R, Kholghi B. Prevalence and obstacle of Internet use for education in students of Bushehr University of Medical Sciences. 2008. *Iran J Med Educ.* 2011;**11**(2):159–60.
9. Khatib Zanjani N, Agah HM. The Prevalence of Internet Addiction among the Students of Payam Noor University, Semnan Province. *MEDIA.* 2014;**5**(2):1–7.
10. Alavi SS, Eslami M, Meracy MR, Najafi M, Jannatifard F, Rezapour H. Psychometric properties of Young internet addiction test. *Int J Behav Sci.* 2010;**4**(3):183–9.
11. Dargahi H, Razavi M. Internet addiction and its related factors in inhabitants, Tehran. *Payesh.* 2007;**6**(3):265–72.
12. Nastizai N. The relationship between general health and internet addiction. *Zahedan J Res Med Sci.* 2009;**11**(1):0.
13. Hosseini Beheshtiyan SM. Comparison of internet addiction between girl and boy student of universities of Tehran. *Women Stud.* 2011;**2**(4):23–42.
14. Pirzadeh A. Internet addiction among university students in Isfahan, 2009. *J Health System Res.* 2011;**7**(5):580–6.
15. Ceyhan AA. Predictors of problematic Internet use on Turkish university students. *Cyberpsychol Behav.* 2008;**11**(3):363–6. doi: 10.1089/cpb.2007.0112. [PubMed: 18537510].
16. Zboralski K, Orzechowska A, Talarowska M, Darmosz A, JaniaF A, Janiak M, et al. The prevalence of computer and Internet addiction among pupils Rozpowszechnienie uzależnienia od komputera i Internetu. *Postepy Hig Med Dosw.* 2009;**63**:8–12.
17. Hawi NS. Internet addiction among adolescents in Lebanon. *Comput Human Behav.* 2012;**28**(3):1044–53.
18. Ghasemzadeh L, Shahraray M, Moradi AR. The study of degree of prevalence to internet addiction and its relation with loneliness and self esteem in high schools students of Tehran. *J Educ.* 2007;**1**(89):41–68.
19. Jafary NMA, Alipour NKH, Mirizadeh M, Ahmari TH, Noroozinejad GH, Sadeghi YT, et al. The Survey of Correlation between Internet Addiction and General Health Status among the Students of Qom University of Medical Sciences in 2010-2011, Qom, Iran. *Educ Strateg Med Sci.* 2012;**7**(5):309–14.
20. Kim K, Ryu E, Chon MY, Yeun EJ, Choi SY, Seo JS, et al. Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: a questionnaire survey. *Int J Nurs Stud.* 2006;**43**(2):185–92. doi: 10.1016/j.ijnurstu.2005.02.005. [PubMed: 16427966].
21. Yen JY, Ko CH, Yen CF, Wu HY, Yang MJ. The comorbid psychiatric symptoms of Internet addiction: attention deficit and hyperactivity disorder (ADHD), depression, social phobia, and hostility. *J Adolesc Health.* 2007;**41**(1):93–8. doi: 10.1016/j.jadohealth.2007.02.002. [PubMed: 17577539].
22. Agah J, Sharifzadeh M. Simultaneous Promotion of Learning and Satisfaction by Cooperative Training. *Educ Strateg Med Sci.* 2014;**7**(5):309–14.