The relationship between demographic variables and internet addiction among Medical university students in Bandar Abbas

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Abstract: Purpose: The present study aimed to examine the relationship between demographic variables and Internet addiction among 400 students in Hormozgan University of Medical Sciences from 2012-2013. **Method:** 400 students were randomly selected as the research subjects. Young and Camberli's Internet Addiction Questionnaire was used as the data collection scale. Then software SPSS 17 Was used to analyze the data. **Results:** The results showed that the majority of the study populations (182 subjects) were common internet, and 175 users were at risk of over using, and only 43 were found as internet over users and had internet addiction. Among the participants in the study were female and 129 were male, 331 people were single and 69 people were married. The above table shows five demographic factors associated with internet addiction. The value of chi-square showed that factors such as gender, marital status, age, educational level and discipline are all associated with Internet addiction. Such a significant relationship was also found between Internet addiction and style of internet use. **Conclusions:** It seems that teaching students about the benefits and harms of online virtual world, providing recreational activities such as recreational sports for students, can be beneficial in preventing them from internet addiction.
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Introduction

In the current decade, the Internet usage has been multiplied. People use internet with their friends or their families for shopping, scientific communications, business and entertainment. The number of Internet users has increased dramatically. In many societies today, the Internet has become a necessity of life. Despite these points, it has created many problems. Because provides the underlying conditions for both positive and negative relationships. A variety of studies have discussed the physical and psychological effects and problems associated with the Internet. Sociologists believe that the internet has a great impact on people's personal and social aspects(1).

Internet addiction is considered as a compulsive behavior, wishing to establish a link, or perhaps a manifestation of the transmission or reflection of the relationships, or fulfilling the needs. An internet addict is a person who spends at least 38 hours per week or 8 hours a day, in using the Internet. Experts in the field of pathology have offered the narrowest definition to classify the Internet use. Based on their

classifications if the individual is using the Internet between 2 to 3 hours a day they are considered as the typical user and if internet usage reaches 8 hours or more the user must be studied pathologically(2). Young believes this terminology (Addiction) can be used for Internet, too because Internet addiction has the same signs and symptoms of addiction to drugs or alcohol. Recent studies in the field of addiction focuses on three types of factors: personal factors, psycho - social factors, and factors associated with the Internet. Individual factors such as low self-reliance(3), introspection features, instinctual behaviors and fleeting tendencies (4)and impaired communication skills(5), psychosocial factors are things such as poor family support and poor communication between family members, and factors related to the Internet are things such as long-term use of the Internet, convenient internet access and having a high proficiency in using it(6).

The Internet has several consequences such as changing lifestyles in order to spend more time on the internet, the general decline in physical activity,

inattention to one`s health as a result of working with the Internet, avoiding the important daily activities to spend more time on the internet, the reduction of social relationships, ignoring family, friends, financial and educational problems(7).

Studies have shown that there are significant differences between normal and addicted Internet users in terms of psychiatric symptoms such as depression, anxiety, Khvdbymaryangary, obsessive-compulsive, interpersonal sensitivity, hostility, paranoia, phobias and psychosis. On the other hand studies have shown that there is a significant relationship between depression, anxiety, interpersonal sensitivity and Internet addiction(8). And also the results of some studies have shown that demographic variables such as age and gender are associated with Internet addiction. Studies have showed the average number of internet addict people in users younger than 28 years old was more than those over 28 years old(9).

Results of a study which was carried out by Mohseni, Hoveyda, and Omidi in 2010 on the Tehranian youth aged from18 to 29 years showed that the average hours of internet use per week for users was 14 hours and 17 minutes. 29% of users had internet addiction, and all of them showed varying degrees of weakness and inability to perform activities, social shyness, loneliness and social isolation and lack of interest in having interpersonal the relationship and the interaction. Boys showed more tendency toward internet use than did girls and a significant difference between males and females in rates of Internet addiction, loneliness and social isolation was found. Internet addiction at the age of 25 years old was higher compared to other ages, according to the findings of this study, the subjects had effectively used communication capabilities of the Internet and they have found the Internet a good place for expressing their ideas and having connections with the others. Chat, scientific and educational purposes, and check mail had respectively the highest number of applications among the subjects(10). In his study, Beheshtian had obtained different results, the results showed that the rate of Internet addiction among female students was more than male students(11).

It is necessary to carefully examine the phenomenon of Internet addiction from the various aspects of and to identify the factors underlying its formation and its consequences. The Internet, with all its good benefits, has also some shortcomings and harms, of which all people especially policy makers, educational officials and parents in every community should be aware of it. Speaking of harms of internet doesn't mean the negation of this phenomenon or having a pessimistic look at this phenomenon, but the fact is that the Internet has both positive and negative

functions. By considering the negative consequences that internet addiction has for the addicted person such as changing one`s lifestyle in order to spend more time on the Internet, neglecting their health as a result of working with the Internet, avoiding major life activities in order to spend more time on the internet, the reduction of social relations, disregarding family, friends, and the financial problems of the cost of utilizing the Internet, educational problems, it seems that the issue of Internet addiction and its dimensions should be seriously examined. The overall goal of this research is to find a good answer to the question whether there are connections between the demographic variables and Internet addiction among college students or not?

Materials And Methods

The present study is a cross-sectional study. It is also a descriptive study that aimed to assess Internet addiction and its influencing factors among 400 students in Hormozgan University of Medical Sciences, Bandar Abbas during year 1391-1392. By assuming an acceptable error of 5% and acceptable differences in estimating as 0.03 in the prevalence of Internet addiction, the sample size is calculated by using following formula:

$$n = \frac{z^2 pq}{d^2} = \frac{(1.96)^2 (0.1)(0.9)}{(0.03)^2} \cong 385$$

Sampling procedure was a simple random sampling. Assuming that some of the questionnaires are not fully completed or will not be returned to the people and also to ensure 430 questionnaires were distributed among the students. The 400 questionnaires that were completed were selected and 30 other questionnaires were incomplete and were excluded from the analysis. The sample size was 400. The data collection procedure includes an addicted to internet questionnaire which was designed by Younge and Camberli in 1988 and is comprised of three parts: the first part, demographic data, including gender, field of education, age, academic year of education, scholarships, colleges of education and average hours using a computer and Internet. Second part of the questionnaire, has 15 items as yes or no, and it is designed about the reasons for using the internet and the third part of the questionnaire included the 20-item questionnaire which is a scale in measuring Internet addiction and developed using a Likert scale Never (0), rarely (1), sometimes (2), often (3), most of time (4), Always (5). Scores vary from 0 to 100 in which the highest scores show more dependency on the Internet and excessive use of internet has created severe for the person. Score of 20 to 49 represents a typical user, scores of 50 to 79 indicates that the user is at the risk, and score of 80 to 100 indicates the user

is an internet addictive. Dargahi and Razavi (1386) by using Cronbach's alpha have reported the reliability Coefficient of this questionnaire as 0.88(12). And in the present study by using Cronbach's alpha, reliability coefficient was estimated at 0.86.

Results and Findings

The results show that the majority of subjects (182 cases) were typical users of internet and 175 users were at the risk and 43 users were identified as internet addicted users. Of all participants were female and 129 people were male. 331 cases were single and 69 of them were married. 148 people were younger than 18 years old, and 205 people aged between 21 to 23 years old, 18 subjects aged between 24 to 26 years old, 14 subjects aged between 27 to 30 years old and 15 subjects were between 31 to 35 years old. Of samples 82 subjects had associate degrees, 183 subjects were undergraduate students, 6 subjects were senior undergraduate and graduate students, and 129 students were PhD students. Regarding the academic major the sample includes 33 Health students, 26 Anesthesiology students, 85 nursing students, 15 Genetic students, 20 physicians, 30 dentists, 17 radiology students, 32 students majoring in laboratory sciences, 38 IT students, 23 students of medical emergencies, 28 students of midwifery, and 47 students of anesthesiology.

Table 1: Frequency distribution of demographic information of the subjects

	Type of user				Total
	Groups	Normal	At risk	Addicted	
Gender	Woman	133	122	16	271
	Man	49	53	27	129
	Total	**182**	**175**	**43**	**400**
Marital Status	Single	141	150	40	331
	Married	41	25	3	69
Age	younger than 20 years	64	65	19	148
	21-23	92	94	19	205
	24-26	6	9	3	18
	27-30	6	6	2	14
	31-35	14	1	0	15
	Total	**182**	**175**	**43**	**400**
Degree	Post Diploma	40	40	2	82
	Bachelor	90	77	16	183
	Masters	4	2	0	6
	PhD	48	56	25	129
	Total	**182**	**175**	**43**	**400**
Field of Study	Hygiene	22	10	1	33
	Anesthesia	12	9	5	26
	Nursing	35	33	17	85
	Genetics	4	11	0	15
	Medical	9	11	0	20
	Dental	15	14	1	30
	Radiology	7	9	1	17
	Laboratory Science	20	10	2	32
	Information Technology	16	19	3	38
	Emergency Medicine	10	12	1	23
	Midwifery	12	12	4	28
	Anesthesiology	15	24	8	47
	Total	**182**	**175**	**43**	**400**

Table 2: frequency distribution of intensity of Internet addiction and reasons of Internet use

Reason of use Addiction Severity	Total Number	Chat		Email		Photo and Film		Scientific		News	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Typical User	182	117	64.2	129	70.9	133	73.07	147	80.8	To 80	44
Users at Risk	175	130	74.2	118	67.5	144	82.3	132	75.5	93	52
Addicted user	43	35	81.4	32	74.5	35	81.4	32	74.5	27	62.8

Based on the analysis of the collected data from this study users used internet to respectively download up to date photos and videos of the world, access to articles, checking their personal e-mails, chatting, and getting the latest scientific, political, and economical news of the world. Also, according to Table 3, the most typical users` usage of the Internet was accessing to scientific debates, while addicted users used internet mostly to chat, check their e-mail, and view up to date photos and videos of world. Generally one can say when we go from the typical user to the internet addicted user rate of internet usage for scientific reasons decreases and less scientific reasons such as chatting and downloading photos increase. Generally speaking the amount of K Squire equals to 31.59 which shows a significant relationship between internet addiction and reasons of internet use at the level of significance p= 0.02.

Variables	Kia square	dif	Sig
Gender	21.02	2	0.01
Academic major	38.37	24	0.03
Marital sates	7.80	2	0.02
Age	16.80	8	0.02
Level of education	19.55	6	0.01

Data of the above table shows the demographic factors associated with Internet addictions. The first factor is gender which at the significance level of p=0.01 had a Kai square equal to 21.02 which shows a significant correlation with Internet addiction. Factor related to academic major has kia squre equal to 38.37 in the alpha 0.03 which also again shows a significant correlation with Internet addiction. Marital status with the Kia squire equal to 7.80 in the alpha= 0.02 showed a significant correlation with Internet addiction. Age with the Kia squire equal to 16.80 showed a significant correlation with Internet addiction at alpha=0.02. Educational degree with the Kia squire of 19.55 at level alpha 0.01 showed a significant correlation with Internet addiction.

Discussion and Conclusion
The present study aimed to examine the relationship between demographic variables and Internet addiction among 400 students in Hormozgan University of Medical Sciences during 1391 to 1392. Results showed that the majority of subjects were typical internet users (182 cases) and 175 users were at risk, and only 43 were identified as over users or internet addicted users.

Of all participants were female and 129 people were male. 331 cases were single and 69 of them were married. 148 people were younger than 18 years old, and 205 people aged between 21 to 23 years old, 18 subjects aged between 24 to 26 years old, 14 subjects aged between 27 to 30 years old and 15 subjects were between 31 to 35 years old. Of samples 82 subjects had associate degrees, 183 subjects were undergraduate students, 6 subjects were senior undergraduate and graduate students, and 129 students were PhD students. Regarding the academic major the sample includes 33 Health students, 26 Anesthesiology students, 85 nursing students, 15 Genetic students, 20 physicians, 30 dentists, 17 radiology students, 32 students majoring in laboratory sciences, 38 IT students, 23 students of medical emergencies, 28 students of midwifery, and 47 students of anesthesiology.

Results of statistical analyzes revealed that there is a significant relationship between internet addiction variables such as gender, profession, marital status, age, and educational level. Regarding the relationship between gender and Internet addiction in researches that have been conducted in several countries, results revealed that men were more likely than women to suffer from Internet addiction. Despite the many common interests among Internet users, men want to more get news, stock market developments and sporting events while women are more looking to expand social contacts and find tips on health and wellness by religious beliefs; Meanwhile, men use internet more seriously than women do, because more frequently enter the virtual world and spent longer times online, and they have greater access to broadband Internet. In addition, men used the Internet for entertainment more than women did. Accordingly due to the fact that societies have been more knowledge-based in recent years, the students are more dependent on the Internet and their usage increased dramatically(13). The findings of the current study are consistent with studies done by Mohseni, Hoveyda, and Omidi (2010) as they showed a high rate of Internet addiction among college students in their study.

In the present study users have reported their reasons for internet use were respectively: to download photos and videos of the world, access to research articles, checking the personal mailbox (Mail), chatting and getting the latest scientific, political, and economic news in the world. Also, according to Table 3, the ordinary users mostly used Internet scientifically, while internet addicted users mostly used internet to chat, to check e-mail, and to view photos and videos of the world. Generally one can say that as we move forward from the typical internet user to internet addicted user, scientifically usage of internet reduces and its entertainment functions such as chatting and downloading photos increases. In explaining the findings of the present study it can be said that chatting is used for different reasons. Chatting partially satisfies the need for contact and mutual understanding. Chat ting makes forming emotional relationships and the need for affiliation and love and being loved easy for those who may have difficulty in establishing face to face relationships in the real world. Chatting is also used for having sexual conversations. Although none of these perfectly satisfy the needs of different levels in the Internet, but it provides a temporary and false peace for users(14).

In general we can say that the mass media, including the Internet, have undeniably profound influences, due to their high strength, their extensive and various functions in both personal and social areas. Social scientists, have considered the media as social factors that shape the characters of people and they believe that social media can both strengthen and weaken social norms(15)Accordingly it is essential to pay attention to various aspects of this newly emerged phenomenon among students. It seems that training students about the benefits and disadvantages of the virtual world of the Internet, providing recreational activities such as recreational sports to students, could be beneficial and also conducting more accurate qualitative and quantitative studies could be effective in identifying this phenomenon. One of the limitations of this study is that it was limited to students of Medical Sciences, Bandar Abbas, and also may be the participants randomly not accurately complete the questionnaires.

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