The Rate Of Prevalence In The Internet Addiction And Its Relationship With Anxiety And Students' Field Of Study

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Abstract: The present study was conducted in order to investigate not only the prevalence of internet addiction among the girls and boys students in Urmia universities, but also the relationship between internet addictions with anxiety and students' field of study. Participants were 330 students (167 boys and 163 girls) randomly selected from Urmia universities. The Questionnaires of internet addiction and anxiety scale were used as instruments for data collection in this study. The data were analyzed using mean, standard deviation, ANOVA, T-test, and regression analyses. The results of this study demonstrated that prevalence of internet addiction among students in Urmia universities was 16/36, and among boys (85/2) was more than girls (14/8) , and in science and engineering students (7/90) was more than art and humanity student(9/3). There was a significant difference in four groups in anxieties (p<0.0005).The result of regression analysis showed that anxiety, sex and could significantly predict internet addiction (p</005).

Key words: *Internet addiction, Anxiety, Students´ Field of study*

INTRODUCTION

Internet has been an effective tool in eliminating human Geographical limitations and it is globally applied by all lifestyles because of its attractive and unique characteristics in interpersonal communications and everyday life. However, excessive use of the internet has resulted in negative consequences. Internet Addiction Disorder is nowadays recognized as a new syndrome among psychologists' research nucleus and has provided a fresh area of research points out that excessive and ill use of the internet will result in the withdrawal of the individual from friends, family, and lead to behavioural or personal disorders. Bernner indicated that some users have reported internet- related problems similar to addiction, and research reports reveal that excessive use of the internet has resulted in social, psychological and occupational injury. Young prepared a questionnaire and asked 496 people to complete it in order to answer the following question: 'Do some individuals become addicted to the internet?' The research indicated that 100 people were diagnosed as having been addicted to the internet. Some researchers have indicated that some of the addiction symptoms of internet include excessive connection to the Internet; involuntary and fastidious use of the internet; Difficulty in time management using the internet; and feeling of a dreary world outside the internet. All of which result in a reduction in social communications and an increase in loneliness and depression. Caplan points out that internet addiction. This is determined by the following traits: 1- Unpleasant feeling of excitement such as anxiety and depression when the individual is not in contact with the internet. 2- The capability of tolerating the effects of working with the internet and becoming accustomed to it. 3- Rejection of problematic behaviours. Davis believes that internet use is not only an addictive behaviour but also forms a collection of recognition and behaviour factors that leave people prone to addiction leading to a negative effect on the individual's life. He believes that the use of the term 'ill use of the internet' is more suitable.

There are various theories on the tangibility of internet addiction. One such widespread theory based on the justification, diagnosis, pursuit and treatment of internet addiction disorder is the Grohal theoretical model.

In Grohal's belief, many individuals are trapped in stage 1 and never reach stages 2 and 3. These people are in fact the internet addicts who need help in order to approach stage 3.first an individual is obsessively attracted to the internet for long periods because of its active, appealing, adventurous, and amazing topics, its diversity and presentation of information, but later he becomes disillusioned, which results in the reduction of internet use and once the time spent on the internet is normalized a type of moderation ensues.

Behavioural theorists believe that should a user learn that the internet provides the opportunity to escape from reality, to acquire love or to be a source of entertainment; he would probably only use it when necessary. These reinforcements will result in conditional use of the internet and the continuation of the cycle .Davis in his recognition-behaviour based model identifies the user's social support and his mistaken beliefs such as "the internet is the only place that I am respected" or "The internet is my only friend" and identifies reinforcements accompanying internet use as the factors behind internet addiction (Ferris, 2003). In order to investigate the extent of addiction to the internet and identification of its effects and consequences, various studies have been contemplated in many countries: in Taiwan; in Korea (Grohal, 1999); in India (Davis, 2001) and in Hong Kong.

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The South Korean Government has estimated that those 210,000 children are afflicted with internet – related diseases and require treatment15. 73% of the US adult population in 2006 was internet users, 6% of which suffered from internet addiction that compared to 2005 is a 66% increase. As with ever-increasing global applications of the computer and the internet, its national growth is also hugely significant. According to a report from Stanford University, the use of the internet in Iran has increased more sharply than in any other Moslem Nation. 5.2 million Iranians use the internet fulltime and 5.3 million use it on part time basis.

There are many studies in the field of research into internet addiction based on the rate of addiction to the internet among men and women. In some such as Hills and Argyle, Yang and Tung, Bastani and Kennedy and colleagues this rate was shown to be higher in men than women while some other researchers indicated that the reverse was true. The findings of Hamburger and Artzi, and Davoodabadi indicated that the rate was identical in both men and women. The investigation of the rate of affliction with this disorder and of the rate of gender-based addiction to the internet in the population under study is some of the aims of the present study.

Anxiety is another factor whose relationship with internet addiction has been studied. The research by Shepherd and Edelmann on a sample of 169 students indicated that for people suffering from social anxiety, it is easier to communicate through the internet than direct contact and stated the possibility of anonymity as the reason. The findings of this research also showed that social anxiety, lack of personal strength, anxiety and depression could be related to the rate of internet use. A study carried out by Rice and Markey on a sample of 80 women with an average age of 18.8 indicated that some people feel less anxious while communicating through the internet rather than directly, which was due to personal traits such that introversion and psychoneurotic factors. No one has ever investigated the relationship between anxiety and internet addiction in Iran. There has also been no research to investigate the relationship between internet addiction and various fields of study. The present research investigates the two-abovementioned topics.

Research Questions:

The aim of the present study is to answer the following questions:
1. What is the rate of internet addiction in students in all Urmia universities?
2. Is the rate different for male and female students?
3. Are anxious people more prone to internet addiction?
4. Can user's field of study, gender and degree of anxiety be used to predict internet addiction?

Methodology:

The population of the present research includes all 2008 -09 undergraduate students in the university in the city of Urmia. The method of Random Clustering was used for sampling. For this purpose, seven universities were picked from among all universities in Urmia and 345 students were in turn picked at random from each university. 15 questionnaires were disregarded due to incompletion resulting in a final sample of 330.

First, the present research was partially explained to the sample students and it was pointed out that the research was being carried out in the name that the writing of names on the questionnaire was therefore unnecessary. Next, the questionnaires were simultaneously distributed among the sample students. The present research is of the descriptive correlative type and the following statistical indices and methods were used to analyse the data: frequency, percentage, mean value, standard deviation, T-test, correlation coefficient, multi-variable regression analysis, and one-way analysis of variance.

Assessment Tools:

A. Young Internet Addiction Scale (IAT)

Young's questionnaire which contains 20 questions is one the most popular questionnaire in the majority of researches.1 The 1998 version of the abovementioned questionnaire was implemented in this study. Yoo and colleagues found Kronbach's Alfa coefficient to be greater than 0.9 as did Whang and colleagues. In Iran Qasemzadeh calculated this value to be 0.883. Dargahi found the coefficient of stability of this questionnaire to be 0.88.The 20 questions of this questionnaire are scored on a 5-point scale, (ranging from 1 to 5). The marking range for this test is from 0 to 100, where the higher the mark the greater dependence on the internet. Once the final mark is determined, it is interpreted according to the following:

> 20   ---------------------------- non-dependence (non-user)
20 – 49 -------------------------- normal user
50 – 79 -------------------------- slight addiction (endangered people)
80 – 100 -------------------------- severe addiction

B. Najarian and colleagues' anxiety questionnaire

The Najarian and colleagues' anxiety scale was used to assess anxiety level. This scale has 27 items and the participant must reply to each article using the four-graded Likret scale as follows:

0 = Most often
1 = Sometimes
2 = Seldom
3 = never

Where the higher the mark, the higher the level of acquired anxiety will be. The retrial and Kronbach's Alfa coefficients for this scale varied between 0.56 and 0.90. Coefficients of stability for the sample total, male and female tests were 0.79, 0.91, and 0.67 respectively. The experiment's credibility coefficient through simultaneous execution of the above scale with the depression and anxiety questionnaires and Psychasthania's partial scale for the MMPI questionnaire were r=0.69 and r=0.54 respectively.

Research Findings:

The sample population was divided into 4 groups based on their mark from Young's internet addiction test. From 330 subjects, 90 were found to be non-users, 117 normal users, 69 endangered users, and 54 users had severe addictions. The frequency of the four groups based on gender and field of study is illustrated in tables 1 and 2 respectively:

Table 1: Frequency distribution of the 4 groups representing internet use based on Gender

Field of study	>20 Non-User		20 – 49 Normal user		50 – 79 Endangered		80 – 100 Sever Addiction		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Male	67	74.14	58	49.58	30	43.5	8	14.8	163	49.40
Female	23	25.86	59	50.42	39	56.5	46	85.2	167	50.60
Total	90	100	117	100	69	100	54	100	330	100

Table 2: Frequency distribution of the 4 groups represent internet use based on Field of Study

Field of study	>20 Non-User		20 – 49 Normal user		50 – 79 Endangered		80 – 100 Sever Addiction		Total	
	Frequency		Percentage		Frequency		Percentage		Frequency	
Humanities & Art	80	88.9	81	69.2	20	29.0	5	9.3	86	6.4
Tchenical & Foundation Science	10	11.1	36	30.8	49	71.0	49	90.7	44	3.6
Total	90	100	117	100	69	100	54	100	30	0

As it can be seen from the tables, Addiction to the internet is greater in male students' than female ones and similarly greater in Technical students than Humanities ones. The frequency distribution of the 4 groups based on anxiety level and representing internet use is given in table 3.

Table 3: Frequency distribution of the 4 groups representing internet use based on anxiety Level

Level of Anxiety	>20 Non-User		20 – 49 Normal user		50 – 79 Endangered		80 – 100 Sever Addiction		Total	
	Frequency		Percentage		Frequency		Percentage		Frequency	
Low	65	72.2	86	73.5	35	50.8	8	14.8	94	8.8
High	25	27.8	31	26.5	34	49.2	46	85.2	36	1.2
Total	90	100	117	100	69	100	54	100	30	00

As can be observed in the table above 46 of those addicted to the internet were in the high anxiety group. Table 4 below indicates results of the analysis of variance:

Table 4: Analysis of variance for investigating the significance of anxiety level in the four groups

Groups	df	SS	MS	F
Between the Groups	3	27815.975	9271.978	36.831
Within the Groups	326	82069.399	251.747	
Total	329	109885.334		

$P \leq 0.0005$

As it can be seen there is significant difference in the 4 groups as far as anxiety level is concerned, and Shafe's test found that anxiety level in the addicted group is significantly greater than in the other 3 groups.

In order to investigate the difference between male and female students with regard to internet addiction, T-test was performed. Table 5 reveals that the difference is significant (p = 0.0005).

Table 5: The results of the independent T-test used to compare internet addiction level in male and female students

Variable	N	M	SD	df	T	P
Male	167	53.28	27.98	328	7.411	0.005
female	163	31.24	25.95			

In order to investigate the ability of prediction variables to foresee internet addiction simultaneous regression analysis was performed, the results of analysing the variables of indicated R = 0.546 & R2 = 0.298 (table 6).

Table 6: Significant variables used to predict internet addiction because of simultaneous regression test

Base Variable	Prediction Variables	B	Beta	T	P	R	R2
Internet Addiction	Gender	20.270	0.348	7.498	0.005	0.546	0.298
	Anxiety	0.629	0.395	8.492	0/005		
	Field of study	28.730	0.490	12.024	0.005		

Discussion And Conclusion:

The findings of this study indicated that 16.36% of Urmia students are in the severe addiction group while 20.90% in the endangered group. It also showed that the rate of severe addiction is greater in male students than female students (85.2 and 14.8 respectively), and far higher in Technical and Foundation Science students than Art and Humanities Students (90.7 and 9.7 respectively). Therefore, in reply to the second research question it can be said that gender does influence internet addiction. These findings concur with those of Hill and Argyle, and Yang and Tung but not with that of Hamburger and Artzi or Davoodabadi (Kennedy et al., 2003; Young, 2007; Yoo et al., 2004; Bastani, 2008). It can possibly be said that Different roles and expectations from each gender influences their internet use (Hamburger and Artzi, 2000), and attention can be drawn to the study by Kennedy and colleagues who reported that even when the availability of the internet is identical for male and female students, their use might not be identical (Rice, 2008).

It was also found that Internet users have a higher anxiety level than non-users (85.2 and 27.8 respectively). There was also significant difference in anxiety level among the non-user, normal user, endangered user, and addicted user groups, where the significance was highly noticeable in the addicted user group. In reply to the third question, it can be said that anxiety plays a significant role in the affliction with internet addiction. The findings of the present study are in line with the previous researches (Darghahi, 2006). To establish tangibility of the findings of the present research , it can be said that according to the study by Shepherd and Edlemann sufferers from social anxiety have an easier time communicating through internet than directly, due to its anonymity feature. It can be said that anxious people use the internet in order to overcome their anxiety, to escape from uneasy thoughts that lead to anxiety, and finally to attempt to replace their turbulent thoughts with the attractions and amusements existing in the internet. In general, it can be said that normal users, i.e. people who use the internet in moderation have lower anxiety levels and are not afflicted with the destructive effects of excessive internet use. In the present study the three variables: gender, user's field of study and their anxiety level are significant predictors of proneness to internet addiction.

As far as the limitations of this study are concerned, it can be said that research on internet addiction has had a short history, thus accessing relevant sources has proved difficult. As the relationship between individuals' fields of study and their internet addiction was being studied for the first time, the possibility of comparison with similar studies in Iran did not exist. Students of the universities of Urmia formed the participants of this study thus the results cannot be extended to the entire university student population. The inability to control variables such as user's economic and social circumstances is another limitation of the present study. Lack of proper assessment tools serves as another shortcoming. The internet addiction questionnaire does not offer a lie detector and therefore some users might want to show themselves as reasonable and moderate users of technology. Thus should another tool be used, the rate of prevalence to internet addiction could be even greater than those found in this study. Despite all of the aforementioned shortcomings and with reference to the findings of this study, it is recommended that future research should concentrate on the rate of prevalence to the internet based on the user's social and economic circumstances and the availability of the internet in the user's home. Finally, it is recommended to study the rate of anxiety in the young through the establishment of seminars so that they can become aware of their high risk of becoming addicted to the internet, hence take the appropriate caution.

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