

Study of the Relationship between Internet Addiction and Anxiety: Determination of the Extent of Internet Addiction and Anxiety among Iranian Students

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ABSTRACT

Today a great part of the world population use internet. Though this technology is of numerous benefits and has revolved communications in a positive way, unfortunately some studies attribute dangerous outcomes to it among them internet addiction may be mentioned. Thus present study aims to identify the extent of internet addiction and anxiety among Iranian students to see if there is a relationship between internet addiction and anxiety. Statistical population of present study comprised of 600 female high school students who used internet. Based on Cochran formula, 235 ones were selected as the sample using random classified sampling method. To gather data, Young (1998) Internet Addiction Scale and standard anxiety scale were used. After data analysis using measures of central tendency and dispersion and Pearson correlation, it was shown that there was a significant relationship between internet addiction and anxiety among female students and it was shown that the statistical population was at the risk for internet addiction and anxiety among this population was at a mild level.

KEYWORDS: Internet Addiction, Anxiety, Students.

1. INTRODUCTION

Undoubtedly increasing growth of internet is of obvious benefits and importance and its central role is to the extent that in the future planning, development and productivity in various cultural, social, economic and scientific fields would not be possible without it. Internet as a strong multimedia meets most essential needs of humans and the same fact is the reason for attraction of people towards virtual world in such a way that it may lead to their addiction to it. However its unfavorable and dangerous consequences especially in cultural and social fields should not be overlooked. It is acknowledged that study of internet dangers should not be considered as an attempt to reject it and cast a negative light on it but the fact is that internet has both negative and positive outcomes. Internet is not a medium imposed on people but every one may use it at his/her will. Internet is like a two-edged sword which can be used in many positive ways by correct training and creating the appropriate culture. Otherwise, individual and social identity of people may be destructed as a result of inappropriate use and training and lack of appropriate culture. With increasing access of people to internet, a new type of addiction i.e. internet addiction appears that is specific to this information age. As is the case with other types of addictions, internet addiction is also together with anxiety, depression, low mood, compulsive thoughts, frustration and imagination associated with internet. On the other hand with increasing communication between adolescents in virtual world, their interactions in the physical one are reduced; also their academic outcomes may be affected by internet. With respect to negative consequences of internet addiction for addicted users, including change in life style to spend more time on internet use, overlooking their health as a result of focusing on internet use, avoiding important life activities in order to spend more time on internet, decreased social interactions, less interaction with family and friends, financial problems associated with using internet and academic failures, it seems necessary to study internet addiction and its various aspects (Young, 1998).

Negative aspects of internet are further worsened because of the fact that typical controls and monitoring applied to such media as newspapers, TV and radio are not effective with respect to it. With respect to other media, control and monitoring are individually or collectively applied at various levels including individual, family, group and state ones. With respect to internet these types of controls are not very effective if not impossible. Thus internet addiction becomes a major problem. Ozrock (1999) refers to two types of symptoms of internet addiction: (1) psychological symptoms including an excessive joy while using internet, inability to stop its use, spending too much time on computer, less interaction with family and friends, sense of emptiness, depression and low mood when access to internet is not possible, encountering school or work problems (2) physical symptoms including Carpal tunnel syndrome, eye dryness, migraine pain, lower back pain, irregular eating patterns, losing some meal times, indifference to personal health care, sleep disorder and changed sleep pattern. He believes that in addition to the mentioned problems other ones also are seen in these individuals including: spending too much on software, hardware, journals and activities related to computers and indifference towards work, school and family tasks. Addiction to internet is similar to other addictions such as substance addiction. Though it has not together with the same physical problems associated with chemical addictions, but social problems related to it are at the same extent of those resulted from these types of addictions. Losing behavioral control,

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unfavorable symptoms resulting from quitting addiction, thirst for internet, social isolation and academic failure are some unfavorable outcomes of this addiction (Young, 1999).

Various fields of science have addressed this phenomenon from different viewpoints and provided various theories to explain this disorder. Biomedical theory emphasizes inherited and congenital factors, chemical fluctuations in the brain and neurotransmitters. Based on this theory, some chromosomes and hormones and lack or excess of some essential neurotransmitters and chemical factors in the brain involving in regulation of brain functions and other parts of nervous systems make the person vulnerable to addiction. Since internet provides many interesting and major opportunities, thus this theory may also be applied to internet addiction (Ferris, 2003).

Social-cultural theories state that addiction varies with age, gender, sex, socio-economic status, race and nationality. Some certain types of addiction are more seen in certain groups of people than in others. Thus based on this theory it can be argued that internet addiction also is more frequent in certain groups of people. But research on this issue is not extensive enough to infer which groups are more predisposed to internet addiction. Based on cognitive theories, internet addiction is a result of faulty cognition or faulty cognitive processing. Thus its treatment should be planned based on correcting cognitive processes (Davis, 2001, Yang, 1999). Many social problems of contemporaneous Iranian society are rooted in deficiency of collectivist orientation and collective commitments at large. Internet addiction disorder is a psychological-social disorder characterized by intolerance, isolation, emotional disorders, anxiety, stress and interrupted social interactions. Anxiety is indeed an emotional-affective state mostly characterized by worry and unrest not in reasonable association with the events happening at the same time the anxiety being expressed by the individual.

Jung (1998) described anxiety based on archetype concept and divided the patients into introverts and extroverts. Based on his viewpoint, each type of anxiety may be inherited by us as an archetype from our predecessors. Each type of anxiety is transferred to our collective unconscious mind. Introvert patients are those who focus on their subjective experiences in the life and their anxiety is influenced by their mental and psychological contents. These type of people are more predisposed to psychosis than extrovert ones. Extroverts have tendency towards realistic and objective patterns and mostly focus on external environment and are interested in it. Extrovert people are more predisposed to neurotic disorders. Based on this viewpoint, people afflicted with anxiety disorders are those who are sensitive to environmental changes and show intensive reactions to them; this is consistent with pathological description of neurotic disorders. Anxiety is a common complaint of both the public and patients referring psychotherapy and consultation centers. Biological viewpoint considers anxiety as a disease and mentions microbes, genes and biochemical characteristics as potential causes of it (Rosenhan & Seligman 1989). Psychodynamic viewpoint refers to conflict between various personality processes as a potential factor causing anxiety and from cognitive perspective; anxiety is a result of unrealistic and unreasonable thoughts and beliefs. An environment which prevents the individual from achieving his goals and self-fulfillment leads to spread of anxiety among people. From social viewpoint, anxiety is not considered as a health problem or a personal deficiency, but it is seen as a result of inability of individual to cope with psychological pressure in an appropriate manner (Azad, 1995).

Today young people comprise a great part of Iranian population and they are also passionate fans of internet. Thus with respect to the fact that education is the key of inclusive development of human society and one of the most essential missions of it includes training high-quality, well-developed and productive people, necessity of present research is obvious. Thus in present study the extent of internet addiction and anxiety among female high school students of Sanandaj city in school year 2012-2013 is addressed and our research question is that is there a significant relationship between internet addiction and anxiety among female high school students?

2. Theoretical Literature and Research Background

2.1. Internet Addiction

In his definition of internet addiction, Holms provides a definition of normal internet use and argues that if internet use is less than 19 hours per week, then it can be said that internet use is normal. From Holms' viewpoint, everyone who uses internet more than 19 hours per week is an internet addict (Lim et al, 2004).

Internet addiction is a new phenomenon and many general practitioners are ignorant of it. It seems that this phenomenon is rooted in tendency of the addict to escape his/her personal problems. Diversity provided by internet is an opportunity to escape emotional problems including depression, stress, anxiety or problems associated with interaction with other people. Based on a study by Neo Company in 2000, there are about 407.1 million internet users. Our habits turn into addictions when they substantially influence various aspects of our life. Internet addiction causes harms to individuals because it leads them to ignore their social, economic and physical responsibilities. Health of many internet users are severely affected. On average they spend 38 hours per week on internet use which is not associated with economic or scientific purposes. Internet addicts frequently ignore sleeping to use internet connection and forget to eat properly or exercise. There are reports on death due to heart attack while using internet and they may be caused by physical disorders such as inadequate sleep, low physical movements or suicide due to extreme stress. Unfortunately internet addiction leads to ignorance of family relationships, interrupted social interactions, academic failure, work problems and spending too much on use of internet which the latter one may cause economic problems.

There are warning signs which may help people to evaluate their potential internet addiction. From James' perspective this signs are as follows:

- Inability to control or restrict the amount of time spent on internet use.
- Justification and attempt to downgrade the time spent on internet use or the type of using it.
- Negative consequences for friends and family of the user

- Inappropriate behaviors and damages to spiritual and religious beliefs of the user.
- Giving excessive priority to computer as an essential item in life which this sign should be judged by others.

Internet addiction is considered as a behavior-oriented addiction. Young believes that the word 'addict' can also be used to refer to internet users because signs of internet addiction are the same as those of alcoholism and smoking (Young 1996). He managed to develop and introduce a 20-question internet addiction questionnaire based on 5-point Likert scale (Young 1998). Recent studies on internet addiction mostly emphasize on three groups of factors including individual factors, psychological factors and factors related to internet. Individual factors include low self-efficacy (Song 1999), introspective characteristics and impulsive behaviors (Yun, 1998) and lack of communicational skills (Park 2001). Social factors include low family support and socio-psychological factors resulting from weak relationship among family members (An, 2000). Finally internet-related factors include prolonged use of internet, easy access to internet and having high internet skills (Lee 2001). And all three above-mentioned factors contribute to internet addiction.

2.2. Anxiety

All humans sometimes experience anxiety in their life. If this anxiety is at a moderate level, then it is not harmful but it can be considered as an adaptive response and leads the individual to make him\herself ready for future sudden and threatening risks. This type of anxiety can be considered as a useful and constructive quality and at the same time a structural component of personality. On the other hand there is another harmful anxiety leading to failure and blocking normal and routine activities. Symptoms of this anxiety include: "a diffuse, unpleasant, vague sense of apprehension, often accompanied by autonomic symptoms such as headache, perspiration, palpitations, tightness in the chest, mild stomach discomfort, and restlessness, as indicated by an inability to sit or stand still for long."

Young (1998) referred to 4 levels of anxiety in his definition of this concept and they are as follows:

- **Mild anxiety:** at this level of anxiety, the individual is conscious and his\her sensation is enhanced. This level of anxiety usually simulates learning and increases individual development and creation.
- **Moderate anxiety:** at this level of anxiety, perceptual scope of the individual is weakened and his\her acuity is reduced. Muscular tension is seen in this type of anxiety and motor behaviors are seen more frequently than is the case with mild type of anxiety.
- **Severe anxiety:** at this level of anxiety. Perceptual scope of the individual is reduced to a great extent and he\she does not pay attention to the whole perceptual event. Though level of consciousness is highly enhanced in this condition, but it would not be of benefit to the individual because it focuses on a limited part of perceptual scope. Association between details may be weakened. Motor behavior is less organized compared to previous levels.
- **Overwhelming anxiety or panic:** at this level of anxiety, the individual rarely pays attention to the details, loses his\her control, feels fear at an extraordinary level and may exaggerate significance of a trivial thing so that in this way he\she can regain his control.

Finally a brief review is provided on literature similar to our own study:

- Kratzer et al (2007) found that internet use is associated with increased loneliness, depression and withdrawal from actual activities of life. Also in various studies by Koch et al, Jeoh et al, and Keum et al (2008) it was shown that disorders including depression, social isolation and behavioral aggression are more prevalent in internet addicts than in normal people.
- In one study by Windham (2008), relationship between engagement in internet interactions and psychological changes was studied on 614 students after 35 months continuous use of internet. After the study period, academic failure, high risk behaviors and social isolation were clearly seen in the subjects.
- Caof et al (2007) showed the relationship between depression, anxiety and social isolation and internet addiction in adolescents. Yen et al (2007) conducted a study on 2114 adolescents and young adults to investigate relationships between internet addiction and psychological disorders including anxiety, depression, hostility and paranoia. Female subjects with internet addictions showed higher levels of depression and anxiety and male subjects with internet addictions obtained higher scores on hostility and paranoia.
- In one study on 447 adult internet addicts with internet use of 16 hours per week, Meerkerek et al (2006) obtained the following results after a period of one year: a number of subjects divorced their spouses within one year. Other ones changed their job more than two times. More than half of them were afflicted with depression and most of them suffered from low self-confidence and passive aggressive behavior.
- Banyard et al (2005) applied internet addiction test to 500 UK students and the results showed that 371 ones had internet addiction. After applying General Health Questionnaire (GHQ) to internet addicts results showed that 18.3 percent of them had severe pathological problems and obtained scores lower than normal levels. Later results suggested that internet addiction led to low self-confidence, weakened social relationship and decreased positive self-image.
- Roberts et al (2005) conducted a study on 2513 frequent internet users and drew the following conclusions: 8.12 percent of them were not able to quit internet use for even a few days and showed restlessness, frustration and neurosis during interruptions in internet use. 12.4 percent of them spent more time on internet compared to other subjects. 8.7 percent tried to hide their internet addiction in front of their family and friends. Among interesting results of this study was that the

extent of aggression, anger and lack of control over it and neurotic behaviors was more in internet addicts compared to other people.

- Kraut et al (1998) in one 2-year study on internet users concluded that increasing internet use (internet addiction) was associated with decreased interaction with family members and lower participation in social circles. In addition, participants in this studies were affected by social isolation and depression.
- Young (1998) concluded that 80 percent of responders were users with internet dependence who showed significant addiction-related behaviors. He indicated that internet dependence caused severe interruptions in academic, social, financial and work life of participants.

3. Research Hypotheses

According to reviewed literature, in present research we seek to study the following hypotheses:

Hypothesis1. There is a significant relationship between internet use and anxiety in female high school students.

Hypothesis2. Internet addiction is at moderate level among female high school students.

Hypothesis3. Anxiety is at moderate level among female high school students.

4. METHODOLOGY

4.1. Questionnaire Design

In order to collect required data for hypothesis tests the following questionnaires were used:

Internet Addiction Scale: this is among the most credible tests for assessing internet addiction developed by Kimberly Young in 1998 and consisted of 20 multi-choice Likert questions. The higher the individual score on this scale, the more severe her/his internet addiction. In Young et al (1998), the reported internal validity of this scale was more than 92 and its reliability was confirmed using test-retest. Widyanto, & McMurrin (2004) reported that face value of this questionnaire was at a very high level. Also based on factor analysis six factors including Salience, Excess use, Neglecting work, Anticipation, Lack of self-control and Neglecting social life were obtained by them and this demonstrated high internal validity and reliability of this test. Also in present research, Cronbach's alpha was calculated for internet addiction scale which it was equal to 0.90.

Depression Anxiety Stress Scale: it was originally developed by Lovibond and Lovibond (1995). Later Antony et al (1998) applied factor analysis to this scale and developed the short-form version consisting of 21 items. Their results showed that 68 percent of total variance of the scale was explained by these three factors. Also present research calculated Cronbach's alpha for this scale which it was equal to 0.92.

4.2. Statistical Population and Research Sample

Statistical population of present research comprised of all female high school students of District 1 of Sanandaj City. Total number was 600 and among them a sample of 235 was selected based on Cochran formula using classified random sampling method. Distribution of students based on school grades is provided in Table 1.

Table 1. Distribution of students based on school grades

school grade	frequency	Frequency percentage
one	58	24.7
two	58	24.7
three	59	25.1
Pre-university	60	25.5
total	235	100

4.3. Data Analysis

Present study was an applied one with respect to its purpose and it was a descriptive correlational one with respect to its methodology. In order to analyze data, first information was extracted from research questionnaires and arranged in to a table. Then data were analyzed in two parts i.e. descriptive statistics and inferential statistics using software SPSS and Excel.

Descriptive tests were used to prepare the tables, calculate percentages and estimate appropriate central tendency and dispersion measures including mean and standard deviation and in inferential part, in order to test research hypotheses, normality of data were explored using Kolmogorov-Smirnov test and Spearman's or Pearson's correlation test was used to identify type and extent of relationship between variables. If estimated significance value (sig in table) was higher than 0.01, then it was concluded that data had normal distribution and Pearson's correlation coefficient was used to study the relationship between variables. But if significance value was lower than 0.01, then it was concluded that data had not a normal distribution and Spearman's correlation coefficient was used to study the relationship between variables. This test was conducted for the whole data and also for each one of variables and the results are shown in Table 2.

Table2.Results of normality of research variables

		Internet addiction	anxiety
N		235	235
Normal Parameters ^a	Mean	3.4638	3.1489
	Std. Deviation	.36251	.79797
Most Extreme Differences	Absolute	.107	.100
	Positive	.084	.087
	Negative	-.107	-.100
Kolmogorov-Smirnov Z		1.143	1.077
Asymp. Sig. (2-tailed)		.147	.197

According to results of table 2, significance values for both research variables were higher than research benchmark significance value (Alpha: 0.01). Thus normality of data is confirmed and parametric tests and Pearson's correlation test were used to study research hypotheses.

5. RESULT AND DISCUSSION

5.1. Descriptive Findings

According to studies conducted on 235 subjects of our sample using Young's standard instrument, internet use mean scores for grade 1, grade 2, grade 3 and pre-university students were respectively 2.20, 1.84, 2.32 and 2.02. It is seen that the lowest mean score is associated with grade 2 students (1.84) and the highest one is associated with grade 3 students (2.32) as shown in Table 3.

Table3. Descriptive statistics related to internet addiction based on school grade

Internet addiction			
Grade	N	Mean	SD
1	58	2.20	0.69
2	58	1.84	0.61
3		2.32	0.68
Pre-university	59	2.02	0.82
	60		
total	235	2.11	0.72

As seen in Table 4, anxiety mean scores for grade 1, grade 2, grade 3 and pre-university students were respectively 2.53, 2.95, 2.56 and 2.87. It is seen that the lowest mean score is associated with grade 1 students (2.53) and the highest one is associated with grade 2 students (2.95) as shown in Table 4.

Table4. Descriptive statistics related to Anxiety based on school grade

anxiety			
Grade	N	Mean	SD
1	58	2.53	0.59
2	58	2.95	0.96
3		2.56	0.75
Pre-university	59	2.87	0.83
	60		
total	235	2.11	0.72

5.2. Hypothesis testing

H1. There is a significant relationship between internet use and anxiety among female high school students.

With respect to SPSS output in Table 5, it is seen that correlation value between two variables is 0.759 which shows a powerful positive correlation. On the other hand since significance value of mentioned correlation test (0.000) is lower than error value of the study (0.01), thus H0 (lack of relationship) is rejected and H1 is supported at 99 percent confidence level and it is concluded that there is a significant relationship between internet addiction and anxiety among female high school students.

Table5. Pearson's correlation coefficient for two variable internet addiction and anxiety

		Internet addiction	Anxiety
Internet addiction	Pearson Correlation	1	.759**
	Sig. (2-tailed)		.000
	N	235	235
Anxiety	Pearson Correlation	.759**	1
	Sig. (2-tailed)	.000	
	N	235	235

**, Correlation is significant at the 0.01 level (2-tailed).

H2. Internet addiction is at moderate level among female high school students.

In Young's internet addiction scale, responders should respond to 20 items based on 6-point Likert scale including "never" (0), "rarely" (1), "sometimes" (2), "usually" (3), "often" (4), "always" (5). Score range is 0-100. The higher the score, the greater the internet dependence and the related problems. Young's instructions were followed to evaluate obtained scores and responders were classified into three groups: (1) normal users (2) at-risk users (3) addict users as shown in Table 6.

Table6. Young's scale scoring

User	Score
Normal user	0-39
At-risk user	40-69
Addict user	70-100

Results from internet addiction scale in the form of frequency and percentage frequency (Tables 7 and 9) and mean and SD (Table 8) showed that 46 percent of sample were normal users, 51 percent were at-risk users and 3 percent were addict users. It is seen that the most frequency is associated with at-risk users (51 percent). Thus research hypothesis 2 was confirmed and in other words internet addiction among female high school students was at moderate level.

Table7. Frequency and percentage frequency of responders to internet addiction scale

	Frequency	Percent	Total frequency	Percent
Normal user			108	46.00
Grade 1	28	12.00		
Grade 2	26	11.00		
Grade3	26	11.00		
Pre-university	28	12.00		
At-risk user			120	51.00
Grade1	40	17.00		
Grade2	23	10.00		
Grade3	33	14.00		
Pre-university	23	10.00		
Addict user			7	3.00
Grade 1	3	1.00		
Grade 2	0	00.00		
Grade 3	0	00.00		
Pre-university	5	2.00		
	235	100 percent	235	100 percent

Table8. Mean and SD related to responders of internet addiction scale

	Mean	SD	User
1	44.16	13.81	At-risk
2	36.90	12.39	Normal
3	46.43	13.72	At-risk
Pre-university	40.54	16.48	At-risk
Total	42.38	14.42	At-risk

Table9. Frequency related to internet addiction scale

	Frequency	Percent	Addiction level
Normal user	108	46.00	✓
At-risk user	120	51.00	
Addict user	8	3.00	
Total	100 percent	100 percent	At-risk

H3. Anxiety is at moderate level among female high school students.

With respect to anxiety scales, subjects should respond to 12 questions based on 5-point Likert scale including "strongly disagree" (1), "disagree" (1), "indifferent" (3), "agree" (4), "strongly agree" (5). Score range for this test is 0-105 and the higher the score, the higher the anxiety. Questionnaire instructions were followed in evaluation of scores obtained from questionnaires and users were classified into five levels: (1) normal (2) mild (3) moderate (4) severe (5) overwhelming as shown in Table 10.

Table10. Anxiety's scale scoring

Level	Score
Normal	0-33
Mild	34-42
Moderate	43-59
Severe	60-78
Overwhelming	79-105

Results obtained from anxiety scale in the form of frequency and percentage frequency (Table 11 and 13) and mean and SD (Table 12) showed that 10 percent of sample were at normal level, 11 percent were at mild level, 35 percent were at moderate level, 33 percent were at severe level and 11 percent were at overwhelming level and the most frequency was associated with “moderate” level (35 percent); in other words anxiety was at moderate level in female high school students.

Table11. Frequency and percentage frequency for anxiety scale

	Frequency	Total frequency	Percent
Normal		23	10.00
Grade 1	6		
Grade 2	5		
Grade 3	9		
Pre-university	3		
Mild		26	11.00
Grade 1	8		
Grade 2	8		
Grade 3	4		
Pre-university	6		
Moderate		82	35.00
Grade 1	13		
Grade 2	5		
Grade 3	9		
Pre-university	8		
Severe		78	33.00
Grade 1	26		
Grade 2	13		
Grade 3	21		
Pre-university	19		
Overwhelming		26	11.00
Grade 1	0		
Grade 2	14		
Grade 3	3		
Pre-university	9		
Total	235	235	100 percent

Table12. Mean and standard deviation related to anxiety scale

	Mean	SD	Anxiety level
Grade 1	52.13	12.49	Moderate
Grade 2	62.07	20.30	Severe
Grade 3	53.76	15.82	Moderate
Pre-university	60.31	17.44	Sever
Total	16.60	56.89	Moderate

Table13. Frequency of anxiety levels with respect to anxiety scale

	Frequency	Percent	Anxiety level
Normal	23	10.00	✓
Mild	26	11.00	
Moderate	82	35.00	
Severe	78	33.00	
overwhelming	26	11.00	
Total	235	100 percent	

5.3. DISCUSSION AND CONCLUSION

Results from data analysis showed that there was a positive significant relationship between internet addiction and anxiety in female high school students who used internet in schools of District 1 of Sanandaj city in school year 2012-2013; it meant that the more the internet use the more the anxiety felt by those students. Goldberg (1996) noted that after interruption in internet use for one week, signs of anxiety, obsession and restlessness were seen in the addict user. To explain these findings it can be said that internet and excessive use of it make the individual predisposed to obsession and imagination and develop a sense of power and authority in him/her; but this power and authority does not exist in real world and because of the same fact the individual is affected by anxiety and obsession when he/she encounters real world problems. Results of present study are consistent with those of Windham et al (2008) and Yen et al (2007).

Also results suggested that 51 percent of students were at-risk ones. In other words H2 (Internet addiction is at moderate level among female high school students) was confirmed. Overall, internet addiction may be defined as a type of internet use which can lead to psychological, social, academic and work problems in internet user. To explain these findings it can be said that since in today world internet is more in demand and students have replaced traditional games and entertainments with computer games and internet use, thus they are more likely to be affected by internet addiction. Indeed the more the time being spent on internet use, the

more the probability of internet dependence. This is contrary to findings of Rouhani and Tari (2011) and Tamannaei et al (2013) which found that more than 50 percent of internet users were normal ones.

Finally the results showed that 35 percent of students had “moderate” anxiety and this group was the most frequent one. Thus H3 (Anxiety is at moderate level among female high school students) was supported. To explain the findings it can be said that since subjects of present research were at risk of internet addiction, thus finding more anxiety among them is a reasonable outcome. This findings is consistent with that of Karimi et al (2005) in which students anxiety was 0.33.

With respect to results of present research, it is necessary to pay serious attention to new phenomenon of internet addiction which mostly affects young people. Psychological health practitioners and authorities should have adequate knowledge on psychological problems related to extreme internet dependence. Also findings of present research show the importance of preventive activities in the form of consultation plans and training courses on correct use of internet so that students become familiar with problems related to misuse of communication technologies including internet and parents are informed about necessity of paying more attention to correct use of internet by their children.

Thus following recommendations are provided:

- With respect to students’ internet addiction, it is recommended that special training and entertainment plans are developed so that their internet use is reduced.
- Families are recommended to exert more control and monitoring on internet use of students.
- Schools are recommended to have training courses on internet use for doing homework and school activities
- It is recommended that students who have internet addiction are appropriately treated by family and school so that they can come back to the normal life.

REFERENCES

1. An, S. (2000). A study on the addictive usage of the internet. Masters thesis: Yonsei University.
2. Azad, Hossein (1995). “psychological pathology” : Be’sat Publishing
3. CoaF, Su.L. (2007). Internet addiction along Chinese adolescents: Prevalence and Psychological features. Department of Psychiatry, the second Xiangtan Hospital, Central South University , no 139 Rennin Road Changsha, Hunan Province 410011, China.
4. Davis, R. A. (2001). A cognitive behavioral model of pathological internet use. *Journal of Computer in Human Behavior*, 17,pp 181- 195.
5. Ferris, R. J. (2003). Internet addiction disorder: causes, symptoms and consequences. <http://www.Chem.vt.edu/chem>.
6. Goldberg, Ivan. (1996). Quoted from Steven Levy," Breathing is also addictive", *Newsweek* 128 (27) (6 January 1997): 52.Available: <http://www.redplanetsw.com/personal/loiosh/iad.htm>.
7. Jee, H.H., Su Y.K., Soojoeong C.B., et al, (2007). Deoression and Internet Addiction in Adolescents. *Psy*. 40: 424-430.
8. Jin-Sook, Lim; Young-Kwon, Bae; Seong-Sik, Kim (2004), “A learning system for internet addiction prevention”, *Proceedings of the IEEE International Conference on Advanced Learning Technologies (ICALT’04)*, ,pp 1-2.
9. Kaplan Harold, Sadock Benjamin, (2003), “Concise Textbook of Clinical Psychiatry” (first, second and third volumes), translated by: Rafiei, Hassan; Rezaei, Farzin (2003), Tehran: Arjmand Publishing
10. Karimi, Roqayyeh, Taqavi Larijani, Trainee, Mehran, Abbas, Qaljaei, Fereshteh (2005), “Study of the relationship between anxiety among female students and type of parental control”, *Journal of Nursing and Midwifery Faculty, Tehran, Period* 11, No. 3-4, fall and winter, pp.83-88
11. Ko, C.H.,Yen, J.Y., Chen, S.C., et al. (2008). Psychiatric Comorbidity of Internet Addiction in College students: An Interview Study. *CNS Spectr*. 13:147-153.
12. Kratzer, S., Hegerl, U. (2007). Is internet Addiction s=a disorder of its Own? *Lehrestuhl psychologies, Universidad Augsburg*
13. Lee, K. (2001). Emerging consumer issues and remedies in changing consumer environment. BK 21 project Team Report: Seoul National University.
14. Orzack, M. (1999). Computer addiction services. <http://www.Computeraddiction.com>

15. Park, J. (2001). A study on effective variables of the addictive usage of internet by adolescents. Masters thesis: Sookmyung woman's university.
16. Roberts, L.D., Smith, L.M. & Pollak, C. (2005). A model of social interaction via computer-mediated communication in real text-based virtual environments, psychcentral.com/Netaddiction/
17. Rosenhan David, and Seligman Martin (2006), "Psychological pathology", translated by Yahia Seyyed Mohammadi, first volume, sixth edition, Tehran: Savalan
18. Rouhani, Fizzle, Tari, Saeideh, (2011), "study of the extent of internet addiction and its relationship with academic motivation and social growth of high school students of Mazandaran Province", Quarterly of Information and Communication in Education Science. Second year, No.2,
19. Song, W. (1999). Effects on self-efficacy and self-control on the addictive use of internet. Masters thesis: Yonsei University.
20. Tamannaefar, Mohammad Reza, Sediqi, Arfaei, Fariborz, Gandomi, Zeinab (2013), "Relationship between internet use and academic achievement among high school students of Kashan" Scientific Journal of Medical University of Qazvin, 17th year, No.2, July and August
21. Widyanto L, McMurrin M. The psychometric properties of the internet addiction test. *Cyberpsychol Behavior* 2004 Aug ;7(4):443-50.
22. Windham, R.C. (2008). The changing Landscape to Psychological adjustment and academic performance.
23. Yen, J.Y., Ko, C.H., Yen, C.F., et al, (2007). Ppsychiatric and internet addiction with internet addiction: competition with substance use. *PCN*. 62:9-16.
24. Young, K.S. (1996). Psychology of computer Use: a case that breaks the stereotype. *Psychology Reports*; 79: 899-902.
25. Young, K. S. (1998). Internet Addiction: The emergence of a new clinical disorder. *Cyber Psychology & Behavior*, 1(3), 237-244.
26. Young, K.S. (1998). Caught in the net: how to recognize the signs of internet addiction and a winning strategy for recovery. 1st Edition, John Wiley & Sons: New York, 1998.
27. Young, K. S. (1999). Internet addiction: symptoms, evaluation and treatment. Available on: www.google.com.
28. Yun, J. (1998). The relationship between internet addiction and mental depression, impulse, and sensitivity characteristics. Masters thesis: Korea University.