

Prediction of the general health of Internet user students based on the dependence on the Internet (Case Study: Tehran and Baku)

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Abstract

Purpose: Introduction: One of the most recent problems of the technology era is the use of extreme or addiction to the Internet, which has caused mental and social disorders, especially in young people. The present study aimed to investigate the degree of dependence, recognition of the relationship and the prediction of the mental health of Internet user students based on Dependence on the Internet **Method:** This research was a descriptive and correlational study. The population included students aged 14 to 18 years old in Baku and Tehran in 2015. The samples were selected by cluster sampling method. 250 students using the internet were selected from Baku and 250 students using the internet were selected from Tehran. To collect data, the Young's Internet Addiction Test (IAT) and Goldberg's General Health Questionnaire (GHQ) were used and data analysis was performed at two descriptive (mean, percentage, standard deviation) and inferential levels ((Regression and Pearson). **Findings:** According to the level of Internet dependency, 43.4% were mild and 24.8% moderate and 23.4% were severe addicts and internet addicts. The level of internet dependency is a positive and significant predictor of general health ($R^2 = 0.38$), Physical health ($R^2 = 0.32$) is anxiety ($R^2 = 0.43$) and depression ($R^2 = 0.39$), but between internet dependency and social function is not significant. **Conclusion:** The level of internet dependency predict mental health components (physical health, anxiety and depression) but is poor in explaining social functioning. There is a positive and significant relationship between the level of Internet dependency and physical health, anxiety and depression of Internet user students.

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1. Introduction

Today, Internet has become a vital tool for many people, which requires users to provide the information needed and given its multimedia features, it enables the user to use it easily. Despite this, and despite the many advantages and capabilities of the Internet, excessive and improper use of the Internet is followed by the risk of Internet addiction.

Internet not only has many applications in everyday life of human beings today, but also has special and unique features that make it so much more attractive. And communicating by computer and the Internet is a part of the reality of life.

The revolution in computer technology and communications through the Internet in today's culture has a big increasing role. Internet and computer technology has affected all people and all ages. Perhaps in today's world Internet and computer technology can be considered the most effective tools. Internet and computer technology has been effective in all of scientific, business, education, culture, politics areas (Verdi Nejad et al., 2010).

Numerous applications of the Internet, its charm and the expanding and increasing access to it creates a dependency on Internet for the users, so that in recent years a phenomenon known as Internet addiction or so-called behavioral dependence on the Internet has been raised. Dependence on the Internet, refers to the excessive use of Internet, so that it affects all other individual activities and leads to the loss of his performance in the occupational, educational, social, professional, family, economic and psychological areas to the extent that he is ignoring relationships with friends and family in the real world (Haghshenas, 2006).

Dependence on the Internet is defined with phrases such as disruption caused by overuse of the Internet or the internet irrational use of Internet. Sometimes this disease is called Internet or virtual dependency, which can lead to uncomfortable feelings, weaken and eventually destroy the daily functions of mental health. As some have theorized in this context and according to some of Clinical Psychiatry, profiles of Internet addicts may include people who have one or more of these characteristics: depression, bipolar disorder, sexual obsession and loneliness (Soler 1999).

Generally, this disorder can be "a sort of Internet use that could cause psychosocial and social problems, in one's studies or in jobs in one's life." and create a kind of behavior dependency on the Internet that it can be explained with features beneath:

1. Increasing costs for Internet and issues related to it.
2. Unpleasant emotions (such as anxiety, depression, etc.) when they are not in contact with the Internet
3. Ability to withstand the effects of the Internet
4. Denial of problematic behaviors

This view considers disorders as impulse control disorder or tension, and those who are at this sense will have Psychological, social and job problems (Kaplan, 2002).

Extreme use of the Internet results in Internet dependency and/or internet addiction and this causes negative psychosocial and social effects on users. Internet addiction disorder is mainly associated with depression, social phobia and anxiety, drug use, hyperactivity disorder and lack of attention, and specific personality variables such as hostility. (Kaess, 2014) (King, 2013). This disorder is a hypothetical mechanism that affects mental health due to the excessive use of the Internet and excessive time spent on web-based activities that result in neglecting the activities such as sleep, exercise, school attendance and absence, and online social activity (Petri, 2014) (Block, 2008).

Goldberg considers dependence on the Internet as one of the very harmful psychological damages that disrupt the normal functioning and mental health in different aspects. Some negative consequences of reliance on the Internet, according to Goldberg's findings include: Severe changes in lifestyle in order to spend more time on the network, reducing the overall lack of attention to personal health and physical activity as a result of the online entertainment, getting from major life activities, lack of sleep or changing sleep patterns to spend more time network,

socialize and thus the loss of friends, neglecting the family and disregard for professional and personal responsibilities (Goldberg, 1995).

Like all other types of dependence, dependence on the internet is also associated with symptoms such as anxiety, depression, irritability, restlessness, obsessive ideologies, solitude, emotional disturbance and fragmentation of social relations. On the other hand, while relations between people (especially children and teenagers increases in the virtual world, in contrast, the scope of their relations in the real world is reduced (Samson, 2005).

According to Goldberg it is very important to know the basic symptoms. The time spent on the computer or time spent thinking about the Internet or Internet-related activities, is a key sign. Goldberg considered four basic components as somatic symptoms, anxiety, social dysfunction and depression and believes people who have these symptoms are mildly affected by it; and they do not have mental health. Aspects of mental health according to Goldberg include:

1. Physical symptoms: including how people feel about their health and fatigue and somatic symptoms are involved, this subscale identifies Physical sensory perceptions often associated with emotional arousal.

2. Anxiety and insomnia: Including the factors that determines how much people suffer from anxiety and insomnia.

3. Social dysfunction: examines ability to perform everyday tasks, having decision-making powers, duties satisfaction, and perceived usefulness in everyday life and enjoy activities examined (Goldberg, 1996).

Kurt et al (1998) in an extensive longitudinal study of 93 families in eight districts have obtained findings that show, those who use the Internet more than others replace their stronger relationship in real life with social relations of with lower quality. As the results it is increasing the sense of loneliness and depression and endangering the mental and social health and general health of Internets users.

Experts, including (Young & Rogers, 1998) states that increased isolation with a reduction in real life socialization is linked with using the Internet. In addition, the use of the Internet has been associated with increase in depression and retreat from real life. Study of (Sanders, 2001) by examining the social effects of the Internet on young people showed that the higher Internet use is, the higher is the depression and social isolation of young people (Anderson, 2001). Anderson, 2001, states that a person may choose Internet as a way for running away from the real problems, getting rid of malaise, getting rid of feelings of helplessness, guilt, loneliness, anxiety or depression. In this case people spend hours and days on communication with network, and do not have the ability to interrupt the communication and do not show interest to leave computers, they sleep less do not eat, stop family and social relationships and finally real-life activities and social relationships fall apart (Mirzaeean et al. 2011).

In other studies, it was found that there is a negative relationship between Internet addiction and academic achievement (Stavropoulos et al., 2013) and academic efficacy (Oudaki, 2013). The results Sajadian and Nadi (2006), implies the existence of a positive relationship between depression and social isolation with the time commonly used on Internet by young users. In a study by Alavi et al (2009), which examines the relationship between psychiatric symptoms and dependence on the internet among students in Isfahan, the results indicate that there is a significant positive correlation between psychiatric disorders such as depression, anxiety, hypochondriasis, obsessive, interpersonal sensitivity, hostility, paranoia, phobias and psychosis with Internet dependence.

In a study by Ghaffari (2002) students who had used Internet in an excessive and pathological way, compared with students who did not have such experiences, showed greater pathology and mental health problems.

When people do not have optimal mental health this will affect their social adjustment and reduce their ability for adaptive performance, and thus the interaction with the environment,

social adjustment decreases. Such a person more engaged in their mental health -related issues (anxiety, depression, etc.) (Mouse, Hanyts, 1987 Quoted by Ranjbar, 2011).

Neglect of mental health and personality of students the short-term and long-term has negative effects on social and economic spheres of human including an increase in suicide, drug addiction, depression and even negative effects on economic indicators (such as income per capital) (Mirzaeean et al., 2011).

Since Iran in terms of population is of the youngest countries in the world, thus expanding use of the Internet and the increasing number of users among adolescents and concern about dependence on Internet and its psychological adverse effects and negative consequences on general health and quality of life, makes it very important and necessary to deal with general health problems and to identify factors affecting the mental and social health promotion in the community especially for adolescents and young people in high school, because young people are a country's most important pillars of development.

By reviewing studies in the field of dependence on the Internet and its impact on mental health of users it can be realized that the relationship between clinical variables dependence on the Internet has not been precisely defined, and it is possible that a person's psychological problems are prone to getting Internet dependence or prone to disorder caused by dependence on the Internet.

The aims of the study are:

- Determination of dependence on the internet among high school students Internet users (Tehran and Baku)
- Predicts the general health of Internet user high school students based on dependency on the Internet (Tehran and Baku)
- Understanding the relationship between internet dependence and mental disorder (anxiety, depression, social functioning and physical health) among Internet users students in Tehran, Baku

this study, aims to identify and explain one aspect of this issue that is measurement of Internet dependence among adolescents and the ability to predict component of general health (physical health , depression, anxiety and social dysfunction) by variable of dependence on the Internet at various levels (mild, moderate and severe).

2. Research Hypotheses

Hypothesis 1: The amount of the internet addiction is different among students who are Internet users in Tehran and Baku.

Hypothesis 2: There is a significant relationship between the reliance on the Internet and components of general health (physical health, depression, anxiety and social dysfunction).

Hypothesis 3: The amount of Dependency on the Internet is predictor of general health in student Internet users (Tehran and Baku).

Hypothesis 4: The amount of the dependence on the Internet is a predictor of physical health of students who are Internet users (Tehran and Baku)

Hypothesis 5: The amount of the dependence on the Internet is a predictor of depression of students who are Internet users (Tehran and Baku)

Hypothesis 6: The amount of the dependence on the Internet is a predictor of anxiety disorder of students who are Internet users (Tehran and Baku)

Hypothesis 7: The amount of the dependence on the Internet is a predictor of social dysfunction of students who are Internet users (Tehran and Baku).

Research methods and tools

In this study, documentary method (using library documents to review the theoretical bases) and field method (using questionnaire to collect the data related to descriptive goals and to analyze the data) were used. The research is descriptive and correlational one.

The population of this study included the male and female internet-user students aged 14 to 18 in Tehran and Baku in 2015. The sample size on the basis of estimated prevalence ($n = z^2 pq/d^2$) was 348, to eliminate the impact of missing code sample size has been increased to 500 and selected schools in terms of economic and social levels in the two countries are very similar. Cluster sampling was performed on the students who were Internet users, 250 patients (50%) in Tehran and 250 (50%) in Baku. Clusters were selected from 5 geographic regions in the Tehran and 4 geographical areas in the Baku (it was tried that selective areas in the Tehran and Baku are almost identical in terms of economic and social level). And from the list of secondary schools for girls and boys, from each region two high school and three classes from each school, were randomly selected. And students who were Internet users in any way connected to the Internet over the past 9 months were enrolled.

Questionnaires were distributed and the data were collected

Young's Internet Addiction Test (IAT):

Young's Internet Addiction Test was used to specify the dependence on internet. It consists of 20 questions and it was designed based on *Likert* scale and its score range is between zero and 100. According to this test, internet addiction is classified into three levels: low addiction with the score from 20 to 49; moderate addiction with the score from 50 to 79; and high addiction with the score from 80 to 100. Young's Internet Addiction Test is one of the prestigious questionnaires that has been developed in 1996 by Young. It has high validity and reliability. Its validity is equal to 0.85 and its reliability is equal to 0.92 according to Cronbach's Alpha. Both of them estimated by Young. (Young, 1997) In this study it was calculated reliability this questionnaire equal to 0.84 using Cronbach's Alpha.

Goldenberg's General Health Test (GHQ):

This test has been prepared by Goldberg and Hiller (1972). Then, Goldenberg's General Health Questionnaire was used. According to it, 4 behavioral variables including anxiety, depression, physical health and social function are examined. Each scale is a 7 question. The answer is awarded a score of zero to three.

General Health questionnaire has been used by different researchers and on the other hand, a number of studies have been done on its validity, especially its structure validity. Also, on its criterion validity have reported that the correlation between the data of questionnaire on 244 subjects was equal to 0.78 (Quoted by Chavoshzadeh, 2009).

In another study by Goldenberg and Hiller, the correlation coefficient of the scores of the variables forming the general health questionnaire was reported 0.61. And Cheung and Spears (1994) have obtained the reliability of General Health questionnaire equal to 0.55 for two Cambodians groups living in New Zealand using retest method (test-retest) with an interval of 2 to 4 weeks.

In Iran, in different studies, the reliability of general health questionnaire was estimated, for example, Yazdanpanah (2008), in his study entitled "the impact of the economic, social and

educational factors of family on general health of children” on 542 persons, reported the internal consistency coefficient of this questionnaire equal to 0.84 using Cronbach’s Alpha. (Quoted by Chavoshzadeh, 2009). In this study it was calculated reliability this questionnaire equal to 0.86 using Cronbach’s Alpha.

Data analysis method:

Data were analyzed using descriptive and inferential statistical methods. In the section describing the data, descriptive statistics (mean, frequency and percentage) and inferential statistics to test hypotheses methods including regression and Pearson correlation test was used.

3. Findings

Table1. Demographic characteristics in Tehran and Baku

| Demographic features | Tehran | | Baku | | Total | | |
|----------------------|--------------|---------|---------|---------|---------|---------|------|
| | Numbers | Percent | Numbers | Percent | Numbers | Percent | |
| Gender | Male | 109 | 43/6 | 113 | 45/2 | 222 | 44/4 |
| | Female | 141 | 56/4 | 137 | 54/8 | 278 | 55/6 |
| Age | 14 years | 19 | 7/6 | 18 | 7/2 | 37 | 7/4 |
| | 15 years | 26 | 10/4 | 25 | 10 | 51 | 10/2 |
| | 16 years | 54 | 21/6 | 57 | 22/8 | 111 | 22/2 |
| | 17 years | 67 | 26/8 | 65 | 26/0 | 132 | 26/4 |
| | 18 years | 84 | 33/6 | 85 | 34/0 | 169 | 33/8 |
| Grade | First grade | 45 | 18 | 43 | 17/2 | 88 | 17/6 |
| | Second grade | 54 | 21/6 | 57 | 22/8 | 111 | 22/2 |
| | Third grade | 67 | 26/8 | 65 | 26/0 | 132 | 26/4 |
| | Fourth grade | 84 | 33/6 | 85 | 34/0 | 169 | 33/8 |

The research sample group in terms of gender variable; 278 patients (55/6) were female and 222 (44/4) were male. Also according to age, the number of 14 years students (n=37, 7/4), 15 years (n=51, 10/2), 16 years (n = 111, 22/2), 17 years (n = 132, 26/4) and 18 years (n=169 , 33/8), in terms of grade, 88 (17.6%) of the sample were in the first grade and 111 (22/2) were studying in second grade. 132 patients (26/4) in the third grade and 169 patients (33/8) were enrolled in the fourth grade.

Table 2. Dependence on the Internet

| dependence on the Internet | Tehran | | Baku | | Total | |
|----------------------------|---------|---------|---------|---------|---------|---------|
| | Numbers | Percent | Numbers | Percent | Numbers | Percent |
| Slight | 115 | 46 | 102 | 40/8 | 217 | 43/4 |
| Average | 67 | 26/8 | 57 | 22/8 | 124 | 24/8 |
| Severe | 45 | 18 | 72 | 28/8 | 117 | 23/4 |
| Unanswered | 23 | 9/2 | 19 | 7/6 | 42 | 8/4 |
| Total | 250 | 100 | 250 | 100 | 500 | 100 |

In terms of Internet dependence the highest concentration is 217 people it means that 43/3 of Internet users score between 20 and 49 on the dependence on the internet test of Young which according to ranking of the Internet addiction test of Young they have a low level of dependency on Internet. 124 of the respondents received scores between score 50 to 79 it means 24/8 of the users according to ranking of the Internet addiction test of Young they have an average level of dependency on Internet. And 177 of the respondents received scores between score 80 to 100 it means 23/4 of the users according to ranking of the Internet addiction test of Young they have a severe level of dependency on Internet and are addicted to the Internet.

Hypothesis 1: The internet addiction is different among students who are Internet users in Tehran and Baku.

Table 3. Descriptive statistics of Average Internet addiction in Tehran and Baku

| | Location | Number | Average | Standard deviation |
|------------------------------|----------|--------|---------|--------------------|
| Amount of Internet addiction | Tehran | 250 | 41/4404 | 13/40220 |
| | Baku | 250 | 48/7532 | 16/36922 |

Table 4. Average differences in Tehran and Baku Internet addiction.

| | Levene's test for equality of variances | | T test for equality of means | | | | | |
|----------------------------------|---|--------------------|------------------------------|-------------------|--------------------|---------------------|-------------------------|----------|
| | F statistics | Significance level | T statistics | Degree of freedom | Significance level | The mean difference | Confidence interval 95% | |
| | | | | | | | Maximum | Minimum |
| Assuming equal variances | .247 | .620 | -3/342 | 184 | .001 | -7/31288 | -11/63049 | -2/99527 |
| Without assuming equal variances | | | -3/229 | 142/530 | .002 | -7/31288 | -11/78914 | -2/83622 |

As Table 4 shows the results of score of Internet addiction test, the average for Tehran is (41/4404) and the average for Baku is (48/7532) and the total of addiction is low in both groups and the mean for Baku is higher than Tehran.

According to the output of table, significant level is 0/001 and less than 0/05 thus null hypothesis is rejected and the assumption that (the amount of the internet addiction is different among students who are Internet users in Tehran and Baku) is approved. The lower and upper limits of the confidence interval of 95% is negative, which indicates the difference between two sample is less than zero and the average of the first (Tehran) is smaller than the second population mean (Baku).

Hypothesis 2: There is a significant relationship between the reliance on the Internet and components of general health (physical health, depression, anxiety and social dysfunction).

Table 5. Pearson correlation coefficient to determine the relationship between internet dependence and mental health component

| | | Physical health | Anxiety | Depression | Social function |
|----------------------------|----------------------------|-----------------|---------|------------|-----------------|
| Dependence on the Internet | Pearson correlation | ./280* | ./306* | ./373* | ./064* |
| | Significance level | ./001 | ./001 | ./001 | ./401 |
| | Amount | 500 | 500 | 500 | 500 |

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

Table 6 results of Pearson correlation coefficient test to determine the relationship between internet dependence and general health parameters indicate that between Internet dependence and physical health of students who are Internet users, the significant level is (0.00 = sig) and the correlation between two variables is ./280 and the correlation coefficient between internet dependence and anxiety of Internet users is ./306. The correlation between internet dependence and depression of Internet user students is 0/373. So the relationship between internet dependence, physical health, anxiety and depression in students who are Internet users, so the assumption of dependence on the Internet and the three components mentioned is confirmed.

The test results show the relationship between students' dependence on the Internet and the social function of Internet users is at significance level equal to 0/401 and higher than 0/05, thus, the results showed no significant correlation between the two variables.

Hypothesis 3: The amount of Dependency on the Internet is predictor of general health in student Internet users (Tehran and Baku)

Table 6. Results of stepwise regression analysis to predict general health based on variables of dependency on the internet

| The criterion variable | T predictive variable | The standard beta | Fixed amount | R2 | Amount of t | Sig |
|------------------------|--------------------------------|-------------------|--------------|-----|-------------|-------|
| General Health | mild dependence on Internet | .42 | | | 3/54 | 0/002 |
| | average dependence on Internet | -.49 | 37/12 | .38 | -4/26 | 0/002 |
| | Severe dependence on Internet | -.32 | | | -4/76 | 0/002 |

Stepwise regression analysis to predict general health based on dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on public health. Beta value (positive or negative beta indicates a relationship and positive, indicate a direct relationship (Increased increase. Reduction Reduction) and negative indicate an indirect relationship (increase - decrease- decrease - increase), for all three levels of dependence on the Internet mild (0/42), medium (-0/49) and severe (-0/32) is significant at 0/002. And R2 value is equal to 0/38. It Show that dependence on the Internet predict 0/38 of variance of general health of students Tehran and Baku. So the hypothesis is confirmed.

Hypothesis 4: The amount of the dependence on the Internet is a predictor of physical health of students who are Internet users (Tehran and Baku)

Table 7: Results of stepwise regression analysis to predict physical health based on variables of dependency on the internet

| The criterion variable | T predictive variable | The standard beta | Fixed amount | R2 | Amount of t | Sig |
|------------------------|--------------------------------|-------------------|--------------|-----|-------------|--------|
| Physical Health | mild dependence on Internet | .39 | | | 2/12 | -0/001 |
| | average dependence on Internet | -.42 | 41/02 | .32 | -3/43 | -0/001 |
| | Severe dependence on Internet | -.47 | | | -3/04 | -0/001 |

Stepwise regression analysis to predict physical health based dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on physical health. Beta value for all three levels of dependence on

the Internet mild (0/39), medium (-0/42) and severe (-0/47) is significant at 0/001. And R2 value is equal to 0/32. It Show that dependence on the Internet predict 0/32 of variance of physical health of students Tehran and Baku. So the hypothesis is confirmed.

Hypothesis 5: The amount of the dependence on the Internet is a predictor of depression of students who are Internet users (Tehran and Baku).

Table 8. Results of stepwise regression analysis for Depressive Disorders based on variables of dependency on the internet

| The criterion variable | T predictive variable | The standard betz | Fixed amount | R2 | Amount of t | Sig |
|------------------------|--------------------------------|-------------------|--------------|-----|-------------|-------|
| Depressive Disorders | mild dependence on Internet | -.33 | | | -2/24 | 0/001 |
| | average dependence on Internet | .27 | 51/42 | .39 | 1/34 | 0/001 |
| | Severe dependence on Internet | .29 | | | 2/78 | 0/001 |

Stepwise regression analysis to predict Depressive Disorders based on dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on Depressive Disorders. Beta value for all three levels of dependence on the Internet mild (-0/33), medium (0/27) and severe (0/29) is significant at 0/000. And R2 value is equal to 0/38. It Show that dependence on the Internet predict 0/39 of variance of Depressive Disorders of students Tehran and Baku. So the hypothesis is confirmed.

Hypothesis 6: The amount of the dependence on the Internet is a predictor of anxiety disorder of students who are Internet users (Tehran and Baku)

Table 9. Results of stepwise regression analysis for Anxiety Disorders based on variables of dependency on the internet

| The criterion variable | T predictive variable | The standard betz | Fixed amount | R2 | Amount of t | Sig |
|------------------------|--------------------------------|-------------------|--------------|-----|-------------|-------|
| Anxiety Disorders | mild dependence on Internet | -.21 | | | -2/80 | 0/001 |
| | average dependence on Internet | .33 | 34/23 | .43 | 1/56 | 0/001 |
| | Severe dependence on Internet | .38 | | | 2/43 | 0/001 |

Stepwise regression analysis to predict Anxiety Disorders based on dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on Anxiety Disorders. Beta value for all three levels of dependence on the Internet mild (-0/21), medium (0/33) and severe (0/38) is significant at 0/001. And R2 value is equal to 0/43. It Show that dependence on the Internet predict 0/43 of variance of Anxiety Disorders of students Tehran and Baku. So the hypothesis is confirmed.

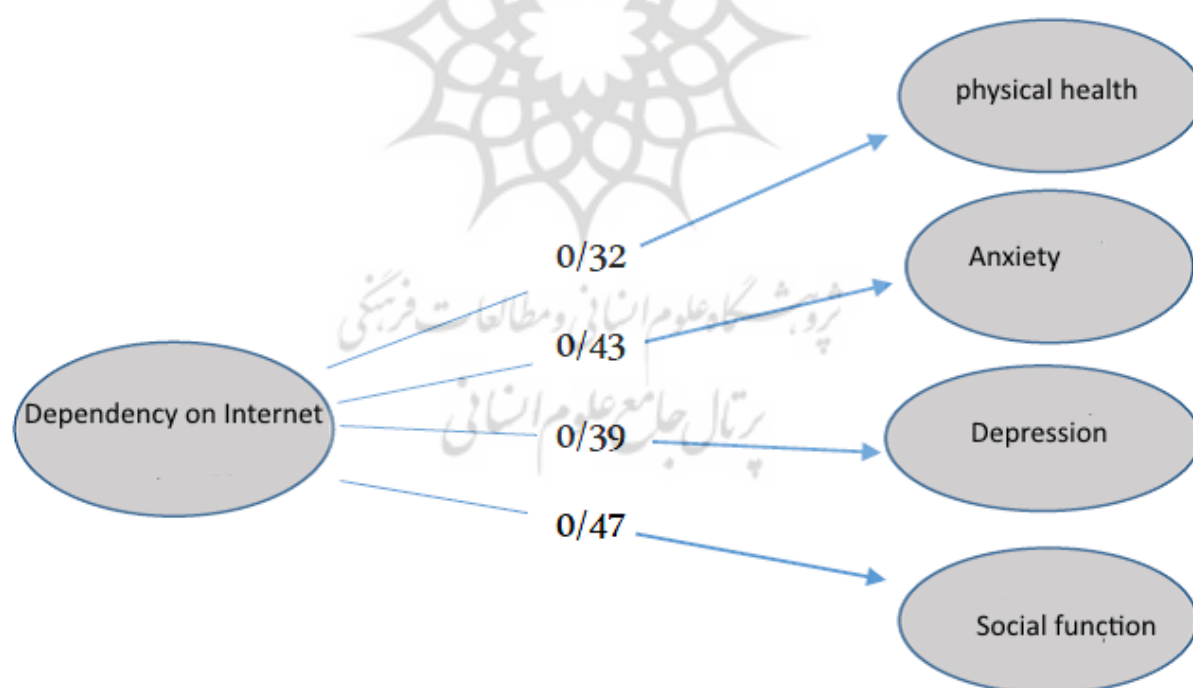
Hypothesis 7: The amount of the dependence on the Internet is a predictor of social dysfunction of students who are Internet users (Tehran and Baku).

Table 10. Results of stepwise regression analysis for Social function based on variables of dependency on the internet

| The criterion variable | T predictive variable | The standard beta | Fixed amount | R2 | Amount of t | Sig |
|------------------------|--------------------------------|-------------------|--------------|------|-------------|------|
| Social function | mild dependence on Internet | ./34 | | | 3/02 | 0/04 |
| | average dependence on Internet | -./45 | 36/02 | ./47 | -3/67 | 0/04 |
| | Severe dependence on Internet | -./41 | | | -4/15 | 0/04 |

Stepwise regression analysis to predict Social function based on dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on Social function. Beta value for all three levels of dependence on the Internet mild (0/34), medium (-0/45) and severe (-0/41). And R2 value is equal to 0/47 and is significant at 0/04. It Show that dependence on the Internet at all three levels predict 0/47 of variance of Social function of students Tehran and Baku, thus, since the significance level is 0/04, the result suggests that dependence on the Internet at all three levels (mild-moderate and severe) has a very poor impact on explaining social functioning of users so the hypothesis is not confirmed.

Figure 1. The model for prediction of general health according to the dependence on the Internet



As regression analysis for predicting general health and its components show R2 value is equal to 0.38 this states that dependence on the Internet predicts 0.38 of general health variance of students. And 0/62 of the dependent variable is related to residual variance that has emerged due to exogenous variables and unknown factors, in order to make dependence on the internet milder and increase general health of students. By increasing dependence on the Internet the intermediate level of general health comes down .

R² for predicting the Physical health of the general health parameters based on the independent variable of dependency on Internet is equal to 0.32. This means that Internet dependence predicts 0/32 of general health variance of student, in order to make dependence on the internet milder and increase physical health (general health component) of students. By increasing dependence on the Internet the intermediate level of physical health comes down.

As regression analysis for predicting anxiety disorders based on dependence on the Internet show R² value is equal to 0.43 this states that dependence on the Internet predicts 0.43 of anxiety disorders variance of students of High schools in Tehran. So the lesser the dependence on the Internet is the lesser the anxiety disorders and the higher the dependence on the Internet is the higher the anxiety disorders.

As regression analysis for predicting Depressive disorders based on dependence on the Internet show R² value is equal to 0.38 this states that dependence on the Internet predicts 0.39 of Depressive disorders variance of students of High schools in Tehran. By increasing dependence on the Internet the Depressive disorders are increased.

As regression analysis for predicting social function based on dependence on the Internet show R² value is equal to 0.47. At a significance level of 0.04, indicating dependence on the internet has a weak role in predicting and explaining social functioning.

4. Discussion and conclusion

The present study is conducted with the goal to examine the role of dependency on the Internet dependency of the general health of students who are Internet users in Tehran and Baku

The results show that in terms of Internet dependence the highest concentration is 217 people it means that 43/4 of Internet users score between 20 and 49 on the dependence on the internet test of Young which according to ranking of the Internet addiction test of Young they have a low level of dependency on Internet. 124 of the respondents received scores between score 50 to 79 it means 24/8 of the users according to ranking of the Internet addiction test of Young they have an average level of dependency on Internet. And 117 of the respondents received scores between score 80 to 100 it means 23/4 of the users according to ranking of the Internet addiction test of Young they have a severe level of dependency on Internet and are addicted to the Internet. Descriptive statistics showed that the average Internet addiction in Tehran (41/44) and in Baku (48/75) and the total average of addiction are low in both groups and close together. The average is higher in Baku than Tehran.

The second hypothesis tests based on the relationship between the reliance on the Internet and components of general health (physical health , depression, anxiety and social dysfunction) shows the correlation between Internet addiction and physical health is .280 and the correlation between Internet addiction and anxiety is equal to (.306) at a significance level of 0.000, and the relationship between internet addiction and anxiety is equal to (.306) at a significance level of 0.000 Therefore, illustrating a significant relationship between these three variables and dependence on Internet which is consistent with research of Goldberg (1996), Samson (2005) and Alavi et al (2009) stating that Internet addiction causes physical disorders, anxiety, and the depressive disorders.

Results of Pearson test for second hypothesis about the relationship between internet addiction and social function due to the significant level of .401 and correlation of .064, so there is not a significant relation between these two variables.

Regression analysis of third hypothesis to predict general health based on dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on public health. And R² value is equal to 0/38. It Show that dependence on the Internet predict 0/38 of variance of general health of students Tehran and Baku. So the hypothesis is confirmed.

Regression analysis of Fourth hypothesis to predict physical health based dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on physical health. And R^2 value is equal to 0/32. It Show that dependence on the Internet predict 0/32 of variance of physical health of students Tehran and Baku. So the hypothesis is confirmed.

As the results of Sez (2003) stating that physical inactivity and obesity, with symptoms such as back pain, backside and muscles, are other consequences of Internet addiction and research findings of Goldberg (1996) of intense transformation in lifestyle in order to spend more time in networking, overall decline in physical activity, inattention to personal health and as a result attention to the online entertainment and lack of sleep or changing sleep patterns to spend more time on the network affecting the physical health of people, explain the impact of Internet addiction associated with impaired physical health .

Regression analysis of Fifth hypothesis to predict Depressive Disorders based on dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on Depressive Disorders. And R^2 value is equal to 0/39. It Show that dependence on the Internet predict 0/39 of variance of Depressive Disorders of students Tehran and Baku. So the hypothesis is confirmed. As the research results of Young and Rogers (1998), Soler (1999) and Sanders (2001), Kurt et al (1998) explain the relevance and impact of excessive use of the Internet on loneliness and depression. This means that the more you use the Internet the more you get social isolation and depression.

Regression analysis of sixth hypothesis to predict Anxiety Disorders based on dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) plays a role in explaining the impact on Anxiety Disorders. And R^2 value is equal to 0/43. It Show that dependence on the Internet predict 0/43 of variance of Anxiety Disorders of students Tehran and Baku. So the hypothesis is confirmed. The results are consistent with results obtained from studies conducted by Young (1997), Goldberg (1996) and Alavi et al (2009) explain the impact and relation of dependence on Internet with the prevalence of anxiety disorders in people addicted to the Internet.

Regression analysis of seventh hypothesis to predict Social function based on dependency on the Internet suggest that dependence on the Internet at all three levels (mild-moderate and severe) does not play a strong role in explaining the impact on Social function. And R^2 value is equal to 0/47 and is significant at 0/04. So dependence on the Internet at all three levels (mild-moderate and severe) has a very poor impact on explaining social functioning of users. Although our results are inconsistent with research results of Mirzaeean et al. (2011) and Mouse, Hanyts, (1987) quoted by Ranjbar, (2011) and Sajadian et al (2006) and Internet addiction has been weakening the social function.

As Pearson's test results indicate a significant relationship between internet dependence and components of general health (Physical health, depression and anxiety) and the results showed no significant relationship between internet dependence and social functioning it can be said that results of the regression analysis also confirms this and therefor dependence on the Internet does not have an impact in explaining and predicting social function.

Due to the increasing number of Internet users, especially among teenagers and young people, dependency on the internet can endanger the general health of users. The more time people devote to Internet, the more they reduce family and social relations.

Impatience, aggressiveness and being headstrong are other cases that cause coldness of Internet user with family and leads to isolation. Therefore, understanding the problem of the adolescents by parents and schools is necessary. The next step is to solve and control the problem.

Many families are not aware of their children's activities on the Internet or are not aware of its negative consequences. Therefore, increasing the awareness of parents and familiarizing them

with the negative consequences resulting from improper use of the Internet will lead to careful supervision and control of parents for their children's activities. Increasing awareness among school principals and university presidents to deal properly with adolescents and young people and attract them, such as skills training classes for particular groups of at-risk students to enhance their problem solving. Deal with stress, effective communication, logical thinking and doing educational, scientific, religious, recreational activities, different sport, scientific, religious, recreational competitions is of great importance. So that they can be able to use healthy coping strategies in the face of resistance problems and more efficient ways to replace their previous methods (overuse of the Internet).

Research limitations

- The students filled out the questionnaires cautiously.
- Since the researcher is considered with a foreign nationality, licensing to attend and refer schools to complete the questionnaire was associated with a long process and limitations.
- Since the present study was the first comparative study conducted between Iran and Azerbaijan, the limited access to the references and information of educational centers was evident.

Suggestion for future studies

Considering the increasing number of Internet users, it is recommended to study this topic in terms of different dimensions of personality and to place development of preventive and therapeutic models on the research priorities at the educational and academic centers.

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