

# Investigation of the Relationship between the Internet and Mobile Usage with Students' Psychological Trauma

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## Abstract

**Aim:** The purpose of this study was to investigate internet addiction, mobile phone usage, and SMS to determine psychological trauma. **Method:** In this study, 179 students (82 boys and 97 girls) were randomly selected and were asked to answer Internet Addiction, Mobile, SMS and SCL-25 Questionnaires (Short Form SCL-90). To investigate the relationship between these variables, in addition to frequency statistics, Kendall's tau-b and Pearson correlation coefficients were used. **Findings:** There was a significant relationship ( $r = 0.394$ ) between the two variables of internet addiction and psychological trauma at the 0.001 level. Also, a significant relationship was not found between the mobile phone and psychological trauma. **Results:** There is a positive relationship between internet addiction and psychological trauma, and with increasing internet addiction, psychological trauma also increases.

**Keywords:** Mobile, Psychological Trauma, Student, Internet

## INTRODUCTION

Internet Addiction Disorder is a term first used by Goldberg (1996) for obsessive and pathological overuse of the Internet. The first study on Internet addiction was presented at the 114th General Assembly of the American Psychological Association. Although Internet addiction first appeared in 1996, the scientific community was already familiar with concepts such as addiction to technology, addiction, and computer game<sup>[1]</sup>. The idea of using a computer may become a forced habit, or even an addictive, irreversible behavior, since the 1970s. There is a great deal of disagreement about pathological definitions of Internet behavior. Many terms have been used, including abuse, addiction, and compulsive use of the Internet. How to use these terms is very important. For example, important neurochemical changes that occur during any enjoyable action have proven to have addictive potential at the level of brain-behavior. Given their potential impact on people's lives that can be more about addictive behavior, the net effect of all of them is ultimately the same. However, Internet addiction disorder is more commonly used than other terms<sup>[2]</sup>.

Internet addiction is also called "modern addiction". Internet addiction turns people into abandoned people and affects their social relationships. Orzak<sup>[3]</sup> regards Internet addiction as a psychological problem with two categories of symptoms: 1- Psychological Symptoms 2- Physical Symptoms. The American Psychological Association (A.P.A) has proposed the following criteria for diagnosing internet addiction. For a pattern of use that disrupts intrinsic performance or unpleasant state over twelve months, the

individual must meet at least three of the following seven criteria:

1. Symptoms of tolerance can be seen in one of the following ways:
  - Need to increase working hours with the internet to maintain satisfaction
  - Significant decrease in effect, despite continued use over some time
2. Symptoms of quit that appear in two or more of the following symptoms and occur within a few days or one month after disconnection from the Internet:
  - Mental and physical restlessness
  - Anxiety
  - Obsessive thoughts about internet content
  - Dreaming about the Internet
  - Involuntary movements of the fingers for typing

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3. The time to use the Internet is longer than the person originally intended.
4. Persistent tendency or failure to control behavior.
5. Spending a lot of time on the internet (buying books, trying to get new addresses, etc.)
6. Decrease in social, occupational and recreational activity due to Internet use.
7. Continued use of the Internet, despite awareness of its negative effects <sup>[4]</sup>.

Over 25 years of mobile communication, the number of mobile users has surpassed the total number of landline users (over 120 years), indicating a rapid growth of mobile communications in recent years. In Iran, the first mobile phone network was launched using 176 transmitters and receivers in 24 radio stations in Tehran in August 1994. Currently, in Iran, almost 25 billion riyals are paid per day for mobile phone usage and large investments have been made <sup>[5]</sup>.

The expansion of urbanization and the problems of urban life have more explained the necessity of comprehensive attention to the mobile phone with its beneficial effects on the optimization of urban life. The mobile technology with highly flexible can be a useful tool in modern life. It can help with urban management in conducting censuses, surveys, etc.

During the communication, the mobile phone develops the idea of a two-way conversation and, depending on the topic of the conversation; it will lead to new ways of solving the problem or enhancing the tendency for intimate interpersonal cooperation. The mobile has converged to meet its media goals for easier and better access, because gathering and centralizing the features have made it powerful, attractive and efficient, and has become a powerful personal computer that has every application except the conversation. The mobile has adapted to the postmodern era and its features, now, if someone does not have a mobile phone, they are out of the community, their dreams are destroyed, and if their phone rings several times a day, they will feel alone.

Many people spend a lot of time waiting for vehicles, traffic, and so on and with the use of mobile devices, from digital voice storage, the on-the-go study can be directed to education through listening. It is this two-way interaction that drives people to use mobile phones because it interacts with others by receiving appropriate and timely feedback. Some call it mobile impact "hidden education". Mobile media can be described as simple-to-operate communication media, small and portable, high-speed, support for a variety of software and multimedia, multipurpose use, ease of access, the versatility of performance, and as "Third Eye". No one knows that using a mobile phone will reduce or even add to their problems. It is this lack of transparency that has led to no coherent idea of mobile, however, despite their positive effects, they have created many problems for human society.

## METHOD

### Statistical Society:

This study is descriptive and cross-sectional. The participants of the present study were bachelor and master's degree students in the second semester of 2008-09 from different faculties of Shiraz University who were randomly selected to different university environments (dormitories, self-service, classrooms, libraries, and ...). Overall, 200 students responded to the questionnaires, and after completing and evaluating them, the final number of questionnaires reached 179, comprising 97 females and 82 males, ranging in age from 18-30 with a mean of 22.39.

### Research Tools:

The data collection tool has two parts. The first part consisted of demographic information including age, gender, and education, and the second part consisted of 3 questionnaires: First: Yong's "internet addiction" questionnaire was used to measure internet addiction. The scale had 35 questions, each of which was a Likert scale (very low, low, no idea, high, very high). In its scoring, the lowest score (1) and the highest score (5) was assigned to very low and high response, respectively. The scores of this questionnaire were classified into four groups, with scores ranging from 35-60 internet dependency, 61-86 for internet addiction, 87-112 mild internet dependency, and scores above 113 have internet dependency. Second: Questionnaire "SCL-25 (short form SCL-90 Scale)" is used to measure general psychological trauma of the sample group that was designed and validated by Bahman Najarian and Iran Davoodi (Najarian, Bahman & Davoodi, Iran: 2001). This scale has 25 questions and 4 options (very low, low, high and very high) were used to answer it, the score (1) was very low and the score (4) was very high. This scale measures the 9 dimensions of an independent sign: Somatization (SOM, 6 items); obsessive-compulsive (OC, 3 items); interpersonal sensitivity (INT, 3 items); depression (DEP, 2 items); anxiety (ANX, 3 items); phobia (PHOB, 3 items); paranoid (PAR, 1 item); discretionary psychology (PSY, 3 items) and additive material (ADI) are categorized. The scores from this questionnaire were classified into 4 categories, with scores ranging from 25-43 without psychological trauma, scores between 44-62 with psychosocial vulnerability, scores between 63-81 with mild psychological trauma, and scores above 82 with mental disorders were affected.

Third: the "SMS Questionnaire" was designed to measure the frequency of mobile phone use, attitude toward it, SMS usage, SMS content and frequency of Bluetooth use. The 14-item questionnaire was developed by the researcher. The reliability and validity of this questionnaire were determined by the test-retest method and Cronbach's alpha coefficient.

After 3 weeks, the same respondents again responded to this questionnaire to check the consistency of the responses and

the coefficients of the test-retest method were obtained as follows:

**Table 1: Test-retest results of SMS Questionnaire**

	N	Min	Max	Mean	Std
SMS test scores	32	20	37	29.68	3.89
SMS retest scores	32	22	37	30.06	3.32

Its Cronbach's alpha score was 0.1310. Finally, all data were analyzed by SPSS software.

### Statistical Methods

Due to the survey nature of this study, before entering the main discussions, descriptive statistics including data frequency index, mean data obtained were analyzed and categorized. Then, using inferential statistics such as correlation coefficients for the variables' relationship assessment, the research questions were discussed, which are the following methods:

We also answered the third and fourth research questions using Pearson correlation coefficient:

Question 1: "Is Internet use correlated with the extent of their psychological trauma?"

Question 2: "Is mobile phone and SMS use correlated with the extent of psychological trauma?"

## RESULTS

Overall, 179 people aged 18-30 participated in this study, as shown in Table 2.

**Table 2: Statistical Indicators of Demographic Characteristics**

	Female	Male	Total
Bachelor's degree	96	36	132
Master's degree	1	46	47
Total	97	82	179

- There are four sections in the mobile field:
  - A. Frequency of using mobile SMS
  - B. Determine the frequency of SMS content
  - C. Students' attitudes toward the impact of SMS on their lives.
  - D. Frequency of using Bluetooth mobile phones

### A. Frequency of using mobile SMS:

The frequency of response to the question "How many SMS do you receive/send on average per day?" presented in Table 3.

**Table 3: Statistical frequency index of the number of SMS used per day by gender**

	Male	Female	Total
Less than 10 SMS	56	74	130
Between 10-20 SMS	12	12	24
Between 20-30 SMS	3	2	5
More than 30 SMS	9	9	18
Missed data	3	-	2
Total	82	97	179

As can be seen, most students receive/send less than 10 SMS. Also, both sexes receive/send more than 30 SMS per day.

### B. Frequency determination of SMS content:

To find out the type of SMS that this sample group was sending/receiving, we classified the types of SMS content into 5 groups, the results being as described in Table 4.

**Table 4: Frequency of content of SMS by gender**

	Male	Female	Total
Ordinary joke	31	38	69
Office and Career joke	8	5	13
Sex joke	5	3	8
Messengers	20	33	53
Other	17	18	35
Missed data	1	-	1
Total	82	97	179

As can be seen, the ordinary joke and the messengers contain the most SMS content. Also, sex joke has the least content.

### C. Students' attitude toward the impact of SMS on their lives:

To evaluate students' perceptions of the impact of SMS on their lives, we measured this item in four contexts, the question options with answers are shown in Table 5.

**Table 5: Students' perceptions of the impact of SMS on their lives**

	Male	Female	Total
It has a positive and positive effect on my life and makes me better.	17	11	28
It has little or no impact on my life and does not improve my life.	31	26	57
I think it has nothing to do with my life.	29	60	89
It has a negative and devastating effect on my life and I think it threatens parts of my life.	5	-	5
Total	82	97	179

Two groups of boys and girls evaluated the impact of SMS in two different ways, most girls believe that SMS plays an ineffective role in their lives, while boys believe that SMS has a limited impact on their lives.

**D. Frequency of using Bluetooth mobile phones:**

In this study, we investigated Bluetooth and its content as a mobile application (Given the choice of two humor and joke options and software programs, an option was defined as this.)

**Table 6:** Frequency indicator of Bluetooth used by gender-based content

	Male	Female	Total
Things that include the private lives of others (such as celebrities, actors, ...)	3	4	7
Cases that include humor.	11	12	23
Things that include my family and private life.	5	6	11
Sexual issues.	7	6	13
Items that include software, music, photography, art clips.	22	27	49
Things that include humor, and those that include software, music, photography, art clips.	17	23	40
Missed data	17	19	36
<b>Total</b>	<b>82</b>	<b>97</b>	<b>179</b>

As can be seen, in both groups, the use of software, music, photography, art clips was the most frequent, and things about the private life of others are the least frequent.

– We now examine the research questions.

Is Internet use correlated with the extent of their psychological trauma?

Is a mobile phone and SMS use correlated with the extent of psychological trauma?

In the first question, we first examined the frequency of students' psychological state and then the answer to this question was calculated using Pearson correlation method and the following findings were obtained:

**Table 7:** Examination of the frequency distribution of students' psychological status by gender

	Male	Female	Total
No psychological trauma (scores 25-43)	43	59	102

<b>Exposed to psychological trauma (scores 62-44)</b>	31	30	61
<b>Mild psychological trauma (scores 63-81)</b>	4	5	9
<b>With psychological trauma (scores above 82)</b>	3	0	3
<b>Missed data</b>	1	3	4
<b>Total</b>	<b>82</b>	<b>97</b>	<b>179</b>

According to Table 7, it can be seen that 102 participants were diagnosed with no psychological trauma, which is consistent with their student status. On the other hand, only 3 of the boys in the group have psychological trauma.

**Table 8:** Results of the relationship between internet dependency and students' psychological status

Variables	Type of correlation coefficient	Value of the correlation coefficient	Significance level
<b>Internet addiction - the psychological state</b>	Pearson	0.394	0.01

As can be seen in Table 8, Internet addiction and psychological status have a significant and positive relationship with 99% confidence and error levels less than 0.01. This means that the more a person is addicted to the Internet, she/he is more prone to psychological trauma. Conversely, internet dependency is associated with less psychological trauma. In the first question analyzed by Pearson correlation method, the results are as follows:

**Table 9:** The results of the survey on the relationship between SMS use and students' psychological state

Variables	Type of correlation coefficient	Value of the correlation coefficient	Significance level
<b>Level of SMS use - Level of psychological trauma</b>	Pearson	0.162	0.01

As shown in Table 9, there was no significant relationship between the score of SMS and the students' psychological state. One of the possible causes of this problem is the low Cronbach's alpha coefficient score or its internal consistency score.

**DISCUSSION and CONCLUSION**

The computer and the Internet are integral parts of one's daily work and personal life. Although the Internet is a great source

of information and a good means of communication, people may find it difficult to use the services that are available to improve their psychological health, which confuses us with the problem of proper use and abuse of the Internet. This article examines issues in the press about the prevalence of the disease, the pathology of the disease, the dependence on computers, and the potential and actual effects. This study investigates computer addiction, virtual communication, obsessive-compulsive behaviors, physical problems, disorders in family issues and interpersonal problems, academic failure, behavioral problems, depression and isolation, anxiety due to Internet use.

The mobile phone is one of the emerging phenomena of the electric age which in recent times as a means of mass communication has found a special place among the people, especially the youth. In addition to its wide range of applications in various areas of life including information, communication, continuity, fun and excitement, mobile has also led to poor performance. In this study, we examine some aspects of mobile applications. These results were related to sending and receiving SMS, as can be seen, both sexes had fewer than 10 SMS per day, as well as the majority of the ordinary joke and messenger content. In examining students' attitudes, it was found that most of them attributed the ineffectiveness of mobile phones and SMS to their lives.

Using mobile phones, especially SMS can teach and convey concepts. It also requires the development of life skills, the promotion of intellectual style and challenge, modeling, creating media literacy, enhancing e-city activities, and raising awareness of the potential dangers of using the same mobile phone and SMS.

Based on the results of this study, which is in line with previous findings, it indicates a significant and positive relationship between internet addiction and psychological trauma. This means that students who have a higher score on Internet addiction are more likely to be psychologically harmed than other students.

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