The Relationship between Using Social Media with Internet Addiction and Anxiety among University Students

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ABSTRACT
The global network of Internet, as one of the most outstanding communication and information technologies, indicates the technological development of the modern man, and its role in making changes social changes cannot be ignored. The present study aims to investigate the relationship between the using social media, Internet addiction and anxiety among university students. The study is a cross-sectional survey of correlational type. The statistical population of the study consisted of all Islamic Azad University North Tehran Branch, Iran. First, all the students of the university were divided into three groups of Humanities, Engineering and Sciences and 345 students were selected using random cluster sampling. The data-gathering instruments of the study included Beck Anxiety Inventory (1996), Young’s Internet addiction Test (1988) and a researcher-made questionnaire on social networks use. To analyze the collected data, SPSS version 19 in two parts of descriptive and inferential statistics (Pearson’s correlation coefficient) was used. The data analysis showed that there was not a significant relationship between using social media and anxiety. However, there was a significant relationship between using social media and Internet addiction based on sex, age and educational group variables and this difference between age groups and girls and boys was not significant. Among educational groups, Internet addiction in the fields of Sciences was less than other fields in Humanities and Engineering. As a result, using Internet, because of the false attractions it creates for users, gradually addicts the users and can provide their psychological and emotional needs. Therefore, replacing presence and interaction with people in real world with Internet social media disrupts users’ social and emotional communications.

Keywords: Social media, Anxiety, Addiction, Internet

INTRODUCTION
Internet is one of the communication means in the modern era that has been used by humans. This means has increased the speed and accuracy of works and expanded communications, in such a way that the Earth has become a global village (23). Internet transfers millions of messages, messages that influence the values, attitudes and cultural identity of its users at the micro level and the socio-cultural system at macro level. This is in line with these changes that symbolic realities in Internet environment have provided the necessary ground for the formation of social media. Such a space known as a monolithic virtual reality, have features such as being beyond time and space, lack of restrictions on civil law-based states-nations, concurrent availability, bring online and having cultural-religious-philosophical-economic spaces and freedom from new physical and sexual identities. In general, social networks refer to a group of people who communicate with one another in groups and share things such as their information, needs and thoughts, in other words, social media are sites that provide facilities for users to communicate within the framework of a network of personal and group relationships using a search engine and adding some features such as
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chatting, electronic messaging, sending image and sound and so on (18).

Web social networks are a new generation of web facilities that are in the center of Internet users’ attention today. These kinds of sites work on the basis of the formation of online communities, and each one bring together the groups of Internet users with common interests or characteristics. These networks are in fact kind of social media that have provided a new way of communicating and sharing information on the Internet. Hundreds of millions of Internet users are the members of hundreds of different social networks and spend a part of their daily online activities on these sites (1). Networks such as Facebook, Twitter, YouTube, My Space, Orkut, and Flickr are among those virtual social networks that have grown rapidly in a short period of time and are becoming more popular among people day by day. Since communication is the main reason for users to use social networks and since users can communicate with a lot of people in a short period of time, it has led to the excessive use of these networks by users, especially youngsters and the youth. It also causes people to get more interested in communication in cyberspace than the communication in the real world, and this might threaten their psychological health. Disorders such as Internet addiction, anxiety, depression, social isolation, identity disorder, reduction of feelings, and lack of self-confidence are among common disorders following from the excessive use of social networks (32).

A growing number of researches done on Internet addiction suggest that Internet addiction is a kind of psychosocial disorder characterized by symptoms of anxiety, withdrawal, emotional disturbance and fragmentation of social relations (9). Internet addiction is a disorder that was introduced in 1996 by a psychologist named Yang. Kaplan and Sadock (2002) called Internet addiction a kind of Internet use that causes psychological, social, educational and occupational problems. The most common definition of Internet addiction is that the Internet causes behavioral dependence in people (7). Researches have revealed that Internet addiction has a negative relationship with educational performance (22). Internet addiction also has an important role in students’ academic performance (17). Sasmaz et al (2014) showed that the rate of Internet addiction among students is 1.15 percent. Kuss et al (2013) indicated that 2.3 percent of students of a university in UK had Internet addiction. Schoenfeld, and Yan (2012) showed that 9% of Internet users suffered from Internet addiction.

In his study, Moedfar (2012) concluded that young people who withdraw from social contacts use communication means available on the Internet as a means to escape from reality. Also, in another study, Nielson (1993) found that Internet use, like watching TV, causes inactivity and prevents face to face communications. Martin and Schumacher (2012) pointed out to the relationship between excessive use of Internet, isolation, anxiety and depression, and concluded that the Internet-dependent users were more isolated and more anxious than those users who had no sign of dependence and used this technology for fun and to spend their leisure time. Young and Rodgers (1998) suggest that increased isolation corresponds with a reduction in real life social bonds and communications with the use of the Internet. Kraut et al (1998) found out the excessive use of Internet led to anxiety and reduction of family communications, and excessive use of Internet for communication purposes would also reduce the amount of local and remote social communication cycle. In addition, Internet use has been associated with increase in depression and withdrawal from real life. The results of another study conducted by Sanders et al (2000) on the social effects of the Internet on young people showed that the more Internet use leads to the more anxiety and depression. Anderson (2001) states that an individual chooses Internet and uses it as a way to escape from the real-life problems, get rid of his malaise, get rid of the feelings of helplessness,
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guilt, loneliness, anxiety and or depression. Gholamalian (2012) examined the prevalence of Internet addiction syndrome and its psychosocial effects on Isfahani users (the users from Isfahan, Iran) showed that Internet addiction syndrome in the age group of 20-30 years old is higher than other groups and the users preferred working with Internet to socializing with family and going out with others. The results of a study by Sajadian and Nadi (2007) revealed a positive relationship between depression and social isolation at the usual time of Internet use among youngsters and the youth. Doran (2003) in a study found that there was a significant relationship between the use of Internet during the day and social anxiety and isolation. Furthermore, social use of the Internet reduced anxiety among the users. Atashpour and Kazemi in their study found out the excessive use of the Internet causes frustration, social isolation, loneliness, isolation from family and generally decline in mental health. However, some studies have confirmed the positive results of using virtual communication spaces. For example, the researches done by Floyd and Parks (1996) indicated that the cyberspace creates an identity workshop in which individuals learn social skills and practice them. Some of the participants on the study reported that the online identity allows them to overcome their shyness in a face to face communication. Shy people claim that the Internet provides an opportunity for them to communicate with others, and at the same time they will be able to provide social confidence skills and that causes the growth of face to face communication. In fact, Internet enables people to easily and calmly express themselves, in this regard, Internet could be useful; since it gives people the opportunity to discover and choose the identity in which they feel good (2001).

Iran is on the verge of the doors of Global Information Society and the number of Internet users is increasing day by day, and the majority of these users are young people. Internet social networks have rapidly increased among Iranian users since the last decade, and millions of them have joined these networks. As Hampton et al (2011) have reported, these networks have quickly gained tremendous popularity among their users, and now have become an integral part of life for most of their users. The number of social network users has doubled during 2008-2010 the population of users of these networks is rapidly increasing. According to the data of the “Internet World Stats” Iran ranked first in 2007 in the number of Internet users in the Middle East. This website, based on the latest published statistics on the number of Internet users, has announced the growth of Iranian Internet users 2900 percent and has stated that the number of Iranian Internet users reaches 7.5 million. If compared with 250 thousand users in December 2000, there is a 2900 percent growth. As a result, the large number of Internet social networks users among Iranian young people and the extensive effects these networks have on personal, social and family areas are the main reasons to conduct this study to identify the effects of this new phenomenon and deal with it, if possible. Hence, it is necessary to investigate the effects of such communication means so that in addition to increasing our awareness, we know its effects on our lives in modern society. To do so, the present study was conducted with the aim of investigating the relationship between the use of social media, anxiety, and the Internet addiction among university students.

METHODOLOGY

This study is a cross-sectional survey. The statistical population of the study consisted of all Islamic Azad University North Tehran Branch, Iran in 2015-2016 academic year. 345 students were selected using random cluster sampling Cochran method. First, all the students of the university were divided into three groups of Humanities, Engineering and Sciences and 115 students were randomly selected from among each group (345 students from all three groups) as the research sample. The data-gathering instruments of the study included Beck Anxiety Inventory (1996), Young’s
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Internet addiction Test (1988) and a researcher-made questionnaire on social networks use. Beck Anxiety Inventory (1996): Anxiety Inventory is a self-report inventory with 21 items that reflects the physical and cognitive symptoms of individuals in the past week. This is a three-degree measure from zero to 3 and the highest score achieved in it is 63. Beck, Brown and Steer (1996) obtained the internal consistency of the inventory and its one-week test-retest reliability 0.92 and 75, respectively. Beck and Steer (2003, cited in Salavati) examined content, concurrent and construct validity, and factor and diagnostic analyses and confirmed the high performance of this instrument to measure anxiety. Young’s Internet Addiction Test (1988): This is 20-item questionnaire and is scored with Likert method. Scoring of the test is variable zero and four. That the items with the answers “not at all”, “to a small extent”, “to some extent”, “to a moderate extent” and “to a large extent” are given zero, one, two, three and four, respectively. Thus, the scoring range of each individual’s score in this questionnaire is between zero and 84. This test, based on TR-IV-DSM (Diagnostic and Statistical Manual of Mental Disorders) criteria, has been designed for the diagnosis of pathological gambling. The obtained scores for each individual, classify him/her in one of the following groups: 1- the ordinary Internet user 2- the addicted user who has got into some problems due to the excessive use 3- the addicted user that the excessive use has made him/her dependent and needs to be cured. In a study by Young et al. (2007, quoted in Schumacher & Martin, 2012), the internal validity of the questionnaire was above 0.92 and the test-retest reliability was also significant. Widyanto and McMurran (quoted in Davis, 2001) in their study entitled “the review of the psychometric properties of Young’s Internet Addiction Test” reported very high face validity for the questionnaire and obtained its correlation coefficient 0.81. Furthermore, the reliability of the questionnaire using Cronbach's alpha coefficient was obtained 0.88, and its reliability using test-retest was calculated 0.79. In Iran, Alavi et al (cited in Hampton et al, 2011) obtained its content and discriminant validity, its reliability using test-retest method, internal consistency, and split-half reliability 0.50, 0.79, 0.88 and 0.82, respectively. Hence, the obtained Cronbach's alpha coefficients were higher than 0.77 both in Persian and the original version. However, the minor difference in the observed alpha value in different studies indicates the difference in the number of translated items, cultural differences and the target population. The researcher-made social media questionnaire: To evaluate the use of social media, a 10-item questionnaire was used. As mentioned in the introduction, the social media are sites that use a simple site like a search engine to provide facilities for users by adding some features such as chatting, electronic messaging, sharing and so on. According to this concept, the aforementioned questionnaire consists of questions about the amount of one’s awareness of social networks such as Facebook, Orkut, Myspace and so on that was scored in a six-option scale (Not at all = 0 to To a large extent = 6). To evaluate the validity of questionnaire, face validity was used and 5 experts commented on it. To examine its reliability, the questionnaire was filled in by another 30 participants and its reliability, using Cronbach’s alpha, was obtained 0.86. To analyze the collected data, SPSS version 19 in two parts of descriptive (mean, variance, standard deviation) and inferential statistics (Pearson’s correlation coefficient) was used. Findings First, the normal distribution of the data was confirmed, then the Pearson correlation coefficient was used to investigate the relationship between using social media, Internet addiction and anxiety.

Table 1: relationship between using social media and Internet addiction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pearson correlation coefficient</th>
<th>Number</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using social media and Internet addiction</td>
<td>0.147</td>
<td>345</td>
<td>0.01</td>
</tr>
</tbody>
</table>

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As shown in Table 1, there is a positive and significant correlation between using social media and Internet addiction.

**Table 2:** Variance analysis of determining the significance of multivariate correlation of the relationship between social media and Internet addiction, and age, sex, and education variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean of squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using social media</td>
<td>1836.64</td>
<td>1</td>
<td>1836.64</td>
<td>4.17</td>
<td>0.042</td>
</tr>
<tr>
<td>Age</td>
<td>1675.92</td>
<td>5</td>
<td>335.18</td>
<td>0.792</td>
<td>0.578</td>
</tr>
<tr>
<td>Sex</td>
<td>2845.60</td>
<td>1</td>
<td>2845.60</td>
<td>6.40</td>
<td>0.012</td>
</tr>
<tr>
<td>Educational groups</td>
<td>2794.97</td>
<td>2</td>
<td>1397.48</td>
<td>3.17</td>
<td>0.043</td>
</tr>
</tbody>
</table>

As seen in Table 2, using social media, considering age, sex and field of study variables, is effective in Internet addiction because the significance is less than 0.05. According to the fact that there is not a significant relationship between age groups and boys and girls, to determine the amount of Internet addiction in different educational groups, Paired Comparison Analysis was used. The results are indicated in Table 3.

**Table 3.** Paired comparison analysis of using social media and Internet addiction among educational groups

<table>
<thead>
<tr>
<th>Significance</th>
<th>Standard deviation</th>
<th>Mean difference</th>
<th>Educational group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.015</td>
<td>3.734</td>
<td>-9.164</td>
<td>Internet addiction</td>
</tr>
<tr>
<td>0.45</td>
<td>3.962</td>
<td>-7.978</td>
<td>Humanities, Sciences, Engineering</td>
</tr>
<tr>
<td>0.015</td>
<td>3.734</td>
<td>9.164</td>
<td>Humanities, Sciences, Engineering</td>
</tr>
<tr>
<td>0.717</td>
<td>3.272</td>
<td>1.186</td>
<td>Humanities, Sciences, Engineering</td>
</tr>
<tr>
<td>0.045</td>
<td>3.962</td>
<td>7.978</td>
<td>Humanities, Sciences, Engineering</td>
</tr>
<tr>
<td>0.717</td>
<td>3.272</td>
<td>-1.186</td>
<td>Humanities, Sciences, Engineering</td>
</tr>
</tbody>
</table>

As it can be seen in Table 3, there is a significant relationship between the Internet addiction and sciences, humanities and engineering, because according to the mean difference, Internet addiction in Sciences is less than Humanities and Engineering.

**Table 4:** The relationship between using social media and anxiety

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pearson correlation coefficient</th>
<th>Number</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using social media and anxiety</td>
<td>-0.55</td>
<td>345</td>
<td>0.332</td>
</tr>
</tbody>
</table>

According to Table 4, there is not a positive and significant correlation between using social media and anxiety, that is, there is no significant relationship between using social media and anxiety.

**RESULT AND DISCUSSION**

The main objective of this study was to investigate the relationship between using social media, Internet addiction, and anxiety among university students. Based on the results of the study, there was a significant relationship between using social media and Internet addiction. In this regard, the obtained results of the first hypothesis are in line with the results of studies conducted by Mohseni (2002) and Doran (2003), which examined the effects of using Internet on users’ social isolation, and another study by Gholamaleyan (2012), which examined the prevalence of Internet addiction syndrome and its psycho-social effects. Kraut et al (quoted in Widyanto & McMurran, 2004) also reported that the excessive use of Internet had negative effects on the mental health of individuals.
Kane et al (quoted in Alavi, Jannatifard, Maracy, Esfami, Rezapour, Najafi, 2009) also mentioned in their research that people suffering from Internet addiction obtained low scores in questionnaire concerning lifestyles in health promotion. Also, according to the results of the second hypothesis, there was not a significant relationship between the use of social networks and anxiety which were not in line with the results of the studies by Martin and Schumacher (2012), Kraut et al (1998), Anderson (2001), and Atashpou and Kazemi (2003) all of which emphasized on the relationship between Internet use and anxiety, depression and social isolation. In addition, the results of the present study were not in line with results of the studies conducted by Hyun et al (quoted in Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, Scherlis, 1998) which showed that Internet addiction is significantly associated with obsessive symptoms, anxiety and depression (Widyanto & McMurran, 2004), and the results of another study by Eijnden et al (quoted in Kim & Chan, 2005) which reported a positive relationship between Internet use and anxiety symptoms.

Streetfield (quoted in Ha, Kim, Bae, Bae, Kim, Sim, 2007) puts strong emphasis on that Internet use can considerably take much time from individuals and change them into lonely, isolated and anxious people whether at work or at home. When a young person is in the real world, he/she can achieve many real things and interact with a lot of people every day and do activities in the real world. It only happens when the individual sets himself/herself apart from the real world while interacting with the environment, but when using Internet, he/she cannot feel close to others and interact with them easily. According to the findings of the conducted studies, it seems that the social world will be isolated and anxious in the future. Thus, social withdrawal and anxiety should be considered as the features of future society (2). Communication in the virtual world is full of excitement and mental impulses and it is not possible to get some of these perceptions in the real world. Joining chatrooms, using e-mails, and video talks have a completely hidden and personal nature and it is not known what kinds of values, attitudes or contents they transfer (30). According to the aforementioned, it can be concluded that excessive use of Internet networks, because of the false attractions these networks have for users, gradually adds one and can accordingly provide their psychological and emotional needs. However, the excessive use of Internet causes anxiety and psycho-social and emotional disorders in the users’ growth because it depletes the users of the ordinary and group experiences with peers. Therefore, replacing presence and interaction with people in real world with Internet social media causes the users not to develop their social and emotional communications. Finally, it is suggested that in order to avoid such disorders, universities, educational centers, families and media make and perform massive and strategic plans and replace the incorrect methods with the correct culture of using computer, Internet social media and all their available facilities.

In conducting the present study, the researcher did her best to do the research the best possible way, but some factors which were out of the researcher’s control caused some limitations that are as follows:

The results of this study are limited to the Islamic Azad University students of Tehran. Thus, the results cannot be generalized to other universities and higher education centers. The statistical population of the study is also limited to the university students and cannot be generalized to other classes. The present study, was a cross-sectional survey and studying this area needs more precise and longitudinal studies to confirm the relationships between Internet addiction, anxiety and so on, and more studies are needed.

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