

The Relationship Between Internet Addiction and Depression in Nursing Students of Larestan School of Nursing and Gerash Paramedical School

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Abstract

Background: As the use of computers and the Internet by adolescents and young adults continues to grow, it appears to be essential to study the relationship between the consumption of electronic media and mental health.

Objectives: The aim of this study was to investigate the relationship between depression and Internet addiction in nursing students of Hazrat Zainab school of nursing (Larestan University of Medical Sciences) and Gerash Paramedical School, located in the southern part of the Fars province.

Materials and Methods: This was a descriptive correlation study, in which a questionnaire, including the beck depression inventory (BDI) and the young's internet addiction test (IAT), were distributed among a total 150 volunteer students of Larestan Faculty of Medical Sciences. Statistical analysis was performed using the SPSS software, version 19 (SPSS, Inc., Chicago, IL, USA).

Results: The results showed that four percent of the participants of this study had Internet addiction and this dependency on the Internet, as according to the t-test, was not significantly different between males and females. However, the current results showed a significant association between depression and Internet addiction ($P = 0.024$, $r = 0.222$).

Conclusions: Technology plays an important role in our everyday lives and the identification of its dimensions is crucial.

Keywords: Internet, Addiction, Depression

1. Background

Today the Internet, which we are all familiar with, is an effective and efficient tool for creating and facilitating communications and it functions as a quick access to various information resources. Mankind, throughout history, has always, with great endeavor and ingenuity, strived to reach a higher capability and wellbeing. Although elated from our involvement on the Internet as a contributor of a global system, like many other innovations, including all the complexities it has solved and partial advantages it conveys, it harbors a new source of problems and disorders, such as depression and Internet addiction (1).

Young people use and learn about the Internet for a variety of purposes; completing academic tasks, communication and entertainment; however, Internet addiction can have a negative effect on academic success, relationships and emotions (2). According to Morrison et al. depression and Internet addiction in 1985, heavy Internet use can result in isolation; this isolation can reduce so-

cial interaction, cause identity disorders and eventually diminish ones capability (3). Yangs et al. (1996), a leading researcher in the field of Internet addiction, claims that people who excessively use the Internet are lonely, exhausted, depressed, have no self-esteem and are introverted. Young's seven criteria for the diagnosis of pathological gambling, also found in the diagnostic and statistical manual of mental disorders, 4th edition (DSM-IV), is used as a basis for the diagnosis of Internet addiction and Internet addiction is indicated when at least five of the following symptoms are present: 1) preoccupied with the Internet (think about previous online activity and anticipating the next); 2) Needs to spend more time on the Internet to achieve satisfaction; 3) Failure to control, stop or reduce the use of the Internet; 4) Feeling of uneasiness, depression or irritable when attempting to cut down or discontinue the use of the Internet; 5) Loss of job opportunities and important social relationships because of the Internet; 6) Lying to family members, therapist or others about the amount of time spent on the Internet; 7) Use of the Internet

as a way to escape problems or issues such as depression and hopelessness (2).

A number of researches indicate that people who visit chat rooms tend to spend extended periods of time online (5.5 hours a day) and suggest that chatting can also be addictive (3). The protection institute of America recommends that children and adolescents should spend no more than one to two hours a day on the computer or Internet because it can result in negative psychological complications such as alienation, anxiety, depression, and even physical bodily pain (4).

In one study, Cloning et al. used the Rosenberg self-esteem scale, Coopersmith self-esteem inventory, and general health questionnaire (GHQ) test to investigate the relationship between the use of virtual spaces and mental health, especially self-esteem, and they found that the overuse of the Internet is associated with lower self-esteem and poorer mental health, and people online for over ten hours a day received consequently lower scores in self-esteem questionnaires (5).

According to a study by Willis in 1998, Internet addicts spend an average of 38.5 hours and non-addicts 4.5 hours on the Internet per week and the results of another study conducted on university students by Askcareer in 1997, reported Internet use among university students to be approximately 11 hours per week. Although all individuals are exposed to some form of Internet addiction, an important point is that only a number of people appear to be more vulnerable than others. Internet addiction seems to be associated with several factors, such as age, gender and personality. Moreover, studies show that young people are more dependent on the Internet than their previous generations. In addition, various studies have shown that older age groups are less dependent on the Internet when compared with the younger age groups. Furthermore, gender is a factor that not only affects the type of Internet use, but also influences its underlying motive (6).

In 2009, Selfhout et al. (7) did a study on 307 adolescents with the aim to investigate the relationship between Internet use and variables directly or indirectly associated with depression, social anxiety and the capability of developing a quality friendship. In this study, they found that adolescents using the Internet as a means of communication had somewhat lower levels of depression when compared to those who use the Internet for purposes other than communication and the group using the Internet for non-communicating purposes were found to have higher levels of depression and social anxiety (8).

However, only a number of studies have used the Beck depression inventory (BDI) for assessing the relationship between Internet addiction and depression, for this reason, it seems necessary for further investigations to clarify

this relationship by using the BDI. Likewise, taking into consideration that different regions tend to have particular cultural backgrounds, it seems reasonable that such a study should be conducted in Iran.

2. Objectives

This study aimed at investigating the relationship between depression and Internet addiction in nursing students of Hazrat Zainab school of nursing (Larestan University of Medical Sciences) and Gerash paramedical school.

3. Materials and Methods

This was a descriptive correlation study conducted on nursing students of Hazrat Zainab and Gerash paramedical school. In this study, a total of 150 questionnaires were collected from students willing to participate in this study.

3.1. Tools Used for Collecting the Data

3.1.1. Young's Internet Addiction Test

Young's Internet addiction test consists of a total of 20 questions; if the participant receives a score below 50, he or she would be considered as non-dependent, but if they receive a higher score, then they would consequently be placed in the Internet dependent group. The Young's addiction test was designed in 1998 by Kimberly Young. The questionnaire consists of 20 items and these items are rated using a Likert-type scale. This questionnaire measures different aspects of Internet addiction and determines whether the excessive use of the Internet has an influence on various elements of life. The validity and reliability of this questionnaire has been reported in several studies. For example, Widyanto and McMurrans considered the questionnaire to be highly valid and its validity is demonstrated by the ability to analyze these six factors: prominence, overuse, neglect of occupational duties, lack of control, social problems and the influence on achievable performance (9).

Initially, the validity of the questionnaire was evaluated by 10 faculty members of Hazrat Zainab school of nursing. For the assessment of the reliability of the questionnaire, a pilot study was conducted and the Cronbach's alpha coefficient was used. The Cronbach's alpha coefficient for this questionnaire (Internet addiction) was 0.927.

3.1.2. The Beck Depression Inventory

The Beck depression inventory consists of 21 questions and each question is given a score ranging from zero to three and the total sum of the overall score is used to assess depression. The Beck depression inventory was originally

created in 1961 by Beck and his associates and it was first introduced by Beck, Mendelsohn, Mock and Erbaugh in 1961. It was revised in 1971 and copyrighted in 1978. Although the revision of the questionnaire in the updated version (BDI-IA) may have made the expressions clearer, studies later showed that these two versions are highly correlated with each other (approximately 0.94).

In 1996, a major revision was conducted in order to cover a wide range of symptoms and to have a higher consistency with the criteria for depressive disorders according to the diagnostic and statistical manual of mental disorders (DSM-IV).

In the revised version, four elements were changed in order to reflect symptoms associated with more severe symptoms of depression (e.g. anxiety, feeling of worthless, difficulty concentrating and lack of energy). In addition, loss of appetite and sleep were also revised, along with the text and sentencing of many other elements.

In the comparison between the BDI and BDI-II, the respondents of the questionnaire tended to respond to one or two more additional symptoms in BDI-II than to the original version, while this version confirms the symptoms and elements of subjects with higher grades of depression rather than lower grades of depression. Despite the relatively higher scores on the BDI-II, generally there is still a high correlation between these two forms, and with some consideration we can say that BDI-II is completely parallel to the original version. Therefore, the results of studies, which have used BDI, can also pertain to BDI-II (10). In this study, we used the BDI-II questionnaire. The questionnaire consists of 21 questions used to measure the signs and symptoms of depression, and its provision are mainly based on the observation and records of the common symptoms in psychiatric patients with depression. In other words, the material and credence were carefully chosen and the content of the questionnaire, altogether, is a typology of depression, but with a higher emphasis on its cognitive content. Beck Depression Inventory is a self-evaluation test completed in approximately five to ten minutes and the test consists of a total of 21 items covering a variety of symptoms in which the subject can grade themselves on a scale ranging from zero to three/four. The material covers areas such as sadness, pessimism, sense of helplessness and defeat, guilt, sleep disturbance, loss of appetite, self-loathing and etc. Furthermore, the questionnaire asks two questions on affective processes, eleven on cognition processes, two on overt behavior, five on somatic and physical symptoms and one on interpersonal symptoms. Thus the scale's score, varying from mild to severe depression, can range from zero to sixty-three (11).

First, the validity of the questionnaire was evaluated by the faculty members of Hazrat Zainab (P.B.U.H) Larestan

school of nursing and then a pilot study and the Cronbach's alpha coefficient were used to assess the reliability of the questionnaire. The Cronbach's alpha coefficient for the Beck depression inventory was 0.91.

Statistical data collection and descriptive techniques were used in order to compare the mean values; these techniques include frequency and analytical methods such as T-tests.

4. Results

In this study, the mean age of the participants was approximately 21 years and the majority of our samples were female, at 73.3% (n = 110), while only 26.6% were male (n = 40). A greater portion of the participants were single, making up 92.2% (n = 139), while only 7.8% (n = 10) were married. In addition, 4% (n = 6) of the samples had associate degrees, and 96% (n = 144) were still undergraduates. Four percent of the subjects had Internet addiction; the remaining 96 percent did not meet the criteria for Internet addiction. According to our results, the T-test showed there to be no statistically significant difference between gender and Internet addiction. The mean scores on the young's Internet addiction test and Beck depression inventory were 17.57 ± 12 and 18.7 ± 15 , respectively. Furthermore, using the Pearson correlation, we found that a significant relationship exists between Internet addiction and depression ($P = 0.024$, $r = 0.222$).

5. Discussion

Addiction is a psychological and physical dependence accompanied by withdrawal syndromes whenever the stimulus is not at hand. From a clinical perspective, addiction may be the indication of an attempt to control depression, anxiety. However, in a study by Alaviand et al. 10% of the participants met the criteria of Internet addiction (10). In 2006, a study by Kim et al. on 1573 Korean high school students demonstrated 1.6% to have Internet addiction and an additional 38% were considered to be suspicious of Internet addiction (8). These differences could be a result of cultural diversity or because of the varying amounts of Internet use in different societies. Test results also showed, by using the t-test, that there was no statistically significant difference between the genders in terms of Internet addiction. In a study by Fortson et al. conducted on students at the university of Virginia, it was determined that there was no difference between girls and boys when it came to the average usage of the Internet (12). On the contrary, in one study by Dang et al. in China and another study by Han et al. in Turkey, a relevant difference

was noted between the two genders (13). Such differences between males and females, which should be further investigated, may be due to the differences in the amount of time spent online. The average scores of the subjects participating in the study's Internet addiction questionnaire were 17.57 ± 12 . In a study conducted by Kim et al. the average score attained from their subjects was 37.57. The difference could be the result of differences in the age groups that were studied, as well as the difference in the assess ability of the Internet to the participants of these two studies. The results of the current study indicated that by using the Pearson correlation coefficient, a statistically significant relationship exists between Internet addiction and depression ($r = 0.222, P = 0.024$).

In a study by LaRose et al. a relevant positive association between the amount of Internet usage and depression was illustrated (14). In addition, Young and Rogers further elucidated the existence of this apparent relationship between depression and Internet addiction (2). Consequently, these two studies demonstrated the validity of this research based the association between Internet addiction and depression.

Internet addiction can cause major problems for the psychological health of the society, such as depression in Internet users according to several studies by Grant Peterson, Loodmark, Kesler, Macofadi and Searles (1998), which claimed that excessive Internet use has its consequences. The researchers found heavy Internet use to have a negative effect on one's social relationships and mental health and it significantly increased the feelings of loneliness and depression. Likewise, many studies have shown the presence of a significant positive correlation between weekly Internet use and depression (9).

In a study conducted on high school students by Kim et al. students were divided to three groups based on the extent of their Internet dependence. Those receiving a score higher than 70 were placed in the dependent group, scores of 40 to 69 were consider borderline, and a score below 39 was regarded as non-dependent. The results showed that the mean values of depression in the samples of the dependent group (12.56 ± 4.93) were higher than when compared to borderline (10.8 ± 4.26) and non-dependent groups (9.8 ± 4.41) (8). This research confirms the findings of the mentioned study.

In conclusion, it appears necessary to further address the value that this virtual world has on the disposition, temper and mood of different people. Undoubtedly, excessive Internet use has its own physical and psychological dilemmas and issues, so that if not attended to at the time of diagnoses, the health of the society will be faced with new challenges (9).

5.1. Suggestions

The results of our study showed that four percent of the subjects had Internet addiction and taking into consideration the importance of the matter, proper counseling for these students is advised. Moreover, these students will be continually screened for Internet addiction throughout the course of their studies. The results established a statistically significant relationship between depression and Internet addiction. Therefore, it is recommended that students with depression should also be assessed for Internet addiction and to take the necessary measures for counseling if required.

Now that we are only at the beginning of the dawn of the Internet, it is essential that we learn to deal with this matter in a more improved and responsible way. It appears that all the positive and negative aspects and outcomes of the Internet should be efficiently evaluated and then the results of the study be carefully reviewed by executive authorities and officials so that a proper understanding of the matter can be achieved through proper scientific policy. In this regard, it seems evidently important to provide proper education pertaining to the appropriate use of the Internet and to acquaint adolescents and young adults concerning the potential physical, behavioral, ethical and spiritual-mental dangers of excessive Internet use, along with avoiding inappropriate and unnecessary use and waste of new technologies such as satellites, Internet and mobiles, as well, to strengthen the foundations of ethics and values in youth to create a self control and autoimmunity in order to generate the optimum use of innovative technology.

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