



The Effect of Internet Addiction on Depression, Anxiety, Social Isolation and Sleep Pattern Among Youth

KEYWORDS

Internet addiction, gender, depression, anxiety, social isolation, sleep pattern.

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ABSTRACT *Internet addiction (IA) has become a widespread and problematic phenomenon. Little is known about the effect of internet addiction (IA). The present study focus on the Meta analysis of internet addiction and its relation to mental health among youth. Effect size estimated the difference between the gender with respect to the severity of internet addiction and the depression, anxiety, social isolation and sleep pattern positive.*

INTRODUCTION

The internet is a new tool that is used as an essential part of everyday life all over the world and its use increases especially among young people. In spite of the widely perceived merits of this tool, psychologists have been aware of the negative impacts of its use, especially the over or misuse and the related physical and psychological problems (Greenfield, 2000). One of the most common of these problems is internet addiction (Murali & George, 2007; Shapira, Lessig, Goldsmith et al., 2003; Young, 1998). The term "Internet addiction" explained that pathological compulsive internet usage was proposed by Dr. Ivan Goldberg (1995). This term has been used to describe problematic, excessive, or mal-adaptive use of the internet. Internet addiction known as pathological internet usage is a type of impulse control disorder similar to other addictions. People use the Internet to avoid problems in their lives or because they lack social skills.

The term "internet addiction" was introduced for the first time in 1996. The Internet addiction symptoms as described by Young (1996) are - excessive mental effort on internet, spending hours even though being intended to spend couple of minutes, exposure to health problems due to spending hours in front of the screen each time, continuously waiting for the next connection time, feeling more comfortable contacting people over internet than talking face-to-face, feeling a continuous desire for checking e-mails whether there is something new, decrease in meals, lessons or work efficiency due to using internet or staying connected, trying to give or spread the mail address, chat room names etc. to everybody, continuously feeling sleepless and tired because of staying connected to the internet until late, having failure in attempts to decrease the internet usage, withdrawal syndrome due to decrease in the internet usage, telling lies to family members, therapist or others to be able to stay connected to the internet, having affection changes in the duration of internet connection.

American Psychiatric Association (1995) defined Internet Addiction as a pattern of internet using which results in functional disorders and unpleasant internal feelings during a two month period and provided seven criteria for its diagnosis. (At least three criteria for two months) –tolerance, withdrawal symptoms, the internet is often accessed more often, or for longer periods of time than was intended,

continuous incline for controlling the behavior, a significant amount of time is spent in activities related to internet use, important social, occupational and recreational activities are given up or reduced because of internet use, continuous use of internet using despite being aware of its disadvantages.

Young (2004) believed that Internet Addiction (IA) encompasses excessive amounts of time, or the want to spend time partaking in numerous computer/internet activities. These include : Cyber sex – the downloading, viewing or trading pornography, Cyber- Relational – using chat rooms or chat programs, Net gaming – playing video games on the computer or internet, Information overload – searching and collecting data, Computer Addiction – using the computer to play games.

Internet addiction and Internet usage:

The studies related to Internet addiction and Internet usage indicates the terms "overuse" and "excessive use" which appear in many Internet addiction studies, usually indicate that time online is an important factor or index for determining Internet addiction. Internet dependents reported a striking average of 39 hrs per week spent online, compared to the 5 hrs of non-dependents. (Young 1998) Similarly, Chen and Chou (1999) reported that the Internet addiction "high-risk" group spent significantly more time online than the non-high-risk group, whereas the high-risk group spent an average of 20 hr per week online, the non-high-risk group spent about 9 hr online. Similar results were found in Chou and Hsiao's study (2000): about 6% Internet addicts spent 20–25 hr per week online, almost triple the number of hours that non-addicts spent online.

Epidemiology of Internet Addiction:

Global:

The meta analysis of internet usages at global scenario indicates, the prevalence of internet addiction among adolescents in Norway and Italy was 1.98% (Johansson and Gotestam, 2004) and 5.4% (Pallanti et al., 2006), respectively. In Asia, up to 7.5% Taiwanese adolescents were classified as internet addicts (Ko et al., 2007). The prevalence of internet addiction among Chinese adolescents in Mainland China ranges between 2.4% and 5.5% (Gao and Su, 2007; Hu et al., 2007). In a Chinese study, teens classified as highly addicted to the internet were twice as likely to also display self-injurious behavior (Xie et al., 2010),

1.5% – 3.5% of German teens show signs of internet addiction or excessive use. The prevalence rate of internet addiction for studies published in North America and Europe ranges from 1.5% to 8.2% (Weinstein et al., 2010). In 2005, just 9 - 15 million people in the United States used the internet every day. Every three months the rate of use was increasing by 25% (Wieland et al., 2005), Internet users in Greece have an internet addiction prevalence rate of 8.2%. Most internet addicts are males who play online games and access internet cafés (Konstantinos et al., 2008), 10% of South Korean youth are considered to be at high risk for internet addiction (Park et al., 2009), 1% of Norwegians are addicted to the internet. An additional 5% are at risk of developing internet addiction. The highest rate of addiction is in the 16-29 year old group -4% addicted, 19% at risk (Bakkan et al., 2008), 11% of South Korean students are considered to be at risk for internet addiction (Park et al., 2008). The prevalence of problematic internet use among South African technology workers is 4% (compared to 2% of a control group of non-IT workers) (Thatcher et al., 2008), 7% of Chinese elementary and middle school students suffer from internet addiction. The rate is higher in males (10%) than in females (4%). The rate is higher for rural students (8%) than for city students (5%) (Liu et al., 2010). In Italy 5.8% of high school students are internet addicted (Roberto Poli & Emilia Agrimi, 2012).

Indian:

The meta analysis of internet usages at Indian scenario indicates an explosive growth in the use of internet not only worldwide but also in India in the last decade. There were about 42 million active internet users in urban India in 2008 as compared to 5 million in 2000. The internet is used by some to facilitate research, to seek information, for interpersonal communication, and for business transactions. On the other hand, it can be used by some to indulge in pornography, excessive gaming, chatting for long hours, and even gambling. There have been growing concerns worldwide for what has been labeled as "internet addiction". The total number of internet users in India is estimated to 81 million (i.e. 6.9% of the total population) in the year 2010 (Internet usage stats and telecommunications market report). The profile of typical internet users in India are as follows: Youths (72%), accessing internet through cyber cafes (37%), with the purpose of checking mail (87%) and for general information search (80%).

Internet Addiction and Mental Health of Youth:

The studies on Internet addiction and mental health of youth indicates the excessive growth of the internet has had a huge influence on psychological research in understanding its role in mental health and there has been increased interest in the addictive potential of the internet (Griffiths, 1998). The authors report that there are a number of factors which may be related to internet addiction (Kandell, 1998). Among these factors the most remarkable are depression, stress, disruption of relationships, anxiety, social isolation and sleep pattern.

Depression is symptoms of dysphoric affect and mood, loss of interest in life activities and feeling of hopelessness (Derogatis & Melisaratos, 1983). Internet addict adolescents have been reported that depression, lower self-esteem and lower life satisfaction. Clinical depression associated with increased levels of internet usage (Young, Rodgers, 1998; Yen et al., 2008).

The research showed that anxiety could be related to the rate of internet use (Shepherd & Edelman, 2005). Internet

addiction also may contribute to anxiety (Egger & Rautenberg, 1996; Yu, 2001). Those who suffer from anxiety often have a great deal of trouble communicating and interacting with others in a healthy, positive, and meaningful way. These human characteristics are viewed as important determinants of internet addiction.

Social isolation is an objective condition in which person has little interaction with others. It is defined as "a state in which the individual lacks a sense of belonging socially, lacks engagement with others, has a minimal number of social contacts and they are deficient in fulfilling and quality relationships" (Nicholson, 2009). Moreover, feelings of loneliness would lead to a reduction of face-to-face social contacts; such social isolation would then lead to symptoms of Internet addiction. Social isolation was correlated with excessive online use among college students (Morhan-Martin, 1999).

Adolescents and young adults are at high risk for sleep problems based on "evidence that the prevalence of sleep problems is high and increasing with particularly serious consequences." (NIH, 1997). Sleeplessness is an inability to fall asleep or to stay asleep as long as desired. It is widely related to Internet addiction. There is an influence of problematic internet use or internet addiction on sleep pattern. Increased time spent on the internet disrupted the sleep-wake schedule significantly, and a higher rate of sleep disturbance was found among heavy internet users. (Jenaro et al., 2007; Rotunda et al., 2003; Thome' e et al., 2007).

Although the relationships of internet addiction with social, educational, and physical variables have received extensive scholarly attention, documenting its strong associations with other variables such as depression, anxiety, social isolation and sleep pattern have received less attention. Thus, the purpose of present study is to examine the seriousness of internet addiction among youth and the effect of internet addiction on depression, anxiety, social isolation and sleep pattern among adolescents.

The Internet is a functional tool, which makes life easier most of the time. But it can also cause trouble if it is used improperly or excessively. On one hand, the internet expands people's horizons; on the other hand, it makes some people addicted to it, which make negative effect on the youth. Studies show that teenagers and college students are easy to catch Internet addiction and get addicted to the Internet which affects the mental health of youth adversely. Research findings have shown that excessive use of Internet or Internet addiction adversely affects one's mental health: depression, anxiety, social isolation and sleep pattern.

Internet addiction and Gender difference:

The difference of internet use between genders has been studied, and an analysis of the research performed between 1996 and 1999 has found that men use the internet more than women (Bimber, 2000). On the other hand, Ono and Zavodny (2003) have analyzed studies conducted between 1997 and 2001, and have shown that in 2001, women have spent more time online compared to men. The differences between internet use of men and women can be due to different factors. There are also some differences between genders in certain areas of cognition which can be effective on internet use (Halpern, 1996).

Weiser (2000) studies the gender differences in Internet use patterns and Internet application preferences among

peoples. He concluded that there were numerous gender differences in preferences for specific Internet applications. Results had shown that men use the Internet mainly for purposes related to entertainment and leisure, whereas women use it primarily for interpersonal communication and educational assistance.

In 2009, Christos C. Frangos, Constantinos C. Frangos, Apostolos P. Kiohos studied the percentage of Internet addiction among Greek university students. Results showed that the men were more likely to be addicted to the Internet than women, and Internet addicted students were associated with poorer academic performance. Multiple logistic regression showed that significant predictors of Internet addiction included increased hours of daily Internet use, increased hours visiting chat rooms, sex pages and blogs, male gender, divorced status, poor grades, and accessing the Internet outside of the home.

In 2011, Yong Shu Qin studied about internet use and internet addiction and the internet addiction among secondary school students. Demographic factors (age, gender and grade of level) were examined too. The result suggested that the level of internet addiction among students is moderate and tends to minimal. Moreover, there is a significant of gender difference in internet addiction.

Oktug, Zeynep (2012) studied that whether a gender-based difference exists between internet addiction and the tendency towards expressing emotions; to examine the relation between internet addiction and the ability to express emotions and to determine whether the degree for expression of emotions is a meaningful predictor of internet addiction. The results showed that internet addiction among women is higher than among men, but there is no difference between the genders with respect to the degrees for expression of emotions.

The meta analysis in reference to internet addiction and gender difference has indicated the analysis of seven studies to assess the difference between genders on internet addiction. Three studies out of seven indicated the prevalence of internet addiction in male is greater than female while the other two studies showed that female is more prone to internet addiction. The remaining two studies concluded that the gender difference exist regarding internet addiction.

Internet addiction and Depression:

Ha JH, Kim SY, Bae SC, Bae S, Kim H, Sim M, Lyoo IK, Cho SC (2007) studied the relationship between depression and Internet addiction among adolescents. Korean adolescents were studied. First, they were evaluated for their severity of Internet addiction with consideration of their behavioral characteristics and their primary purpose for computer use. Second, investigated correlations between Internet addiction and depression. This study reveals a significant association between Internet addiction and depressive symptoms in adolescents.

A study done by Sara Thomée Mats Eklöf, Ewa Gustafsson, Ralph Nilsson, Mats Hagberg (2007) evaluated whether high quantity of information and communication technology (ICT) use is a risk factor for developing psychological symptoms among young users. Exposure variables, such as different types of Information and Communication Technology users, and effect variables, such as perceived stress, symptoms of depression and sleep disturbances, were assessed. Results showed that e-mailing and online

chatting was associated with symptoms of depression.

In 2010, Morrison C.M. Gore explored the concept of Internet Addiction and examined the relationship between addictive symptoms and depression. An online questionnaire was used to measure participants' Internet use, the functions for which they used the Internet, and their depressive tendencies. Result showed that Internet addiction is linked to depression, such that those who regard themselves as dependent on the Internet report high levels of depressive symptom.

TuncaAy AYyAs, MehmMet BaAris HORhorZUM (2010) studied the effects of the internet addiction levels on depression, loneliness and self-esteem of secondary education students. Result showed that a positive, mid-level and significant relation with internet addiction has come out when depression, loneliness and self-esteem variables are considered together.

A study on internet addiction conducted by Mashhor N. Al-hantoushi, Saad H. Al-abdullateef (2013). The prevalence of internet addiction among secondary school students in Riyadh city, its correlates and its relation to depression. The result suggested that Internet addiction was associated with a lower degree of school performance, more hours using internet every day, lower level of parental control, and higher level of depression

The meta analysis in reference to the effect of internet addiction on depression has indicated the analysis of five studies to assess people having internet addiction are facing the depression more. Internet addiction is linked to depression, such that those who regard themselves as dependent on the Internet report high levels of depressive symptom.

Internet addiction and Anxiety:

Ahmet AKIN and Murat ISKENDER (2011) examined the relationships between internet addiction and anxiety, depression and stress. Participants were university students. Results showed that in correlation analysis, internet addiction was found positively related to depression, anxiety, and stress. According to path analysis results, anxiety, depression and stress were predicted positively by internet addiction. This research showed that internet addiction has a direct impact on, anxiety, depression and stress.

In 2012, Ahmet Adaler and Emre Balkan studied the relationship between internet addiction and psychological symptoms among university students. The sample for the research consists of female and male. The results of this study showed that there is a significant correlation between internet addiction and psychological symptoms as, anxiety, depression and hostility.

In 2013, Goel D, Subramanyam A, Kamath R. studied the prevalence of internet addiction and associated existing psychopathology in adolescent age group. Using Young's original criteria, addicts were found. The study was conducted among adolescents and youths. Results showed that adolescents with excessive use internet had high scores on anxiety.

Jalalinejad Razieh, Ghasempoor, Ali, Ajdari, Zaman, Sadehigooghari, Narjesskhatoon (2012) studied the prevalence of internet addiction among the girls and boys students in the universities students and the relationship between internet addictions with anxiety. The results of this study

demonstrated that prevalence of internet addiction among boys' students in universities was more than girls and in science and engineering students was more than art and humanity students. There was a significant difference in four groups in anxieties. The result showed that internet addiction significantly predict anxiety.

The meta analysis in reference to the effect of internet addiction on anxiety has indicated the analysis of four studies to show that excessive use of internet makes students addicted to it and consequently causes anxiety among users. The more one is addicted to it the more one is psychologically anxious. As the limited data were provided on this area, so it is recommended that more studies should be conducted in future which involve this variable and other more that determines the effect of internet addiction.

Internet addiction and Social Isolation:

Sanders, Christopher E.; Field, Tiffany M.; Diego, Miguel; Kaplan, Michele (2000) studied the increased use of the Internet is associated with higher levels of depression and social isolation among adolescents. High school seniors completed a survey specifying their demographic information, internet usage, quality of peer / family relationships, and depression level. The study concluded that adolescents reporting less internet use have better social ties with mothers and friends.

Chou and Hsiao (2000) indicate that internet snatches away individual from social life and limits real social relations, therefore people are alone. It has been identified in a study that internet use causes youngsters to experience difficulties in interpersonal relations (Suhail and Bargees, 2006). It has been discovered that children and youngsters using internet much are becoming alone and experience difficulties in making contact face-to-face (Kraut et al, 1998). It is also emphasized that communication through internet is quite important for today's youngsters and computer games and internet may cause social isolation replacing the friend of child or youngster (Gross, 2004)

A study conducted by Eric J. Moody (2004) to examine the association between loneliness and Internet use. The degree of social and emotional loneliness was assessed. This was compared with self-report measures of Internet use and the breadth of one's network of friends, both online and on a face-to-face basis. Results showed that low levels of social and emotional loneliness were both associated with high degrees of face-to-face networks of friends, while high levels of internet use were associated with high levels of social loneliness.

In 2011, Saaid Moidfar, Karam Habibpour Gatabi studied the phenomenon of the internet addiction as a social problem facing the information and communications age. The sample consists of the adolescent and the youth, who have access to the internet connection. The findings indicated the addictive use of the internet among some of the adolescent and the youth is associated with problems such as evading social responsibility, social isolation, lack of social support, and inefficient job and educational performances.

The meta analysis in reference to the effect of internet addiction on social isolation has indicated the analysis of six studies to showed that internet addicts usually abstract themselves from the social environment and their social relations have turned out to be negative, they cannot benefit from the social support. Individual will spend more time on

internet and expect more from internet as a consequence of looking for the help that can be obtained from the face-to-face relations on internet. This situation will increase the internet addiction of the individual and cause social isolation

Internet addiction and Sleep Pattern:

Sara Thomée Mats Eklöf, Ewa Gustafsson, Ralph Nilsson, Mats Hagberg (2007) studied whether high quantity of information and communication technology (ICT) use is a risk factor for developing psychological symptoms among young users. Exposure variables, such as different types of Information and Communication Technology users, and effect variables, such as perceived stress, symptoms of depression and sleep disturbances, were assessed. Results showed that high combined use of computer, mobile phone and online chatting was associated with prolonged stress, and while Internet surfing increased the risk of developing sleep disturbances.

Wong Wing-sze (2008) was the first to study of the impact of online addiction on insomnia and depression on Hong Kong adolescents. The findings showed that "internet addiction was associated significantly with insomnia and depression". These data imply that possible complex mechanisms exist between insomnia, internet addiction and depression. Previous studies have suggested that internet addiction impaired sleep quality, as internet addicts stayed up late at night or even lost sleep for late-night log-ons (Nalwa and Anand, 2003; Young, 2004).

In 2011, Cheung L.M., Wong W.S. studied the inter-relationships between insomnia, internet addiction and depression. Chinese adolescents in Hong Kong participated in this school-based cross-sectional study. Among students with internet addiction (17.2%), 15.7% were also identified as insomniacs. Results showed that overall; there is high co morbidity between internet addiction and insomnia.

Dimitri A. Christakis (2011) studied the college students at two U.S. universities to measure their Internet addiction and analyze its association with sleep and depression. The results showed not only a cause for concern, but a problem that colleges should address with preventative approaches. Overall, 4 percent of students scored in the occasionally problematic or addicted range on the Internet Addiction Test and 12 percent had moderate to severe depression and sleep problem.

Canan F.Yildirm O., Sinani G., Ozturk O., Ustunel T.Y., Ataoglu A. (2013) studied internet addiction among adolescents and to examine the correlation between problematic Internet use and sleep disturbance symptoms. The study was conducted among students. Results showed that the students with Internet addiction were more likely to have difficulty in falling asleep and night awakenings. It indicated an association between the Internet addiction and impaired sleep.

The meta analysis in reference to the effect of internet addiction on sleep pattern has indicated the analysis of six studies to concluded that internet addiction impaired sleep quality, as internet addicts stayed up late at night or even lost sleep for late-night log-ons. The adverse impact of problematic internet use on sleep quality, sleep pattern and mental health among youth. It is recommended that more research on this important issue, given the rising trend of internet addiction and sleep problems that effects sleep pattern among adolescents worldwide.

CONCLUSION

The meta analysis study done on internet addiction reports that the internet Addiction has a greater effect on the mental health of youth and also focused the gender differences among youths on internet addiction. It is significantly related with psychological symptoms such as depression, anxiety, social isolation and disturbed sleep pattern. Youths high in internet addiction are more likely to vulnerability to depression and anxiety. Therefore, it concluded that internet addiction predicts depression, anxiety, social isolation and sleep pattern among youth. Further studies are needed in this field to gathered more knowledgeable information about Internet Addiction.

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