



A study of internet addiction among college students

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Abstract

Rapid growth and easy access to the Internet have facilitated its influence on the Indian way of life. A side from the numerous benefits of this now ubiquitous technological tool, the problem of over use and the resulting 'Internet Addiction' is becoming increasingly apparent. College students represent a particularly vulnerable group for problem Internet use. The present study investigated the relationship between problem Internet use and locus of control among college students. Effects indicated that a large proportion of students reported feelings of dissociation and symptoms of tolerance, withdrawal and escape. Moreover, frequent interpersonal and academic conflicts, and physical health-threatening risks related to problem Internet use were found. While men reported more Internet-related problems overall, women were more likely to attempt to cut back or stop their Internet use. A significant positive correlation between external locus of control and problem Internet use was found. Finally, men were seven times more likely to gamble online.

Keywords: internet, addiction, internet addiction, college students, effects, control, locus, India, technology, problems

Introduction

The Internet, sometimes called simply "the Net," is a worldwide system of computer networks - a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers). The original aim was to create a network that would allow users of a research computer at one university to "talk to" research computers at other universities. A side benefit of ARPANet's design was that, because messages could be routed or rerouted in more than one direction, the network could continue to function even if parts of it were destroyed in the event of a military attack or other disaster.

Since the mid-1990s, the Internet has experienced unprecedented growth in both its size and number of users. Approximately 160 million people in the United States have access to the Internet, representing a 24% share of the world's Internet user population, and this number continues to increase. Among the Internet-using population, the fastest growing group is the category of adults aged 55 and over, while individuals ranging from 18-34 years of age represent the "most active online users". Additionally, it is estimated that by 2004, almost 91% of this age group will be online. College students in particular represent a substantial part of this growth.

The Internet affects individuals on varying levels of occupational, academic, interpersonal, financial, and physical health. The American population is becoming increasingly reliant on computer applications, especially the Internet and related products and services. For example, new technologies are now being marketed that are essentially mini-computers whose only function is to be a portable Internet-accessing device (e.g., for use in the kitchen while cooking).

The result of frequent Internet use, particularly among college students, has become a highly controversial issue. Still, there remains a paucity of research on the subject, including the types and reasons for use, and their consequences. Given the rapid level of growth, both professionals and researchers must recognize the issue as one worth investigating, particularly with respect to the mental health professions. For example, while depression among adolescents is relatively common, recent studies among college students and high school seniors have found an association between heavy Internet use and increased levels of depression. Moreover, another recent study at a Denver Public Health HIV Counseling and Testing site found that of the 856 heterosexual male clients (age range: 20-50) studied, those who sought sexual partners on the Internet were at greater risk for sexually transmitted diseases than clients who did not seek sex on the Internet. This study attempts to add to the literature by examining Internet use and its relationship to a personality variable, locus of control, among college students.

Internet Addiction

Internet addiction is defined as any online-related, compulsive behavior which interferes with normal living and causes severe stress on family, friends, loved ones, and one's work environment. Internet addiction has been called Internet dependency and Internet compulsivity. By any name, it is a compulsive behavior that completely dominates the addict's life. Internet addicts make the Internet a priority more important than family, friends, and work. The Internet becomes the organizing principle of addicts' lives.

Review of literature

A study conducted by Goel *et al.* (2013)^[1] on the prevalence

of internet addiction and associated existing psychopathology in adolescent age group. It was a cross-sectional study. It has been found Males in comparison to females were significantly more likely to be addicted. Moderate users and the possible addicts used the internet mostly for social networking, academic purposes, chatting, emailing, gaming, and downloading media files and pornography. The purpose of using the internet was significantly different for addicts.

Kumar *et al.* (2015) ^[3] studied on Internet and substance Use Disorders in Adolescent Students. They found internet addiction was much commoner among males than in females. High prevalence of problematic internet use was recorded in rural areas in current study, while along with deficient social support, mental health morbidity and neurotic character traits was previously found associated with the disorder.

Krishnamurthy *et al.* (2015) ^[2] this cross-sectional study intends to estimate prevalence, understand patterns, and evaluate risk factors for Internet addiction among college students. This study of college students aged 16-26 years. Result findings showed that Internet addiction to be associated with male gender.

Tsitsika *et al.* (2011) ^[5] evaluate the psychosocial profiles and psychiatric co-morbidities associated with Internet Addiction among adolescents. A case-control study was conducted among 129 adolescents. They found in their study that Internet addict and non-addict were similar in terms of area of residence and socioeconomic status. That mean they didn't found any correlation between socio-economic status and internet addiction.

Sharma *et al.* (2016) conducted a study on high school students to find out patterns of internet use and prevalence of Internet addiction among high school students. Internet Addiction was found significant more in males, prolonged users, and younger age of exposure to Internet and high socioeconomic status.

Problem internet use

Several terms have been used to describe excessive Internet use that leads to problems in various contexts of an individual's life, including Internet addiction, Internet abuse, and compulsive Internet use. However, Davis (1999) ^[6] argued that pathological Internet use makes the most sense. The term 'problem Internet use' is employed for this study in recognition that intensive Internet use can lead to problems but not necessarily severe pathology as implied by many of the other terms currently in use which lack sufficient empirical evidence and theoretical support. Problem Internet use is in actuality being considered as more of an impulse-control disorder than an addiction. Regardless of terminology, problem Internet use appears to have many features of impulse control disorders, particularly the criteria outlined for pathological gambling. The DSM-IV lists necessary features of compulsive substance abuse (i.e., addiction) as including tolerance; withdrawal; dependence; persistent attempts at decreasing or discontinuing use; obtaining, using or recovering from use of the substance; and in some cases, abandoning social, occupational, or recreational activities and responsibilities. Conversely, the essential features of impulse control disorders include succumbing to persistent drives or temptations, leading the individual to act in ways that are

harmful personally or toward others; feelings of tension or arousal just before committing the act; feelings of relief, gratification, or pleasure after the act has been committed; and occasional feelings of regret or guilt afterwards. A review of the extant literature revealed an assortment of possible criteria that either integrate or go beyond these definitions. Use of the Internet itself may bring on disordered behavior more readily. For example, when an alcoholic sobers up, or when a gambler runs out of money, the individual must face reality. These are similar to the problem Internet use issues. However, in the Internet user's case, it is merely a matter of accessing the nearest computer with online capability. While there is little by way of direct spending as in gambling and alcohol or drug use, similar negative life consequences have been associated with problem Internet use. Among college students, excessive use has been associated with missing classes, course failure and dismissal from college. For example, an Alfred University study found that 43% of dropouts in a given semester had been staying up until early morning hours using the Internet, more than double the rate of academic dismissal. With college students at high risk for developing Internet related problems, it is imperative that investigators gather information and examine correlates of Internet use behavior. While symptomatology associated with problem Internet use varies widely, there does appear to be two main trends that help advance assessment of the problem. First, excessive Internet use has been associated with the same gamut of negative life consequences (e.g., social, familial) that has been documented among individuals with substance addictions (Armstrong, Phillips, & Saling, 2001) ^[7]. Secondly, there is a consistent loss of control over the amount of time spent online or engaged in Internet-related activities (Armstrong, Phillips, & Saling, 2001) ^[7]. At a time when college students are undergoing major life changes, these factors play an especially crucial role and should not be overlooked.

Internet use among college students

A handful of studies on patterns of college student Internet use have been published in recent years. The general results seem to indicate that the rate of problem Internet use among college students is somewhere between 8-13%. However, this number may be misleading because the students with severe symptoms may not have gone to class or completed the surveys when they were distributed. Scherer (1997) ^[8] examined patterns of Internet use among 531 (51.5% male) students using mail in questionnaires at the University of Texas at Austin – a large public university. Approximately 65.5% of the students were Caucasian, 12.5% Hispanic American, and 10% Asian American. Students were classified as either dependent or nondependent Internet users. The author found that 73% of the students accessed the Internet a least once a week, 13% of which reported that they believed their Internet use to be excessive and significantly interfered with personal functioning. The study also found that 71% of the Internet-dependent users were male, even though both males and females access the Internet on a regular basis. Moreover, the groups of dependent users access the Internet for the same amount of time than nondependent students for activities such as academic and professional work the dependent group spent twice as long online for leisure

activities.

Davis *et al.* (1999) ^[6] used a questionnaire to compare Internet use at a small, private liberal arts university and a medium-size, public state university. The liberal arts university group consisted of 184 undergraduate students (101 women, 83 men), while 349 undergraduate students (242 women, 107 men) participated at the state university. They found that while 91% of students on both campuses had Internet access, students (especially men) reported extensive use (defined as greater than 25 hours per week) at the public institution. Students who abused the Internet admitted that it interfered with their work, school, and interpersonal relationships. The authors concluded that it is possible that small, private liberal arts colleges stress learning and educational experiences more than larger universities, thereby making it less likely for students to spend time engaged in other activities, such as use of the Internet. Moreover, they believe that greater anonymity may have led to students to answer the questionnaire more truthfully at the larger institution. Anderson (2001) studied 1,302 college students (649 men, 647 women) from seven colleges in the northeastern U.S. and one in Ireland using a 69-question survey. Two hundred and twenty four participants indicated that they did not use the Internet and so were not used in the analyses. Results indicated that on average, students spent about 100 minutes per day using the Internet. The two most frequent and time-consuming activities were browsing the Internet and checking email. Using adapted DSM-IV criteria for dependence, 9.8% (93 men, 13 women) of the students “fit” the criteria for Internet dependence. Moreover, those classified as dependent spent significantly more time using the Internet each day, averaging 229 minutes/day as compared to 73 minutes/day for nondependent. The dependent group also reported significantly more problems with school work, meeting new people, and sleep patterns. When the dependents were classified by school major, the hard science group accounted for 74% of the group, while 16% were in the arts and science group, and 10% were in the liberal arts group. The author concluded that the results clearly indicated a disproportionate number of students among the hard science majors who were pathological Internet users. In sum, there is empirical evidence that problem Internet use on college campuses is an emerging concern. While an investigation of Internet use among college students is a worthwhile endeavor in its own right, it is even more valuable to study the relationship of such use to personality variables. Examination of personality characteristics can yield valuable information that may aid in better identification of students who are at-risk for developing Internet-related problems. One personality variable that should be considered is locus of control.

Locus of control

Rotter (1996) originally described the psychological construct of locus of control as an element of personality. Locus of control refers to the perception of the extent to which individuals can control events in their lives. Individuals with an internal locus of control judge outcomes of events to be internally controllable. That is, they believe that their own personal efforts, behaviors, or skills will influence and determine outcomes, and they take responsibility for their

actions. Individuals with an external locus of control attribute events to external sources. They believe and behave as if forces beyond their control such as chance, luck, fate, or others with greater power represent the important factors in determining the occurrence of reinforcing events. As such, their own effort or abilities are perceived to have little effect on how events play out. An important feature of locus of control is that it is not reality that is being measured but rather an individual's perception of control over reality. So, if they think they can control what happens in their lives, they behave as though they can. Most people lie somewhere in between these two extremes, believing that both personal effort and outside circumstances will affect the outcomes in their lives. The relationship between locus of control and risk-taking behavior among adolescents and college students has been investigated. Most of the studies in the next section used Rotter's Internal External Locus of Control Scale (1966).

Locus of control and risk-taking behavior among college students

Although there exists contradictory findings, among the general population, individuals with an external expectancy orientation are more frequently associated with health-threatening behavior and higher incidence of pathology. Research among high school and college students has also yielded mixed results.

Lapp investigated the relationship between locus of control, personality factors, and alcohol and drug use among 216 undergraduate students (132 female, 84 male) in Canada. Results indicated that males who frequently used non-medical drugs (e.g., marijuana and hashish) were associated with having an internal locus of control. Moreover, male students and a French-speaking female group with a higher external locus of control used tobacco more frequently. Cox and Luhrs examined risk-taking behavior and locus of control among 280 high school students. They found that a higher proportion of students with an external rather than internal locus of control consumed alcohol. Jih, Sirgo, and Thomure (1995) ^[9] compared the alcohol consumption and locus of control of 104 college students (mean age of 21 years) from a private, Midwestern university and 104 public high school students (mean age of 17 years). They found that students with an external locus of control in both groups claimed to consume alcohol more frequently in hypothetically unpleasant and pleasant events and for actual pleasant and neutral events than those with a neutral or internal locus of control. Cox and Baker (1982) investigated the relationship between locus of control and the quantity and frequency of beer, wine, and liquor consumption among 46 male and 51 female undergraduates in the United Kingdom. Results indicated that male students who reported heavier wine consumption were significantly associated with an internal locus of control. In a study of 202 (112 females, 90 males) undergraduates, Schneider and Busch (1998) ^[10] concluded that students experiencing alcohol-related problems viewed their drinking as due to external factors. Moreover, smoking addicts were associated with more external scores. Moore and Ohtsuka (1999) ^[11] investigated gambling behavior and locus of control in 1,017 (435 males, 577 females) high school students and freshman college undergraduates (age range 14 to 25 years)

from a working class population in Australia. Their results provide significant but weak to moderate support for a relationship between internal locus of control and problem gambling. Moreover, Lester (1980) found that undergraduate students with a belief in an external locus of control gambled more at games in which luck played a part and less at games in which skill and judgment played a part.

Locus of control and internet use among college students:

Wallace (1999) theorized that Internet users were more likely than nonusers to have an internal locus of control because of the high degree of controllability inherent in utilization of the device. While studies of users versus nonusers are rare, limited research has focused on comparisons between problem Internet users and typical users. An extensive review of the literature has shown that there is a paucity of research on the relationship between locus control and the Internet. It is likely that the novelty of the Internet as a widespread phenomenon has limited the research up to this point. Understandably, it is even more difficult to locate empirical studies that examine this relationship among college students. Bellamy and Hanewisz (2001) ^[12] explored the effect of personal relationships and communications in Internet chat rooms to what they termed 'Internet Predisposition' (or Internet addiction). The study also examined the possible moderating effects of gender, locus of control, and sociability on the relationship between these relations and communications, and Internet addiction. Participants included 114 undergraduate and graduate students from technology-related classes in a relatively large university in Southeastern Michigan. Sixty-four percent was white and 32 percent was black. Internet addiction was measured by the Internet Predisposition scale which consists of a 4-item questionnaire with a five-point likert scale ranging from agree to disagree. Total scores were operationalized for the analyses. A second measure of Internet Predisposition consisted of measuring the number of hours per week that the participants reportedly spent online. Locus of control was measured through the use of a 10-item scale developed by Burger (1986). Results indicated that both measures of Internet addiction were significantly correlated with locus of control for women but not for men, thereby showing that there is a moderating influence of gender. The authors interpreted this finding as revealing that women who are more inclined to use computer-mediated communication tend to be more externally oriented and less confident. Limitations of this study include a biased and small sample. It is biased in that the participants were students drawn from a university that was technologically oriented in its academic programming.

Conclusion

It can be concluded by this research finding that the rate of internet addiction is rapidly increasing among students. Increasing rate of internet addiction among students, affect their mental and physical health badly. Internet addiction is also affecting study habit and face-to face interaction among students. Face-to-face interaction among students are decreasing due to their overuse of internet and wasting time on online chatting. The finding of this study indicates that there is no impact of student's gender on internet addiction

behaviour.

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