



A RESEARCH STUDY ON PREVALENCE OF INTERNET ADDICTION, USING YOUNG'S IAT, IN MBBS STUDENTS OF HIM S, VARANASI

Forensic Medicine

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ABSTRACT

In the age of technology, problems related to pathological internet use is on the rise. A disconcerting number of cases are coming forth pertaining to criminal usage of internet. Online sexual predators, online gamblers, scammers and cyber bullies are all born from excessive inappropriate usage of the internet. But even as we stand right in the middle of problematic internet usage, how aware are we? Unfortunately very little published literature is available focussing on internet addiction. The conception of the present study was to underline the need for a more comprehensive exploration of internet addiction.

KEYWORDS

INTRODUCTION:

Internet technology has become indispensable for man today. But where virtues lie, vices are not far behind. Problematic internet use (PIU), pathological internet use, compulsive computer use, internet addiction disorder, virtual addiction, internet dependence, excessive internet use, internet addiction are the various terms used in literature over the years, to stress on the morbid mental, social, occupational and financial consequences of excessive internet usage. [1]

PIU was described by , *Shapira et al* as “(a) uncontrollable,(b) markedly distressing, time-consuming or resulting in social, occupational or financial difficulties and (c) not solely present during hypomanic or manic symptoms”[2]

Internet addiction may mimic substance addiction . The latter involves manipulation of physical products like drugs for enhancing pleasure, whereas the former involves mood alteration by pathological behaviour aiming to achieve gratification. [3,4]

But it may not always be about achieving pleasure. At times it may be aimed at reducing anxiety due to an urge to repetitively check the computer or use the internet. It is described by some authors by the term compulsive internet or computer use. This may occur in concurrence with other types of compulsion like compulsive shopping (oniomania) [5]

There still exists controversy regarding the exact definition and classification for problematic internet usage or internet addiction. Whether its a subclass of behaviour addiction, obsessive compulsive disorder, a by product of impulse control disorder, depression or mania, it all remains a dilemma. Regardless its existence cannot be denied [6]. Diagnostic and Statistical Manual for Mental Disorders (DSM-5) has included Internet Gaming Disorder in the appendix as a part of “Non-substance addictions”. [7]

Medicolegal implications:

Excessive internet usage often predisposes an individual to be a perpetrator or victim of cyber crime,

- 1) There are multiple reported incidents of cyber bullying [8,9,10] , cyber stalking [11], engaging in cyber harassment; posting threats online.

These are punishable in India under sec 507, 499, 509,354 A, 354D IPC, Sec 66 E of Information technology act,

- 2) Incidences of terrorism[12]- fall under the purview of Sec 138-144 IPC, Sec 192, 238, 239,240,255,257,274,275, 355 IPC
- 3) Examples of child pornography [13] – has been criminalised under POCSO Act 2012
- 4) Committing technological crimes- has led to the evolution of cyber forensics
- 5) Reports of placing postings on blogs, websites, or message boards detailing criminal intentions or confessing to plotting or making pacts to commit crimes [14,15] – become criminal conspiracy under Sec 120A IPC

Internet provides a great platform for people with many faces to their

personality. The anonymity offered by internet allows socially unacceptable or stigmatised activities without repercussions [16,17]

The internet fuels uninhibited behaviour (term thus coined - the online disinhibition effect [18]), which may result in groups which are pedophilic [19], pro-suicide or pro-self-injury, pro-eating-disorders communities, hate groups, terrorist groups.

Furthermore internet facilitates depressed people to further isolate themselves or to search online for suicide methods. Manic individuals may overtly engage in excessive chatting which maybe sexually explicit in nature detailing personal information to strangers, participate in provocative blogging, excessive spending of money at online shopping sites, auction sites , or gambling sites.

People with substance-abuse problems may buy drugs online or solicit use of drugs to others Psychosis maybe exacerbated in individuals especially those who are not well versed with the technology; internet may further support their delusional ideologies.

Hypochondriacs may resort to online research for medical ailments and treatment

AIM OF THE STUDY:

- 1) To estimate the prevalence of internet addiction in MBBS students
- 2) To evaluate if there is any gender predominance
- 3) As discussed above, an individual can have a multi farious relationship with the internet depending on his mental status, hence it is not enough to just calibrate the time spent on internet but also to know what it is used for. This would constitute as the third objective of the study.

MATERIAL AND METHODS:

Participants: M.B.B.S students

Sample size: 290 subjects

Consent : Verbal informed consent will be taken before the questionnaire is provided.

Materials: Two questionnaires will be applied: Young's Internet Addiction Test (IAT) and the Internet Function Questionnaire [20]

Description and Content of Young's IAT:

- The IAT is a 20-item questionnaire, graded based on 5 point Likert scale, which measures compulsivity, dependency on internet , assesses issues related to addictive use.
- Questions are graded between -0 = less extreme behavior to 5 = most extreme behavior for each item.
- The total score is the sum of the ratings given by the subject for the 20 item responses.
- Each item is rated on a 5-point scale ranging from 0 to 5.
- The maximum score is 100 points.
- The IAT total score ranges, with the higher the score representing the higher level of severity of Internet compulsivity and addiction.
- Total scores that range from 0 to 30 points are considered to reflect a normal level of Internet usage; scores of 31 to 49 indicate the presence of a mild level of Internet addiction; 50 to 79 reflect the

presence of a moderate level; and scores of 80 to 100 indicate a severe dependence upon the Internet.

Internet Function Questionnaire:

Questionnaire will measure the various online activities (online shopping, communities, browsing, games, chat, gambling, e-mail, research and sexually gratifying sites), taking into account the percentage of time spent browsing these respective forms of website.

It includes questions such as 'How much of your online time do you spend on e-mail?', again on a 5-point scale: 1 = 0–20%, 2 = 21–40%, 3 = 41–60%, 4 = 61–80% and 5 = 81–100%.

RESULT

Of the 290 MBBS participants, 230 students showed varying degree of internet addiction. 117 of the total 142 males and 103 of the 148 female subjects were classified as internet addicts. The age group ranged between 17-26 years, the mean age being 21.5 years. Female subjects showed milder degree of internet addiction whereas male students showed more serious addictive behaviour. However, only 3.9% of the respondents showed severe internet addiction. (Graph 1)

Predictably, the average internet usage was more in the IA group as opposed to those in the NA group. A comparison was also made regarding relative proportion of time indulging in different activities, and the results charted.

DISCUSSION

The IA group engaged significantly more in instant messaging/chatting, online gaming and recreational surfing than the NA group (Graph 2). This is in concurrence with findings of Shapira et al that those showing propensity for internet dependence are drawn to these sites [21]. It thus correlates with the speculation that over involvement in internet sites that serve or replace a particular social function can be associated with maladaptive psychological functioning.

Whilst in this study we used the IAT questionnaire [20] which essentially manages to capture salient features of internet addiction, other diagnostic and assessment tools have been developed subsequently which includes different theoretical frameworks. Beard & Wolf [22] & Griffith [23] have urged the need to develop more extensive clinical diagnostic tools for internet addiction.

Various treatment strategies have been proposed for internet addicts [24,25]-

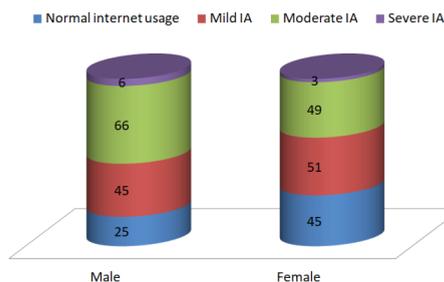
- **Practice the opposite-** for example instead of spending a designated time online, spend it on an outdoor game
- **External stoppers-** like using an alarm clock to indicate time up for internet usage for the day
- **Setting goals-** motivate the internet addict to plan and set goals which need to be achieved in a certain time frame
- **Reminder cards-** penning down the negative effects of internet usage in their life (example arguments with family) and carrying these cards in their pockets all day as a constant reminder
- **Personal inventory-** rekindle the lost non internet interests by making a list of hobbies
- **Abstinence-** complete abstinence from a particular online game or activity

Other treatments like Support groups, Family therapy **and** Cognitive therapy have also been suggested

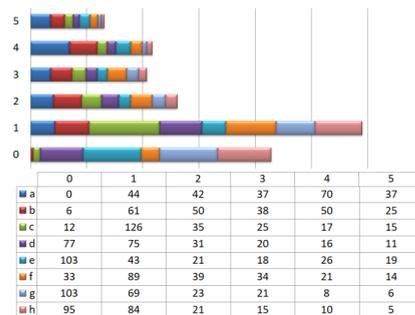
CONCLUSION

This study is a preliminary research attempting to bring focus on the concept of internet addiction as a distinct psychiatric construct. People who are constantly on the internet, be it internet surfing or online gaming while on the toilet seat or chatting while riding a motorbike, will eventually suffer from problems related to excessive usage. This is particularly foreboding for youth with coexisting addictive disorders. Forensic psychiatrists should enlighten school authorities, students, colleges, parents, employers and courts regarding internet addiction and echo the calls from researchers for inclusion of IA in the forthcoming DSM as a distinct disorder.

Graph 1 depicts the distribution of severity of IA amongst both the sexes



Graph 2 shows a comparative graphical representation of internet addicts suffering from different grades of internet addiction (0-5) and the time spent on each activity (a-h)



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