

The study of internet addiction among adolescent of Oxford College of Engineering and Management (OCEM)

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Abstract

The primary objective of this study was to determine the prevalence of internet addiction (IA) among contributory factors and to determine the association between socio-demographic variables and influencing factors of using internet among Oxford College of Engineering and Management (OCEM) students. The quantitative approach along with the survey study was used as a research method and the survey questionnaire was used as the research instrument. Participants were selected through simple random sampling. The cross sectional analytical study was conducted among 169 adolescents of OCEM students. The results show that prevalence rate of non-addictive internet users were 20.1% while 79.9% were addictive users. Among addictive users, 38.5% were found mild addiction, 40.8% were found moderate addiction, only 0.6% were found in severe addiction. The results also shows that the prevalence of internet addiction was significantly high among young generation. Internet addiction was also statistically significant with various demographic variables and internet use factors. The previous studies reveal that internet has become an integral part of contemporary life, bringing huge benefits in terms of expanding access to knowledge, information, social interaction, and entertainment and further noted that around 40% of the today's world population has an internet access. The implications of this study will be beneficial to parents, educational leaders, school and college principals to understand the internet addiction problems and to formulate new academic policy to minimize the over use of internet during teaching and learning activities. It is also recommended that internet addiction can affect the physical and mental health of the students so that the problem of internet addiction should be prevented through it's awareness program on the negative effects of over use of internet.

Keywords: *Prevalence; Internet addiction; Inter addiction; youth of OCEM*

1. Introduction

Internet was established in the early 1960 by the U.S. Department of Defense primarily for military purposes. Since then, the continual improvement of the internet technology has provided an extraordinary level of public accessibility to wide range forms of communication Intra-organizational and inter-organizational email; data storage, management transfer, social websites like Facebook, twitter, and so forth. Due to the development and spread of cheaper and more user-friendly computer technology and software (e.g., portable computers, Microsoft Word), the use of the internet has increased dramatically (Wanajak, 2011). Today around 50 % of the world population has an internet connection. In 1995, it was

less than 5 %. The number of internet users has increased tenfold from 1999 to 2013 and reached first billion in 2005, second billion in 2010 third billion in 2014 and penetration population of internet in the world is 46.1% till July 1, 2016. As of, June 30, 2016 internet users in Asia is 49.5% with the highest users and lowest user in Africa with 9.8 %. Similarly, In China Penetration population of internet user is 52.2 %, in India 43 % and in Nepal 63 % (Internet Live Stats, 2019). A cross sectional descriptive study was conducted to determine the prevalence of IA and contributor factors to determine internet related behavior patterns among students of Science, using stratified random sampling method. Of 236 participants, 74.6% were females. The study revealed that 50.8 % had mild addiction, 40.7 % moderate and 1.3 % had severe addiction. The finding of the study concluded that prevalence of IA is significantly high (Adhikari B, 2015).

2. Literature Review

A cross-sectional school-based study was conducted in four cities in China among 13,723 students (aged 12-20 years) to evaluate the associations between problematic Internet use and physical and psychological symptoms. The Multidimensional Sub-health Questionnaire of, Pittsburgh Sleep Quality Index and demographic variables were used to measure adolescents sleep quality, physical and psychological symptoms respectively. Problematic internet use was assessed by the 20-item Young IA Test. Prevalence rate of internet Addiction, physical symptoms, psychological symptoms, and poor sleep quality were 11.7 %, 24.9 %, 19.8 %, and 26.7 %, respectively. Excessive internet use may not only have direct adverse health consequences but also have indirect negative effects through sleep deprivation (Van Ameringen, Simpson, Patterson, Turna & Khalesi, 2016). A cross-sectional survey was conducted among 17,599 students in eight cities of China to test the relationship between Problematic internet use and psychosomatic symptoms and life satisfaction among Adolescents. PIU was assessed by the 20-item Young IA Test (YIAT). About 8.1 % of subjects showed PIU. Adolescents with PIU were associated with males, high school students, urban, eastern and western areas, upper self-report family economy, service type mostly used for entertainment and relieving loneliness and more frequency of internet use. Compared with normal internet users, adolescents with PIU were more likely to suffer from psychosomatic symptoms ($P < 0.001$), including lack of physical energy ($P < 0.001$), physiological dysfunction ($P < 0.001$), weakened immunity ($P < 0.001$), emotional symptoms ($P < 0.001$), behavioral symptoms ($P < 0.001$) and social adaptation problems ($P < 0.001$). Adolescents with PIU had lower scores on total and all dimensions of life satisfaction (all $P < 0.001$) (Bozkurt, Özer, Şahin & Sönmezgöz, 2017).

Multistage sampling was conducted in the sampling procedure where student participants from Baguio City were selected. The IA Test was used. Total of 1059 valid questionnaires were analyzed. Findings suggest that adolescents are frequent online users and that there are significant differences in terms of gender, school type, and online behaviors; social desirability had a strong positive relationship with adolescent IA (Waldo, 2014). A survey was administered among 1097 adolescents aged between 11 and 18 years to explore the addictive symptomatology among British adolescents. A convenience sampling technique was used. Only 71.8 % correctly completed all the Problematic Internet Entertainment Use Scale for Adolescents [PIEUSA; PIEUSA items] (i.e. was., 1097 out of 1528 participants). The results indicated that prevalence of online problem users was 5.290 and most of them were younger males that

engaged in online gaming for more than two hours most days. The majority of online problem users displayed negative addictive symptoms, especially 'loss of control' and 'conflict' (Lopez-Fernandez, Honrubia-Serrano, Gibson & Griffiths, 2014). In distinct to my research a cross-sectional survey with a sample size of 3560 students was conducted among high schools in Connecticut, USA. Demographic data, characteristics of internet use, health measures and risk behaviors were assessed. the overall prevalence was about 4% with no significant difference between genders. (Desaalet,al.. 2011) In distinct to my research a cross sectional study was conducted among adolescents of ages 13 to 18 years, registered on the secondary school registry in Guangzhou city using a stratified random sampling technique. IA was assessed using the Internet Addiction Test (IAT). The majority of respondents were classified as normal users of the internet (n = 1,392, 89.2%), with 158 (10.2%) moderately and 10 (0.6%) severely addicted to the Internet. (Lam et, al, 2009).

3. Research design

The Strategic plan structure of data were taken from OCEM student of class 11 and 12. The study was examined to IA with youth. It was descriptive, analytical and cross tab in nature. The sample survey data were collected from youth. The study was based on those students coming from rural and urban areas from the different places. A Cross-sectional analytical study design among 169 students was used to assess IA among adolescents of 11th and 12th grade, whose age ranges between 15 to 19 years of OCEM College.

3.1 Inclusion criteria and Exclusion criteria

The study included adolescents of 11th and 12th grade with age ranging from 15 to 19 years, were available and willing to participate in the study. Those students whose age ranged below 15 years and above 19 years and absent were excluded from the sample population.

3.2 Data Collection Procedure

Permission was obtained from the concerned authorities. Pre-testing was done among 10% of samples. The objectives of the study were informed to the respondents and written consent was taken. Parental consent form was distributed to those whose age is ≤ 18 years and signature of parents were taken as the permission to involve their child in the research. All the respondents who met the inclusion criteria were given a structured self-administered questionnaire. Respondents were assured for confidentiality of information as it was only used for study purpose. Similarly, a cross sectional survey was conducted between May and June 2010, using a self-administered questionnaire distributed to randomly selected 770 secondary schools students, using 20-item Young's IA test. and the Center for epidemiological studies depression scale with questions related to demographic, social, academic and internet use factors. 716 Students answered the questionnaire 391 are males and 325 are females. Prevalence was 5.3%, with male predominance. IA was associated with a lower degree of school performance, more hours using internet everyday (Cohen, Manion, Morrison & Bell, 2011).

4. RESULTS

4.1 Internet Addiction and Socio-Demographic Variables

In this digitalized world, the internet has become a fundamental tool for information, entertainment and social communication. It has been widely adopted especially by adolescents, as a low-cost, easy-to-access platform for social interaction and leisure activities. Currently, 93% of adolescents and young adults go online in the USA and almost 70% adolescents in Europe spend 2–4h daily on computer-games surfing and chatting via the internet (Tsitsika et al., 2016). Given this high usage and amount of time spent on internet use, internet addiction, often referred to as ‘problematic internet use’ (PIU), is a growing concern. The reported prevalence of PIU varies widely, from 1% to 9% in Europe, 1 % to 12 % in the Middle East and 2 % to 18 % in Asia. PIU in adolescents and young adults appears to be associated with negative health consequences, such as Depression, low educational performance, Attention Deficit Hyperactivity Disorder, daytime sleepiness, alcohol abuse and injuries (Mangoulia, 2014). It was found that socioeconomic variables seem to increase the risk of childhood and adolescent obesity. Indeed, previous research suggests an inverse correlation between childhood obesity and parental occupation, education and income level (Moreno, 2011).

All the collected data were reviewed, checked and organized daily for the completeness and accuracy. Coding and organizing was done before data entry. The data were entered and analyzed in the SPSS version 20. Mann-Whitney U & Kruskal-Wallis H test was used to find out the association between Internet Addiction, socio-demographic variables and Internet use factors. Data has been presented in different table form.

Table 1. Internet Addiction and Socio-Demographic Variables

Factors	Categories	N	Z score	P-value
Age	15 to 17	136	1.192	0.233
	18 to 19	33		
Sex	Male	87	3.475	0.001*
	Female	82		
Marital Status	Married	2	7.56	0.45
	Unmarried	167		
Educational Faculty	Science	86	3.932	0.000*
	Management	83		
Education Level	11	84	2.255	0.024*
	12	85		

*Significance level at 5%, *p<0.005

The results show that the association between IA scores and socio-demographic variables. It is found that IA is statistically significant with sex ($z=3.47$, $p=0.01$), education faculty $z=3.932$, $p=0.000$, education level $z=2.255$, $p=0.024$ (see in the Table 1). Likewise, the results show that the academic performance of the respondent are also associated with Internet Addiction. However it is not statistically significant to other variables. The current study has supported the previous findings of Stavropoulos, Alexandra & Motti-Stefanidi (2013) because both the current and the previous studies have highlighted that there is significant association between the internet user students and academic performance. This study also

support the previous study of Heo, Oh, Subramanian, Kim & Kawachi (2014) because both studies the similar findings that there was significant associations between addictive Internet use and ages of students, school grade and marital status. It was further found that female students in girls' schools were more likely to use Internet addictively than those in coeducational schools. Our results also revealed significant gender differences of addictive Internet use in its associated individual- and school-level factors.

4.1 The Internet Use Factors

The use of the Internet has allowed us the convenience of accessing anything at our fingertips. In adolescents especially, the Internet has become a readily accessible means for entertainment, communication, education and information retrieval. Nonetheless, the negative impact of addiction has pervasively affected day to day function; school performance and relationships with their parents; Worst of all, extensive Internet use may generate adverse effects on the psychosocial development of adolescents, which may result in many of them experiencing mental health problems including depression, loneliness, low self-esteem, and anxiety. An increasing number of studies have revealed that addictive online behaviors are very similar to alcoholism, substance addiction and pathological gambling. With the increased popularity of the Internet, Internet addiction has emerged as a social and mental health issue among youths. Although official diagnostic criteria do not currently exist, Young defined Internet addiction as the excessive, obsessive–compulsive, uncontrollable, tolerance-causing use of the Internet, which also causes significant distress and impairments in daily functioning. Internet addiction has the following types: cyber-sexual addiction, cyber-relational addiction, game addiction, information overload, and net compulsions. In recent years, Internet addiction has been reported in both Western and Eastern societies among adult and adolescent groups. Several studies have also examined the prevalence of Internet addiction during the past few years. Although data from those studies reported inconsistent occurrence rate of Internet addiction, there is no doubt that Internet addiction has emerged as a rapidly growing problem in young people that has attracted world-wide attention. Adolescence is a critical period for addiction vulnerability, when compared to adults, adolescents are more likely to adopt patterns of excessive Internet use. Generally speaking, Internet addiction is common among adolescents, and related factors are found at both home and school. Close attention should be paid by both parents and teachers to these factors. Effective measures are needed to prevent the spread of this problem.

Table 2. Association between IA and Internet use factors

Factors		N	Z score	p-value
Internet access at home	Yes	168	0	1
	No	1		
Own gadget	Yes	163	2.188	0.29
	No	6		
Type of gadget owned Computer	Yes	39	1.461	0.144
	No	124		
Smart Phone	Yes	123	0.654	0.513
	No	39		
Ipad/Tablet	Yes	38	1.029	0.304
	No	125		

Alternative to use if don't own gadget	Family members	5	3	0.77
	Internet Café	1		
Time of using internet more	Evening	72	3.791	0.000*
	Night	97		
Purpose of internet use study	Yes	120	2.26	0.024*
	No	49		
Online Games	Yes	71	3.619	0.000*
	No	98		
Chatting	Yes	152	535.5	0.001
	No	15		
Gambling	Yes	12	1.656	0.098
	No	157		
Pornography	Yes	27	2.668	0.008*
	No	141		
Social network sites	Yes	126	2.417	0.016*
	No	43		
Blogs	Yes	6	0.166	0.868
	No	163		
Downloading movies	Yes	6	1.128	0.855
	No	163		
News	Yes	6	0.142	0.254
	No	163		
Online shopping	Yes	18	1.142	1.142
	No	151		
Communicated with strangers	Yes	119	3.554	0.000*
	No	50		
Exchange phone number	Yes	50	3.206	0.001
	No	119		
Exchanges photos with strangers	Yes	52	4.315	0.000*
	No	117		
Met online friends	Yes	40	4.279	0.000*
	No	129		
Cyber bullying	Yes	8	0.685	0.493
	No	161		
Family relationship effects	Yes	23	4.031	0.000*
	No	146		
Health effects	Yes	53	2.154	0.031*
	No	116		

Kruskal Wallis Test

Factors		N	H	df	P-value
Experience of using internet	<6 months	4		3	0.037*
	6 months to 2 years	43			
	>2 years to 5 years	66			
	>5 years	56			
Average hour of internet use per day	<2 hours	84		3	0.000*
	2-3 hours	40			
	>3-5 hours	27			
	>5 hours	18			

Sleeping hour	<7 hours	47	2	0.641
	<7 to 8 hours	104		
	>8 hours	18		
Monthly expense	100-500 rupees	69		0.003*
	>500-1000 rupees	53		
	>1000 rupees	47		

The results indicate that Internet addiction is associated with various socio-demographic and internet use factors. This study revealed that prevalence rate of addictive internet users were 79.90 % and non-addictive internet users were 20.1%. Internet addiction has been classified as none users which was 20.1%. The results further show that mild, addiction was 38.5%, moderate addiction was 40.8% and severe addiction was 0.6%. Likewise, among all of the respondents' age group, adolescents of 17 years (34.91 %) were found to more addicted whereas, 15 years (1.18 %) group adolescents were less addicted than other groups. Regarding sex, male (45 %) were highly addicted than female (34.9%). Likewise, 89.9% use Internet for chatting, 70.4 % for study purpose, 74.6 % for social networking sites. 62.7 % for downloading movies/music, 42.0% for online games, 23.1% for news, 16.0 % for pornography. 10.7 % for online shopping. 7.1 % for gambling and 3.6 % for websites/blogging. The study revealed that 50.8% had mild addiction. 40.7 % moderate and 1.3 % had severe addiction. (see in the Table 2). This study has supported the previous study of Wu et al. (2016) because both studies have found that a variety of related factors have significant effects on Internet addiction, for example, parental control, per capita annual household income, academic performance, the access to Internet and online activities. The results also show that Internet addiction was negatively correlated with social support and positively associated with depression.

Discussion & Conclusions

The results show that, addictive internet users (79.9%) were higher than non-addictive internet users (20.1%) among the respondents. Moderate Addiction was highest among others (40.8%) followed by mild addiction (38.5%). Likewise severe addiction has only 1 (0.6 %). The results also show that the academic performance of the respondent were also associated with Internet Addiction. However it was not statistically significant to other variables.

Internet addiction is becoming a significant problem among adolescents. IA is growing problem, which has psychological, physical, and social impact on adolescents' life, and requires preventive strategies as well as therapeutic interventions. IA is statistically significant with sex, educational faculty, educational level and academic performance of the respondents. IA is strongly significant of using internet more at night time. IA score is affected by the purpose of using Internet. IA score is significant to online games, chatting, viewing' pornography, using social networking sites, respectively. IA score is highly significant with Communicating with strangers, exchanging phone numbers, exchanging photos with strangers meeting online, Family relationships and health. IA scores were significantly affected by experience in using the internet, those who has been using internet for > 5 years are highly affected than others. Daily average internet using hours is also significant to those who use internet > 5 hours a day and monthly expenditure is also significant to IA.

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