

Internet Addiction and Mental Health among University students during COVID-19 lockdown

***Dr. Anju Nagaur**

*Assistant Professor, Amity University, Lucknow.

Abstract

Covid-19 pandemic creates a grave situation in which people are required to live within their homes and follow social distancing for themselves as well as for others' well-being. The option to remain at home reduces the chance to get corona infection and its spread so the government also appreciating lockdown and promoting an online mode of work and classes. The students are also utilizing benefits of online classes, workshops by remaining at their home, and defeating corona. During COVID-19, accessing online books, libraries, completing assignments and online assessments are highly promoted and appreciated by universities, teachers, students, and parents as well. Internet has increasingly become an essential part of our lives and distant classes through online mode increase the dependency of students on the internet. On a similar front, the situation of uncertainty, restricted mobility, confined at one place makes individuals vulnerable to mental health problems. Thus, the present study attempts to see the effect of gender and semester on Internet addiction and Mental Health among university students pursuing professional courses. A sample of 166 students was approached online and assessed on Internet addiction test and DASS-21. The results reported that male respondents are high on Internet Addiction and mental problems. The students of the terminal semester are scored high on internet addiction and mental health problems during the COVID-19 situation.

Introduction

India is facing COVID-19 pandemic along with the entire world. The only effective way is to arrest this infectious disease is to maintain and follow social distancing. India took this situation very seriously and announced 21 days of country-wide 1st phase lock-down and when found situation was not desirable, subsequently went

for 2nd round of lockdown from 15 April to 3 May 2020. Stay at home reduces the chance to get corona infection, but at the same time, it reduces an individual's mobility, opportunity to work, entertainment, socialization. People were confined to their homes and trying to adjust to changed circumstances. Similarly, students were looming under uncertainty regarding their examinations and placements, especially those who pursued professional courses. They have spent lakhs of money for the completion of course with the belief to get a secured and bright future. The majority of students had gone through placement interviews and also had good placement opportunities. Due to the pandemic situation, they have no certainty of being placed or information of examination. The students were kept engage through online classes, E-quiz, webinars, E-workshops to sharpen their skills and provided extra-curricular exposure. In this way, this situation made students vulnerable towards mental health problems, as well as the internet was the only source of accessibility and mode to contact with the entire world. The number of hours using the internet has been drastically increased but the reason was not limited to educational purposes only. Internet is an important tool for accessing information, researches, books, entertainment and connecting far-away family members, friends, and relatives. Internet reduces the time in disseminating information and increases productivity and helps to access information from distant places. During the time of the COVID-19 pandemic, the internet emerged as a significant alternative to traditional classroom set-up. From a psychological point of view, It is necessary to focus on internet usage and to check whether this leads to a tendency of internet addiction among students. The lockdown situation in India provides free time which can be utilized as family time, reflecting upon themselves because this is an embedded culture of India. At the same time, the feeling of uncertainty and economic slowdown make students of professional courses be vulnerable to mental health problems as well as increased usage of the internet which may harm their routine.

The term addiction applied to the use of some substance or activity (Hatterer,1994) or problematic behavior(Young,1996). Initial researches focused on 'computer addiction' in which an individual was interested in technology and science. Subsequently, with the advent of the Internet, it becomes popular means of communication even to remote areas, open access to information for all and most convenient and cheap medium of entertainment as well. Internet addiction becomes a

focus area of researchers. Kandell (1998) suggested that Internet addiction is a psychological dependence on the Internet; the activity may vary from individual to individual. Internet addiction comprised of excessive internet gaming, surfing social networking sites, compulsive online shopping, watching irrelevant videos, and downloading. Researches demonstrated internet addiction may lead to an inability to express emotions (Oktug, 2012). Ha & Hwang (2014) found internet addiction was associated with depression, and subjective unhappiness. Kitazawa, Yoshimura, Murata, et.al.,(2018) reported problematic internet use among older students, with vulnerability for depression, anxiety, and having poor sleep quality among Japanese university students. Balhara, Mahapatra, Sharma & Bhargava (2018) conducted a systematic review of studies of South-East Asia youth and found problematic internet users reported insomnia, daytime sleepiness, and eye strain. Mamun, Hossain, Siddique, Sikder, Kuss & Griffiths (2019) found that among Bangladeshi university students high prevalence rate of internet addiction and depression as well as stress a strong predictors of problematic internet use. In an international cross-sectional study, problematic internet use was found an emerging mental health issue among university students, especially among Asian countries as compared to European countries and depression, anxiety reported most stable correlate of problematic internet use (Balhara, Doric, Stevanovic et.al., 2019). Among internet addicts depression and anxiety occurs as withdrawal syndrome, by using excessive internet avoid anxiety - provoking situations which in turn reinforce anxiety (Ho, Zhang, Tsang, Toh, Pan, Lu et.al.,2014). Internet-addicted students were reported more vulnerable to mental health problems (Gupta, Khan, Rajoura, & Srivastava.,2018; Kawabe, Horiuchi, Ochi, Oka & Ueno, 2016). In some studies, the high incidence of internet addiction was found to be only related with depression (Lam & Peng.,2010) and some found a positive association with both depression and suicidal ideation (Fu, Chan, Wong, Yip., 2010; Kim, Ryu, Chon,*et al.* 2006). Sleep problems and insomnia were reported a common problem with internet addiction (Younes, Halawi, Jabbour, El Osta, Karam, Hajj, et al,2016) a high prevalence of stress, depression, and anxiety were found among students with internet addiction (Gupta, Khan, Rajoura, & Srivastava.,2018; Younes, Halawi, Jabbour, El Osta, Karam, Hajj, et al,2016; Krishnamurthy, S., & Chetlapali, S.K.(2015); Goel, Subramanyam, Kamath,2013). So, on the light of the above discussion internet addiction and mental health of professional courses students during the COVID-19 pandemic lockdown was studied.

Objectives:

- (1) To find out the difference in Internet Addiction and Mental Health among undergraduate university students of professional courses across gender and semester (terminal and intermediate).
- (2) To find out the relationship between Internet Addiction and Mental Health across gender and semester (terminal and intermediate).

Hypothesis:

- (1) There will be no significant difference in Internet Addiction and Mental Health across gender and semester (terminal and intermediate).
- (2) There will be a positive relationship between Internet Addiction and Mental Health problems across gender and semester (terminal and intermediate).

Methodology:

Design: The present study uses correlation design with exploratory orientation.

Sample: The undergraduate university students studying in professional courses were included in the present study. The sample consists of 166 students, among them, 81 are from the terminal semester (36 males & 45 females) whereas 85 are from the intermediate semesters (38 males & 47 females). The age range of respondents was 20-25 years and all are domicile of Uttar Pradesh.

Tools: The responses were taken online which consist of basic demographic data sheet, Young's Internet Addiction Test scale (1998), and Depression Anxiety Stress Scale (DASS-21) by Lovibond & Lovibond (1995). Young's Internet Addiction Test is 20 items five-point Likert-scale which responses range from not applicable to always. The inter-item reliability ranges from 0.43 to 0.67 and scale has sufficient validity as well. DASS-21 scale consists of 3 subscales- Depression, Anxiety, and stress having 7 items in each, responses ranges from *did not apply to me at all* to *apply to me most of the time*.

Procedure: During the COVID-19 pandemic, the central government of India announced countrywide 1st phase of lockdown as a safety measure from 25 March to 14 April 2020 subsequently from 15 April to 3rd May 2020. The entire period was full of uncertainty for university students as they were kept engaged by online

classes and assignments but there were no instructions regarding examination or promoted to next semester. At the start of 2nd lockdown phase with heightened uncertainty, the university students of professional courses were approached and their responses were taken online. They have explained clearly the purpose of study and consent was taken.

Data Analysis: The data has been analyzed using IBM SPSS 20. The test of normality has been conducted before applying any statistics. Two-way ANOVA was calculated to find out differences across gender and semester, as well as, for the interaction effect. Pearson correlation was run to check the relationship between two variables.

Results:

Table no. 1 ANOVA summary table for Internet Addiction

Source of Variation	Ss	Df	Ms	F	P
Gender (A)	3606.72	1	3606.72	62.41	<0.05
Semester (B)	1700.77	1	1700.77	29.43	<0.05
Interaction (AxB)	254.89	1	254.89	4.41	<0.05
Error	9361.73	162	57.78		
Total	14924.12	166			

ANOVA summary table no.1 indicates that obtained F value for gender (A) (62.41) is significant at 0.05 level with df 1 & 162 which shows the main effect is statistically significant. The obtained F value 29.43 for a semester (B) is significant at 0.05 level with df 1 and 162, indicates the main effect is statistically significant. Thus, reject the null hypothesis no.1 as there are statistically significant gender and semester difference in internet addiction. The interaction effect of gender (A) and semester (B) emerged significantly at 0.05 level with 1 & 162. Hence, the Duncan post hoc comparison test was done. Multiple comparisons of interaction (Ax B) indicate male respondents of the terminal semester were significantly more prone to Internet Addiction as compared to other groups.

Table no. 2 ANOVA summary table for Mental Health

Source of Variation	Ss	Df	Ms	F	P
Gender (A)	103.43	1	103.43	4.34	<0.05
Semester (B)	1763.91	1	1763.91	74.01	<0.05
Interaction (AxB)	25.69	1	25.69	1.07	>0.05
Error	3860.92	162	23.83		
Total	5753.96	166			

ANOVA summary table no.2 shows that obtained F value for gender (A) (4.34) is significant at 0.05 level with df 1 & 162 which indicates that the main effect is statistically significant. The obtained F value 74.01 for the semester (B) is significant at 0.05 level with df 1 and 162, indicates the main effect is statistically significant. Thus, reject the null hypothesis no.1 as there are statistically significant gender and semester difference in mental health. The university students of the terminal semester were more prone to mental health problems as compared to intermediate semester students.

Table no. 3 Showing correlation between Internet Addiction and Mental Health across gender and semester

Variable	Mental Health			
	Gender		Semester	
	Male	Female	Terminal	Intermediate
Internet Addiction	0.432**	0.070	0.072	0.199

**significant at 0.01 level

Table no. 3 reveals that internet addiction and mental health problems are significantly related to male respondents. The scores indicated that the Male respondents were found to be high on internet addiction and having poor mental health; concluded either internet addiction lead to mental health problems or poor mental health status increases internet addiction. Thus, accept the hypothesis no.2 as

there is a statistically significant relationship between internet addiction and mental health problems.

Discussion: The present study found that the male respondents were scored high on Internet addiction as compared to their female counterparts. Akhter (2013) reported gender differences and found male was high on internet addiction. Similarly, Ha & Hwang (2014) found male respondents scored high on internet addiction as compared to females. Goel, Subramanyam, Kamath (2013) found gender difference in internet addiction among the Indian population, and male respondents were scored high on internet addiction.

The present research found that the university students of the terminal semester were found to be high on Internet addiction as compared to intermediate semesters. Kawabe, Horiuchi, Occhi, Oka & Ueno (2016) found that last semester students have a high tendency of internet addiction as compared to the initial semester.

This present study reported that the male respondents were having poor Mental Health as compared to their female counterparts. Other studies found female respondents reported much higher mental health problems (Ha & Hwang, 2014). The findings also suggest mental health problems exist more among terminal semester students. Due to the COVID-19 situation, last semester students have reduced chances of getting placed or opportunities are uncertain. As they had spent lots of effort and money to get professional degrees to get better and secure job opportunities seem to vanish so that they may be suffering from mental health issues. However, intermediate semester students have one or two more years to cope up with the prevailing situation.

The present study found an association between internet addiction and mental health problems among male respondents only. Researches empirically support the findings. Sharma & Sharma (2017) found internet addiction was significantly and negatively related to well-being. In male respondents, depression was found correlated to internet addiction; suggested depression as a potential cause of internet addiction (Liang, Zhou Yuan, Shao & Bian,2016).

Conclusion: The students pursuing professional courses were found vulnerable to Internet addiction and mental health problems during the Covid-19 lockdown in Uttar Pradesh.

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