

Internet Addiction among University Students during Covid-19 Lockdown: Case Study of Institutions in Nigeria

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Abstract

The impact of the recent global pandemic is multifaceted, affecting every aspect of human existence. Many studies conducted during this period have focused on the direct implications of the pandemic on human health and the economy, with only a few focusing on other possible implications. This survey aimed to elucidate the possible impact of the COVID-19 lockdown on internet addiction (IA) among university students in Nigeria. Using a cross-sectional survey, 202 students were randomly selected to fill the standardized internet addiction test (IAT) online. Data was entered and analyzed using SPSS version 20. The respondents had an average age of 20.9 ± 2.3 years and an average IAT score of 32.6 ± 14.4 , with the highest score being 79 out of 100. The majority of the students were categorized as normal internet users (45%), 42% as mildly addicted, and 13% as moderately addicted. None of the students were severely addicted. There were statistically significant associations derived between IA and income status ($p=0.000$), boredom ($p=0.000$), and Faculty of study ($p=0.011$). The results indicated that boredom was a key factor that had an impact on IA. The closure of schools, restriction of movement, reduced engagements, and seizures of allowances/stipends made the students vulnerable to IA.

Keywords: Internet addiction, University students, COVID-19, COVID-19 lockdown, Boredom, Nigeria

1. Introduction

In the present globalized era, the internet plays a vital role in the daily lives of approximately 40% of the world's population, with more than 3 billion internet users reported in 2016 (Rosliza et al., 2018). In 2018, it was estimated that around 3.5 billion people had access to the internet and most of them were young adults and adolescents (Karma et. al., 2018). Almost 4.57 billion people get to use the internet actively as of July 2020, incorporating 59% of the world populace (Clement, 2020). Reports have shown that there is an increased number of active internet users this year (2020) when compared with other years earlier, this may have been influenced by the COVID-19 pandemic as people were regulated at home and off their statutory daily engagements.

Nigeria has been noted as one of the most populated nations globally, it is projected that the country will have a substantial total of internet users. Recently, almost 85 million resourceful web clients were in Nigeria, and with approximately 75% of Nigeria's web traffic being created through multimedia phones (Statista, 2020). In 2020, Nigeria recorded 99.05 million internet users which is equivalent to 46.6% of the population (Statista, 2020). Globally, the express spread of the internet has swayed and has made available many aids to its users. Concerning the fact that the internet has made remarkable advances in all fields, some users are susceptible to becoming engrossed with the internet, thereby they find it difficult to regulate their use of this technology with the likely outcome of threatening their employments and personal relationships (Ogachi et al., 2018). This condition has been reported as 'Internet addiction (IA)'.

Internet addiction has been defined as the incapability to control the craving for excessive use of the internet, reduction of time spent without access to the internet, intense anxiety and aggression when denied, and continual worsening of social and family life (Young, 1999; Young, 2004).

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Excessive internet use has been associated with plenty of antagonistic psychosocial and emotional health conditions, such as- social detachment, threatening standards of conduct, weakened social abilities, consideration shortfall hyperactivity issue, melancholy, and additionally self-destructive fantasies (Roslizaet. al., 2018). Internet addiction is viewed as a problem that is still difficult to be defined accurately. Beard (2001) stated that Internet addiction is an explanation for uncontrollable and detrimental use of this technology. Moreover, it is a warning sign that a person is having difficulty controlling his or her internet use.

Even though the internet has become an educational tool in the majority of tertiary institutions in Nigeria, there is a paucity of studies that have examined the potential addictive harm it could pose to students. Across all demographic groups of Internet users, university students have been measured as one of the most vulnerable groups of problematic excessive internet users which may be because of their available leisure time, no supervision from parents and at times, absenteeism from statutory university activities (Nalwa and Anand, 2003; Yang and Tung, 2007; Young, 1998).

With the advent of the Covid-19 outbreak, the risk of internet addiction is potentially higher due to the high rate of internet penetration by university students across the nation. Past studies conducted have reported a prevalence of internet addiction among students across various countries (Mohamed and Bernouss, 2020; Prabhakaran 2016; Şaşmaz et. al., 2014; Sowndarya and Pattar, 2018). Studies conducted among students during this pandemic have revealed an increase in internet usage, thereby predisposing students to a higher risk of internet addiction as they particularly now spend a considerable amount of their time surfing the internet. (Dong Huixi et al., 2020; Nagaur, 2020). This study aims to appraise the pervasiveness of internet habit among public and private tertiary students, particularly examining how it relates to the impact of the COVID-19 pandemic locally.

2. METHODS

2.1 Study design

The survey was cross-sectional in nature and was conducted in August 2020. The study participants included undergraduate students from a public and private university in Ekiti State, Nigeria; Ekiti State University (EKSU) and Afe-Babalola University, Ado-Ekiti (ABUAD) respectively. Due to the closure of schools and the local COVID-19 restrictions, an online survey was used to administer the instrument to a total of 202 students. The survey link was distributed to the various online platforms available for the students in their respective faculties and institutions. The study included students from six (6) available faculties. In total, 90 students (44.60%) from the Faculty of Medicine, 16 students (7.9%) from the Faculty of Engineering/Technology, 52 students (72.49%) from the Faculty of Science, 22 (10.5) students from the Faculty of Law and 10 students (5%) from the Faculty of Art in both Afe Babalola (ABUAD) and Ekiti State University (EKSU) participated in the study.

2.2 Instrument

The students who consented to participate in the survey were permitted to fill the self-administered questionnaire. The self-report questionnaire consisted of two parts. The first section included the sociodemographic characteristics of participants, while the second section comprised of the Internet Addiction Test (IAT). Participants were required to answer the 20 IAT items on a 5-point Likert scale which has been proven to be valid and reliable with an overall alpha coefficient of 0.889 (95% CI: 0.884-0.895). (Young, 2010; Frangos and Sotiropoulos, 2012). The 20-item questionnaire has been consistently used to measure characteristics and behaviours associated with compulsive use of the Internet that includes compulsivity, escapism, and dependency.

2.3 Statistical Analysis

Data analysis was performed using IBM SPSS Statistics version 20. Descriptive analysis using frequencies and percentages was undertaken. The students IA level was scored and categorised into: normal level of Internet usage (0 to 30 points), a mild level of Internet addiction (31 to 49 points), moderate level of Internet addiction (50 to 79 points), and severe dependence upon the internet (80 to 100 points). The results were also categorised based on psychological characteristics revealed by the respondents based on how particular questions were answered. Specific characteristics such as salience, excessive use, neglect of work, anticipation, lack of control, and neglect of social life were measured. Inferential statistics measured at <0.05 statistical significance via independence t-test and ANOVA were used to determine factors associated with IA.

2.4 Ethical Consideration

Ethical approval was obtained from the ethical and Research Committee of the Ekiti State University Teaching Hospital. The data obtained were also treated with the utmost confidentiality.

3. RESULTS

A total of 202 undergraduate students aged between 16 to 28 years were invited to participate in this study. The response rate was 100% as all 202 randomly selected students approached for the study participated in the study. A considerable proportion (61.4%) of participants was in the age group 16 to 21 years whilst 38.6% were between 22-28 years (Table i).

The IAT score total score for students from both institutions had a range of 0-79, with a mean value of 32.6 ± 14.4 . Further details about the ranges and averages across both schools are shown in Figure i. A higher proportion (74%) of the students were from the college of medicine with the least proportion (2%) in Faculty of Sciences in ABUAD University whilst the Faculty of Sciences had the highest proportion of students (49%) with the Faculty of Law with the least (2%) number of students at EKSU while the rest were from the faculty of Engineering/Technology, Arts and Education. In ABUAD, the highest proportion of students (29% and 22%) were in 500 level and 600 level respectively while 300 level and 400 level students were highest (26.2% and 25.2%) in EKSU. Also, the majority of the participating students were Christians (94.5%) while 5% were Muslims. 59% of the students were earning a salary/stipend while 79% of them could comfortably afford to buy internet data and a total of 115 (56.9%) of the students consider themselves as Ambivert while 44 and 43 students (21.8% and 21.3%) considered themselves as Extrovert and Introvert respectively.

Table i: Distribution of Socio-demographic Variables amongst the respondents

VARIABLE		FREQUENCY (ABUAD)	FREQUENCY (EKSU)	PERCENTAGE TOTAL
Age				
16-21 years		59	65	61.4
22-28 years		41	37	38.6
Married		1	2	1.5
In a Relationship		24	22	22.8
Faculty of Study				
College of Medicine		74	16	44.6
Engineering/tech		10	6	7.9
Sciences		2	50	25.7
Law		10	2	5.9
Arts		4	18	10.9
Education		0	10	5.0
Year of Study				
100L		6	2	4.0
200L		13	26	19.3
300L		17	36	26.2
400L		13	38	25.2
500L		29	0	14.4
600L		22	0	10.9
Salary/Stipend Earners		34	24	29.1
Affordability of Internet Data		39	40	39.1
Experiencing boredom		63	71	67.0
Actively Engaged		31	64	47.3
Personality Check	Extrovert	12	32	21.8
	Introvert	31	12	21.3
	Ambivert	57	58	56.9
Religion	Christian	91	100	94.6
	Islam	8	2	5.0
	Atheist	1	0	0.5

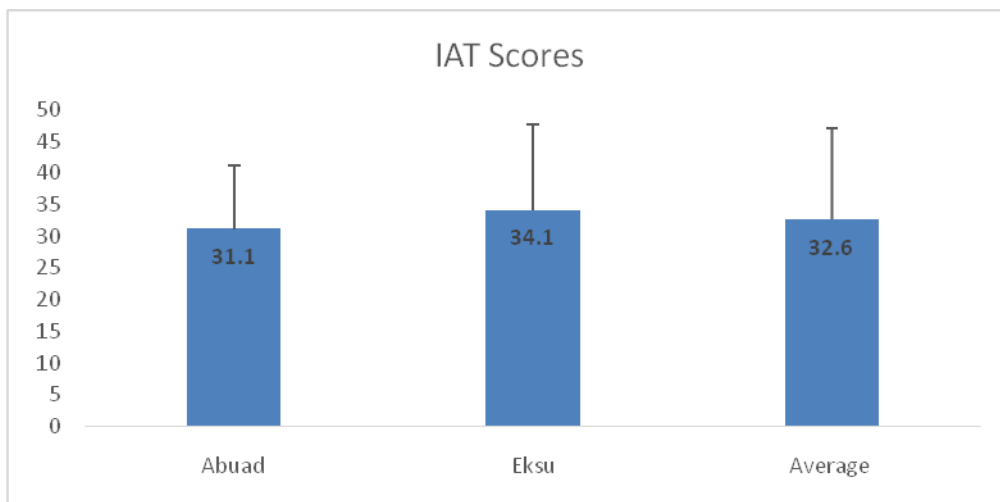


Figure i: IAT scores

The general description of internet use according to the score respondents obtained from the Internet Addiction Test (IAT) is described in Figure ii.

In general, The IAT scores which were based on the proposed cut-off criteria (Young, 2011) portrayed that 45% of students could be categorized as *normal internet users*, 42% as *mildly addicted*, 13% as *moderately addicted*, while none of the students could be considered as *severely addicted*. Given that the estimated percentage of participants belonging to the *problematic internet users* group was (13%), there appears to be a possibility that some students were *at risk* of internet addiction.

Figure (iii) shows that ABUAD university had a higher number of students that can be categorized as normal internet users (49%) while EKSU recorded a higher number of students in the category of Moderate level internet addiction (15.7%).

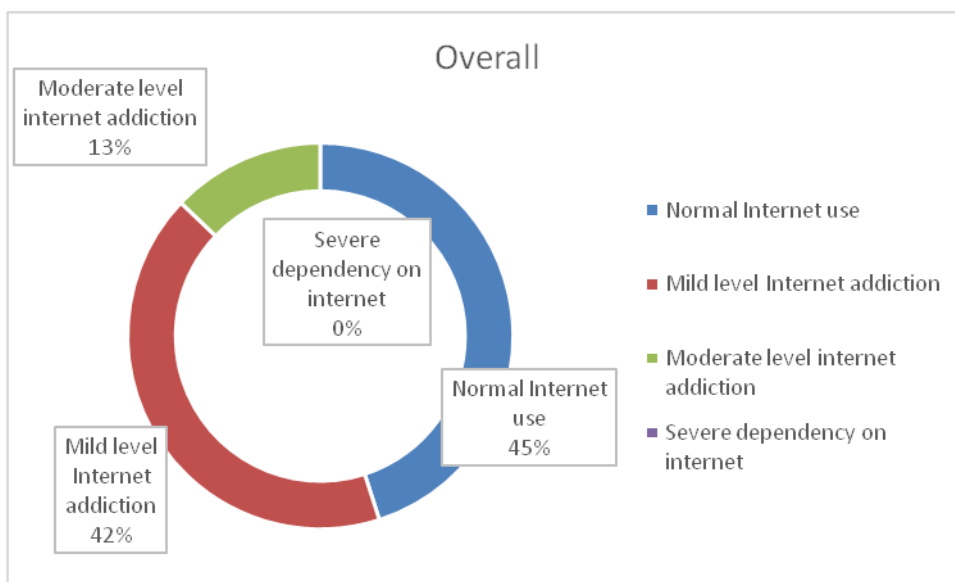


Figure ii: Overall Internet Addiction Test Proportions

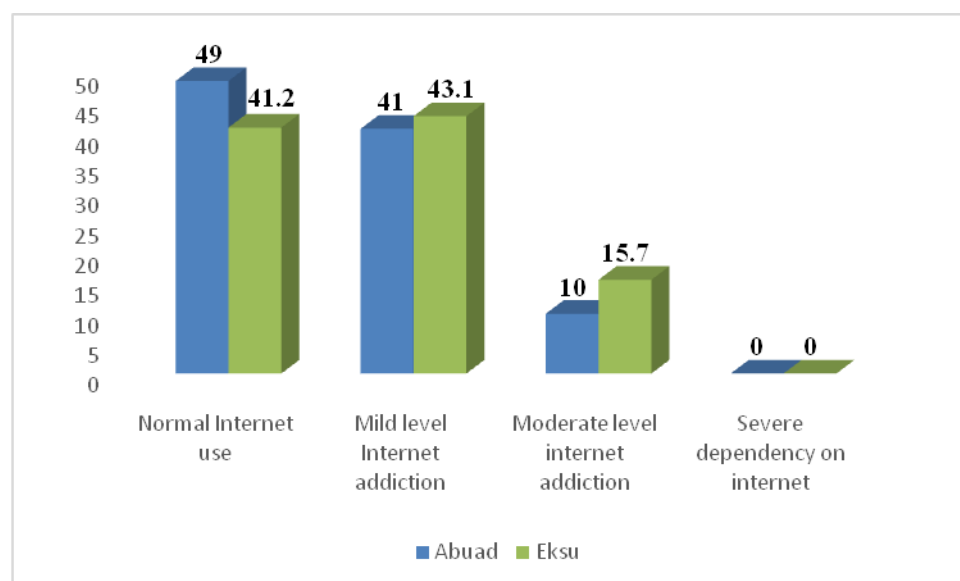


Figure iii: Internet Addiction Test for individual

3.1 Degree of association between addiction and other variables

There were statistically significant associations between excessive internet use and the type of school ($p=0.045$), income status ($p=0.001$), boredom ($p=0.000$), and student's Faculty ($p=0.004$). Students from EKSU had a significantly higher risk of excessive internet use compared to those from ABUAD. Students that were not earning money during the lockdown had a significantly higher risk of excessive internet use compared to those that were earning some money, while students experiencing boredom were at a significantly higher risk of excessive internet use. Students from the Faculty of Arts had the highest risk of excessive internet usage, while students from the Faculty of Law had the least risk. Furthermore, respondents that were in a relationship exhibited a significantly higher neglect of social life ($p=0.002$), while those that were not in a relationship showed significantly higher lack of control of internet usage ($p=0.002$). Moreover, boredom was also significantly associated with internet addiction ($p=0.000$), and other characteristics like salient characteristics ($p=0.000$), the anticipation of internet use ($p=0.029$), lack of control on internet use ($p=0.036$) as well as neglect of work ($p=0.024$). Respondents that were bored were at a significantly higher risk of internet addiction. However, variables like age, level of studies, and character personality of respondents had no association with internet addiction. Table (ii) provides details of all the associations measured.

Table ii: Association between Internet Addiction variables and socio-demographic characteristics of the students

Variables	Type of School	Relationship	Earning Salary/stipend	Boredom	Age	Faculty	Level of Studies	Character Personality
Internet addiction	0.146	0.952	0.000*	0.000*	0.477	0.011*	0.47	0.514
Salience	0.224	0.855	0.000*	0.000*	0.545	0.000*	0.796	0.169
Excessive use	0.045*	0.868	0.001*	0.000*	0.475	0.004*	0.096	0.505
Anticipation	0.215	0.698	0.004*	0.029*	0.811	0.032*	0.976	0.494
Lack of control	0.931	0.009*	0.033*	0.036*	0.194	0.331	0.218	0.566
Neglect of social life	0.291	0.002*	0.008*	0.095	0.082	0.115	0.084	0.628
Neglect work	0.481	0.338	0.196	0.024*	0.176	0.982	0.323	0.919

P-value at 0.05 significance

4. DISCUSSION

The study had revealed various levels of internet addiction among the respondents. For instance, 45%, 42%, and 13% had normal, mild, and moderate internet addiction respectively and since moderate users are often unable to control their internet use (Young, 2017), both excessive and moderate use of the internet can be considered as problematic.

The 13% moderate internet-addicted users reported in this study is the same as that of a study conducted by Nduanya et al. (2018) where 12.9% moderate users were also reported among university students in the eastern part of Nigeria. Other similar surveys by Asibong et al. (2020) among university students in Calabar, Nigeria, and Hasnaji (2016) among university students in Albania also revealed that 20.1% and 16.6% had problematic internet users. On the contrary, the 13% problematic internet users reported from this study is lower to the 48.6% from the findings of Akpunne and Akinnawo (2019) among university students in Nigeria, 40% reported by Al-Gamal et al. (2016) among University students in Jordan, 25.1% reported by Jelenchick et al. (2012) in American community university students, 40.7% by Bahrainian et al. (2014) among Iranian university students, 38.2% by Kitazawa et al. (2018) among Japanese university students and 35.4% by Bhandari et al. (2017) among Nepal undergraduate students.

From this study, the level of IA was higher among students from EKSU (Public University) although there is no statistically significant association between IA and type of school. This may be because the students from this university lacked real social support from their families since everyone is busy working to make ends meet. This finding corroborates observations from some studies that individuals may have "real social support" from their families and society as they may also have "virtual social support" from the internet (Yeh et al., 2008). Individuals who are not supported by their family use the internet frequently to satisfy the need for interpersonal relationships and to create alternative social channels. The higher IA among EKSU students could also be because a higher number of students are from the Faculty of Arts and Sciences, where their educational programs emphasize precisely how to help themselves and how to become social, unlike ABUAD (Private University) that has the highest number of students from the College of Medicine which the demands from their field of study may not give much room for spending time online and regulate their internet usage.

As regards, the differences in the content and density of education and the field of application, the level of IA is expected to differ among students in various Faculties (Orsal et al., 2013). In our study, a high level of IA was found in students at the Faculty of Arts and Science. This result is substantiated with another survey that found a higher level of internet IA among students in the Faculty of Sciences (Niemz et al., 2005). In contrast, Orsal et al. (2013) found a higher level of IA among students in the faculty of Economics and Administrative Sciences.

Orsal et al. (2013) posited that because of greater opportunities to access the internet among students and lack of control over their internet usage, the level of IA may be high among students whose mothers and fathers are employed and among those with a high family income level. This finding (Orsal et al., 2013) is contrary to the result from this study as it was revealed that respondents that were not earning salary/stipend and from low family income level (EKSU) had a higher risk of IA as there was a statistically significant relationship between IA and students earning stipends/salary. This may be because the students were less occupied with jobs or activities that could fetch them money rather, they spend most of their time surfing the internet and engaging in other forms of internet usage. Although, this could also mean that the respondents had other means of subscribing to the internet. This result negates that of Rosliza et al., (2018) also, who stated that financial status was another significant factor associated with problematic internet usage.

Furthermore, boredom on the part of the respondents was also a contributory factor to IA vulnerability as a significant association was reported. The majority of the students were routinely bored due to little or no school activity and hence, they try to find solace from the internet. There have been many research studies that reported the association between loneliness and IA but few studies related boredom with IA. From the systematic review by Douglas et al., (2008). on IA, it was revealed that loneliness was one of the foremost precursors of IA alongside feelings of isolation, low self-confidence, and low self-esteem. Other recent empirical findings have expatiated strong connections on the relationship between IA and loneliness (Esen et al., 2013; Odacı and Kalkan, 2010). Also, the study revealed that respondents who are respondents who are bored are salient, excessive internet users, anticipate the use of the internet momentarily, lack control as regard internet users, and neglect work to use the internet.

Although, the ages, as well as the level of studies and character personalities, were not statistically associated with IA. This implies that these variables are not in any way contributory to the high or low use of the internet and maybe because the respondents as regards their age, level of studies, and character personalities were all exposed to similar social attractions during the COVID-19 pandemic. The results from this study negate that of Okwaraji et al., (2015) among adolescents in an urban city in Nigeria. The insignificant result of the association between the level of studies and IA also negates the report of Kawa and Shafi (2015) who reported that there was a significant association between IA and the year of study.

5. CONCLUSION

In the whole study group, most of the subjects appear to be normal internet users. Only a small percentage of the sample display symptoms of IA (Problematic).

It may be concluded that the prevalence of IA among undergraduate students is noticeable and therefore, there is still a need to create awareness about IA and also come up with interventional measures to ensure responsible use of the internet for undergraduate students. This would prevent them from becoming addicted to the internet which may leave a negative impact on their educational performance and social life. Also, professional support to the students or person with internet addiction; and further studies on the level of IA among high school students and the general public needs to be prioritized.

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