(RESEARCH ARTICLE)

Prevalence of internet addiction and its effects on academic performance among college students in semi-urban settlement of Ijero-Ekiti, Ekiti State Nigeria.

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Abstract

The study was carried out to determine the prevalence of internet addiction and its effects on academic performances among college students of health sciences and technology, Ijero-Ekiti, Ekiti State Nigeria. Descriptive research survey type was employed for the study. The population of the study comprised of all the students of college of health sciences and technology in Ijero-Ekiti, Ekiti State Nigeria. A sample population of 150 students was used for the study through structured questionnaire. A descriptive statistics of frequency count and percentage was used to analyze the personal data and prevalence of internet addiction while inferential statistics of pearson correlation study at 0.01 level of significance was used to analyze the effects of internet addiction on academic performances among college students in Ijero-Ekiti, Ekiti state Nigeria. Findings reveal that majority of the students are minimal user of the internet while significant percentages of the respondents were moderate users of the internet and few respondents were excessive user. Also internet addiction significantly influences academic performances among the students of college of health sciences and technology in Ijero-Ekiti. It was concluded that poor knowledge about the effects of internet addiction among the respondents account for the level of internet addiction most especially as recorded among the excessive users. Based on the result of this study, recommendations were made to drastically reduce the trends of internet addiction among college students through concerted efforts which include pubic campaign, creation of awareness about the negative effects of internet addiction, heath education and promotion.

Keywords: Internet; Addiction; Internet addiction; College students; Ekiti; Nigeria

1. Introduction

The world is a global village which has great influences in all aspects of life positively. There are school of thoughts that Information Computer Technology as well as more traditional Computer Assisted Instructional Applications (CAIP) are positively influencing students learning processes and outcomes. Every day we adopt integration of internet as part of our life, internet adaptability has been increasing exponentially throughout the world in this contemporary times. This is however prevalent in our homes, schools, colleges, libraries, corporate organization and consequently internet cafes are common places where internet facilities are more available and accessible these days as reported by Azim, et al 2009 [1]. Common activities usually exploited on the completing schoolwork, playing online games, reading and writing emails and engaging in real time chatting are the common online activities. Preliminary studies had shown that a large number of American children and adolescents with age around 5 to 17 years old have access to the internet and are exposed to the internet at a very early age [2].

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Before now, addiction has been described in term of psychoactive substances that is capable of crossing brain permeable membrane and alters chemical balance of the brain. These psychoactive substances include alcohol, tobacco, and some drugs. However, in these contemporary times, social scientists, healthcare professionals and psychologists opined that psychological dependency such as gambling, sex, internet, work exercise are to be regarded as addiction as they have tendency to cause guilt ,shame, hopelessness, despair, failure rejection and anxiety.

Several terms have been proposed to describe excessive computer use such as internet addiction, cyberspace addiction, internet addiction disorder, online addiction, net addiction, internet addicted disorder, pathological internet use, high internet dependency, problematic internet use and others [3,4 ,5]. Researches have shown that our daily living has been consistently being influenced by internet as numerous aspect of our engagement is related to internet. Equally, internet users are more likely to spend their leisure time in the cyber community [6]

Equally, Young (2006) [6] stated that "the internet has Janus face" which means that internets provide facility for people while on the other hand people might abuse the internet usage also. Studies confirm that internet and computer usage have become popular worldwide but also have negative impact on some individuals and on society at large. It was reported that impact of some selected ICT devices on students' academic performances are appreciated as it intensify their academic output. [7]

 Internet adaptability has become an indispensable tool in these contemporary times considering the benefits associated with Internet use, which include accessibility to prompt and needed information, worldwide access to news, events and interpersonal communication through email. Despite this phenomenal growth of the internet and its use, researchers has shown concerns about the risks associated with the internet overuse as reported by Kim J.H (2008) [8]. Equally, Nalwa & Anand (2003) [9] observed that negative effects of internet were predominantly indiscriminate use of the internet such as excessive playing of games, watching pornographies and mostly cybercrime commonly known as yahoo ,yahoo rather than academic activities.

Studies shows that people who are addicted to internet can develop many types of disorder and one of the disorders that are common for the modern day is Internet Addiction Disorder (IDA). Individuals who are suffering from Internet Addiction Disorder (IDA) can exhibit symptoms such as drawbacks and face consequences that are similar to individual who are addicted to alcohol, gambling, shopping or other compulsive behaviour. It is now believed that there could be widespread addiction to it in particular amongst College and University students [10,11].

Evidence of Internet Addiction has been suggested by the findings that some internet users spend increasingly longer periods of time online and experience withdrawal symptoms when offline. Those preoccupied with Internet-related activities may neglect exercise, family and social activities. [12]

Technology and the Internet use particularly by college students have been associated with more frequent communication with friends and family members. One of the most important features of modern society is the growing impact of online communication tools, especially internet on people [13]. This impact is also felt on adolescents, no doubt Mesch, Turjeman & Fishman, (2008) [14] have identified certain factors that increase adolescents' tendency to the internet. These are the desires like to be free to communicate easily, to create an identity easily, and to develop meaningful personal relationships. These and other factors increase adolescents' internet use rate day by day. Increased use brings some problems with it. Perhaps, the most important of these is the "Internet Addiction, Excessive Internet use is seen in different cultures [11] and it is stated that adolescents group is at highest risk .Adolescents' beliefs and perceptions about themselves reflect in their behavior characteristics when using the internet. [15]

It was observed that college students are most time obsessed with internet usage as they spend most of their valuable hours on internet watching pornography, charting, watching films, dating etc. In spite of the fact that the internet could contribute a lot to students' learning, it is vital to scrutinize students' internet use trend for early care taking. Due to the mentioned consequences, which may influence negative effects on the academic performances of students. In view of this, this research work was designed to assess the "influence of internet addiction and its prevalence among students of College of Health Sciences and Technology Ijero-Ekiti, Ekiti State in Nigeria.

Objectives of this study include

- Assessing the pattern of internet use among college students in the study area.
- Determine the prevalence of internet addiction among the college students in the study area
- Identifying the effects of internet addiction on educational performances among college students in the study area.

2. Methodology

2.1. Study design

The study adopted a descriptive cross sectional research so as to determine the prevalence of internet addiction and measure its effects on academic performances of college students at the same time. Descriptive survey is the study of existing conditions by collecting, interpreting and analyzing data and arriving at some conclusions and recommendations.

2.2. Study population

The study population comprises all students both male and female of College of Health Sciences and Technology, Ijero Ekiti, Ekiti State Nigeria whom by the virtue of their provisional admission letter are students of the College.

2.3. Sample and sampling technique

Stratified random sampling technique was used to randomly select thirty (30) students from nine (9) departments to make One hundred and fifty (150) respondents. This enables each segment of the target population to be represented.

2.4. Instrument design

Internet Addiction Test (IAT) developed by Dr. Kimberly Young, 1998 and modified in year 2006 which consist of 10 questions was adopted to evaluate the respondents' level of internet addiction. Each item was scored using a five-point likert scale, a graded response was selected (1 = rare to 5 = always). It covers the degree to which internet use affect daily routine, social life, productivity, sleeping pattern, and feeling. Each rating is then multiplied by two to make 100 score. The minimum score is therefore 20 while the maximum is 100 and the higher the score the greater the level of internet addiction. Three types of internet-user groups were identified in accordance with the original scheme of Young and the scores ranging from 20 to 49 indicate minimal users while scores from 50 to 79 indicate moderate users and the scores from 80 to 100 indicate excessive users in the section B of the research instrument.

Equally, those who have Cumulative Grade Point of 3 and above were considered to be above average, those with Cumulative Grade Point of 2.5-2.9 were average while those with Cumulative Grade Point below 2.5 were below average.

2.5. Administration of the instrument

Questionnaires were distributed to one hundred and fifty (150) students selected from eight (8) departments in the College. One Hundred and forty seven (147) questionnaires were therefore retrieved back for the study. Explanation and instruction on how to complete the questionnaire were clearly spelt out to the respondents through self- interview.

2.6. Data analysis and management

The data collected was subjected to descriptive statistics, while simple percentages were used to analyze the level of internet addiction and pearson correlation were computed to investigate the relationship between internet addiction and academic performance (CGPA and GPA).

3. Results

3.1. Socio-demographic characteristics of the respondents

Table 1 Gender distribution of the respondents.

Gender	Number of Respondents	Percentage (%)
Male	50	34.0
Female	97	66.0
Total	147	100.0

The table above shows that 34% of the respondents are male while 66% of them are female. It can be concluded that majority of the respondents are female.

Table 2 Age distribution of the respondents

Age	Number of Respondents	Percentage (%)
11-20 years	31	21.1
21-30 years	102	69.4
31-40 years	12	8.2
41-50 years	2	1.4
Total	147	100.0

Table 2 above reveals that 21.1% of the respondents were between ages 11 and 20 years, 69.4% of them were between 21 and 30 years, 8.2% of them were between 31 and 40 years while 1.4% were between 41 and 50 years. This implies that majority of the respondents were between 21 and 30 years.

Table 3 Departments of the Respondents

Department	Number of Respondents	Percentage (%)
E.H.T	25	17.0
Food Hygiene	2	1.4
Medical Laboratory Science	12	8.2
CHEW	90	61.2
Dental Surgery Technician	7	4.8
HUND	4	2.7
X-ray	3	2.0
Biomedical Engineering	1	0.7
Health Information	3	2.0
Total	147	100.0

The table above shows that 17% of the respondents are in EHT department, 1.4% of the respondents are in Food Hygiene department, 8.2% of them are in Medical Laboratory Science department; 61.2% of them are in Community Health Extension department, 4.8% of them are in Dental Surgery Technology department, 2.7% of them are in Human Nutrition and dietetic (HUND), 2.0% of them are in X-ray department, 0.7% of them are in Biomedical Engineering department, while 2% of them are in Health Information department.

Table 4 Level of study of the Respondents

Level	Number of Respondents	Percentage (%)
200 Level	39	26.5
300 Level	99	67.3
400 Level	9	6.1
Total	147	100.0

Table 4 above reveals that 26.5% of the respondents are in 200 level, 67.3% of them are in 300 levels while 6.1% of them are currently in 400 level. This implies that majority of the respondents are currently in 300 level at the time of this research.

3.2. Prevalence of internet addiction among the respondents

Table 5 Frequency of staying online longer than intended time

Question	Response	Frequency	Percentage (%)
How often do you find that you stay online longer than you intended?	Rarely	30	20.4
	Occasionally	40	27.2
	Frequently	30	20.4
	Often	34	23.1
	Always	13	8.8
	Total	147	100.0

The table above shows that 20.4% of the respondents rarely stay online longer than intended, 27.2% of them occasionally stay online longer than intended, 20.4% of them frequently stay online longer than intended, 23.1% of them often stay online longer than intended while 8.8% of the respondents always stay online longer than intended. However, this implies that more respondents occasionally stay online longer than intended.

Table 6 Preference of internet excitement to intimacy with partner

Question	Response	Frequency	Percentage (%)
How often do you prefer the excitement of the internet to the intimacy with your partner?	Rarely	36	24.5
	Occasionally	40	27.2
	Frequently	29	19.7
	Often	29	19.7
	Always	13	8.8
	Total	147	100.0

Table 6 above shows that 24.5% of the respondents rarely prefer the excitement of the internet to the intimacy with partner, 27.2% of them occasionally prefer the excitement of the internet to the intimacy with partner, 19.7% of them frequently prefer the excitement of the internet to the intimacy with partner; 19.7% of them often prefer the excitement of the internet to the intimacy with partner, while 8.8% of them always prefer the excitement of the internet to the intimacy with partner. It can be concluded that more respondents occasionally prefer the excitement of the internet to the intimacy with partner.

Table 7 Frequency of complaint on the amount of time spent online

Question	Response	Frequency	Percentage (%)
How often do others in your life complain to you about the amount of time you spend online?	Rarely	54	36.7
	Occasionally	35	23.8
	Frequently	22	15.0
	Often	28	19.0
	Always	8	5.4
	Total	147	100.0

From the table above, 36.7% of the respondents rarely get complaint on the amount of time spent online, 23.8% of them occasionally get complaint on the amount of time spent online, 15% of them frequently get complaint on the amount of time spent online, 19% of them often get complaint on the amount of time spent online, while 5.4% of the respondents always get complaint on the amount of time spent online. In conclusion, majority of the respondents rarely get complaint on the amount of time spent online.

Table 8 Rate at which grades or school work suffer because of the time spent online

Question	Response	Frequency	Percentage (%)
How often do your grades or school works suffer because of the amount of time you spend online?	Rarely	63	42.9
	Occasionally	34	23.1
	Frequently	24	16.3
	Often	17	11.6
	Always	9	6.1
	Total	147	100.0

The table 8 reveals that 42.9% of the respondents said that their amount of time spent online rarely affect their grades or school work 23.1% of them said that their amount of time spent online occasionally affect their grades or school work, 16.3% of them said that their amount of time spent online frequently affect their grades or school work, 11.6% of them said that their amount of time spent online often affect their grades or school works while 6.1% of the respondents said that their amount of time spent online always affect their grades or school works. It can be concluded that majority of the respondents affirmed that the amount of time spent online rarely affect their grades or school work.

Table 9 Frequency of internet affecting job performance or productivity

Question	Response	Frequency	Percentage (%)
How often does your job performance or productivity suffer because of the internet?	Rarely	49	33.3
	Occasionally	35	23.8
	Frequently	29	19.7
	Often	19	12.9
	Always	15	10.2
	Total	147	100.0

The table reveals that 33.3% of the respondents said that the internet rarely affect or suffer their job performance or productivity 23.8% of them said that the internet occasionally affect or suffer their job performance or productivity 19.7% of them said that the internet frequently affect or suffer their job performance or productivity 12.9% of them said that the internet often affect or suffer their job performance or productivity while 10.2% of them said that the internet always affect or suffer their job performance or productivity. It can be concluded here that more of the respondents believed that the internet rarely affect or suffer their job performance or productivity.

Table 10 Anticipation on when to go online again

Question	Response	Frequency	Percentage (%)
How often do you find yourself anticipating when you will go online again?	Rarely	39	26.5
	Occasionally	32	21.8
	Frequently	41	27.9
	Often	22	15.0
	Always	13	8.8
	Total	147	100.0

The table above revealed that 26.5% of the respondents rarely find themselves anticipating on when to go online again, 21.8% of them occasionally find themselves anticipating on when to go online again, 27.9% of them frequently find

themselves anticipating on when to go online again, while 15% of them often find themselves anticipating on when to go online again, and 8.8% of them always find themselves anticipating on when to go online again. It can be concluded that more respondents frequently find themselves anticipating on when to go online again.

Table 11 Fear that life without the internet would be boring, empty and joyless

Question	Response	Frequency	Percentage (%)
How often do you fear that life without the internet would be boring, empty and joyless?	Rarely	41	27.9
	Occasionally	36	24.5
	Frequently	30	20.4
	Often	22	15.0
	Always	18	12.2
	Total	147	100.0

From the table above, 27.9% of the respondents rarely fear that life without the internet would be boring, empty and joyless. 24.5% of them occasionally fear that life without the internet would be boring, empty and joyless, 20.4% of them frequently fear that life without the internet would be boring, empty and joyless, 15% of them often fear that life without the internet would be boring, empty and joyless while 12.2% of them always fear that life without the internet would be boring, empty and joyless. It can be concluded that more respondents rarely fear that life without the internet would be boring, empty and joyless.

Table 12 Loss of sleep due to late-night logins

Question	Response	Frequency	Percentage (%)
How often do you lose sleep due to late-night logins?	Rarely	34	23.1
	Occasionally	41	27.9
	Frequently	28	19.0
	Often	27	18.4
	Always	17	11.6
	Total	147	100.0

The table above reveals that 23.1% of the respondents lose sleep due to late-night logins, 27.9% of them occasionally lose sleep due to late-night logins,19% of them occasionally lose sleep due to late-night logins, 18.4% of them often lose sleep due to late-night logins, while 11.6% of them always lose sleep due to late-night logins. In conclusion, more respondents occasionally lose sleep due to late-night logins.

Table 13 Failed attempts to cut down the time spent online

Question	Response	Frequency	Percentage (%)
How often do you try to cut down the amount of time you spend online and fail?	Rarely	38	25.9
	Occasionally	31	21.1
	Frequently	37	25.2
	Often	24	16.3
	Always	17	11.6
	Total	147	100.0

The table above reveals that 25.9% of the respondents rarely fail in trying to cut down the amount of time spent online; 21.1% of them occasionally fail in trying to cut down the amount of time spent online, 25.2% of them frequently fail in trying to cut down the amount of time spent online, 16.3% of them often fail in trying to cut down the amount of time spent online, while 11.6% of them always fail in trying to cut down the amount of time spent online. In conclusion, majority of the respondents rarely fail in trying to cut down the amount of time spent online.

Table 14 Choice of respondents to spend more time online over going out

Question	Response	Frequency	Percentage (%)
How often do you choose to spend more time online over going out with others?	Rarely	37	25.2
	Occasionally	33	22.4
	Frequently	35	23.8
	Often	32	21.8
	Always	10	6.8
	Total	147	100.0

The table shows that 25.2% of the respondents rarely choose to spend more time online over going out with others 22.4% of them occasionally choose to spend more time online over going out with others, 23.8% frequently choose to spend more time online over going out with others, 21.8% often choose to spend more time online over going out with others, while 6.8% of them always choose to spend more time online over going out with others. This implies that more respondents rarely choose to spend more time online over going out with others.

Table 15 Young's rating of prevalence of internet addiction

Question	Response	Frequency	Percentage (%)
Young's rating of prevalence of internet addiction among the respondents	Minimal Users	82	55.8
	Moderate Users	63	42.9
	Excessive Users	2	1.4
	Total	147	100.0

The table above reveals that 55.8% of the respondents are minimal users of the internet; 42.9% of them are moderate users of the internet; while 1.4% of them are excessive users of the internet. It can be concluded that majority of the respondents are minimal users of the internet.

3.3. Effects of academic performances

Table 16 Amount of courses failed in the last academic session

Question	Response	Frequency	Percentage (%)
How many course(s) did you fail in the last academic session?	None	109	74.1
	One	20	13.6
	Two	12	8.2
	Three and above	6	4.1
	Total	147	100.0

From the table above, 74.1% of the respondents did not fail any course in the last academic session; 13.6% of them failed one course in the last academic session, 8.2% of them failed two courses in the last academic session, while 4.1% of them failed three or more courses in the last academic session. It can be concluded that majority of the respondents did not fail any course in the last academic session.

Table 17 Failure in external/professional examination

Question	Response	Frequency	Percentage (%)
Have you failed in any external/professional exam before	Yes	28	19.0
	No	119	81.0
	Total	147	100.0

From the table above, 19% of the respondents have failed an external/professional examination before, while 81% of the respondents have not failed any external/ professional examination. In conclusion, majority of the respondents have not failed external/professional examination before.

Table 18 Cumulative grade point average in the last academic session

Question	Response	Frequency	Percentage (%)
What is your Cumulative Grade Point Average in the last academic session?	Above Average	92	62.6
	Average	18	12.2
	Below Average	25	17.0
	No response	12	8.2
	Total	147	100.0

The table above shows that 62.6% of the respondents had above average cumulative grade point average (CGPA) in the last academic session; 12.2% of them had average cumulative grade point average in the last academic session, 17% had below average cumulative grade point average in the last academic session while 8.2% of them did not respond. It can however be concluded that majority of the respondents had above average cumulative grade point average (CGPA) in the last academic session.

Table 19 Internet Addiction test score according to Young (2006)

Internet Addiction Test (IAT)	Score
Minimal Users	20-49
Moderate Users	50-79
Excessive Users	80-100

Table 20 Academic performance score for the Cumulative grade point Average

Academic Performance	CGPA
Average Above	≥3.0
Average	2.50-2.99
Below Above	<2.49

4. Discussion

The study revealed that some of the respondents occasionally stay online longer than intended and have preferences for internet with relatively high prevalence as internet addicts, this is similar to the previous studies by Turel & Serenko, 2010 [16]who affirmed that students over use internet for gaming; blogging; email, internet pornography or internet shopping.

Equally, Lanthier and Windham (2004) [17] revealed that internet addict do not only find themselves in the process of developing their identities, but they also start to establish intimate relationship at that particular stage of their lives.

However, 42.9% of the respondents' school works suffered because of the amount of time spent online This corroborates Masters, (2015) [18] who describes euphoric feelings that usually characterized staying longer in front of computers including inability to keep schedules, no sense of time, isolation, defensiveness, avoiding doing work and agitation.

In addition, internet addiction rated is arranged in the sequence [Minimal users, Moderate users and Excessive users] while cumulative grade point average is arranged in the sequence [Above Average, Average and below Average], as stated in the instrument design. Therefore, reduction in the rate of internet addiction is positively correlated to increased cumulative grade point average while excessive use of internet is positively correlated to below average cumulative grade point average. This affirms the report of Cha (2010) [12] which stated that uncontrolled frequency of internet use among students could jeopardize their good academic and professional performance. Similarly, Nalwa & Anand, 2005 [9] studies have claimed that people may use the internet addictively and that this can cause harmful effects on individuals, academic problem, changing their social behavior, habits and abilities in a negative way. It can thus, be deduced that increased rate of internet addiction have negative effects on the Cumulative Grade Point Average (CGPA) of college students in the study area. Further studies should look into the differences in the trends of addiction among male and female students and consequent effects on the academic performances.

5. Conclusion

In line with the findings of the study, majority of the students are minimal user of the internet while significant percentages of the respondents were moderate users of the internet and few respondents were excessive user. Equally, reduction in the rate of internet addiction is positively correlated to increased cumulative grade point average while excessive use of internet is positively correlated to below average cumulative grade point average. It can also be deduced that internet addiction can affects college students emotionally which include feeling guilt, anxiety, depression, dishonesty, euphoric feeling when in front of computer, unable to keep schedules, no sense of time, isolation, defensiveness, avoiding doing work and agitation which may significantly influence poor academic performances.

6. Recommendation

- Government should define, explore, investigate and predict addiction and identify possible intervention or treatment for internet addiction.
- In spite of the fact that the internet could contribute a lot to students' learning, it is vital for parents to scrutinize students' internet use trend for early care taking.
- College students should learn how to plan and be responsible for their proper time management, skills and introduce alternative profitable activities to their addictive behavior
- Concerted efforts are required by the relevant agencies to drastically reduce the trends of internet addiction among college students through pubic campaign, creation of awareness on the negative effects of internet addiction including health education and promotion.

Compliance with ethical standards

Disclosure of conflict of interest

There is no conflict of interest declared on this research article.

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