Personality Factor and Self-Perception Susceptibility as Correlates of Internet Addiction among University of Ibadan Students

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Abstract

Internet use has become a phenomenon of interest all over the world. Nigerian University students have become receptive to internet technology. However, the downside is that internet use can lead to internet addiction. Extant literature indicates that there are sparse studies on how students become addicted to the internet. This study therefore investigated personality factors and self-perception susceptibility, as determinants of internet addiction among students of University of Ibadan.

The study is a survey research and it made use of structured questionnaires to elicit responses from 1398 regular and online distance learning (ODL) students of the University of Ibadan. Four hypotheses were generated and tested at 0.05 level of significance.

Results indicate that female students scored significantly higher on internet addiction than their male counterparts $t(353)=2.792$. Marital status also showed that respondents who are single significantly score higher on internet addiction than the married $t(353) = 3.063$. Also, respondents who are regular students scored significantly higher on internet addiction than respondents who are on ODL mode of study $t(353)= 2.197$. Self-perception susceptibility, extraversion, conscientiousness, agreeableness, openness and neuroticism jointly predicted internet addiction $F(6.341)=12.209$). Self-perception susceptibility, conscientiousness, agreeableness, and neuroticism also independently predicted internet addiction ($\beta = .267$; $t =5.304$); ($\beta = .208$; $t = 2.909$); ($\beta = .292$; $t = 4.661$); ($\beta = -.158$; $t = -2.470$)

Therefore, sex, marital status, mode of study and personality traits of extraversion, conscientiousness, agreeableness, openness and neuroticism are important factors in internet addiction.

Keywords: Personality traits; Self-perception susceptibility; Internet addiction;

Introduction

The use of internet is a daily necessity among students. However, societies worldwide are facing challenges resulting from widespread internet use. Notable among such challenges is internet addiction. Internet addiction is an impulse control problem that is characterized by inability to control internet use which causes a disruption in an individual's life domains such as work and health. Internet addiction is a subset of addiction which dates back to radio in the 1930s and television in the 1960s, (Rosen, 2012). Although internet addiction is not in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5), it is however considered a disorder because the neural abnormalities (e.g., atrophies in dorsolateral prefrontal cortex) and cognitive dysfunctions (e.g., impaired working memory) associated with internet addiction mimic those found in substance and behavioral addiction (Brand, Young, & Laier, 2014).

According to Cheng & Yee-lam (2014), internet addiction prevalence varies considerably across different countries and is inversely related to quality of life. Internet addiction has been described as a 21st century epidemic with prevalence estimates ranging from 0.3% in the USA to 18.3% in Britain (Christakis, 2010). A number of online surveys and questionnaires have been created to measure the amount and type of internet use an individual undertakes. An online study of over 17,000 people found that approximately 5.9% of the study respondents met the criteria for an internet addiction diagnosis, (Masters, 2015). With rising use of internet, especially among students, there is increasing concern over them developing internet addiction as well as increased vulnerability to negative online experiences. Internet addiction results in disruption of social relationships such as with family and friends; as well as disruption of academic and occupational life amongst others. Individuals suffering from internet addiction spend more time in solitary seclusion than with people in their lives, and are seen as socially awkward. Internet addiction also includes behaviors that increase risks of adverse consequences. The short-term effects of

internet addiction include unfinished tasks, forgotten responsibilities, weight gain and so on. Long-term effects are seen more in physical symptoms such as backache, neck pain, carpal tunnel syndrome, vision problems and so on. Internet addiction can also lead to bankruptcy if the time spent on the internet is concentrated on shopping, gaming and the likes. Thus, it is not just the amount of time spent on the internet that puts individuals at risk, but also how the time is spent.

This study investigates personality factors and self-perception susceptibility as correlates of internet addiction among undergraduates of the University of Ibadan. This is borne out of the need to understand the personality factors that predispose people to internet addiction and fill the literature gap. Hence, the findings of this study will aid the understanding of how different personality factors and self-perception susceptibility levels underscores who is more vulnerable to internet addiction. The following research questions were proposed and answered:

- Does personality factors and self-perception susceptibility independently and jointly determine internet addiction among undergraduate students of University of Ibadan?
- What is the influence of sex on internet addiction among respondents?
- What is the influence of marital status on internet addiction among respondents?
- What influence does mode of study have on internet addiction among respondents?
- Does personality trait and self-perception susceptibility independently and jointly predict internet addiction among undergraduate students of the University?

Methodology

Research Design

This study is a descriptive survey targeting undergraduate students of the University of Ibadan, South-West Nigeria.

Setting

The research was conducted at University of Ibadan, Ibadan Oyo state, South-western Nigeria. The University offers online distance learning (ODL) and conventional program for both under graduate and post-graduate students.

Sampling technique and Determining Sample Size

Non-probabilistic convenience sampling technique was used in reaching respondents for data collection. Given unknown population number, 95% confidence level, and a confidence interval of 2.92; the required sample size was calculated using the sample size calculator. The required sample size was calculated to be 1126. The questionnaires administered were 1500 in order to make up for those that will not be retrieved. 1412 copies of the questionnaires were retrieved and 1398 were used in data analysis as 14 were not adequately filled.

Instruments and Procedure for Data Collection

Self-administered questionnaire was used for data collection owing to high literary level of the population. Also, questionnaire guarantees anonymity of respondents and it is almost indispensable in survey researches. The questionnaires include an introductory page where the research goal was described. Anonymity of respondents was guaranteed, and they were informed that they are not under any obligation to respond to any question they are not comfortable answering, and that they may walk away if they so choose at any point in time in the process of data collection. Respondents were required to append their signature, to signify and document their informed consent.

The questionnaires consist of four sections described below:

Section A measures socio demographic data. It consists of items that describe the demographic characteristics of respondents. Items in this section include age, marital status, level of study, mode of study, department and gender.

Section B measures the internet addiction. This section specifically interrogates respondents' feelings toward their frequency of internet usage. Likert scale format (0 – Does not apply, 1 – Rarely, 2 – Occasionally, 3 – Frequently, 4 – Often, 5 – Always) was used to measure their addiction.

Section C was designed to measure the personality factors of respondents. It measures how their personal feelings influence them in addicting to the internet. Four point scale was used to measure respondents' personality factors in this section. This section contains questions in two sides with options of really true and sort of true for me in each side.

Section D measures the impact of self-perception susceptibility on internet addiction using 7 point likert scale format of the form disagreed strongly =1, disagreed moderately =2, disagreed a little =3, neither agree nor disagree =4, agree a little =5, agree moderately =6 and agree strongly =7.

Statistical Analyses

Exploratory Data Analysis (EDA) was performed to investigate missing and outlying observation(s) at initial stage. Descriptive data analysis was run to establish the number of responses in different categories. Multiple linear regression analysis was conducted to verify the effects of personality factors and self-perception susceptibility on internet addiction. Student t-test was carried out to find out the mean difference between categories at two levels, while analysis of variance was run to examine the significant contribution of overall parameters on

internet addiction. Pearson's moment correlation was computed to investigate the type and strength of association between variables.

Results and Discussion

Data were analyzed, results and discussion are presented vis-a-vis the research questions.

Influence of Sex on Internet Addiction

Table 4.1: Summary of t-test for the independent samples showing the influence sex on internet addiction

	Sex	N	Mean	S.D	Df	T	P
Internet addiction	Female	207	41.12	17.85	353	-2.792	<.05
	Male	148	35.81	17.34			

Table 4.1 shows that female respondents scored significantly higher on internet addiction than males, t(353) = -2.792; P<.05). Female respondents recorded a mean score of (41.12) while males recorded a mean score of (35.81). This result indicates that there is significant difference in the sex of respondents on the measures of internet addiction. This is in line with the findings of (Oktuğ, 2012) which indicate that internet addiction among women is higher than among men. Young in his (1998) study also reported that the number of women displaying pathological internet use is higher than men. However, this is contrary to the findings of other studies among students that found more males to be addicted to internet than females (Okwaraji, Aguwa, Onyebueke, and Shiweobi-Eze, 2015; Üneri and Tanıdır, 2010). Morahan-Martin and Schumacker (2000) also put forth that pathological internet use is more prevalent among men than among women, as well as Cömert and Ögel (2009) who also reported that the risk for developing an internet addiction is higher by male than female students. There are inconsistent findings in the literature on how internet use differentiates between genders (Chou, Condron & Belland, 2005). Ogbomo & Ivwighreghweta, (2016) found no significant difference between

male and female internet addiction among undergraduates. The inconclusiveness of the differential influence of sex on internet use and addiction indicates the need for further and more comprehensive studies in this regard.

Influence of Marital Status on Internet Addiction

Table 4.2: Summary of t-test for the independent samples showing the influence of marital status on internet addiction

	Marital status	N	Mean	S.D	Df	T	P
Internet addiction	Single	333	39.64	19.12	353	3.063	<.05
	Married	22	27.77	4.08			

Table 4.2 shows that respondents who are single scored significantly higher on internet addiction than the married respondents t(353) = 3.063; P<.05). Single respondents recorded a mean score of (39.64) while their married counterparts recorded a mean score of (27.77). This result indicates that there is a significant difference in the marital status of respondents on the measures of internet addiction among the study sample. There is a dearth of literature on how marital status influence internet addiction. Nevertheless, the finding of John & Manikandan (2012) partly corroborates the findings of this study. They found a negative and significant correlation between internet addiction and relationship behaviour. Thus, the higher scores of single respondents on internet addiction may be explained by their relationship status.

Expression of emotions contributes to subjective and psychological well-being (Novick-Kline, Turk, Mennin, Hoyt, & Gallaghera, 2005). Hence, singles' higher level of internet addiction may be a coping mechanism for their single status. It may also be a means of searching for potential partners as the use of internet has become widespread for this purpose, and it also helps people to communicate with one another across boundaries. Conversely, excessive internet use can deprive

people from real life interactions. Therefore, people who use internet excessively may have less need for real life companionship which thus explains their single status.

Influence of Mode of Study on Internet Addiction

Table 4.3: Summary of t-test for the independent samples showing the influence of mode of study on internet addiction

	Mode of study	N	Mean	S.D	df	T	P
Internet addiction	Regular	183	40.91	16.19	353	2.197	<.05
	ODL	172	36.77	19.21			

Table 4.3 result shows that respondents who are on regular mode of study scored significantly higher on internet addiction than the respondents who are on ODL mode of study $t(353) = 2.197$; $P<.05$). Respondents on regular mode of study recorded a mean score of (40.91) while those on ODL mode of study recorded a mean score of (36.77). This result indicates that there is a significant difference in the respondents' mode of study and measures of internet addiction among the study sample. According to Treuer, Fabian & Furedi, (2001); and Chou, (2001) being an ODL student should imply having longer time to spend on the internet to sort for study materials and knowledge. This implies that ODL students are more susceptible to internet addiction than students on regular mode of study. The result of this study however shows that this may not always be the case as students on regular mode of study score higher on internet addiction. Rasuli & Azadmajd, (2013) found that participation in virtual classrooms and distance learning is affected significantly by internet addiction which then has significant impacts on other spheres of life of the individual.

Influence of Self-Perception Susceptibility, Extraversion, Conscientiousness, Agreeableness, Openness and Neuroticism on Internet Addiction

Table 4.4: Summary of Multiple Regressions showing the Influence of Self-perception susceptibility, extraversion, conscientiousness, agreeableness, openness and neuroticism on internet addiction

Variable	**R**	**R^2**	**F**	**P**	**β**	**t**	**Sig**
Self-perception susceptibility					.267	5.304	<.01
Extraversion					-.027	-.425	>.05
Conscientiousness	.421	.177	12.209	<.01	.208	2.909	<.05
Agreeableness					.292	4.661	<.01
Openness					-.047	-.690	>.01
Neuroticism					-.158	-2.470	<.05

Dependent variable: internet addiction

Table 4.4 shows self-perception susceptibility, extraversion, conscientiousness, agreeableness, openness and neuroticism as they jointly predict internet addiction ($R = .421$; $R^2 = .177$; $F(6,341) = 12.209$; $P<.01$). This implies that self-perception susceptibility, extraversion, conscientiousness, agreeableness, openness and neuroticism jointly accounted for a part of the variance in internet addiction while the remaining could be attributed to other variables not considered in this study. However, the analysis of the independent predictions indicated that self-perception susceptibility, conscientiousness, agreeableness, and neuroticism predicted significant independent influence on internet addiction ($\beta = .267$; $t = 5.304$; $P<.01$); ($\beta = .208$; $t = 2.909$; $P<.05$); ($\beta = .292$; $t = 4.661$; $P<.01$); ($\beta = -.158$; $t = -2.470$; $P<.05$). This result further expounds the influence of individual differences and psychological factors on internet addiction. Shields and Kane (2011) have stated that internet use is associated with social and psychological factors, with both positive and negative aspects. Individual or environmental conditions can have an effect on internet use association with social and psychological factors. To satisfy such needs as self-confidence and sense of well-being, individuals who have a hard time coping with their

emotions, instead of resorting to their intrinsic sources, gravitate towards various other sources (Gönüllü, Hacıoğlu, & Tarlacı, 2002). In today‘s world, the internet may also serve as such an external source.

Conclusion and Recommendations

With the widely spread use of the internet, educators have noted the negative impacts of its misuse, especially the problematic internet use which is internet addiction (Chou, 2001). Internet addiction is becoming a social problem of global concern. Students manifest internet addiction behavior in many ways including losing track of time while on the internet, excessive preoccupation with online activities without being conscious of it, becoming irritated if disturbed while online, decreased social interaction with people physically around, feeling that the world outside of the internet is boring, isolation from friends and family and so on. All these may not only work against academic achievement but also hamper emotional stability and contribute to physical discomfort of students manifesting as sleeplessness, dry eyes or strained vision, severe headaches, back and neck ache (Joanna, Melinda, Lawrence & Jeanne, 2014). Furthermore, Saisan, Smith, Robinson, & Segal, (2013), reported that research findings have shown that the academic problems caused by internet addiction include missing classes, being late for classes, a general decline in study habits, and increased risk of being placed on academic probation. According to Kim (2004) college students between the ages of 19 to 24 were the most susceptible to addiction. Researchers have suggested that addiction to the Internet among college students is dramatically comparable to addiction to alcohol and other psychoactive drugs, (Saisan, Smith, Robinson, & Segal, 2013).

To understand the relationship among various factors and internet use, the reasons that individuals have for internet use must be considered, as well as their internet use habits (Gordon,

Juang & Syed, 2007). Maheri, Jovini, Bahrami, & Sadeghi, (2012) studied the impact of internet addiction on health and lifestyle of students. They concluded that there is a significant relationship between internet addiction and healthy life-style. It was also reported that people addicted to internet have an unfavorable lifestyle compared with other people. The internet addicts scored also significantly lower on spiritual growth, health responsibility, interpersonal relationships, stress management, physical activity, and nutrition compared to normal internet users. Thus, it is expedient that orientation programmes should be in place for students on the proper use of the internet. Time management training should also be incorporated into curriculum of learning institutions to assist students on efficient use of time. This will not only assist students to get the best out of school, but it is also a life skill that will always be needed through life. Students should also be screen for internet addiction with a view to identifying those who are vulnerable or already addicted so that relevant psychological interventions can be put in place for them.

References

Brand M., Young K. S., & Laier C. (2014). Prefrontal control and Internet addiction: a theoretical model and review of neuropsychological and neuroimaging findings. Frontiers in HumanNeuroscience 2014; 8:375. [PMC free article] [PubMed]

Caplan, S. E., & High, A. (2006). "Beyond excessive use: The interaction between cognitive and behavioral symptoms of problematic internet use". Communication Research Reports. 23 (4): 265–271. doi:10.1080/08824090600962516.

Cheng, C. & Yee-lam, L. A. (2014). Internet Addiction Prevalence and Quality of (Real) Life: A Meta-Analysis of 31 Nations Across Seven World Regions. Cyberpsychology, Behavior and Social Networking, 17(12), 755–760.

Chou, C. (2001). Internet heavy use and addiction among Taiwan college students: An online interview study. *Cyber-psychology and Behavior, 4* (5), 573-585

Chou, C., Condron, L. & Belland, J. C. (2005). A Review of the Research on Internet Addiction. Educational Psychology Review, 17(4), 363–388.

Christakis, D.A. (2010). Internet addiction: A 21st Century Epidemic. Bmc Medicine, 8 (61), 12-31.

Cömert, I. T. & Ögel, K. (2009). İstanbul örnekleminde internet ve bilgisayar bağımlılığının yaygınlığı ve farklı etkenlerle ilişkisi. *Turkiye Klinikleri J Foren Med,* 6(1), 9-16.

Treuer, T., Fábián, Z., & Füredi, J. (2001). Internet addiction associated with features of impulse control disorder: is it a real psychiatric disorder? *Journal of Affective disorders*, 66(2), 283-301.

Gönüllü, O. G., Hacioğlu, M. & Tarlaci, N. (2002). Egopsychology and Substance Abuse. *Dusunen Adam. The Journal of Psychiatry and Neurological Sciences,* 15(2), 104-107.

Gordon, C. F., Juang, L. P. & Syed, M. (2007). Internet use and well-being among college students: Beyond frequency of use. *Journal of College Student Development,* 48(6), 674-688.

Internet Addiction. 2000. In Merriam-Webster.com. Retrieved March 8, 2018, from https://www.merriam-webster.com/dictionary/InternetAddiction

John, R. M. & Manikandan, K. (2012). Internet Addiction and Relationship Behaviour of Married IT Professionals. SELP Journal of Social Science, (3)13, 29-35.

Kim, J.H., (2004). A Study on the Problem and Policy of Youth Internet Addiction. South Korean Fam. Soc. Work 9(2): 21-34

Maheri, A. B., Jovini, H., Bahrami, M. N., & Sadeghi, R., (2012). The impact of internet addiction on lifestyle of students living in dormitories of medical sciences universities. Nursing and Community Health 20 114- 140.

Masters, K. (2015). "Social Networking Addiction among Health Sciences Students in Oman". Sultan Qaboos University Medical Journal. 15(3): 357 363. doi:10.18295/squmj.2015.15.03.009.

Morahan-Martin, J., & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computer in Human Behavior*, *16* (12), 13-29.

Novick-Kline, P., Turk, C. L., Mennin, D. S., Hoyt, E. A. & Gallaghera, C. L. (2005). Level of emotional awareness as a differentiating variable between individuals with and without generalized anxiety disorder. *Journal of Anxiety Disorders*, 19(5), 557-572.

Ogbomo, M. O. & Ivwighreghweta, O. (2016). Internet Addiction among Undergraduates in Universities in Delta State, Nigeria. International Journal of Academic Library and Information Science, 4(4), 110-116.

Ogbomo, M. O. & Ivwighreghweta, O. (2016). Internet Addiction among Undergraduates in Universities in Delta State, Nigeria. International Journal of Academic Library and Information Science, 4(4), 110-116.

Oktuğ, Z. (2012). Gender Differences in Internet Addiction and Tendency to Express Emotions. Online Journal of Counseling & Education, 1(4), 39-54.

Okwaraji, F., Aguwa, E.N., Onyebueke, G.C., & Shiweobi-Eze, .C. (2015). Assessment of Internet addiction and depression in a sample of Nigerian university undergraduates. *International Neuropsychiatric Diseases Journal, 6* (2), 112-123

Rasuli, M. R. & Azadmajd, A., (2013). Internet addic- tion and its impacts on high school students in Teh- ran. Social Sciences 62 18-45

Rosen, L. D., (2012). iDisorder: Understanding Our Obsession with Technology and Overcoming Its Hold On Us. New York: Palgrave Macmillan. ISBN 9780230117570

Saisan, J., Smith, M., Robinson, L. & Segal, J. (2014). Internet and computer addiction signs, symptoms and treatment. Retrieved from http://www.helpguid.org/articles/addiction/Internet-andcomputer-addiction.htm. IN

Saisan, J., Smith, M., Robinson, L., and Segal, J. (2013). Internet & Computer addiction: Signs, Symptoms, and Treatment. Helpguide.org, retrieved from.

Shields, N. & Kane, J. (2011). Social and Psychological Correlates of Internet Use among College Students. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 5(1), article 2. Retrieved from https://cyberpsychology.eu/article/view/4242

Üneri, Ö. Ş. & Tanıdır, C. (2011). Evaluation of internet addiction in a group of high school students: a cross-sectional study. Düşünen Adam, The Journal of Psychiatry and Neurological Sciences, 24, 265-272.

Yee-lam, L. A. (2014). Internet Addiction Prevalence and Quality of (Real) Life: A Meta-Analysis of 31 Nations Across Seven World Regions. Cyberpsychology, Behavior and Social Networking, 17(12), 755–760.

Young, K. S. (1998). Caught in the Net. New York: John Wiley. ISBN 0471191590. Internet World Statistics. World Internet Usage and Population Statistics (December31, 2013) 2014.www.internetworldstats.com/stats.htm (accessed April17, 2014)