

Relationship between depression and pathological Internet use among university students

Fabio Maroma Ogachi*, Psychology Department, Kenyatta University, Nairobi 43844, Kenya

Muchiri Karega, Psychology Department, Kenyatta University, Nairobi 43844, Kenya

John Samson Oteyo, Psychology Department, Kenyatta University, Nairobi 43844, Kenya

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Abstract

This study sought to establish the relationship between depression and pathological internet use (PIU) among university students in Kenya. The study used correlational design to establish the relationship between the variables. The target population was university students in Kenya. Convenience sampling was used to sample students from one public university and one private university. A total of 400 respondents participated in the study. Young's Internet Addiction Test and Beck Depression Inventory were adapted to measure PIU and depression, respectively. The findings revealed a prevalence of 16.8% of PIU and a prevalence of 23.6% of depression. The findings also revealed that female students were likely to be pathological internet users compared to male students. It was concluded that there was need to identify and help the affected students exercise moderation and self-control when using the internet in order for them to achieve their academic and lifetime goals.

Keywords: Depression, pathological internet use, university, students.

* ADDRESS FOR CORRESPONDENCE: **Fabio Ogachi**, Psychology Department, Kenyatta University, Nairobi 43844, Kenya.
E-mail address: ogachi.fabio@ku.ac.ke / Tel.: +254 723 441 888

1. Introduction

The internet has changed the way people communicate and changed the lives of people in the 21st century. It provides many benefits to the user which includes communication, searching for information, downloading content, transacting business and recreation. However, despite the numerous benefits of internet use, there are growing concerns about the risks involved and the negative effects on the users. According to Young (1998), some internet users may develop symptoms that are similar to addictive disorders. This means that some people who use the internet may develop pathological internet use (PIU).

PIU is the compulsive desire to continually use the internet which leads to negative consequences to the social, academic and family life of individuals. It is characterised spending long amounts of time online, excessive mental involvement in internet, attempts to reduce internet use, anxiety when not using the internet, negative impact on academic and work performance and lying about time spent on the internet (Young, 2004). There are different forms of PIU. These include pornography watching, internet gaming and online chatting. Individuals addicted to the internet are affected physically, socially and psychologically. Their academic and career performance is also affected (Akhter, 2013; Young, 2004).

There is a growing concern about the problem of PIU across the globe. Countries such as China and South Korea have recognized this public mental health issue and have invested substantially in education, research and treatment of PIU (Block, 2008). There is still much debate as to whether PIU should be officially classified as a psychological disorder. However, in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), Internet Gaming Disorder, a form of Pathological Internet Use, is listed as a disorder that requires further research (American Psychiatric Association, 2013). This underscores the seriousness of the problem of PIU. In Africa Longe, Chiemeké and Onifade (2007) found that 27% of Nigerian teenagers who had access to the internet were addicted to pornography. While in South Africa, Thatcher and Goolam (2005) found prevalence rates of PIU to be 5% of the country's population.

In Kenya, the availability of internet among university students has enabled them to socialise, access academic resources and enhanced communication. However, the down side of it is the likelihood of some university students developing PIU. According to Chak and Leung (2004), university students are at a higher risk of getting addicted to the internet because they have free and unlimited access to the internet. Most university students in Kenya have access to the internet either through their mobile phones, laptops or university computer laboratories (Kariuki, 2010). This means that they have access to the internet 24 hours a day. The availability and free access of internet in universities and the high rates of internet subscriptions through mobile phones makes university students among the highest users of internet in the country (CCK, 2014). Waithaka (2013) also found that all the university students were internet savvy and used the internet mostly for socialization and entertainment and not for academic work. This indicates that university students in Kenya are increasingly depending on the internet for their daily activities and are at risk of becoming pathological internet users.

Gender differences have also been reported among internet users. Some studies indicate that male youth tend to use the internet more than the females (Jalalinejad, Ghasempoor, Ajdari & Sadeghigooghari, 2012; Thatcher and Goolam, 2005), while others indicate that more females use the internet more than the males (iHub Research, 2012). Studies by Kariuki (2010) indicate that more male university students in Kenya use the internet compared to female students. This could have an impact on the levels of PIU among male and female university students and needed to be established in this study.

Whether PIU is a primary psychological disorder or a secondary manifestation of another psychological disorder still remains an issue of debate among mental health professionals. However, In the United States of America, Europe and Asia the prevalence of PIU has been found to be high among

youth with manifestations of depression. (Akhter, 2013; Jalalinejad et al., 2012; Yen, Ko, Yen, Wu & Yang, 2007). According to Yen et al. (2007), there is a similar incidence of depression among individuals pathological internet users and of PIU among depressive individuals.

Depression manifests as, insomnia, deep sadness, loss of appetite, hopelessness, irritability, self-dislike, unpleasant mood, and suicidal tendencies (America Psychiatric Association, 2013). The low self-esteem, isolation, fear of rejection and the need for affirmation which are associated with depression may result in PIU. According to Yang, Choe, Baity, Lee and Cho (2005), the interactive features of the internet may lead to PIU in individuals who are depressed. Other scholars opine that the depression occurs as a result of social isolation associated with internet addiction (Tsai & Lin, 2003). Orsal, Orsal, Unsal and Ozalp (2013) studied university students in Turkey and found a positive correlation between level of internet addiction and level of depression among the students. Senormanc, Konkan, Guclu and Senormanc (2014) also studied patients admitted to an internet addiction treatment facility and found that they manifested with symptoms of depression, loneliness, anger and interpersonal relationship problems. This shows that there is a likelihood of depressed individuals becoming pathological users of the internet.

Apart from the high use of internet among university students in Kenya, they are also at risk of suffering from depression. According to Othieno, Okoth, Peltze, Pengpid and Malla (2013), 35.7% of University of Nairobi students are moderately depressed while 5.6% were severely depressed. Atwoli, Mungla, Ndung'u, Kinoti and Ogot (2011) indicated that Kenyan university students have psychosocial symptoms that could be related to depression and other addictive behaviours. Depression has been found to co-exist with other psychological conditions. Khasakhala, Ndetei, Mutiso, Mbwayo and Mathai (2012) opine that individuals with depression are likely to suffer for other co-existing disorders like substance abuse, anxiety disorders and conduct disorders. This implies that depressed university students are likely to have other psychological problems like PIU.

Considering that Kenyan university students have higher internet access, there is a likelihood of them becoming addicted to the internet. It was appropriate to understand the existence of this problem amongst the Kenyan university students' population especially in relation to depression.

2. Data collection procedures

After acquiring all the relevant permissions to conduct research, the researcher with the help of research assistants approached students at various locations within campus such as class, hostel and recreation centres. Informed consent was sought from the participants before administering the questionnaire. The answering of the questionnaires took 10–15 minutes to complete. The data was collected over a period of 2 weeks. Anonymity and confidentiality was ensured throughout the process of data collection.

This study adopted a correlational design to establish the relationship between the variables. Data were collected on PIU and depression among university students in Kenya in order to test the nature and extent of the relationship between the two variables. The main variables in this study were depression and PIU. The population that was targeted by this study is all students enrolled in both private and public universities in Kenya. This study used convenience sampling to select the sample for the study. In convenience sampling, the researcher samples a part of the population that is readily accessible. It enabled the researcher to sample students who were within the university premises at the time of the study. Students from one public university and one private university in Nairobi were sampled to represent university students in Kenya. A total of 400 students comprising of 240 (male) and (160) female were sampled in the study.

Young's Internet Addiction Test (IAT) and Beck's Depression Inventory (BDI) were adapted in the study to measure PIU and depression, respectively. The two tools were tested for internal consistency and Chronbach's alpha for IAT and BDI were found to be 0.84 and 0.83, respectively. Descriptive statistics were used to establish the prevalence of PIU and depression.

2.1. Data analysis

Descriptive statistics, such as percentages and measures of central tendency, were used to describe the data. Pearson Product Moment Correlation, r , was used to establish the relationship between depression and PIU. The hypotheses testing was done at $\alpha = 0.05$. Independent samples t -test was used to establish the differences in occurrence of PIU between male and female students.

3. Results

3.1. Pathological Internet use

Analysis of data revealed that the prevalence of PIU among the university students was 16.8% (Table 1). This means that some university students were pathological users of the internet and could be experiencing social and academic problems due to excessive use of the internet. The findings of this study are consistent with most studies that use Young's Internet Addiction Test like Ching et al. (2017) who found that 36.9% of university students in Malaysia were addicted to the internet. The students could be experiencing the adverse effects of PIU on academic, relationships and psychological wellbeing. The study also found that mild pathological users were found to comprise 61.3% of the respondents. This means that a significant number of students are at risk of becoming pathological users.

Table 1. Pathological Internet use

PIU		
Categories	Frequency	Percentage of sample
Below average internet users	88	22.0
Mild pathological internet users	245	61.3
Moderate pathological internet users	62	15.5
Severe pathological internet users	5	1.3
Total	400	100.0

3.2. Gender differences in PIU

Gender differences in PIU were noted between male and female students ($t = 3.048$, $df = 292.891$, p -value = 0.03). Female students had a higher mean score compared to male students. These findings contradict some findings which indicate that there are no gender differences among male and female students in PIU (Dufour et al., 2016). Most of the studies have however been conducted in the west which is a different social cultural context from Kenya. The results of this study can be explained by the fact the Kenyan culture is more conservative about women interacting and expressing themselves physically. The female students may therefore tend to use the internet more to interact and express themselves through the social media networks which are easily accessible in their phones.

3.3. Depression

The findings revealed a prevalence of 23.6% of depression among the respondents (Table 2). This means that there are some students in the universities who may be depressed. The negative effects of depression such as suicidal ideation, loss of productivity and psychosocial maladjustment could be affecting some university students. The results are similar to findings of Karmakar and Behera (2017) who found high prevalence of depression among college students in India.

Table 2. Prevalence of depression

Categories	Depression	
	Frequency	Percentage of sample
Minimal depressive symptoms	306	76.5
Mild depression	50	12.5
Moderate depression	35	8.8
Severe depression	9	2.3
Total	400	100.0

3.4. Gender differences in depression

Gender differences were also noted among male and female university students. Female students were likely to be more depressed than male students ($t = 2.213$, $df = 398$, p -value = 0.027). The findings are similar to those of Asgeirsdottir and Sigfusdottir (2015) who found that female adolescents were likely to be more depressed than their male counterparts. The results support global findings that generally support the assertion that depression is associated more with females than males. These findings could be a reflection of the fact that Kenya is a relatively conservative country and the female students could be dealing with unique challenges that may lead to some of them developing depression.

3.5. Relationship between depression and pathological Internet use

The findings of the study revealed that there was a positive relationship between depression and PIU among the respondents (Table 3). This means that those students who used the internet excessively were also likely to be depressed. These results are consistent with the findings of Tekinarslan (2017). Depressed students may use the internet as a way of coping with the negative emotions through entertainment and online interaction. These findings, therefore, give credence to the assertion by Young (1998) that the internet is a safe place for individuals to absorb themselves mentally in order to reduce the stress, tension and sadness that is associated with depression. University students in Kenya have access to the internet through the free Wi-fi connection, mobile phones and university computer labs hence are likely to become pathological internet users.

Table 3. Correlation between depression and pPIU

Variables	Correlations	
	Depression	Pathological Internet use
Depression	1.000	0.218**
Sample size	400	400
PIU	0.218**	1.000
Sample size	400	400

** $p < 0.05$, two-tailed.

4. Conclusion

Despite the benefits that accrue from internet use for university students, some of them may be experiencing negative consequences due to excessive use. Counsellors and other stake holders should therefore be cognisant of the fact that some students may be experiencing difficulties in social relations and academic work due to PIU. There is also a need to be aware that gender could be a predictor of PIU. However, there is need to identify the reasons for the differences in PIU between male and female students. The finding that there is a positive relationship between depression and PIU evokes the need to screen for depression while addressing PIU among university students.

The study has the limitation of only showing an association between depression and PIU but does not indicate what precedes the other.

4.1. Recommendations

The policy makers in higher education need to create awareness and interventions among university students to mitigate the dangers of PIU.

There is need for university counsellors to incorporate PIU in assessment of students who may manifest with symptoms of depression and vice versa so as to ensure that their interventions are holistic and comprehensive.

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