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Internet use and Self-Reported Health Problems among Secondary School Students in Kwara State Nigeria

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Abstract

The internet has consistent positive impacts on modern society, it has also caused various societal concerns about privacy, security, pornography, internet crime, and health related problem. Its easy accessibility poses greater risks and dangers for adolescents as compared to other forms of media. This study investigated internet use and self reported health problems among secondary school students in Ilorin South Local Government Area of Kwara State. The study is a descriptive survey and a self developed questionnaire with reliability coefficient of 0.71 was used as instrument for data collection. One thousand and twenty (1020) respondents were selected using purposive and simple random sampling technique from 17 public schools. One research question and one hypothesis were raised. The data was analysed using percentages for the research questions and inferential statistics of regression to test the hypotheses at 0.05 alpha level. The results shows that internet use is independently related with risky sexual behaviour having the greatest contribution of 52.4% ($\beta=.524$, $t=20.752$, $p<0.05$), followed by eating disorder with 49.1% ($\beta=.491$, $t=18.015$, $p<0.05$), then depression with 32.1 ($\beta=.321$, $t=16.27$, $p<0.05$), while sleeping disorder has the least contribution of the independent variables on the dependent variable ($F(4,1015)=15.076$, $p<0.05$). The study concluded that there is a significant relationship between all the independent variables and the dependent variable. In recommendation, parents and teachers should device appropriate skills in building a broad knowledge base necessary to deal with adolescents' use of internet; they should be exposed to other creative and interesting activities beyond internet use.

Key words: *Internet, Adolescent, Self-injuries, Depression, Sexual behaviour, Eating disorder*

Introduction

Internet is considered as one of the most important and fastest access to information compared to the traditional ways such as journals, books and magazines. Vast amounts of information are transmitted from one network to another and it can be accessed all over the world (Greenfield & Yan, 2006). Rouse (2008) defined internet as a worldwide system of computer networks - a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers). It was conceived by the Advanced Research Projects Agency (ARPA) of the United State government in 1969 and was first known as the ARPANet. The original aim was to create a network that would allow users of a research computer at one university to be able to "talk to" research computers at other universities. Today, the Internet is a public, cooperative, and self-sustaining facility accessible to hundreds of millions of people worldwide. Physically, the Internet uses a portion of the total resources of the currently existing public telecommunication networks. Technically, what distinguishes the Internet is its use of a set of protocols called TCP/IP (for Transmission Control Protocol/Internet Protocol).

Nigeria has a population of one hundred and forty million people (NPC 2006) which makes her the most populated nation in Africa. Over 30 million Nigerians are between the ages of 10-19 years and nearly one third of Nigeria's total population is between the ages of 10-24 years that is about 50 million people. (A New Ninja, 2011). The figures above show that the adolescent population in Nigeria is significant. WHO (2012) identifies adolescence as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19. It represents one of the critical transitions in the life span and it is characterized by a tremendous pace in growth and change that is second only to that of infancy. The WHO (2012) states further that the process of adolescence is a period of preparation for adulthood during which time several key

developmental experiences occur. Besides physical and sexual maturation, these experiences include movement toward social and economic independence, and development of identity, the acquisition of skills needed to carry out adult relationships and roles, and the capacity for abstract reasoning. While adolescence is a time of tremendous growth and potential, it is also a time of considerable risk during which social contexts exert powerful influences.

Indeed, Many adolescents face pressures to use alcohol, cigarettes, or other drugs and to initiate sexual relationships at earlier ages, putting themselves at high risk for intentional and unintentional injuries, unintended pregnancies, and infection from sexually transmitted infections (STIs), including the human immunodeficiency virus (HIV). Many also experience a wide range of adjustment and mental health problems. Behavior patterns that are established during this process, such as drug use or nonuse and sexual risk taking or protection, can have long-lasting positive and negative effects on future health and well-being. As a result, during this process, adults have unique opportunities to influence young people WHO, 2012

Adolescents, in particular, spend a significant amount of time viewing and interacting with media in the form of TV, video games, music, and the Internet. Considering all of these sources together, children spend more than 6 hours per day using media (Committee on Public Education. Pediatrics. 2001) Nearly half of that time is spent watching TV. The remainder of the time is spent using other electronic media alone or in combination with TV (Gentile & Walsh, 2002). Television, which dominated the media world through the mid-1990s, now competes in an arena crowded with cell phones, iPods, video games, instant messaging, interactive multiplayer video games, virtual reality sites, Web social networks, and e-mail (Brooks-Gunn & Donahue). Some popular media site gives free access to sexual explicit materials and thereby promoting promiscuity. (Dangal 2005).

It is critical to view the internet as a new social environment in which universal adolescent issues relating to identity information, sexuality and self-worth are explored in a virtual world. The internet as a social context enables multiple communication function such as e-mail, instant

messaging, chats, and blogs, tweeting, which allow adolescents to participate and construct their own environment (Greenfield & Yan 2006; Subramanyan, Greenfield & Tynes, 2006). Many adolescents reportedly prefer being online and spend so much time on the internet. It is therefore essential to be aware of its impact on their behaviour, wellbeing and development (Lenhart, Maden & Hitlin 2005). As the Internet has become pervasive in the lives of young people, their online activities and interactions have become the focus of intense research. It is therefore becoming evident that the internet presents risks as well as opportunities to adolescent development.

Easy and continuous access to the internet provides a lot of opportunities for adolescents' socialisation, allowing them to connect with their peers as well as with complete strangers around the globe. The internet gives a clear transformation of the social world of adolescents by influencing their communication, establishments and maintenance of relationships and social support. There is also evidence that the Internet may help to empower youth, particularly those in disadvantaged circumstances. Barak and Sadosky (2008) found that hearing-impaired youth took advantage of the heavily visual medium of the Internet to communicate with the world around them and by doing it translated in to positive wellbeing.

A review by Subrahmanyam & Greenfield (2008) concluded that adolescents are primarily using the Internet to reinforce offline relationships. Adolescents also seem to use online forums such as homepages and blogs to gain positive feelings of mastery and competence (Schmitt, Dayanim, & Matthias 2008). In addition to this, participation in e-programs has allowed youth to use the Internet and other technologies (photography and video cameras, music production software) to document their lives and create awareness for health and community issues such as drug-use, violence, discrimination, and depression (Flicker, Maley, & Ridley, 2008). It is therefore necessary to be sensitive to both the potential benefits and risk of the adolescents' internet use and provide strategies to guide and promote positive practice (Lenhart, Maden, & Hitlin, 2005).

Escobar-Chaves, Tortolero, Markham, Low, Eitel and Thickstun (2005) studied the effects of the internet on adolescent sexual behaviours. It was triggered by the fact that adolescents were engaging in sexual activity at early ages and with multiple partners. The mass media have been shown to affect a broad range of adolescent health-related attitudes and behaviours including violence, tobacco and alcohol use. The researchers sort to explore the determinants of adolescents' sexual activity. It was found that mass media plays a very influential rôle in shaping adolescents' attitudes and behaviour towards violence, tobacco, alcohol and sex. Based on their survey, it is only proper to conclude that the internet is a significant media that adolescents engage in. Statistics in adolescents' sexual behaviours have supported their linkages to adolescents' exposure to sexuality in the media. Regardless of the measure of the correlation, one thing that is apparent is that the media does pose a significant impact on adolescents' attitude and behaviour in various areas, including violence, eating disorder, tobacco, alcohol and sex (Escobar-Chaves et al., 2005; Kadiri & Muhammed, 2011; UNEPA, 2013).

Nutritional status plays a crucial role in growth and development during adolescence but eating disorder is one out of many other problems linked to the use of internet by adolescents. Some studies (De-Groat, 1997; Tiggemam & Slater, 2013) have shown significant relationship between internet use and concerns by adolescent girls to have a thin body image. Also, a form of eating disorder known as anorexia leads to malnutrition or unbalanced nutritional intake can reduce weight gain and decrease leg length in adolescents (Gunnel, Smith, Peters & Kampel, 2008). Optimal nutrition is therefore important for adolescents to grow and develop properly. Moreover, once dietary habits are formed during childhood, they tend to be carried on throughout adulthood, thus teaching adolescents to develop healthy eating habits is of critical importance (Vadiveloo, Zhu & Quatromoni, 2009).

Depression is another crucial factor that is associated with the use of internet which leads to concerns about negative mental outcomes such as low mood and sense of loneliness (Gross, Joven & Gable, 2002). A longitudinal study following families during their first year of having the internet in their homes identified that adolescents experience a

lowering of mood and increased feelings of loneliness (Gross, Juvonen & Gable, 2002). A study in the Netherlands of adolescents aged 12 to 15 years found instant messenger use and chatting in chat rooms after six months were positively related to compulsive internet use and depression, issues of dependency could arise because of the potency of screen-based activity for addictive-type interaction (Griffiths & Hunt 2003). A study in India found nearly one fifth of youth aged 16 to 18 were "Internet dependent" and that teenagers skipped work and sleep to go online and feared that life without the internet would be dull. The impact of these on the mental health of 'Internet dependents' is likely to be important as they experience more loneliness, depression and depressive symptoms (Ybarra, Alexander & Mitchell, 2005).

Sleep disorder is another important factor to be considered when adolescents use the internet. Cross-sectional studies have demonstrated that the use may be a risk factor for irregular sleep habits, shorter sleep duration, and sleep disorders (Van Del Buck, 2004). A longitudinal study indicated that children who use the internet greater than or equal to 3 hours per day during adolescence were at a significantly elevated risk for frequent sleep problems by early adulthood. The study also indicated that adolescents who reduced their use of internet from greater than or equal to 1 hour/day to less than 1 hour/day experienced a significant reduction in risk for subsequent sleep problems (Johson, Cohen, Brook, First, Kasen, 2004). Concerns about the potential negative influence of internet use on sleep behaviours should be emphasized since previous studies have illustrated that sleep plays a key role not only in children's physical growth, behaviour, and emotional development, but also is closely related to cognitive functioning, learning, and attention (Paavonenn, Penonnen, Rome, Valkonen & Lahikainen, 2006).

Arising from the review above, it is imperative to note that the proliferation of new electronic media and adolescents' exposure to them is linked with aspects of adolescents' well-being such as social interaction with peers and family, aggression, fear and anxiety, risky behaviors, and healthy lifestyle choices. How adolescents fare in each of these areas

is influenced by multiple forms of electronic media and even by interactions between different media

It is also observed with keen interest that the use of internet among adolescents at various levels has been a major concern to all including parents, teachers, the school management, the government and others. In particular, it has been observed that the constant use of internet has more implications on the health status of in-school adolescents, it has been linked to many adolescent social and health problems, such as increase in crime rate and abortion. The use of internet by adolescents has been progressive and made simple. Moving from seating in front of the computer for hours to having access on phones and other hand held devices. Accessibility to the internet has kept a lot of youths awake especially late at night chatting, mailing, texting and calling. Indeed most adolescents will not only skip sleep but will also skip meals or overeat when on the internet.

Still, others have met dangerous people on-line and resulting in sexual promiscuity. Many are exposed to pornographic pictures leading to sexual stimulation and experimentation resulting in unwanted pregnancy, sexually transmitted infections including HIV/AIDS, social isolation and depression, early marriage or forced parenthood and even death.

The focus of this study is to find out the relationship between internet use and health problems among adolescents in Ilorin South Local Government area of Kwara State, Nigeria.

Research Questions

One research questions was answered

1. Do adolescents in Ilorin South Local Government Area of Kwara State make use of the internet?

Hypotheses

One hypotheses was also tested

1. There is no significant relationship between internet use and self-reported health problems (Sexual Behaviour, Eating disorder, Depression, Sleep disorder) among adolescents in Ilorin south local government area of Kwara state.

Research Methodology

This study investigated the relationship between internet use and health problems among adolescents in Ilorin South Local Government area of Kwara State.

Research Design

The descriptive survey research design was adopted for this study. The method is considered appropriate because it helps to describe, examine, analyse and interpret the variables that exist in the study.

Population, Sample and Sampling Technique

The population of this study comprises of all students in the public Senior Secondary (SS) Schools in Ilorin South local Government Area of Kwara State. The sample size for this study was one thousand and twenty (1020) respondents. All the seventeen (17) public secondary schools in Ilorin South local Government of Kwara State were used for this study. Simple random sampling technique was used to select two classes from SS1 and SS2 arms of the 17 public schools used for the study. Students in SS3 did not take part as they were writing their final examination at the time of this study. Purposive sampling was used to select students who are computer literate (at least the use of cell phones), while simple random sampling technique of fishbowl method without replacement was used to select thirty (30) students each from the selected classes and bringing it to a total of 60 respondents from each school.

Research Instrument

The research instrument used for data collection was a close ended questionnaire structured on a 4- scale likert format, with the following allotment of points: Very True 4, Mostly True 3, Somewhat True 2 and Not True = 1. The questionnaire was designed in line with the variables of the study and was in six (6) sections. Section 1, was used to gather information on the demographic data of the respondents, Sections 2; Sexual Behaviour Questionnaire (SBQ), Section 3; Eating Disorder Questionnaire (EDQ), Section 4: Depression Questionnaire (DQ), Section 5; Sleep Disorder Questionnaire (SDQ) and Section 6; Internet Use Questionnaire (IUQ). To

ensure validity of the instrument, the draft of the self-developed questionnaire was presented to lecturers in other related discipline for corrections, comments and suggestion in line with the variables for modification as may be required. One case test was used to ensure reliability by administering the corrected version of the questionnaire on twenty (20) Senior Secondary School adolescents in a public Secondary School with similar characteristics with the respondents. This was carried out in Ibadan, Oyo State Nigeria. The reliability of the instrument was determined using Cronbach alpha coefficient method. A reliability coefficient of 0.71 was therefore obtained for the instruments. The instruments was administered with the help of (3) research assistants. The completed questionnaire was collected from participants on the spot. The completed questionnaire were collated, coded and analysed using descriptive statistics of frequency counts and percentages to analyse demographic characteristics of respondents while inferential statistics of Pearson Product Moment Coefficient of Correlation (PPMCC) was used to test the hypotheses at 0.05 level of significance.

Results

Research Question: Do adolescents in Ilorin South Local Government Area of Kwara State make use of the internet?

Table 1: Frequency table showing prevalence of internet use among adolescents in Ilorin South Local Government Area of Kwara State.

	Frequency	Percent
Yes	703	68.9
No	317	31.1
Total	1020	100.0

The table above shows the prevalence of internet use among in-school adolescent in Ilorin South Local Government Area of Kwara State. From the chart 703 which is 68.9% of the respondents make use of internet while 317 which are 31.1% do not make use of internet. This shows that majority of the respondents make use of internet use.

Hypothesis: There is no significant relationship between internet use and self-reported health problems (Depression, Eating disorder, Risky Sexual Behaviour, Sleep disorder) among adolescents in Ilorin south local government area of Kwara state.

Table 2: Regression table showing the relationship between internet use and self-reported health problems.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.046	0.27		1.697	.090
Depression	.011	.040	.015	.281	.779
Eating disorder	.471	.026	.491	18.015	.000
Risky Sexual behaviour	.496	.027	.524	20.752	.000
Sleep disorder	.113	.025	.114	4.549	.000

Table 2 above shows for each variable, the unstandardized regression weight (B), the standardized error of estimate ($SE\beta$), the standardized coefficient, the t-ratio and the level at which the t-ratio is significant. As indicated in the table, all the variables have significant relationship with internet use. Sexual behaviour has the highest contribution of 52.4.9% ($\beta=524$, $t=20.752$, $p<0.005$) followed by eating disorder with 49.1% ($\beta=491$, $t= 18.015$, $p<0.005$). This is followed by sleep disorder with a contribution of 11.4% ($\beta=.114$, $t= 4.549$, $p<0.005$), while depression has the lowest contribution of 1.5% ($\beta=0.015$, $t= .281$, $p>0.005$).

Discussion

The result is in line with the views of Ojo and Fasubaa (2005) who noted that adolescents' sexuality in Nigeria is going through transformation from what it used to be in the past. They attributed this to the effect of modernisation, industrialization, education, exposure and enculturation through importation of various foreign cultures, which were alien to the Nigerian culture In particular and African as a

whole. Unfortunately, the Internet, more than any other agent of social change has contributed in no small measure to the removal of guilt, fear and shame associated with unconventional sexual activities.

The result also supports Gunnell, Smith, Peters and Kampel's, (2008) who stated that nutritional status also plays a crucial role in growth and development during adolescence and that malnutrition or unbalanced nutritional intake which is a form of eating disorder - anorexia can reduce weight gain and decrease leg length in adolescents. Optimal nutrition is therefore important for adolescents to grow and develop properly. The result on depression is in line with researchers from Australia and China who found that teenagers were anxious or nervous when they were not on the internet and were more likely to develop depression (Smith, 2010).

The results on internet use and depression corroborate the view of Van den Buick, (2004), who demonstrated that internet use may also be a risk factor for irregular sleep habits, shorter sleep duration, and sleep disorders. A longitudinal study indicated that children who use 3 hours on the internet per day during adolescence were at a significantly elevated risk for frequent sleep problems by early adulthood. The study also indicated that adolescents who reduced their use of internet from 1 hour/day to <1 hour/day experienced a significant reduction in risk for subsequent sleep problems (Johnson, Cohen, Kasen, First & Brook, 2004).

Conclusion

The results of this study have practical implications for the promotion of safe and healthy practices among adolescent. This is due to the long hours spent on-line and their unrestricted access to potentially harmful materials on the internet. Indeed the positive relationship between Internet use and sexual behavior in this study poses a serious threat to adolescents. The relationship between access to the net and risky sexual behavior orientation could result in concomitant spread of STDs and HIV/AIDS. Guardians/parents, health educators, and social health workers should be sensitized to this potential danger of Internet use. Also, the positive relationship between internet use and eating disorder and sleep disorder in this study, suggests that education on the

negative effect of the internet on nutrition should be incorporated into school health programmes. This should be aimed at addressing adolescents risky behaviour in view of the increasing popularity of Internet use among adolescents in schools.

Recommendations

Internet is widely used by adolescents and it has various ways in which it interferes with their health as presented in this paper, although internet has its wide spread benefits. The variables tested showed that it has a negative effect on adolescents health if not well supervised. In this study adolescents reported significant relationship between internet use and risky sexual behaviour, sleep and eating disorder.

It is therefore recommended that:

- Parents should be more actively involved in their children's online activities through support and discussion especially when certain changes are being noticed in them.
- Also, parents should device appropriate parenting skills to assist them in building a broad knowledge base necessary to deal with adolescents' use of internet; they should also encourage their children to participate in other creative activities beyond internet use.
- Appropriate physical and health educational programme should be resurrected in various schools and this will divert their attention from the use of internet.
- A standardized educational programme about the use of internet should be provided to adolescents in various schools. The use of internet for educational purposes should be properly instituted, managed and supervised by the school authorities. School counsellors should be responsible for investigating patterns of internet use by their students.
- Non — Governmental organisations in collaboration with the government should partner with schools to give talks, seminars and organise programmes that will enable adolescents to know and imbibe right attitudes towards the use of internet.

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