Health Challenges Associated with Internet Addiction: A Case Study Of Four Selected Tertiary Institutions In North-West Nigeria

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Abstract

The use of the internet has expanded dramatically in recent decades, and internet addiction has become a serious public health issue around the world. The goal of this study was to find out how common internet addiction is among some selected students (16–45 years old) in four chosen tertiary institutions in North-West Nigeria, as well as factors that contribute to it. This work investigated possible impact of excessive internet usage and its associated consequences such as, eye dryness, backbone pain, sadness, stress, and anxiety among sampled students, as well as the psychopathological effects of internet use on them. Although there are varying outcomes from the different institutions, on average, results of the analysis revealed that there is a positive correlation between internet addiction and mental health challenges among students of the selected institutions, thus, having significant impact on their educational output (research and study).

Keywords: *Internet addiction, social media, social media addiction, mental health, depression, anxiety.*

1. INTRODUCTION

Recently, technological advancement has accelerated, particularly in the realm of digital technology, which includes internet networking. With the rapid growth of electronic gadgets, the digital revolution has changed how we communicate, educate, and entertain ourselves, as well as how we act as people in a society (Kurniasanti et al., 2019). Adolescents born in the digital age are surrounded by computers, the internet, video games, mobile phones, and other hand-held devices at home, at school, and in every aspect of their lives. According to(Peter & Brosius, 2021), the digital environment, like family, peers, and school, should be treated as another social context in adolescent development. The first study on internet addiction was published in 1996, and the results were presented to the American Psychological

Association. The researchers looked at nearly 600 cases of heavy Internet users who showed signs of addiction, as determined by an adapted version of the DSM-IV criteria for compulsive gambling (Young et al., 2012).

According to Internet World Stats, out of Nigeria's estimated population of two hundred and six million, one hundred and thirty nine thousand, five hundred and eighty nine (206,139,589),one hundred and twenty-six million, seventy-eight thousand, nine hundred and ninety-nine (126,078,999) (or 61.2 percent of the country's population) use the Internet, while the remaining eighty million, sixty thousand, five hundred and ninety (80,060,590)do not use the Internet; likewise, both the annual change in Internet users and growth rate of the population are estimated at about 13.2 percent(Odusanya & Adetutu, 2020).

Traditionally, the term "addiction" has been associated with psychoactive substances such as alcohol and cigarettes. However, more recently, addictive behaviors such as Internet use have been recognized (Sim et al., 2012). Internet addiction is defined as "excessive or poorly regulated preoccupations, impulses, or behaviors surrounding computer use and internet access that contribute to impairment or suffering." (Shaw & Black, 2008), while social media addiction is a type of Internet addiction in which people feel compelled to use social media in excessive amounts. Individuals who suffer from social media addiction are frequently too concerned about it and are motivated by an uncontrolled need to log on and utilize it. Mood, cognition, physical and emotional reactions, as well as interpersonal and psychological difficulties, have all been linked to social media addiction in previous studies. According to reports, around 12% of users on social networking sites suffer from social media addiction (Hou et al., 2019).

Many studies on social media use and mental health have found that long-term use of social media sites like Facebook is favorably related to mental health problems such as stress, anxiety, and depression, while being adversely connected to long-term well-being (Eraslan-Capan, 2015). For example, social media sites (such as YouTube, Snapchat, and Instagram) are routinely used, with over three-quarters (71%) of young adults in the United States accessing them many times per day. As a result, many young adults may be susceptible to online gaming and/or social media addictions(Wong et al., 2020). Behavioral addictions can cause negative health implications due to a lack of control over repetitive, persistent, and dysfunctional behaviors, such as social connection issues, impairments in functional tasks and activities, sleep problems, and mental disorders(Alhassan et al., 2018). Furthermore, it has been demonstrated that, some types of social media use are linked to lower academic achievements(Al-Menayes, 2015). According to Lau (2017), while

utilizing social media for academic purposes did not predict academic success as measured by the cumulative grade point average (CGPA), using social media for non-academic purposes (particularly video gaming) and social media multitasking did. In addition, a large sample (N = 1893) survey done in the United States discovered that the amount of time students spent on Facebook was inversely related to their overall GPAs (Junco, 2012).

Mental health, according to the World Health Organization (WHO), is defined as "a condition of well-being in which an individual recognizes his or her own potential, can manage typical life stresses, can work successfully and fruitfully, and can contribute to his or her community (Galderisi et al., 2015)."

Survey analysis found that 24.6 percent reported frequent problems due to internet use, and all had loneliness, depressed mood, compulsivity, and other psychological impairments, according to research conducted at the National Institute of Mental Health and Neuroscience, Department of Psychology, which focused on identifying the pattern of internet addiction and its association with a mental health problem (Bisen & Deshpande, 2020).

There is no enough relevant scholarly literature in emerging countries like Nigeria. Consequently, this research aims at investigating relationship between internet addiction and mental health problems in North-West Nigeria using some selected students of some tertiary institutions in the region. The primary goal of this research is to look at the link between internet addiction and the health issues caused by it especially among tertiary institution students in Nigeria's northwestern region.

2.MATERIALS AND METHODS

The methodology adopted for this research includes two stages; fundamental investigations and phase of utilizing a research instrument. The work incorporates surveys and analysis.

2.1 Methodology

This section starts with the methodology of the research. Survey instruments have been identified as the most popular data collection tools in outcomes measurement and evaluation (Taherdoost, 2018). For this study, we carried out data

collection within a focused/targeted group using a questionnaire. We selected students of average socioeconomic levels in

four tertiary institutions, thus, they have easy access to smart phones and the Internet.

2.2 Research Instrument

To meet some expectations, a questionnaire was distributed as an instrument for data collection, and in the questionnaire,

a survey to determine demographic information, including gender, age, year of study, etc. was carried out, and the

questionnaire was divided into five main parts. Furthermore, an analysis was carried out to identify possible addiction

type.

2.3 Target Groups and Sampling

We designed a questionnaire to source for data in order to ascertain level of internet addiction and its possible health

effects, sourcing of the data (survey) was carried out in the four (4) tertiary institutions in the North-West geo political

zone of Nigeria, namely;

    i.   Federal Polytechnic Kaura-Namoda

    ii.   Ahmadu Bello University Zaria

    iii.   Nuhu Bamalli Polytechnic Zariaand,

    iv.   Federal College of Education Zaria.

The four tertiary institutions were chosen because of their diversity (as they comprise of students from different parts of

the country) and high number of internet users. The questionnaire gathering of data targeted youths ranging from the age

of 16-45 years —particular preference is given in-terms of gender diversity.

Table 1.1 shows the instruments used, the response scale, and the focus areas for each instrument.

S/N	Question Asked	Choose Answer	Percentage (%)
1	What is your gender?	Male	63
		Female	37
2	What is your age?	16-25	40.7
		26-34	50
		35-39	7.4
		40 & above	1.9
3	What is your level of study?	ND I or NCE I	9.3

		ND II or NCE II	7.4
		HND I or NCE III	5.6
		HND II	20.4
		100L	3.7
		200L	9.3
		300L	3.7
		400L	22.2
		500L	27.8
4	Do you have a smart phone?	Yes	100
		No	0
5	Do you have internet accessibility on your phone?	Yes	100
		No	0
6	What is your source of internet use?	Data Network	92.6
		Wi-Fi	1.9
		Others	5.6
7	Social Media Usage (Facebook)	Never	13
		1-2 hours	48.1
		2-5 hours	16.7
		>5	7.4
		Always	14.8
8	Instagram	Never	37
		1-2 hours	37
		2-5 hours	14.8
		>5	5.6
		Always	5.6
9	Twitter	Never	42.6
		1-2 hours	38.9
		2-5 hours	5.6
		>5	5.6
		Always	7.4
10	WhatsApp	Never	0
		1-2 hours	18.5
		2-5 hours	25.9
		>5	9.3
		Always	46.3
11	Telegram	Never	64.8
		1-2 hours	24.1
		2-5 hours	1.9
		>5	5.6
		Always	3.7
12	Snapchat	Never	72.2
		1-2 hours	14.8
		2-5 hours	5.6
		>5	1.9
		Always	5.6
14	**Likee**	**Never**	**83.3**
		1-2 hours	**11.1**
		2-5 hours	**3.7**
		>5	**0**
		Always	**1.9**
15	Vskit	Never	83.3

		1-2 hours	9.3
		2-5 hours	3.7
		>5	1.9
		Always	1.9
16	Pinterest	Never	85.2
		1-2 hours	7.4
		2-5 hours	5.6
		>5	0
		Always	1.9
17	Email Apps	Never	25.9
		1-2 hours	44.4
		2-5 hours	3.7
		>5	3.7
		Always	22.2
18	Others	Never	57.4
		1-2 hours	24.1
		2-5 hours	3.7
		>5	1.9
		Always	13
19	Do you think you can survive without your phone?	Yes	29.6
		No	29.6
		Maybe	40.7
20	On a daily basis, about how much time do you spend on your mobile phone application using internet?	Never	1.9
		1-2 hours	24.1
		3-5 hours	24.1
		6-12 hours	24.1
		Always	25.9
21	The use of internet has brought about laziness in your learning process.	Never	20.4
		Almost Never	13
		Sometimes	57.4
		Often	7.4
		Very Often	1.9
22	The use of internet in classroom often leads you to becoming distracted.	Never	29.6
		Almost Never	11.1
		Sometimes	35.2
		Often	13
		Very Often	11.1
23	Have you ever experienced sleep deprivation because of internet browsing?	Never	27.8
		Almost Never	5.6
		Sometimes	40.7
		Often	15.7
		Very Often	9.3
24	You feel unhappy when you are not able to renew your data subscription.	Never	3.7
		Almost Never	3.7
		Sometimes	42.6
		Often	16.7
		Very Often	33.3
25	You have tried hard but failed to control your addiction to browsing on your phone.	Never	29.6
		Almost Never	11.1
		Sometimes	31.5
		Often	20.4

		Very Often	7.4
26	You usually use your phone longer than intended.	Never	13
		Almost Never	13
		Sometimes	35.2
		Often	22.2
		Very Often	16.7
27	Have you ever regretted being online for long?	Never	38.9
		Almost Never	11.1
		Sometimes	37
		Often	7.4
		Very Often	5.6
28	You feel comfortable in the virtual world than the real world.	Never	29.6
		Almost Never	13
		Sometimes	48.1
		Often	7.4
		Very Often	1.9
29	You get impatient when you don't find your phone showing a notification.	Never	25.9
		Almost Never	13
		Sometimes	44.4
		Often	13
		Very Often	3.7
30	Running out of battery in your phone disturbs you.	Never	3.7
		Almost Never	7.4
		Sometimes	31.5
		Often	20.4
		Very Often	37
31	You neglect important activities at school/home because of internet over-use?	Never	44.4
		Almost Never	14.8
		Sometimes	24.1
		Often	9.3
		Very Often	7.4
32	Do you anticipate about the next online session or rethink about previous online activity often?	Never	25.9
		Almost Never	16.7
		Sometimes	44.4
		Often	13
		Very Often	0
33	Have you missed a meal because of over-engagement with your online activities?	Never	48.1
		Almost Never	7.4
		Sometimes	33.3
		Often	3.7
		Very Often	7.4
34	The prolong use of internet causes your eyes to dryness.	Strongly Agree	14.8
		Agree	57.4
		Neutral	22.2
		Disagree	5.6
		Strongly Disagree	0
35	Do you send frequent online requests to people to engage in online game?	Strongly Agree	3.7
		Agree	7.4
		Neutral	31.5
		Disagree	42.6
		Strongly Disagree	14.8

36	You use the internet to search for medical information when you are having symptoms of sickness.	Strongly Agree	25.9
		Agree	50
		Neutral	14.8
		Disagree	5.6
		Strongly Disagree	3.7
37	You have tried hard and failed to control your addiction to your phone.	Strongly Agree	20.4
		Agree	24.1
		Neutral	31.5
		Disagree	24.1
		Strongly Disagree	0
38	Sometimes you have the sensation that your phone is ringing or vibrating when it's not.	Strongly Agree	24.1
		Agree	55.6
		Neutral	9.3
		Disagree	9.3
		Strongly Disagree	1.9
39	Staying long browsing the internet on your phone/computer affect your backbone thereby causing back ache.	Strongly Agree	22.2
		Agree	40.7
		Neutral	14.8
		Disagree	20.4
		Strongly Disagree	1.9
40	Sometimes you ignore the people you are with when you are online.	Strongly Agree	13
		Agree	55.6
		Neutral	14.8
		Disagree	16.7
		Strongly Disagree	0

The exact questions asked, choice of replies, and the total percentage of responses supplied by respondents from the four different higher institutions in the two separate states of Kaduna (comprising of Ahmadu Bello University Zaria, Federal College of Education Zaria and Nuhu Bamalli Polytechnic Zaria) and Zamfara (which has Federal Polytechnic Kaura-Namoda) during the survey are represented in Table 1.1.

A total of 400 students were polled, with 386 filling out and returning their completed questionnaire forms.

Table 1.2.1: Aggregate of Respondents on Question 34 of Table 1.1 (The prolong use of internet causes your eyes to dryness) based on scale (Strongly Agree (SA), Agree, Neutral, Disagree and Strongly Disagree (SD)) concerning the Various Institutions.

S/N	Institution	Aggregate of SA	Aggregate of Agree	Aggregate of Neutral	Aggregate of Disagree	Aggregate of SD

1	Federal Polytechnic Kaura-Namoda	20	45	30	5	0
2	Ahmadu Bello University	16	61	15	6	0
3	Nuhu Bamalli Polytechnic	14	57	20	4	0
4	Federal College of Education Zaria	7	58	21	7	0

Table 1.2.2: Aggregate of Respondents on Question 35 of Table 1.1 (Do you send frequent online requests to people to engage in online game?) based on scale (Strongly Agree (SA), Agree, Neutral, Disagree and Strongly Disagree (SD)) concerning the Various Institutions.

S/N	Institution	Aggregate of SA	Aggregate of Agree	Aggregate of Neutral	Aggregate of Disagree	Aggregate of SD
1	Federal Polytechnic Kaura-Namoda	5	9	40	28	18
2	Ahmadu Bello University	4	10	28	42	14
3	Nuhu Bamalli Polytechnic	3	5	34	33	20
4	Federal College of Education Zaria	2	5	20	61	5

Table 1.2.3: Aggregate of Respondents on Question 36 of Table 1.1 (You use the internet to search for medical information when you are having symptoms of sickness) based on scale (Strongly Agree (SA), Agree, Neutral, Disagree and Strongly Disagree (SD)) concerning the Various Institutions.

S/N	Institution	Aggregate of SA	Aggregate of Agree	Aggregate of Neutral	Aggregate of Disagree	Aggregate of SD
1	Federal Polytechnic Kaura-Namoda	30	36	20	10	4
2	Ahmadu Bello University	20	65	5	5	3
3	Nuhu Bamalli Polytechnic	25	48	14	3	5
4	Federal College of Education Zaria	25	44	18	4	2

Table 1.2.4: Aggregate of Respondents on Question 37 of Table 1.1. (You have tried hard and failed to control your addiction to your phone) based on scale (Strongly Agree (SA), Agree, Neutral, Disagree and Strongly Disagree (SD)) concerning the Various Institutions.

S/N	Institution	Aggregate of SA	Aggregate of Agree	Aggregate of Neutral	Aggregate of Disagree	Aggregate of SD
1	Federal Polytechnic Kaura-Namoda	19	28	27	26	0
2	Ahmadu Bello University	22	27	31	18	0
3	Nuhu Bamalli Polytechnic	15	20	38	22	0
4	Federal College of Education Zaria	23	18	25	27	0

Table 1.2.5: Aggregate of Respondents on Question 38 of Table 1.1 (Sometimes you have the sensation that your phone is ringing or vibrating when it's not) based on scale (Strongly Agree (SA), Agree, Neutral, Disagree and Strongly Disagree (SD)) concerning the Various Institutions.

S/N	Institution	Aggregate of SA	Aggregate of Agree	Aggregate of Neutral	Aggregate of Disagree	Aggregate of SD
1	Federal Polytechnic Kaura-Namoda	18	55	15	10	2
2	Ahmadu Bello University	28	52	10	6	2
3	Nuhu Bamalli Polytechnic	20	52	5	16	2
4	Federal College of Education Zaria	27	55	6	4	1

Table 1.2.6: Aggregate of Respondents on Question 39 of Table 1.1 (Staying long browsing the internet on your phone/computer affect your backbone thereby causing back ache) based on scale (Strongly Agree (SA), Agree, Neutral, Disagree and Strongly Disagree (SD)) concerning the Various Institutions.

S/N	Institution	Aggregate of SA	Aggregate of Agree	Aggregate of Neutral	Aggregate of Disagree	Aggregate of SD
1	Federal Polytechnic Kaura-Namoda	26	25	20	29	0
2	Ahmadu Bello University	38	36	7	15	2
3	Nuhu Bamalli Polytechnic	8	49	10	25	3

| 4 | Federal College of Education Zaria | 14 | 47 | 20 | 10 | 2 |

Table 1.2.6: Aggregate of Respondents on Question 40 of Table 1.1 (Sometimes you ignore the people you are with when you are online) based on scale (Strongly Agree (SA), Agree, Neutral, Disagree and Strongly Disagree (SD)) concerning the Various Institutions.

S/N	Institution	Aggregate of SA	Aggregate of Agree	Aggregate of Neutral	Aggregate of Disagree	Aggregate of SD
1	Federal Polytechnic Kaura-Namoda	15	56	17	12	0
2	Ahmadu Bello University	12	58	14	14	0
3	Nuhu Bamalli Polytechnic	15	51	11	18	0
4	Federal College of Education Zaria	8	50	15	20	0

Tables 1.2.1 to 1.2.7 show the total number of respondents in this scale range (Strongly Agreed (SA), Agreed, Neutral, Disagree, and Strongly Disagreed (SD)). In each institution, the total number of respondents who responded based on the five scales of the complete questions were given.

2.4 Data Gathering Techniques

The survey tool was first tested on a small group of participants (15 students) from Federal Polytechnic Kaura-Namoda. They were given a questionnaire to fill out and return to get faster results. The pilot phase allowed us to amend several

ambiguous questions before finalizing the questionnaire, which was then distributed to the selected tertiary institutions for

data collection, with the study's goal explained and the targeted groups' voluntary participation sought.

2.5 Analysis of Data and Results

Pictorial representations of the analysis are depicted in the following figures. The complete questions asked, choice of

replies, and overall percentage of answers supplied by respondents from the four different tertiary institutions are shown

in Table 1.1. Four hundred students were questioned, and 386 students filled out and returned their completed

questionnaire forms. Federal Polytechnic Kaura-Namoda submitted 100 questionnaires, Ahmadu Bello University Zaria

submitted 98, Nuhu Bamalli Polytechnic submitted 95, and Federal College of Education Zaria submitted 93 questions.

2.6 The Study's Major Findings

The study's primary conclusions are summarized below, based on responses from the questionnaire survey.
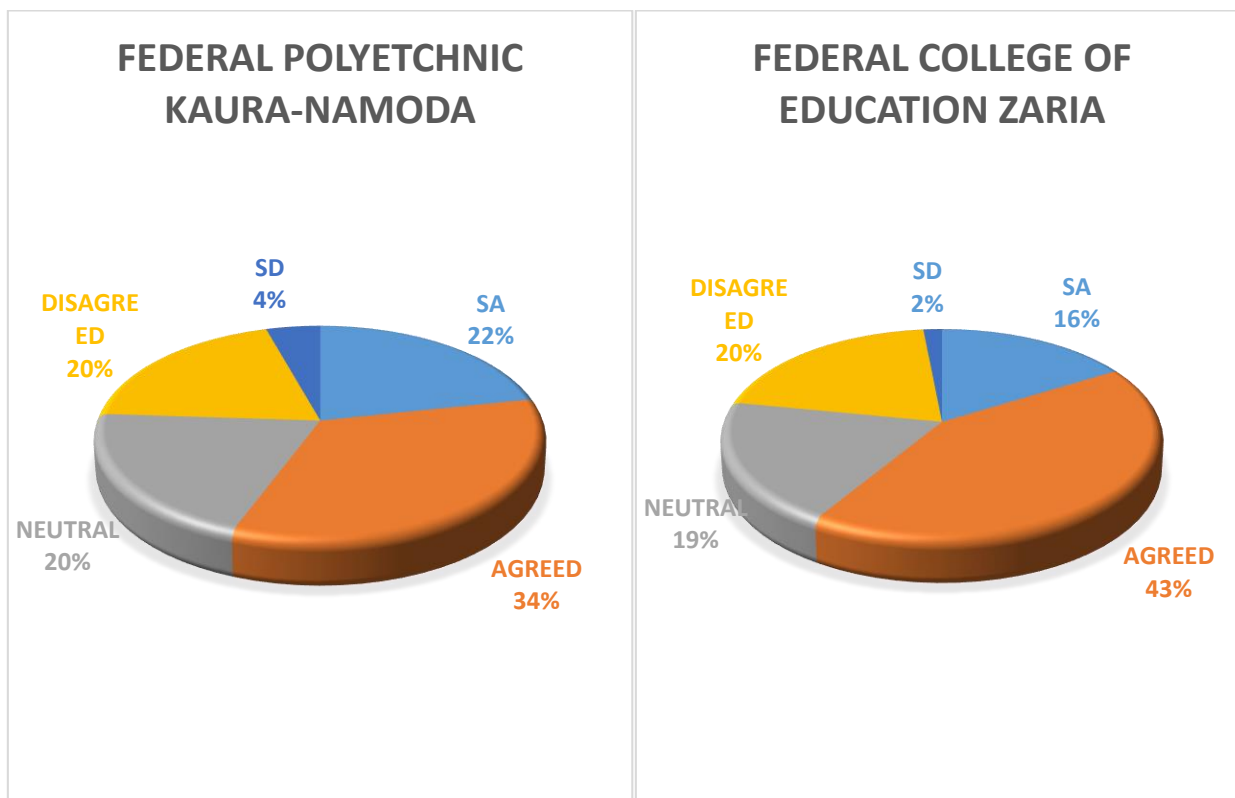
Figure 1.1: Respondents' responses to the various tertiary institutions on a scale of (Strongly Agree (SA), Agree, Neutral,
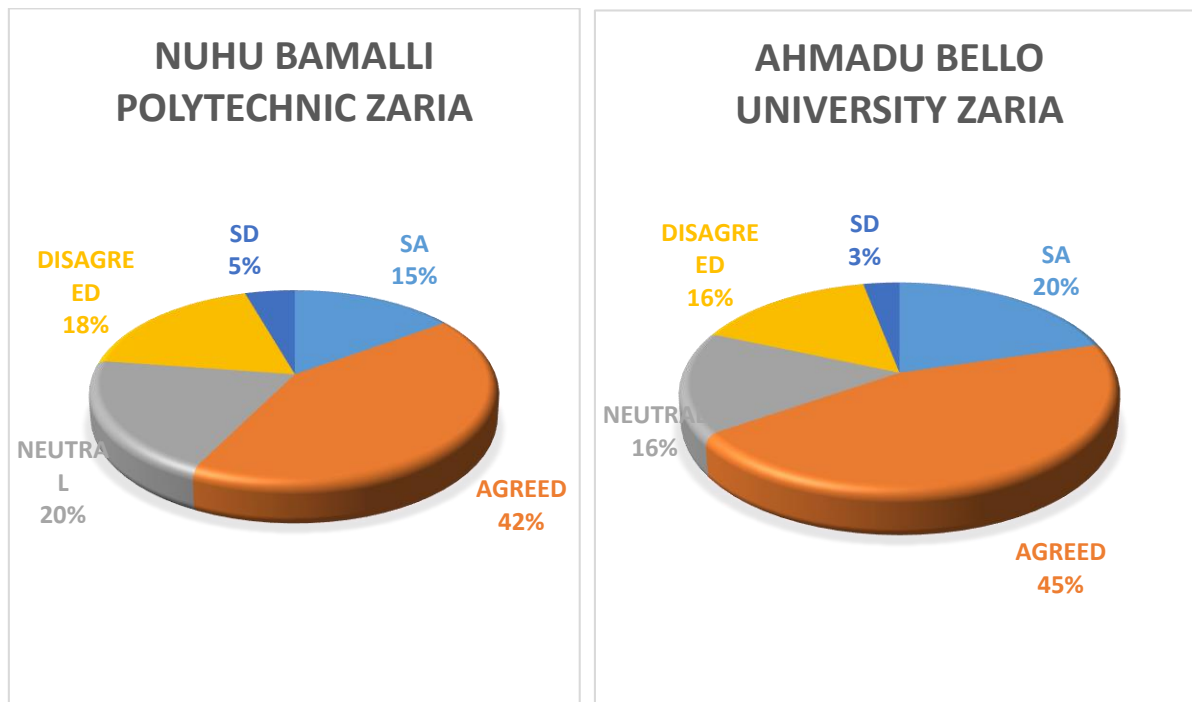
Disagree, Strongly Disagree (SD)).

Figure 1.2: Respondents' responses to several questions on a scale of (Strongly Agree (SA), Agree, Neutral, Disagree, Strongly Disagree (SD)).

The graph in Figure 1.1 depicts the total number of respondents in relation to the total aggregate of questions answered in Federal Polytechnic Kaura-Namoda where 22% strongly agreed, 34% agreed, 20% are neutral, 20% disagreed with 4% strongly disagreed and Federal College of Education Zaria where 16% strongly agreed, 43% agreed, 19% are neutral with 20% disagreeing and 2% strongly disagreed; Similarly, Figure 1.2 shows the total number of responses from Nuhu Bamalli Polytechnic Zaria with 15% of the respondents strongly agreeing, 43% agreed, 20% were neutral, 18% disagreed while 5% strongly disagreed, likewise, in Ahmadu Bello University Zaria, 20% strongly agreed, 45% agreed, 16% were neutral, another 16% disagreed while 3% strongly disagreed.

They show that, seven of the forty questions asked about the possible health effects in the instrument (questionnaire) have a significant percentage of agree (50%) or higher, while only three questions have a significant percentage of agree (below 50%). This shows that most internet users believe or understand that Internet addiction has adverse effects on humanity.

2.7 The Study's Limitations

This research study focuses solely on some selected students of some tertiary institutions in one geo political zone of Nigeria, the students surveyed utilize the internet to obtain a comprehensive and well-established harmful influence of the internet on humanity. Further research should focus on gathering data from medical practitioners and psychologists, as they are professionals who must have dealt with a wide range of physiological, psychological, and mental problems related to internet addiction, and it should be extended beyond the four selected institutions and zones in the country.

3. CONCLUSION

The results of this study strongly show that, despite the internet's extensive use and importance in society, it nevertheless has evitable negative consequences to humanity that cannot be dismissed or ignored. In this study, addiction to the internet, particularly social media, was shown to possibly pose numerous hazards to human health, life, and well-being. Also, based on these findings, most of the inheritably internet related crimes such as harsh, criminal, sexual, and lethal actions displayed by both adults and children may result from unfettered access to potentially harmful information via smartphones and the internet. Finally, we conclude that spending too much time on the internet can have dangerous or positive consequences.

Acknowledgement

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