Sapientia Foundation Journal of Education, Sciences and Gender Studies (SFJESGS), Vol.7 No.3 September, 2025; pg. 215 – 227
ISSN: 2734-2522 (Print); ISSN: 2734-2514 (Online)

MOBILE PHONE ADDICTION AND PERCEIVED MENTAL HEALTH RISK AMONG UNDERGRADUATES FROM SELECTED UNIVERSITIES IN SOUTHWEST NIGERIA

ABRAHAM NKWACHI UWAOMA
College of Specialized and Professional Education
Tai Solarin Federal University of Education, Ijagun, Nigeria
abrahamuwaoma@gmail.com +2348165262854

NZEADIBE NNAEMEKA GOLD
Office of Institution effectiveness, Babcock University, Nigeria
Emghubi@gmail.com: +2347030534813
&
CHIBUZOR EPHRAIM ONYEMA
College of Specialized and Professional Education
Tai Solarin Federal University of Education, Ijagun, Nigeria
buzore@yahoo.com +234816145533
Corresponding author: Abraham Nkwachi UWAOMA abrahamuwaoma@gmail.com
+2348165262854

ABSTRACT

Mental health challenges are becoming a global epidemic. As a result, empirical studies and observations have shown prevalence of mental health risk such as anxiety and depression among undergraduates. The study examined perception of undergraduates from selected universities in Southwest Nigeria toward mobile phone addiction and mental health risk. The study adopted descriptive design of the survey type. And 530 participants from Tai Solarin University of Education Ogun State, Babcock University Ilisan Remo and Adeleke University Osun State, completed and returned their responses. Data was collected through a structured questionnaire focusing on demographic characteristics, perception of undergraduate towards mobile phone addiction and Mental Health Risk. Simple percentage and frequency count was used to answer research question one (1). Pearson Moment Correlation was used to answer Hypotheses (1) while T-Test was used to answer hypotheses (2). Finding revealed that 57.4% of the respondents have positive perception towards mobile phone addiction. And, there is a significant relationship between mobile phone addiction and mental health risk among undergraduates from selected universities in Southwest Nigeria (r=0.662, p=0.000). Also, there is no significant gender difference of mobile phone addiction among participants: male (M=28.9200, SD=5.47662) females (M=28.5172, SD=6.10983). This result suggests that undergraduates from selected universities in southwest have positive perception of mobile phone addiction, and there is a significant relationship between undergraduates' mobile phone addiction and mental health risk. It is therefore recommended that university administrations should collaborate with student union governments to sensitize undergraduates on the mental health consequences of mobile phone addiction. Also, counselling services should be internalized in all universities in Nigeria.

Keywords: Mobile Phone Addiction, Perceived Mental Health Risk, Undergraduates, Selected Universities, Southwest Nigeria.

INTRODUCTION

Mental health challenges especially among undergraduates are becoming a global epidemic. As a result, empirical studies and observations have shown prevalence of mental health risk such as straining of the eyes, disrupted sleep patterns, poor posture, musculoskeletal and neurological issues, depression and anxiety that are accompanied by undergraduates' decreased academic performance. Scholars in the past have linked the prevalence of mental health risk to the wrong use of technological tool especially the mobile phone. According to Abdulmannan, et al (2023) smart phone addicts experienced more symptoms of anxiety and depression more than others. Similarly, Ayandele, et al. (2020) found that smartphone addicts manifested symptoms of anxiety and severe depression. Yang, et.al (2023) maintained that mobile phone addiction negatively affects university undergraduates' mental health. Also, Adeolu, et al. (2019) found that addictive use of the mobile phone may cause headaches, loss of concentration and cancer,

Mobile phone is a personal communication device used for making and receiving calls, receive and send messages, access the internet and perform some other tasks which has become an integral part of living in the 21st century, especially among undergraduates,. It provides various opportunities for learning, research, interaction, entertainment and other social activities. While mobile phones have become an essential tools for everyday living, it is imperative to highlight that when mobile phone is disproportionately used it may leads to addiction and other mental health risk. Elamin, et al. (2024) argued that while addictive use of the mobile phone is associated with significant mental health challenges, proper use could be beneficiary mostly for undergraduates. Consequently, taking into cognizance the risk factors of mobile phone addiction among undergraduates and implementing control measure can help to mitigate its mental health consequences. Furthermore, whereas previous empirical studies on mobile phone addiction abound, little or no research have focused primarily on undergraduates' mental health risk factors in the Nigeria context. Therefore the present study identified a research gap for a localized study which may aid the application of findings in the Nigerian context. In view of the forgoing this study was aimed at investigating Mobile phone addiction and its mental health risk among undergraduates from selected universities in southwest Nigeria.

Review of Literature

Mobile Phone Addiction

Mobile phone addiction has become one of the prevailing addictive disorders that has significantly jeopardized the physical, emotional and mental health of undergraduates in Nigeria and the world at large due to the craving for social networking and interaction, access to online educational materials, and other programmes which they create using their mobile phone. However, the mobile phone does not only serve as a communication device to undergraduates, but also a necessary tool that enhances information seeking and heightened quest for pleasure through social media interaction. Today, people can easily stay at comfort of their homes and get in touch with their loved ones, access important information, make phone calls, and also send text messages through the aid of mobile phones.

The term addiction is difficult to define however, the most used definition of addiction is the excessive, over use, or overdependence on a substance or activity. Mobile phone addiction is the overdependence or excess use of the mobile phone. According to Liu, et al (2022) mobile

phone addiction is an improper or too much use of mobile phones that consists of repetitive checking for messages or updates, longer or intense use of mobile phone, withdrawal or feelings of agitation without the mobile phone. Billieux et al. (2015) noted that mobile phone addiction is characterized by inappropriate use of mobile phones, which can encroach upon daily life, compromise physical and social functioning, and lead to psychological and behavioral problems. Although moderate use of mobile phone is not inherently harmful, excessive usage can lead to addiction, resulting in unintended health and mental challenges

According to Lanette, et al. (2018) mobile phone addiction may cause brain imbalance and high significant level of blood pressure, increase chances of diabetes and insomnia. It may also hinder proper brain function. Similarly, Owolabi, et.al (2021) noted that one of the major challenges of addictive use of the Mobile phone is the radiation that is emitted from mobile phone. According to the study, exposure to such emission may have some negative effects on human health. Similarly. Abdulmannan, et al. (2022) shows that mobile phone addiction may affect the musculoskeletal system and may also cause behavioral, mental, and social health challenges.

Previous studies have also provided divergent results regarding gender differences towards mobile phone addiction. Behera, et al (2023) investigated gender differences in smartphone addiction among university students and findings depicted that gender was not a significant predictor of smartphone. Also, Wu, and Chou (2023) reviewed that gender and smartphone addiction had no significant relationship (056 ($p < 0.053$). On the contrary, Claesdotter-Knutsson, et.al (2021) found that male are more likely to use their mobile phone than female. According to their study, male undergraduates use the phone for gaming and other internet searches, while female undergraduates used their phone for studies and social media. Conclusively, majority of these studies concurred with Park, and Lee, (2022) as they maintained that mobile phone addiction had a direct relationship with depression among both male and female adolescents.

The Concept of Mental Health

Mental health is a crucial aspect of total well-being of an individual that most often does not receive much attention that it deserves in many societies around the world due to some reasons such as unwillingness of leaders to implement initiatives by the (WHO), lack of local-based advocacy initiatives (Tomlinson & Lund 2012), lack of understanding of the root causes of mental illness, lack of financial and social support and fear for stigmatization (Urigwe, 2010). Mental health is a state of well-being that enables individuals to realize their potential, cope with life's stresses, and contribute meaningfully to their communities (WHO). A closer examination of this definition reveals that mental health encompasses more than the absence of mental illness. Rather, it is the foundation upon which our thoughts, emotions, actions, and behaviors are built, influencing both our personal and social lives. Furthermore, good mental health is essential for navigating everyday stress and achieving productivity.

According to Coker, (2023) the World Health Organization estimated that 20% of the Nigerian population which represents about 40 million Nigeria people are suffering from mental illnesses. The Teen National Health Interview Survey conducted from July 2021 to December 2022 revealed alarming statistics on mental health among adolescents. A astounding 38% of adolescents aged 12-17 reported symptoms of anxiety and depression. This data underscores

the critical nature of mental health issues in developing nations, including Nigeria. Also, it can be inferred that undergraduates constitute a significant proportion of adolescents group and if this proposal is right, what it means is that about 1 out of 5 undergraduates in Nigeria is struggling with one form of mental health risk or the other. The implications of the foregoing are particularly pertinent for a developing nation like Nigeria. The rationale is direct: mental health challenges that emerge during adolescence can persist into adulthood, exacerbating the burden on the healthcare system. Consequently, it is crucial to prioritize the mental well-being of undergraduates, empowering them to develop healthy habits and resilience that will benefit them throughout their lives

Mental Health Risk

Mental health is a vital aspect of a person's ability to live a better and fulfilled life. A good mental state enables one to fully appreciate their environment, cope with stress, and tackle everyday challenges with a positive mindset (Opotamutale & Albanus, 2024). But alteration to health conditions may significantly deter these capabilities, leading to decreased functioning and productivity within an individual's household and the society at large. Mental health risk are factors, circumstances, experiences, habits and traits that can increase ones risk for mental health illness. The Michigan state university counselling and psychiatric services defined mental health risk as behaviours that threatens to harm oneself or others which sometimes may cause a person to become extremely withdrawn or depressed. In other words, mental health risk are potential risk factors to healthy living that may manifest themselves at any stages in one's life and may constitute urgent or emergency health conditions (Whittaker, 2022).

Kwan,et al (2016) argued that mental health risk behaviours are interrelated. Opotamutale & Albanus (2024) in their study reported that undergraduates experience high rates of depression than those found in the general population due to some factor which include lower socioeconomic status, stress and traumatic life experiences. Tran (2017) maintained that mental health risk is significantly high among undergraduates, thus understanding the predisposing factors and implementing targeted preventive measures may prevent future occurrence and improve students 'mental health . Other scholar (Awofala, & Esealuka 2021; Mofatteh, 2021; Ayandele, 2020; Zhang et al. 2018) highlighted some mental health risk factors among university students, such include depression, anxiety and insomnia. Depression is a mental illness that manifests by loss of interest, feeling of sadness, thought of committing suicide and inability to cope with daily life challenges (WHO; 2017). Anxiety is a group of mental illnesses that manifest in persistent feelings of worry, fear and anxiety (APA, 2013). Insomnia is a sleep disorder in which an individual have trouble with sleep. The disorder can be for a short (acute) or long time (chronic). Akodu et al. (2023) found significant relationship between smartphone addiction of Staff of College of Medicine in Nigeria and insomnia. Also Leow, et al. (2023) reported frequent poor sleep pattern among medical students who were addicted to the mobile phone.

Objectives of the Study

This study aimed at examining the perception of undergraduates from selected universities in Southwest Nigeria towards mobile phone addiction and mental health risk. The specific objectives of this study are:

1. To investigate undergraduates' perceptions of mobile phone addiction and its associated mental health risks.
2. To examine the significant relationship between mobile phone addiction and mental health risk among undergraduates.
3. To determine the gender differences in mobile phone addiction among undergraduates from selected universities in Southwest Nigeria

The objective of this study is to investigate mobile phone addiction and Perceived Mental Health Risk among Undergraduates from Selected Universities in Southwest Nigeria. The specific objectives of this study are to:

1. Investigate the perception of undergraduates' on mobile phone addiction and mental health risk among undergraduates from selected universities in Southwest Nigeria
2. Investigate the significant relationship between mobile phone addiction and mental health risk among undergraduates from selected universities in Southwest Nigeria
3. Find out the gender differences of undergraduates' mobile phone addiction among students from selected Universities in Southwest Nigeria.

Research Question

1. What are the perception of undergraduates from selected universities in Southwest Nigeria on Mobile Phone Addiction and Mental Health Risk?

Hypotheses

H1: There is no significant relationship between mobile phone addiction and mental health risk among students from selected universities in Southwest Nigeria.
H2: There is no significant gender difference in mobile phone addiction among students from selected universities in Southwest Nigeria

Theoretical Model

The Gratifications Theory

The gratification theory is social science theory that emphasizes on how and why people actively use different types of media to receive gratification. It is a theory that simply state that gratification, reward and satisfaction could be obtained by an individual through the choice of a particular media. Gratification theory was developed by Lazarsfeld and Stanton in the 1940s purposely to explain the reasons why people: old and young, men and women use the media to satisfy their specific needs. Ruggiero, (2000) stated that the theory was further expanded in the 1970s when people began not only to seek gratification but to obtain it. The use of gratification theory assumed that individual always have a reason for choosing a particular media to obtain satisfaction. Again, that people choose such media based on their expectation that it will satisfy their specific wants or needs. The gratification theory is relevant to the present study because it focuses on the expectation of gratification of undergraduates when they chose the mobile phone as technological tool that will satisfy some of their basic needs and expectations be it cognitive, affected or social needs.

defined as difficulties initiating or maintaining sleep, or early morning awakening, associated with impaired daytime functioning, for example, reduced cognitive performance, fatigue or mood disturbances.

5
defined as difficulties initiating or maintaining sleep, or early morning awakening, associated with impaired daytime functioning, for example, reduced cognitive performance, fatigue or mood disturbances.
5
defined as difficulties initiating or maintaining sleep, or early morning awakening, associated with impaired daytime functioning, for example, reduced cognitive performance, fatigue or mood disturbances.
5
defined as difficulties initiating or maintaining sleep, or early morning awakening, associated with impaired daytime functioning, for example, reduced cognitive performance, fatigue or mood disturbances fatigue or mood disturbance

Methods

Research Design

This study employed a descriptive survey research design. This design was chosen to describe and analyze the perceptions of undergraduates regarding mobile phone addiction and mental health risk.

Population

The population of the study comprises all undergraduates in all the universities in Southwest Nigeria.

Participants

A total of 530 undergraduates from selected universities in Southwest Nigeria participated in this study, completing and returning their questionnaires

Sampling Technique

This study employed a purposive sampling technique. Participants were recruited through WhatsApp, a popular social media platform. Undergraduates from three selected universities in Southwest Nigeria - Babcock University (BU), Tai Solarin University of Education (TASUED), and Adeleke University (AU) - were invited to participate in the study. The questionnaire link was shared via WhatsApp groups, and interested participants were required to meet the inclusion criterion of being an undergraduate student at one of the selected universities

Research Instruments

The following instruments were employed for data collection:

1. Demographic Data Inventory (DDI)

The DDI, developed by the researchers, consisted of two items designed to gather demographic information about the respondents, including their gender and age.

2. Perceived Mobile Phone Addiction Questionnaire (PMPAQ)

The PMPAQ, adapted from Kwon's (2013) Smartphone Addiction Scale-short version (SAS-SV), comprised 10 items. This instrument was used to investigate undergraduates' perceptions of mobile phone addiction. The PMPAQ demonstrated a high reliability coefficient of .819.

3. Perceived Mental Health Risk Scale (PMHRS)

The PMHRS, adapted from the Student Mental Health Self-Assessment Questionnaire by the University of Chichester, was employed to elucidate the perceptions of undergraduates from selected universities in Southwest Nigeria regarding mental health risk. The PMHRS exhibited a high reliability coefficient of .852

Results

Demographic Information of Respondents

Figure 1 Gender

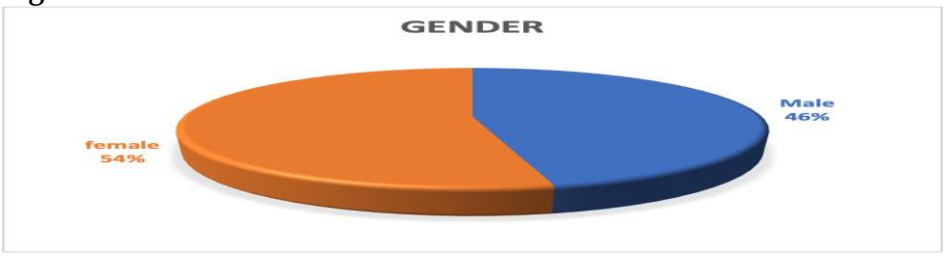


Figure 1 shows that 46.3% of the respondents are male and 53.7% are female.

Figure 2 Age

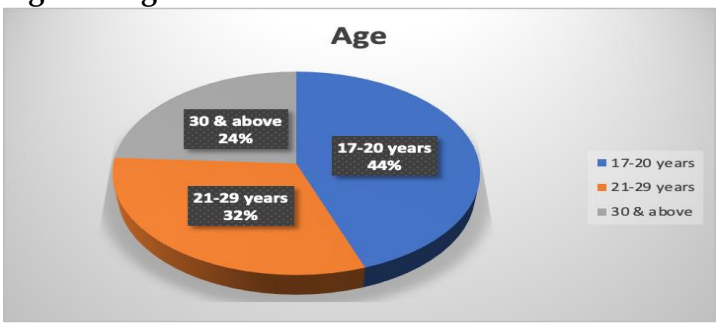
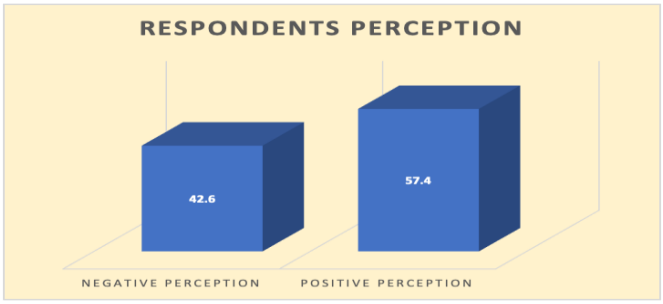


Figure 2 shows that 44.4% of the respondents are aged 17-20 years old, 31.5% are aged 21-29 years old and 24.1% are aged 30 years and above.

Table1. PERCEIVED MOBILE PHONE ADDICTION

		Frequency	Percent	Mean	STD
Valid	Negative Perception	220	42.6	28.7037	5.72606
	Positive Perception	310	57.4		
	Total	530	100.0		

Figure 3. PERCEIVED MOBILE PHONE ADDICTION

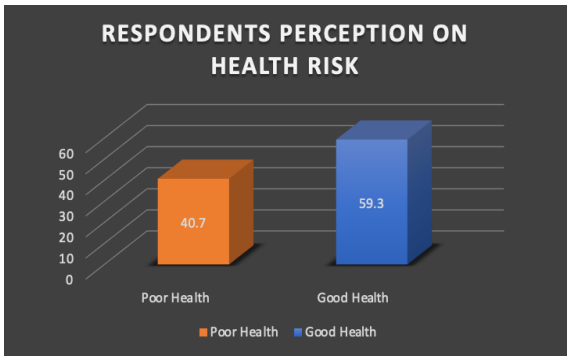


The result in Table 1 and in figure 3 reveals that 57.4% of the respondents have positive perception about mobile phone addiction and 42.6% have negative perception towards mobile phone addiction.

Table 2: PERCEIVED MENTAL HEALTH RISK

		Frequency	Percent	Mean	Standard Deviation
Valid	Poor Health	220	40.7	28.7593	6.85643
	Good Health	310	59.3		
	Total	530	100.0		

Figure 3. PERCEIVED MENTAL HEALTH RISK



The result of Table 1 Figure 4 reveals that about 59.3% of the respondents have good perception about the mental health risk of mobile phone addiction while 40.7% of them have poor perception about the mental health risk of mobile phone addiction.

Hypotheses

1. There is no significant relationship between mobile phone addiction and mental health risk among undergraduates from selected universities in Southwest Nigeria

		Addiction	MENTAL HEALTH RISK
Addiction	Pearson Correlation	1	.662**
	Sig. (2-tailed)		.000
	N	530	540

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3. Pearson Moment Correlation on the relationship between mobile phone addiction and mental health risk among undergraduates from selected universities in southwest Nigeria

Table 3 reveals that there is a significant relationship between mobile phone addiction and mental health risk among undergraduates from selected universities in Southwest Nigeria (r=0.662, p=0.000). Following this result, the null hypothesis is hereby rejected while the alternate hypothesis is accepted.

2 There is no significant gender difference in mobile phone addiction among undergraduates from selected universities in southwest Nigeria

Table 4: T-Test on gender difference in mobile phone addiction among undergraduates from selected universities in Southwest Nigeria

	Gender	N	Mean	Std. Deviation	T	P
Addiction	Male	250	28.9200	5.37673	.815	.416
	Female	280	28.5172	6.01394		

The result in table 4 shows that there is no significant gender difference in mobile phone addiction among undergraduates from Selected Universities in Southwest Nigeria, male students (M=28.9200, SD=5.47662) as compared to females students (M=28.5172, SD=6.10983), t(538)=0.815, p >0.05 with this the null hypothesis which states that there is no significant gender difference in mobile phone addiction among Undergraduates from Selected Universities in Southwest Nigeria is hereby accepted while the alternate is rejected.

Discussion of Findings

The objective of the study was to investigate mobile phone addiction and Perceived Mental Health Risk among Undergraduates from Selected Universities in Southwest Nigeria. One research question and two Hypotheses were raised to guide the study. To answer the research question which say: what is the perception of undergraduates from selected universities in Southwest Nigeria on Mobile Phone Addiction and Mental Health Risk? The descriptive statistics featuring frequency count, mean and standard deviation were used. Result as depicted in Table 1 shows that 57% of the respondents have positive perception of mobile

phone addiction and 42% have negative perception on mobile phone addiction. Also, Table 2 reveals that about 59% of the respondents have good perception about the mental health risk of mobile phone addiction while 41% of them have poor perception about the mental health risk of mobile phone addiction. A clear understanding of the result reviewed that majority of the respondents have a positive understanding of what mobile phone addiction and mental health risk are. This knowledge may have been gotten prior to the study through reading of educative books, attending to seminars and conferences. The class room illustrations could also be an avenue to get such needed knowledge because all the respondent are student of one university or the other.

In answering Hypotheses 1 which states that there is no significant relationship between mobile phone addiction and mental health risk among Undergraduates from Selected Universities in Southwest Nigeria .The Pearson Product Moment Correlation (PPMC) was used. The result shows that there is a significant relationship between mobile phone addiction and mental health risk among Undergraduates from Selected Universities in Southwest Nigeria (r=0.662, p=0.000). Following this result, the null hypothesis is hereby rejected while the alternate hypothesis is accepted. The result is in agreement with the findings of Alhassan et al. (2018, Awofala, & Esealuka 2021; Mofatteh, 2021; Ayandele, 2020; Zhang et al. 2018, Claesdotter-Knutsson, et al. 2021) that found significant relationship between undergraduates' mobile phone addiction and mental health risk factors such as depression, anxiety and insomnia.

The T-Test was used to answer Hypotheses 2 which stated that there is no significant gender difference in mobile phone addiction among Undergraduates from Selected Universities in Southwest Nigeria. The result as shown in table 4 indicates that there is no significant gender difference in mobile phone addiction among Undergraduates from Selected Universities in Southwest Nigeria. Male students (M=28.9200, SD=5.47662) as compared to females students (M=28.5172, SD=6.10983), t (538) =0.815, p >0.05. By implication, the null hypothesis which states that there is no significant gender difference in mobile phone addiction among Undergraduates from Selected Universities in Southwest Nigeria is hereby accepted while the alternate is rejected. This result is in agreement with the studies of Behera, et al. (2023) in which the simple linear regression analysis revealed that gender was not a significant predictor of smartphone addiction. Also, Wu, and Chou (2023) analysis of Spearman's ϱ, depicted the correlation coefficient between gender and smartphone addiction shows no significant relationship (056 ($p < 0.053$). On the contrary, Claesdotter-Knutsson, et al (2021) found that male are more likely to use their mobile phone than female. According to their study, male undergraduates use the phone for gaming and other internet search, while female undergraduates use the mobile phone for studies social connectivity and pleasure. The dissimilarity can be explained by the reason that people use the mobile phone for different purposes. Cognizance of the fact that respondents of the present study are student who use the mobile phone for research, access information quickly, watch films and connect with friends and family members little wonder the result of findings. Thus both male and female undergraduates in Southwest Nigeria use their mobile phone for their purposes of learning, research and social connectivity.

Recommendations

The study recommends the following:

1. Universities administration should collaborate with the student unions or associations to organize rallies, campaigns, games and sporting events aiming at sensitizing undergraduates on the mental health consequences of mobile phone addiction. This will go a long way to create more awareness and help undergraduates understand that when a person is addicted to mobile phone such an individual is prone to depression, anxiety and other mental health risk.
2. The need for policies that will stipulate rules and guidelines on the use of mobile phone in universities and colleges in Southwest Nigeria is hereby recommended. The implementation of such rules and guideline will help to address the use of mobile phone among undergraduates, inculcate discipline and make them to use their mobile phones majorly for necessary reasons. In addition, such policies will not only help achieve the intended learning outcomes but promote the mental health of undergraduate, thereby decreasing undergraduates' mental health risk.
3. The ministry of health in the national and state levels should ensure that counselling services are internalized in all universities in Nigeria, and also guarantee that resource materials such as counselling labs and personal are made available and maintained for effective discharge of counselling services focusing not only on male undergraduates but also on female undergraduates, because the findings of this present study has shown that both genders may be addicted to the mobile phone.

Conclusion

Mobile phone addiction has become a prevailing phenomenon in the 21st century, especially among undergraduates due to the craving for social networking and interaction and access to online educational materials among other reasons. The present study has revealed that there is a significant relationship between mobile phone addiction and mental health risk among undergraduates from selected universities in Southwest Nigeria. The implication of the finding is that when undergraduates are addicted to mobile phone their run the risk of being threatened by one or more mental health risk factors such as depression, anxiety and insomnia.

References

Abdulmannan, D. M., Naser, A. Y., Ibrahim, O. K., Mahmood, A. S., Alyoussef Alkrad, J., Sweiss, K., ... & Kautsar, A. P. (2022). Visual health and prevalence of dry eye syndrome among university students in Iraq and Jordan. *BMC ophthalmology*, *22*(1), 265.

Adeolu, A. T., Adedokun, V. A., Salami, O. O., & Ayoola, E. O. (2019). Health Problems Associated with Frequent Use of Cell Phone Among Students in University of Ibadan, Nigeria.

Ayandele, Olusola, Olugbenga A. Popoola, and Tolulope O. Oladiji. "Addictive use of smartphone, depression and anxiety among female undergraduates in Nigeria: a cross-sectional study." Journal of health Research 34.5 (2020): 443-453.

Akodu, A, Akanni, B.F, Osuntoki, A.A & ZIbiri, R.A.(2023) Smartphone Addiction, Psychological Status, Insomnia, and Pain-related Disability of the Neck among Staff of College of Medicine, University of Lagos. Journal of Occupational Health and Epidemiology 12(4):242-25

Alhassan, A. A., Alqadhib, E. M., Taha, N. W., Alahmari, R. A., Salam, M., & Almutairi, A. F. (2018). The relationship between addiction to smartphone usage and depression among adults: A cross sectional study. BMC Psychiatry, 18(1), 148.

American Psychiatric Association [APA] (2013.) Diagnostic and statistical manual of mental disorders (DSM-5). 5th ed. Washington DC: American Psychiatric Association Press.

Awofala, A. O. A., & Esealuka, A. R. (2021). Nomophobia, Smartphone Addiction, Depression, and Anxiety as Predictors of Internet Addiction among Nigerian Preservice Mathematics Teachers. Journal of Informatics and Vocational Education, 4(3).

Behera, R. K., Scholar, F. M. E., & Seth, M. K. (2023). Smartphone addiction among university students: difference in gender and academic streams. The Online Journal of Distance Education and e-Learning, 11(4).

Billieux J., Maurage P., Lopez-Fernandez O., Kuss D. J., Griffiths M. D. (2015). Can disordered mobile phone use be considered a behavioral addiction? An update on current evidence and a comprehensive model for future research. *Curr. Addict. Rep.* 2 156–162.

Claesdotter-Knutsson, E., André, F., Fridh, M., Delfin, C., Hakansson, A., & Lindström, M. (2021). Gender-based differences and associated factors surrounding excessive smartphone use among adolescents: Cross-sectional study. *JMIR pediatrics and parenting*, *4*(4), e30889.

Coker, T. (2023) Nigeria's Mental Health Crisis: A Mind-Boggling Burden on 40 Million Minds. Retrieved from https://-www.tchalthng.com/thought-piece/nigerias-mental-health-cross-a-mind-boggling -burden-on-40-million, on 7-7-2024

Demirci K, Akgönül M, Akpinar A. (2015) Relationship of smartphone use severity with sleep quality, depression, and anxiety in university students. J Behav Addict.**4** (2)

Elamin, N. O., Almasaad, J. M., Busaeed, R. B., Aljafari, D. A., & Khan, M. A. (2024). Smartphone addiction, stress, and depression among university students. Clinical Epidemiology and Global Health, 25, 101487.

Jackson CA, Henderson M. Frank JW, Haw SJ. (2012) an overview of prevention of multiple risk behaviour in adolescence and young adulthood. J Pub Health 34 1:31.

Leow, M. Q. H., Chiang, J., Chua, T. J. X., Wang, S., & Tan, N. C. (2023). The relationship between smartphone addiction and sleep among medical students: A systematic review and meta-analysis. Plos one, 18(9).

Liu, Q. Q., Xu, X. P., Yang, X. J., Xiong, J., & Hu, Y. T. (2022). Distinguishing different types of mobile phone addiction: Development and validation of the Mobile Phone Addiction Type Scale (MPATS) in adolescents and young adults. *International journal of environmental research and public health*, *19*(5), 2593.

Mofatteh, M. (2021). Risk factors associated with stress, anxiety, and depression among university undergraduate students. AIMS public health, 8(1), 36.

Opotamutale, D. O., & Albanus, F. S. (2024). Risk Factors of Mental Health of Students in Higher Education Institutions. In Mental Health Crisis in Higher Education 66-84.

Owolabi, J., Ilesanmi, O. S., & Luximon-Ramma, A. (2021). Perceptions and Experiences about Device-Emitted Radiofrequency Radiation and Its Effects on Selected Brain Health Parameters in Southwest Nigeria. *Cureus*, *13*(9).

Park, Y., & Lee, S. (2022). Gender differences in smartphone addiction and depression among Korean adolescents: Focusing on the internal mechanisms of attention deficit and self-control. Computers in Human Behavior, 136, 107400.

Ruggiero T. E. (2000) Uses and Gratifications Theory in the 21st Century. *Mass Communication and Society*.3 (1):3-37

Tomlinson, M., & Lund, C. (2012). Why does mental health not get the attention it deserves? An application of the Shiffman and Smith framework. PLoS medicine, 9(2), e1001178.

Urigwe, S. E. (2010) Understanding mental illness in Nigeria: Bringing culture and traditional medicine into mental health policy. *Texas Medical Center Dissertations*.https://digitalcommons.library.tmc.edu/dissertations/ AAI1495488 ing%20being. Retrieved 7-7-2024

Whittaker, G. (2022) Mental Health Risk Factors. Retrieved from https://www.hims.com/blog/mental-health-risk-factor on 7-7-2024

World Health Organization. (2017). Depression and other common mental disorders: global health estimates. World Health Organization. Retrieved from https://iris.who.int/handle/10665/254610. License: CC BY-NC-SA 3.0 IGO on 11-09-2024

Wu, Y. Y., & Chou, W. H. (2023). Smartphone addiction, gender and interpersonal attachment: A cross-sectional analytical survey in Taiwan. Digital health, 9.

Yang, L. L., Guo, C., Li, G. Y., Gan, K. P., & Luo, J. H. (2023). Mobile phone addiction and mental health: the roles of sleep quality and perceived social support. Frontiers in Psychology, 14.