

IMPACT OF SOCIAL MEDIA USAGE ON ADOLESCENT STUDENTS' MENTAL HEALTH IN SECONDARY SCHOOLS IN KATSINA METROPOLIS, KATSINA STATE, NIGERIA

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Abstract

This study investigated the impact of social media usage on adolescent students' mental health in secondary schools in Katsina Metropolis, Katsina State. The study has 6 objectives, 3 research questions and 3 hypotheses. The study adopted a descriptive survey type. Simple random technique was used to select 180 respondents (SSIII students) as sample for this study. Three instruments were used for data collection included Social Media Platforms Scale (SMPS), Extent of Time Spend Per Day Scale (ETPDS) and Adolescent Students' Social Media Usage Scale (ASSMUS). The reliability coefficients of the instruments are as follows 0.60, 0.68 and 0.70, respectively. Frequency and percentage, mean and standard deviation, Pearson Product Moment Correlation (PPMC) and t-test statistics were used to answer the research questions and test the hypotheses, all at 0.05 level of significance. The finding revealed that Whatsapp is the most commonly used social media platform by the Students; they spend 2-3hrs per day on social media; excessive usage of social media by them contributes negatively on their mental health status. Also, there was a significant relationship between social media usage and adolescents students mental health, there was no significant difference in the social media usage and their mental health status based on gender. Recommendations were made among others such as Mental health professional should organize symposium and lecture across the secondary schools to enlighten and educate the adolescents in the reasons and dangers associated with excessive usage of social media on mental health.

Key words: Social Media, Adolescents Students and Mental Health

Introduction

Schools are critical in our communities to supporting children and families. While the expectation is that schools provide education, they also provide opportunities for youth to engage in physical activity and academic, social, mental health, and physical health services, all of which can relieve stress and help protect against negative outcomes. Adolescence is a unique and formative time. Physical, emotional and social changes, including exposure to poverty, abuse, or violence, can make adolescents vulnerable to mental health problems. Protecting adolescents from adversity, promoting socio-emotional learning and psychological well-being, and ensuring access to mental health care are critical for their health and well-being during adolescence and adulthood (WHO, 2024).

Social media is among the pioneering innovations that have transformed the way humans communicate. It serves to strengthen relationships, disseminate vital information, facilitate learning and expand knowledge horizons. It provides a platform to network and connect with people from all over the world, regardless of race, location, beliefs, or perceptions. It allows individuals to enjoy memorable moments and experiences from the comfort of their location, all through an internet

connection and devices like mobile phones, laptops, computers, and other digital communication tools.

However, its usage has become pervasive in modern society, with individuals engaging in various platforms at different frequencies, durations, and types of interactions. Research suggests that excessive use of social media, characterized by frequent and prolonged engagement, can have significant implications for mental health outcomes. For instance, individuals who spend excessive amounts of time on social media platforms may experience heightened levels of stress and anxiety due to constant exposure to social comparisons, cyber bullying, and information overload (Ran & Mettilda, 2017). Moreover, certain types of interactions on social media, such as passive scrolling or comparing oneself to others, have been linked to increased feelings of inadequacy and depression. In recent times, social media is predominantly perceived as a conduit for disseminating ideas and information across a virtual network. Renowned platforms such as Facebook, Instagram, Twitter, and YouTube epitomize this realm, granting users the latitude to share content, engage online, and cultivate virtual communities. A testament to its omnipresence, it is staggering to note that an estimated 4.7 billion individuals engage with social media, encapsulating roughly 60% of the global populace (Lu & Tingyu, 2021).

Thus, understanding the frequency, duration, and nature of social media usage is crucial in examining its impact on mental health. Among the most common social media usage patterns are frequent checking, prolonged scrolling, active engagement (e.g., posting, commenting), and passive consumption of content. Each of these patterns can influence mental health outcomes differently. For instance, individuals who check their social media accounts frequently throughout the day may experience heightened levels of stress and anxiety as they feel the need to stay connected and respond to notifications promptly (Lu & Tingyu, 2021). Prolonged scrolling, characterized by spending extended periods consuming content without actively engaging, has been associated with feelings of loneliness and decreased self-esteem, particularly when individuals compare themselves unfavorably to others (Kalpana, Suprakash, Jyoti, & Sana, 2019)

On the other hand, active engagement, such as posting updates and interacting with others, may have both positive and negative effects on mental health, depending on the nature of the interactions and the level of social support received (Lei, 2021). Social media helps to promote suicide prevention. Robinson and Smith (2020), reported that social media helps to prevent young adults who have suicidal tendencies from committing suicide. This is due to the fact that it allows them access to therapeutic interventions online without being identified or criticized. According to Stabler (2021), use of social media significantly impacts mental health. It can enhance connection, increase self-esteem, and improve a sense of belonging. But it can also lead to tremendous stress, pressure to compare oneself to others, and increased sadness and isolation. Therefore, it is as a result of the above gap that this study seeks to investigate the impact of social media usage on adolescents students mental health in secondary schools in Katsina Metropolis, Katsina State

Statement of the Problem

Childhood and adolescence are critical times for physical and mental development. Development of good mental health is important for overall good health and well-being throughout the lifespan. Globally, it is estimated that one in seven (14%) of 10–19-year-olds experience mental health conditions, yet these remain largely unrecognized and untreated. Adolescents with mental health conditions are particularly vulnerable to social exclusion, discrimination, stigma (affecting readiness to seek help), educational difficulties, risk-taking behaviours, physical ill-health and human rights

violations.

The Youth Risk Behaviour Survey Data Summary and Trends Report (2013–2023) highlight concerning trends about the mental health of U.S. high school students. In 2023, 4 in 10 students (40%) had persistent feelings of sadness or hopelessness. In 2023, 2 in 10 (20%) students seriously considered attempting suicide and nearly 1 in 10 (9%) attempted suicide. These data bring into focus the level of distress many students are experiencing.

The increase in social media usage, especially among adolescents is indisputable, the effects of frequent use are the subject of numerous contradictory opinions. From an optimistic standpoint, Levy (2015) asserts that social media participation aids in the development of critical knowledge and social skills in adolescents and motivates them to become engaged members of society who generate and distribute content. Nevertheless, there is growing support for the notion that excessive usage of these platforms could be detrimental to one's mental health due to the fact that an intense immersion in the digital world can induce depression in certain users (Lei, 2021).

Also, the impact of Social Media Usage on Mental Health among Adolescents in secondary schools has emerged as a critical area of concern in contemporary research. With the proliferation of social media platforms and the increasing prevalence of adolescent engagement, understanding the impact of such usage on mental well-being has become imperative. Recent studies have highlighted the complex interplay between social media usage patterns and mental health outcomes among adolescents. For instance, research by Ezeabii, Chibuiké and Udeh, (2019) found that excessive social media use was associated with increased levels of depressive symptoms among adolescents in the United Kingdom, underscoring the need for further investigation into the mechanisms underlying this relationship. Additionally, studies by Lei (2021) have revealed a significant association between problematic social media use and anxiety symptoms among adolescents and suggesting potential cross-cultural implications for mental health interventions. Therefore, there is a pressing need to comprehensively examine the impact of social media usage on adolescent's students' mental health in secondary schools in Katsina Metropolis.

Objectives of the Study

The main objective of this study is to determine the impact of Social Media Usage on Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis. Specifically to:

1. find out which Social media platform mostly used by Adolescents Students in Secondary Schools in Katsina Metropolis.
2. investigate the extent of time that Adolescents Students in Secondary Schools in Katsina Metropolis spend on usage of social media per day.
3. examine the impact of Social Media Usage on Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis.
4. examine the relationship between Social Media Usage and Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis
5. determine the difference in the Social Media Usage among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender
6. investigate the difference in the Mental Health among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender

Research Questions

The following research questions were raised to guide the conduct of this study:

1. Which of the Social media platform mostly used by Adolescents Students in Secondary Schools in Katsina Metropolis?
2. What is the extent of time that Adolescents Students in Secondary Schools in Katsina Metropolis spend on usage of social media per day?
3. What is the impact of Social Media Usage on Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis?

Research Hypotheses

The following null hypotheses were formulated and tested in the study.

H01: There is no significant relationship between Social Media Usage and Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis

H02: There is no significant difference in the Social Media Usage among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender

H03: There is no significant difference in the Mental Health among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender

Methodology

This study adopted descriptive survey of research type. The population of the study comprised of public senior secondary school (SSIII) students in Katsina Metropolis State. Simple random sampling technique was used to select 12 SSIII both male and female in each of 15 public senior secondary schools totalling 180 respondents which formed the sample of this study. The researcher used questionnaires for data collection which include Social Media Platforms Scale, Extent of Time Spend Per Day Scale and impact of Social Media Usage on Adolescents Students Mental Health Scale. This scale has 10 items with 4 points likert; (VF) Very frequently, (F) Frequently, (O) Occasionally and (R) Rarely. The instruments were subjected to face and content validity by the two experts in test, measurement and evaluation. The reliability of the instruments was determined by split-half method and Pearson Product Moment Correlation Statistics was used to determine the reliability coefficients as follows 0.60, 0.68 and 0.70. The research question 1, 2 were answered using frequency count and percentage, the research question 3 was answered using mean and standard deviation Also, the research hypothesis 1 was tested using Pearson Product Moment Correlation (PPMC) Statistics and hypotheses 2 and 3 was tested with t-test all at 0.05 level of significance.

Results

Answering of Research Questions

Research Question One: Which of the Social media platform mostly used among Adolescents Students in Secondary Schools in Katsina Metropolis?

Table 1: Showing frequency and percentage of the Social media platform mostly used among Adolescents Students in Secondary Schools in Katsina Metropolis

S/No	Social media platforms	Frequency	Percentage
1.	Face book	10	6
2.	Twitter	5	3
3.	Instagram	47	26
4.	Skype	Nil	0
5.	Snapchat	33	18
6.	LinkedIn	Nil	0
7.	Google+	Nil	0
8.	WhatsApp	85	47
9.	You tube	Nil	0
10.	Total	180	100%

Table 1 revealed the Social media platform used among Adolescents Students in Secondary Schools in Katsina Metropolis are as follows; Face book 10 (6 %), Twitter 5 (3 %), Instagram 47 (26 %), Snapchat 33 (18 %), and WhatsApp 85 (47 %), This implies that the most commonly used social media platform by Adolescents Students in Secondary Schools in Katsina Metropolis is WhatsApp 85 (47 %).

Research Question Two: What is the extent of time that Adolescents Students in Secondary Schools in Katsina Metropolis spend on usage of social media per day?

Table 2: Showing frequency and percentage of the extent of time that Adolescents Students in Secondary Schools in Katsina Metropolis spend on usage of social media per day

S/No.	Extent of time	Frequency	Percentage
1	0-30 minutes	41	23
2	1-2hrs	33	18
3	2-3hrs	95	53
4	3-4hrs	7	3
5	4-5hrs	3	2
6	5-6hrs	1	1
Total		180	100

The table 2 revealed that the extent of time that Adolescents Students in Secondary Schools in Katsina Metropolis spend on usage of social media per day were as follows; 41 (23%) respondents spent 0-30 minutes, 33 (18%) respondents spent 1-2hrs, 95 (53%) respondents spent 2-3hrs, 7 (3%) respondents spent 3-4hrs, 3 (2%) respondents spent 4-5hrs and 1 (1%) respondents spent 5-6hrs. This implies that the larger Adolescents Students in Secondary Schools in Katsina Metropolis spend much time on usage of social media with 95 (53%) respondents spent 2-3hrs.

Research Question Three: What is the impact of Social Media Usage on Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis?

Table 3: Showing the mean and standard deviation of impact of Social Media Usage on Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis

Variables	N	Mean	SD	Decision
Social Media Usage	180	18.10	4.10	Negative
Adolescents Students Mental Health	180	11.44	2.60	

Table 3 revealed the impact of Social Media Usage on Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis. It was found that mean score of Social Media Usage was 18.10 and Adolescents Students Mental Health mean score was 11.44. This implies that the excessive usage of Social Media by Adolescents Students in Secondary Schools in Katsina Metropolis contribute to negative impact of Mental Health related problems.

Testing of Hypotheses

H01: There is no significant relationship between Social Media Usage and Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis.

Table 4: Table showing the Correlation analysis between Social Media Usage and Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis

Variables	N	Mean	SD	Df	Cal. r-Value	Critical r-value	Decision
Social Media Usage	180	20.65	11.10	178	.212	.195	Rejected
Adolescents Students Mental Health	180	19.46	10.09				

$P > 0.05$

Table 4 revealed that the calculated r-value of .212 is greater than the critical r- value of .195 at .05 level of significance and 178 degree of freedom. Hence, the null hypothesis is rejected. This implies that there is significant relationship between Social Media Usage and Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis.

H02: There is no significant difference in the Social Media Usage among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender.

Table 5: t-test showing difference in the Social Media Usage among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender.

Variable	Gender	N	Mean	SD	Df	t. cal	t. crit.	Decision
Social media Usage	Male	83	19.01	13.11	178	1.65	1.96	Accepted
	Female	97	17.41	11.10				

$P < 0.05$

Table 5 revealed that the t.cal (1.65) is less than the t.crit. (1.96) at 0.05 level of significance and 178 degree of freedom. Hence, the null hypothesis is accepted. This implies that there was no significant difference in the Social Media Usage among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender.

H03: There is no significant difference in the Mental Health among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender.

Table 6: t-test showing difference in the Mental Health among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender.

Variable	Gender	N	Mean	SD	Df	t. cal	t. crit.	Decision
Mental Health	Male	83	20.14	12.11	178	1.72	1.96	Accepted
	Female	97	19.08	11.13				

P<0.05

Table 6 revealed that the t.cal (1.72) is less than the t.crit. (1.96) at 0.05 level of significance and at 178 degree of freedom. Hence, the null hypothesis is accepted. This implies that there was no significant difference in the Mental Health among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender

Summary of Finding

The finding of this study was summarized as follows;

The study indicated that the most commonly used social media platform by Adolescents Students in Secondary Schools in Katsina Metropolis is Whatsapp 85 (47 %)

It was revealed that the larger number of Adolescents Students in Secondary Schools in Katsina Metropolis spend much time on usage of social media with 95 (53%) respondents spent 2-3hrs per day.

The study found that mean score of Social Media Usage was (18.10) and Adolescents Students Mental Health mean score was (11.44). This implies that excessive usage of Social Media by Adolescents Students in Secondary Schools in Katsina Metropolis contribute to negative impact of Mental Health related problems.

There was a significant relationship between Social Media Usage and Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis. (calculated r-value of .212 is >the critical r- value of .195)

There was a no significant difference in the Social Media Usage among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender. (t. cal is (1.65) is < the t. crit. (1.96)

There was no significant difference in the Mental Health among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender (t. cal is (1.72) is< the t. crit. (1.96)

Discussions

Research question one revealed that the most commonly used social media platform by Adolescents Students in Secondary Schools in Katsina Metropolis is Whatsapp. The finding of this is line with Walton, (2017) whose study found that most frequent used platforms were Whatsapp., Integram and face book. It further found that one of the ways Facebook and other social media press people to think they are isolated socially is comparison factors. People are often trapped when they compare themselves with others as they scroll via their news feeds, and give judgements on how they match up with the other.

Research question two indicated that the extent of time that Adolescents Students in Secondary Schools in Katsina Metropolis spend much time per day on usage of social media. The finding of this

study corroborates with Dukper, Baffour and Beatrice (2018), who found that the majority of the respondents (41%) stated that, on the average, they spent two-three hours on their best choice of social media platforms, (26%) of them reported that, they often spent less than thirty minutes on social media, (14%) said that, they spent around thirty-one hours checking their best choice of social media platforms and (18%) maintained that they spent above two hours on social media.

Research question three revealed that excessive usage of Social Media by Adolescents Students in Secondary Schools in Katsina Metropolis contribute to impact of Mental Health related problems.. The finding of this study agrees with Yubo, Dan, Tonglin, Lily and Wang, (2019), who found that addiction to social media has a strong relationship with health, relational, performance and emotional problems and have revealed that symptoms of addiction to social media can reflect in the cognition, mood, emotion and physical reactions, psychological and interpersonal issues

The result of hypothesis one revealed there was a significant relationship between Social Media Usage and Adolescents Students Mental Health in Secondary Schools in Katsina Metropolis. The finding of this study is supported by Smith and Johnson (2022) who in their study found that a consistent pattern of associations between excessive social media use among students adolescents and adverse mental health effects, including increased depressive symptoms and decreased psychological well-being. Also, Jones and Brown (2018) who in their research found that adolescents who spent excessive time on image-focused platforms reported lower self-esteem levels and higher levels of stress compared to those who used text-based platforms more frequently. The authors suggested the need for targeted interventions to address platform-specific effects on mental well-being.

The result of hypothesis two showed that there was no significant difference in the Social Media Usage among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender. The finding of this study agrees with Rotimi, (2021) who found that the social media is globally use among the both gender without differences in the level of its usage. It equally maintains that Social media is often used for long-range interpersonal communication book keeping, which is not a laughing matter for adolescents because regular usage of person-to-person communication.

The result of hypothesis three revealed that there was no significant difference in the Mental Health among Adolescents Students in Secondary Schools in Katsina Metropolis based on gender. The finding of this study agrees with Kalpana, Suprakash, Jyoti, and Sana, (2019), who found that adolescents without difference in both gender with Social media addiction has been shown to induce unhappiness as well as the development of other mental health concerns. Some of the negative effects of social media addiction on users' mental health are forgetfulness, anxiety, sleeplessness, isolation fatigue, depression, restlessness, eye diseases, neck or back pain, bad eating habit.

Conclusion

Based on the findings of this study, the followings conclusions were reached; the most commonly used social media platform by Adolescents Students in Secondary Schools in Katsina Metropolis is Whatsapp. The larger number of Adolescent Students in Secondary Schools spent 2-3hrs per day on usage of social media. The impact of social media usage on the mental health of secondary school adolescents' students is very obvious and has consistently demonstrated correlations between increased social media usage and adverse mental health outcomes, including symptoms of anxiety, depression, and decreased psychological well-being. It is also concluded that there was a no significant difference in the Social Media Usage among Adolescents Students in Secondary Schools based on gender, both male and female Adolescents Students in Secondary Schools experience

Mental Health as a result of excessive usage of social medial.

Recommendations

Based on the findings of the study, the following recommendations were made.

1. Educational psychologists and counselors should organize seminar to create awareness and sensitize the secondary school adolescents on the negative effects of excessive social media usage on mental health
2. Adolescent Students should look for a way of maximizing their presence on social media for knowledge and academic purposes rather than spending their important time and energy on unproductive activities
3. Adolescent Students should desist from any activity on social media that may be inimical to their mental health such as watching of anxious films or pornography.
4. The school management should engage the secondary school adolescents on the needs to be educationally focused and use social media to support their academic activities in order to excel academically
5. Mental health professional should organize symposium and lecture across the secondary schools to enlighten and educate the adolescents in the reasons and dangers associated with excessive usage of social media on mental health.

References

- Ezeabii, I. C., Chibuike, V.C. & Udeh, S. O. (2019). Influence of social media on academic performance of business education students of public universities in Southeast States of Nigeria. *British Journal of Education*, 7 (2), 81-90.
- Dukper, B. K. Baffour, O. A. & Beatrice, A. (2018). Exploring the effects of social media on the reading culture of students in Tamale Technical University. *Journal of Education and Practice*. 9 (7), 2222-288x.
- Jones, X., and Brown, Y. (2018).. Trends in anxiety disorders in the United States: Prevalence, co morbidity, and socioeconomic correlates. *Journal of Anxiety Disorders*, 64, 54-64. <https://doi.org/10.1016/j.janxdis.2019.01.008>
- Kalpna, S., Suprakash, C., Jyoti, P. & Sana, D. (2019). Social media and mental health challenges. *Industrial Psychology Journal*28 (2), 155–159.
- Lu, Y. & Tingyu, L. (2021).Social networking addiction among Hong Kong University students: its health consequences and relationships with parenting behaviours. Retrieved from <https://www.frontiersin.org>.
- Lei, Z. (2021). The impact of social media use types and social media addiction on subjective well-being of college students: A comparative analysis of addicted and non-addicted students. *Computers in Human Behaviour Reports* 4.
- Ran, P. L. and Mettilda, B. (2017). Social networking addiction among adolescents. *Research on Humanities and Social Sciences*. 7 (17), 2224-5766.
- Robinson, L and Smith, M (2020) Social Media and Health. Helpguide: Teens Issue. Retrieved from <https://www.helpguide.org/articles/mental-health/social-media-and-mental-health.htm>
- Rotimi, O. (2021). Social networking addiction among adolescents. *Research on Humanities and Social Sciences*. 7 (17), 2224-5766.
- Smith, J., and Johnson, K. (2022). Title of the Study. *Journal Name*, Volume(Issue), Page numbers.
- Stabler C. M. (2021). The effect of social media on mental health. Retrieved from <https://www.lancastergeneralhealth.org/health-hub-home/2021/september/the-effects-of->

social-media-on-mental-health

- Walton, A. G. (2017). 6 ways social media affects our mental health. Retrieved from <https://www.forbes.com>
- Wielderhold, B.K. (2020). Using social media to our advantage: Alleviating anxiety during a pandemic. *Cyberpsychology, Behavior and Social Networks*. 23(4), 197-199.
- WHO (2024). Mental Health of Adolescent. <https://www.who.int/news-room/fact-sheets/>
- Yubo H., Dan, X., Tonglin, J. Lily, S. and Wang, Q. (2019). Social media addiction: Its impact, mediation, and intervention. *Journal of Psychology Research on Cyberspace*. 13 (1).