
**SOCIAL MEDIA ADDICTION AND SUBSTANCE USE AS CORRELATES OF
ACADEMIC ACHIEVEMENT AMONG SENIOR SECONDARY SCHOOL STUDENTS
IN NORTH WEST, NIGERIA**

BY

SUNDAY BASSEY AKPAN

Department of Educational Psychology, Guidance and Counselling
School of Education
Federal College of Education, Katsina, Katsina State
Robertjoy130@Gmail.Com

&

DR. UMAR MAMMAN AND DR. BINTA ADO ALI

Department of Educational Psychology and Counselling, College of Education, Federal
University Dutsin-Ma, Katsina State

ABSTRACT

This study investigated social media addiction and substance use as correlates of academic achievement among senior secondary school students in North West, Nigeria. Two (2) research objectives and hypotheses were stated and formulated to guide the study. A correlational research design was adopted for the study. The population comprised of four hundred and forty one thousand, three hundred and fourteen (441,314) SSII students and a sample size of one thousand five hundred and thirty two (1,532) senior secondary school students were drawn and a multi-stage sampling technique was adopted for the study. Three (3) instruments were used for collection of data from the respondents, Social Media Addiction Questionnaire (SMAQ), Substance Use Questionnaire (SUQ) and Mathematics Achievement Test (MAT). The instruments were validated by three (3) experts, two specialists in Educational Psychology and one in Test and Measurement and the reliability coefficients of 0.75 for social media addiction, 0.79 for substance use and 0.78 for mathematics achievement test were obtained respectively. The analysis employed Pearson Product Moment Correlation Coefficient (PPMC) for bivariate relationships and Multiple

Regression Analysis for multivariate associations, all tested at a 0.05 level of significance. Key findings revealed that social media addiction and substance use had a relationship with academic achievement. Recommendations such as; school authorities should set clear policies limiting phone and social media usage during school hours to curb addiction and refocus attention of student on academics among others.

Keywords: *Academic Achievement, Social Media Addiction and Substance Use*

Introduction

The interplay of various factors such as social media addiction, substance use and academic achievement among senior secondary school students presents a compelling context for scholarly inquiry in different parts of the world including Nigeria and North West, Nigeria in particular. According to Sule (2022) the North West, Nigeria recorded the lowest academic achievement in terms of performance in the 2021 West African Secondary School Certificate Examination (WASSCE) when compared with other geopolitical zones. Dennis (2024) also highlighted that Katsina State, located in the North Western region of Nigeria, recorded the lowest academic achievement in the 2024 National Examinations Council (NECO) results, ranking last among all the states in the country. These findings underscore the region's challenges in educational outcomes at the national level.

However, secondary education serves as a crucial stage in shaping the behaviours of young individuals, not only academically but also in terms of their social and emotional development (Usman et al, 2023). During this formative period, students went through a myriad of challenges, ranging from academic pressures to peer interactions, all of which influence their overall well-being and success in school. Understanding the challenges are not only academically intriguing but also socially imperative for the overall well-being of the child. Conversely, aggressive behaviours, if left unaddressed, can hinder academic progress and jeopardize the overall learning environment.

In addition, social media are interactive computer-mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. Social media in recent time has so much permeated students' lives to

the extent that it is now a medium of interaction which has redirected students' views, behaviours and involvement in some activities indicative of addiction (Gboyega, 2022). The National Bureau of Statistics (NBS), Nigeria (2024) confirms that Nigeria, as Africa's most populous nation, has approximately 150 million social media users in 2024, making it one of the largest markets for social media on the continent. NBS, Nigeria (2024) emphasizes that around 70% of the population under 30 years of age are youth particularly active, spending an average of 4-5 hours daily on platforms like Instagram, TikTok, Facebook and Twitter. And this extensive usage is linked to various issues, including increased anxiety, depression, and social isolation, raising alarms about the consequences of excessive social media engagement.

Going by NBS, Nigeria (2024) the use of social media has grown exponentially in the past decade. This phenomenon is facilitated by numerous active social media sites including Facebook, Instagram, Twitter (X), WhatsApp include the so on. Social media creates functional building blocks for users to update their online status and enable them to share videos, photos and communicate conveniently with an acquaintance (Idiedo & Eyaufe, 2023). In the same vein, as of January 2024, Facebook had more than 3,070 billion monthly active users, 1.59 billion daily active users, Instagram reports more than 2 billion monthly active users, 1.9 billion daily active users and more than 500 million individuals shared stories, Twitter (X) had 390 million monthly active users, and more than 500 million tweets sent per day and LinkedIn had more than 810 million active users, and with 310 monthly active users (Idiedo & Eyaufe, 2023).

According to Starcevic (2015) social media addiction is a type of internet addiction in which people have an overwhelming desire to use social media. Individuals with social media addiction are often consciously concerned about social media and are been driven by an uncontrollable desire to make use of the Internet (Andreassen & Pallesen, 2014). Social media addiction is defined as the compulsive use of social media sites that manifests itself in behavioural addiction symptoms. However, the symptoms include tolerance (increased use over time); conflict of use with physical, social, vocational, or academic obligations; withdrawal (feeling of distress when unable to use); relapse (inability to make decisions about use time or decide when one should stop using); and mood modification (euphoria or comfort with use, irritability or distress without use) (Idiedo & Eyaufe, 2023). The proliferation of social media platforms has revolutionized the way adolescents interact, communicate, and perceive the world around them. While these digital platforms offer unprecedented opportunities for connectivity and information exchange, they also pose risks, including the potential for addictive behaviours that may detrimentally impact academic achievement of secondary school students could be due substance use among them

However, according to World Health Organization (2022), substance use refers to the consumption of psychoactive substances such as alcohol, tobacco, cannabis, opioids, stimulants, and other illicit drugs, which can alter mood, perception, consciousness, and behaviour. Substance use can range from occasional and recreational to chronic and problematic, and it carries various physical, psychological, social, and legal consequences. Additionally, the prevalence of substance use, ranging from alcohol to illicit drugs, underscores the need for comprehensive interventions that can address the root causes and mitigate the adverse effects on students' academic success and social conduct. According to Idiedo and Eyaufe (2023) substance use has been shown to have a negative impact on academic performance and behaviours among adolescents. They reported that students who engage in substance use may experience difficulties in concentrating, remembering information, and completing assignments, which can lead to lower grades and poor academic achievement. Moreover, substance use according to Idiedo and Eyaufe (2023) has been linked to aggressive behaviours, including fighting, bullying, poor academic achievement and other forms of violence among students.

In addition, academic achievement is seen as completing educational benchmarks such as WAEC in terms of Secondary Schools and a bachelor's degree in University. According to Kosterelioglu (2018), academic achievement can be expressed as individuals' personal beliefs established to arrange their skills or to reveal the goals set out to be successful and as personal perceptions about the reasons for learning and focusing on goals to continue being successful. He further maintained that academic achievement is a key indicator of success in school and plays a significant role in shaping a student's future opportunities and outcomes. Above all, within the context of this particular research work, academic achievement is simply regarded as the acquisition of at least five credits and above including English Language and Mathematics in either WAEC or NECO from Secondary Schools.

Given the multifaceted nature of these issues, investigating social media addiction and substance use as correlates of academic achievement among senior secondary school students in North West, Nigeria holds a significant scholarly and practical relevance. By unraveling the complex interplay of these variables, educators, policymakers and other education stakeholders can devise targeted interventions that promote positive academic outcomes, mitigate social media addiction, and foster a supportive educational environment conducive to the holistic development of our students.

Statement of the Problem

In the secondary school system of Nigeria, particularly in the North West Geo-political Zone, there is a growing concern regarding academic achievement among the students. Historically, graduates from secondary institutions were esteemed as societal role models, embodying both admirable character and knowledge. However, the present scenario starkly contrasts this perception. The recent trends indicate a disturbing rise in poor academic achievement among secondary school students, warranting significant attention.

However, the academic achievement of students in national examinations in Nigeria has exhibited significant regional disparities especially in the North West, Nigeria. It was on this fact that Sule (2022) reported that the North West, Nigeria recorded the lowest academic achievement in terms of performance in the year 2021 West African Secondary School Certificate Examination (WASSCE) when compared to other geopolitical zones. This assertion was further supported by Dennis (2024) who detailed the results of the National Examinations Council (NECO), the analysis revealed that Abia State achieved the highest academic performance among Nigerian states, with 83.40% of its candidates securing five credits and above, including English Language and Mathematics. In contrast, Katsina State that is one of the North States was ranked at the bottom with only 2.42% of its candidates meeting this benchmark. All of these culminate to a major bane in academic achievement in the region

However, Connell et al. (2019) found a link between substance use and aggressive behaviours among adolescents, while Barnes and Beaver (2019) opined that adolescents struggling with substance abuse are caught in a vicious cycle, wherein academic setbacks fuel aggression, and aggressive behaviours perpetuates academic disengagement. The above findings have prompted the researchers' curiosity, leading to the investigation of underlying factors contributing to low academic achievement and aggressive behaviours among senior secondary school students in North West, Nigeria.

However, to the best knowledge of the researcher, in all the empirical studies carried out so far locally and internationally none that specifically examines the relationship of social media addiction and substance use as correlates of academic achievement among senior secondary school students in North West Nigeria. Therefore there are gaps in terms of population, methodology, knowledge and location which underscore the needs for a comprehensive investigation into the correlational interplay among the variables within a regional context and North West, Nigeria in particular. The thrust of this study is to fill the above gaps that many researchers were unable to

cover. By examining the factors within the unique socio-cultural context of the region, the study seeks to provide insights that inform evidence-based practices and interventions tailored to the needs of students, ultimately contributing to the enhancement of educational outcomes and the overall well-being of youth in North West, Nigeria.

Objectives of the Study

The general objectives of this study is to investigate social media addiction and parenting styles as correlates of aggressive behaviours among senior secondary school students in North West, Nigeria. Specifically, the objectives were stated to:

1. examine the relationship between social media addiction and academic achievement among senior secondary school students in North West, Nigeria.
2. examine the relationship between substance use and academic achievement among senior secondary school students in North West, Nigeria.

Research Questions

The following research questions were asked to guide the study

1. What is the relationship between social media addiction and academic achievement among senior secondary school students in North West, Nigeria?
2. What is the relationship between substance use and academic achievement among senior secondary school students in North West, Nigeria?

Hypotheses

The following null hypotheses were formulated and tested at .05 level of significance.

H₀₁: There is no significant relationship between social media addiction and academic achievement among senior secondary school students in North West, Nigeria.

H₀₂: There is no significant relationship between substance use and academic achievement among senior secondary school students in North West, Nigeria.

Methodology

The research adopted correlational research design. This design measures the relationship between two or more variables to determine or estimate the extent at which the values for the variables are related (Nworgu, 2015). This design is suitable because the study involves the collection of data in order to determine the degree of relationship social media addiction, substance use and academic achievement among students.

The total population for this study was one million, five hundred and two thousand, two hundred and ninety three (1,502,293) Senior Students from Public Secondary Schools in North West, Nigeria while the target population of comprised of four hundred and forty one thousand, three hundred and fourteen (441,314) SSII students from two thousand three hundred and eighty five (2,385) Public Secondary Schools across the seven States in North West, Nigeria.

The sample size of one thousand, five hundred and thirty two (1,532) SSII students was drawn from the total population of the study using Research Advisors, (2006). Multi-stage sampling technique was used in selecting the respondents for this study. This is a technique in which more than one sampling method is applied in selecting sample at different stages.

The instruments used for data collection are: Social Media Addiction Questionnaire (SMAQ), Substance Use Questionnaire (SUQ) and Mathematics Achievement Test (MAT) were administered on SSII students to elicit their responses. The questionnaires were scored based on 4-point rating scale. The scale has four (4) response categories of SA (Strongly Agree) with 4 points weight, A (Agree) with 3 points weight, D (Disagree) with 2 points weight, SD (Strongly Disagree) with 1 point weight. Positive worded items were weighted in this manner whereas negatively worded items were the weight reverse on the scale thus: Strongly Agree (SA) = 1 point, Agree (A) = 2 points, Disagree (D) = 3 points and Strongly Disagree (SD) = 4 points. However, Mathematics Achievement Test (MAT) was scored based on WAEC standard, each item was allocated with one (1) mark, which made up 25 marks for Mathematics Achievement Test (MAT) question items on a 4 point optional scales of A, B, C and D. The correct answer was scored or marked one (1) point while the wrong answer was scored zero (0). The performance scale was based on educational standard of measurement and evaluation.

Results

Hypothesis One

There is no significant relationship between social media addiction and academic achievement among senior secondary school students in North West, Nigeria.

Table 1: r-value of social media addiction and academic achievement

Variable	N	Mean	SD	df	r-value	p-value	Decision
Social Media Addiction	1532	63.18	6.74	1530	.260**	.000	Rejected
Academic Achievement	1532	33.19	12.63				

**Correlation not significant at 0.05 level (2-tailed)

Table 1 indicated relationship analysis between social media addiction and academic achievement. The finding revealed that the r. value is .260 and the p. value .000 which is less than .05 level of significant with 1530 degree of freedom. This shows that the result is significant. Therefore, the null hypothesis which states that, there is no significant relationship between social media addiction and academic achievement among senior secondary school students in North West, Nigeria is thereby rejected. It implies that, there is significant relationship between social media addiction and academic achievement among senior secondary school students in North West, Nigeria.

Hypothesis Two

There is no significant relationship between substance use and academic achievement among senior secondary school students in North West, Nigeria.

Table 2: r-value of substance use and academic achievement

Variable	N	Mean	SD	Df	r-value	p-value	Decision
Substance use	1532	63.18	6.74				
Academic Achievement	1532	33.19	12.63	1530	.312**	.000	Rejected

Correlation not significant at 0.05 level (2-tailed)

Table 2 indicated relationship analysis between substance use and academic achievement. The finding revealed that the r. value is .312 and the p. value .000 which is greater than .05 level of significant with 1530 degree of freedom. This shows that the result is significant. Therefore, the null hypothesis which states that, there is no significant relationship between substance use and academic achievement among senior secondary school students in North West, Nigeria is thereby rejected. It implies that, there is significant relationship between substance use and academic achievement among senior secondary school students in North West, Nigeria.

Discussions

The hypothesis one revealed that, there is significant relationship between social media addiction and academic achievement among senior secondary school students in North West, Nigeria. The findings of this study is in line with findings of Xie et al. (2020) who found that excessive use of social media can lead to distractions, reduced study time, and poor time management all of which are critical factors contributing to diminished academic achievement. Also, the findings of this study is also in support with the findings of Dhir et al. (2018) who reported that higher levels of social media addiction were associated with lower self-regulation and ineffective time management, which in turn predicted lower academic achievement among secondary school students. Similarly, Mei et al. (2021) found that students who exhibited high levels of social media addiction were more likely to procrastinate and spend less time on academic tasks, resulting in a gradual decline in academic performance. In contrary, the finding of this study contradicts with the findings of Lambi (2016) who argued that when social media is used purposefully for academic collaboration, information sharing, and peer interaction, platforms such as Facebook can positively contribute to students' academic success. This suggests that the effects of social media use on academic performance may be dependent not only on the quantity of use but also on the nature

and purpose of the engagement. Similarly, Gupta and Irwin (2016) noted that academic distraction resulting from social media usage, particularly Facebook, tends to be exacerbated when students are disengaged or uninterested in the academic content.

Hypothesis two revealed that, there is significant relationship between substance use and academic achievement among senior secondary school students in North West, Nigeria. The findings of this study is in agreement with that of Venturelli et al. (2017) reported that students engaged in substance use performed poorly in school, with evidence of lower grade point averages, reduced class participation, and increased rates of disciplinary action. In the same vein, Meressa et al. (2019) found a statistically significant relationship between substance uses and diminished academic outcomes. The findings is in line with the findings of Balsa et al. (2014) who noted that poor academic performance is both a predictor and a consequence of substance use, suggesting a bidirectional relationship. To further strengthen the findings of the study, El Ansari et al. (2015) revealed that the deleterious impact of substance use on academic achievement is not merely a function of poverty, gender, or geographic location, but represents a pervasive trend observable across diverse students' populations. In contrary, the findings of this study contradict with the findings of Meressa et al. (2019), who primarily reporting poor academic performance among substance users, acknowledged that some students, paradoxically, engage in substance use with the intention of enhancing academic performance.

Conclusion

Based on the findings from this study, it was concluded that, there are relationship among social media addiction, parenting styles and substance use as correlates of academic achievement and aggressive behaviours among senior secondary school students in North West, Nigeria have been analyzed and from the results obtained, it was evident that: social media addiction, parenting styles and substance use have significant relationship either positive or negative with academic achievement and aggressive behaviours among senior secondary school students in North West, Nigeria.

It was concluded that, the excessive use of social media by students is not only detrimental to academic achievement but also closely linked to the development of aggressive behaviours that associated with bullying, verbal altercation, physical confrontation, and disrespect towards authority figures. This finding affirms growing global concerns about the psychological and educational consequences of unregulated digital engagement, especially among students.

It was also concluded, that this study also sheds light on the critical role of substance use in undermining academic achievement and exacerbating behavioural problems. By revealing a very high positive correlation between substance use and aggressive behaviours, as well as a strong negative relationship with academic success, the study provides concrete evidence that can support the design of substance abuse prevention and rehabilitation programs for adolescents, especially within school environments.

Based on the above observations, all the three independent variables (social media addiction, parenting styles and substance use) of this study have significant joint relationship and that when they co-occurred; the impacts on dependent variables (academic achievement and aggressive behaviours) become so severe.

Therefore, it was concluded that authoritative parenting plays a significant role in promoting academic achievement among senior secondary school students in North West Nigeria. The supportive, structured, and autonomy-promoting environment created by authoritative parents appears to provide students with the psychological and academic tools necessary for success.

Lastly, this study concluded that interventions aimed at improving academic achievement should not isolate one issue such as banning of phones or conducting anti-drug campaigns but instead a holistic and integrated approach that addresses digital habits, family dynamics, and health-risk behaviours concurrently should be adopted.

Recommendations

Based on the findings and conclusion, the following recommendations were made:

1. School administrators should implement comprehensive student support programs that address social media misuse, substance use, and improve study habits. This includes strengthening guidance and counseling services, organizing awareness campaigns for students and promoting a positive school culture that rewards discipline and academic excellence.
2. School counsellors should establish continuous counselling and awareness initiatives aimed at addressing the negative effects of social media addiction and substance use on students' academic and behavioural development. Through individualized and group counselling sessions, counsellors should guide students toward self-awareness, emotional stability, and responsible decision-making. Additionally, they should actively involve parents and teachers

in the counseling process to promote consistent support systems that reinforce discipline, moral development, and improved academic performance.

3. Policy Makers should promote educational programs that would encourage all the Stakeholders to implement positive reinforcement such as awards, certificates, public praise, or privileges can motivate students to perform well academically and behave responsibly. Recognizing effort as well as achievement encourages consistency and growth mindset.

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