



RELATIONSHIP BETWEEN ATTENTION DEFICIT HYPERACTIVITY DISORDER AND ACADEMIC PERFORMANCE OF SENIOR SECONDARY SCHOOL STUDENTS IN NORTH CENTRAL NIGERIA

Gidado, Bello Kumo

Department of Educational Foundations,
University of Abuja, Abuja, Nigeria
gbkumo@gmail.com

And

Harrison, Angela Imeh

harrison.angela10@yahoo.com
Department of Educational Foundations,
University of Abuja, Abuja, Nigeria.

Abstract

The study investigated the relationship between attention deficit hyperactivity disorder (ADHD) and academic performance of senior secondary school students in North Central, Nigeria. Six research questions and four hypotheses were formulated to guide the study. The research employed a correlational-descriptive survey design. The population comprised 748,140 students in North-Central, Nigeria. The sample was four hundred (400) students. Adapted questionnaire was used for the study. The questionnaire was titled: Inattentive, Hyperactive and Impulsive Behaviour Questionnaire (IHIBQ). A reliability coefficient index of 0.80 was obtained using test-retest. The data collected were analyzed using mean scores, standard deviation and Pearson Product Moment Correlation Coefficient (PPMCC), t-test and Analysis of Variance (ANOVA). The findings showed that there is a significant relationship between ADHD and academic performance of senior secondary school students in North-Central, Nigeria. The result also show that there is no significant difference in ADHD of senior secondary school students in North-Central, Nigeria in respective of location. The study further shows that there is no significant difference in ADHD of senior secondary school students in North-Central, Nigeria based on age. Based on their findings it was recommended that school administrators should help educate and enlighten teachers about this ADHD disorder so that when they come across students with this disorder, they can easily help out with the proper teaching method.

Keywords: Attention deficit hyperactivity disorder, inattention, hyperactivity, impulsivity, academic performance, secondary schools

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is widely recognized as one of the most common neurodevelopmental disorders affecting children and adolescents worldwide. It is characterized by chronic patterns of inattention, hyperactivity, and impulsivity that are inconsistent with developmental level and impair academic, social, and emotional functioning. Globally,

ADHD has been linked to poor academic outcomes, reduced school engagement, behavioural difficulties, and long-term psychosocial challenges. Salari et al. (2023) report that ADHD affects 7.6% of children aged 3 to 12, which underscores the widespread nature of the disorder during critical learning years. ADHD is a persistent deliberating disorder that may impact many aspects of a child's life, including learning



difficulties and social skills problems (Kofler et al., 2019). However, for some children, the problem interferes with their daily lives at home, school and in social settings.

Attention Deficit Hyperactivity Disorder is a neurodevelopmental disorder characterized by symptoms of persistent inattention, hyperactivity, and impulsivity that interfere with functioning across multiple settings (American Psychiatric Association, 2023). ADHD does not necessarily indicate intellectual disability like Down syndrome and Autism Syndrome, but may require medical diagnosis and educational support. Down syndrome is a genetic disorder caused by extra chromosome and it affect growth development. On the other hand, Autism Spectrum is a neurological disorder that affect speech development in a child. The ADHD is a chronic condition marked by persistent inattention, hyperactivity, and impulsivity that interferes with daily functioning and cognitive development. ADHD is characterized into three core components of inattention, hyperactivity and impulsivity as it manifests through persistent patterns of behaviour.

Attention Disorder (AD) is the inability to listen with a keen focus on any given task. Being attentive results in understanding, and it is one of the fruits of learning. Segun et al., (2024) observed that AD makes it difficult for students to focus or listen well in any given instruction during classroom learning. Learners with AD are not able to listen or pay attention to a particular task or pay attention to the teacher for a long time. They may not focus on the content of instruction for a long time when the lesson is being delivered. Every lesson may appear cumbersome, uninteresting and impossible to learn. A little noise inside or outside the classroom is capable of shifting their attention from classroom lesson. Children with AD are

more easily distracted with little or no concentration, which results to lack of understanding and retention of information. Hyperactivity Disorder (HD) is the inability to stay seated, excessive talking, interrupting others and constant movement. HD is the display of excessive physical movements and shifting of attention from one thing to the other at very short time intervals (Segun, 2024). Hyperactive children seem restless and find it difficult to remain at a particular spot engaged in a particular activity for a long time. Hyperactivity moments prevent such learners from learning and they can also distract other children in the classroom from learning (Agomoh & Kanu, 2015). HD is characterized by restlessness, running about inappropriately, difficulty in playing quietly, and talking excessively.

Impulsive Disorder (ID) is a core symptom characterized by the inability to inhibit urges, resulting in acting without thinking and interrupting others from learning. It is the condition of reacting to stimuli without having any thought over it. Impulsive behaviour reactions may appear too sudden to people around, children with impulse can behave without even considering the teacher or anybody else. ID is a condition found among many school children, particularly those with learning disabilities. Children with ID may be hyperactive and unable to control their impulses. They may have trouble paying attention. These behaviours interfere with school and home life. The behaviour usually discovered during the early school years when a child begins to have movement problems. Tunde (2023) revealed that ID affects student's ability to complete tasks that require a high degree of executive functioning, attention, and reflection. Children with impulsive disorder may exhibit behavioural issues that can impair learning, inattention, disruptive behaviour and poor social relationships in the classroom.



Several studies have shown that ADHD can influence academic performance of students in school. According to Williams (2022), Attention Deficit Hyperactivity Disorder (ADHD) has a significant impact on students' academic performance. Students with ADHD often experience difficulty maintaining focus, completing assignments, and regulating their behaviour in classroom. Apeh et al., (2023) revealed that persistent headache due to regular classes, depression, difficulty in concentration in school, frustration, thought of suicide due to poor academic performance amongst others are some of the consequences of mental health on public senior secondary school adolescents in FCT, Abuja. Jangmo et al. (2019) found that children with ADHD are higher risk for poor school performance, primarily due to their inattention and hyperactive-impulsive behaviours. They further stressed that ADHD symptoms at an early age has been linked to long-term academic struggles, including lower rates of retention and lower overall academic scores. Gidado and Diffang (2024) discovered that there is a statistically significant relationship between conduct disorder and academic achievement of senior secondary school students in FCT, Abuja. They further highlighted that unstable home and unpeaceful learning environment is negatively affected learning skills and academic performance. Additionally, Langberg et al., (2021) revealed that students with ADHD often experience difficulties in concentration, organization, and time management leading to low academic achievement compared to their peers.

Sigal and Yelena (2024) shows that students with ADHD have the same academic achievement as their non-ADHD peers, the underlying mechanism leading to these achievements hides crucial psychological differences. Meanwhile, an indirect effect shows that students with ADHD have less

confidence in their ability to compete their academic tasks, leading to more negative attitudes towards statistics and lower grades. Also, Judith et al., (2018) found that learners with ADHD had low overall academic achievement compared to those without ADHD in Mombasa and Kampala. They further revealed that boys with ADHD in Mombasa had better grades than girls while girls with ADHD in Kampala had better grades than boys. Gemma, et al., (2023) found that emotional/behavioural problems, learning difficulties and neurodevelopmental disorder were more frequent among individuals from low-income population. After controlling for gender, age, parental divorce/separation, grade retention, frequency of screen use and daily meals, both ADHD and learning disorder were associated with worse educational outcomes.

On other variables relating to ADHD and student's academic performance, Oshodi et al, (2018) discovered that there is significant difference in the male and female students ADHD in secondary schools. They further stated that female students with ADHD are more easily distracted with little or no concentration compare to their counterpart. Gidado and Anyio (2026) revealed that there is no significant influence of parental socio-economic status between male and female students in their manifestation of conduct disorder. They reiterated that children with CD do not consistently get the necessary support needed and equally find it difficult to adjust in the midst of friend in school and to the larger society. Nwosu et al (2020) found that individuals with ADHD often experience difficulties with social relationships, leading to isolations and loneliness in classroom. Ezech et al., (2020) shows that ADHD has a positive influence on academic performance in Imo State, Nigeria. Also, resulting to poor grades and increase the risk of dropout. Gidado and Anyio (2025) found that there is



a significant relationship between parenting styles and conduct disorder of senior secondary school students in North-Central, Nigeria. They further indicate that parental upbringing and attention is key to a meaningful learning outcome.

In view of the various research efforts and their conclusion, there is need to constantly interrogate on the relationship between ADHD and academic performance as it will continue to generate interest among researchers and educationists especially in a setting like the North-Central, where there is a huge influx of people from different ethnic groups, tribes and religion into the city. It is clear that the influence of ADHD on academic performance in this region remains unaddressed and unexplored.

Statement of the Problem

Attention-Deficit/Hyperactivity Disorder (ADHD) is widely recognized as a neurodevelopmental disorder marked by persistent patterns of inattention, hyperactivity, and impulsivity that impair daily functioning and academic performance. Despite global advancements in the diagnosis and treatment of ADHD in Nigeria the condition remains shrouded in misunderstanding and stigma. Many parents view ADHD not as a neurobiological disorder but as a consequence of poor discipline, spiritual affliction, or even as a familial curse. Such misconceptions can lead to delayed diagnosis, resistance to seeking professional help, and inadequate support for affected students.

It has been observed by researchers that students with ADHD find it difficult to focus or listen during class engagement in any given instruction which may result to school failure, depression, conduct disorder, loss of memory and poor academic outcome. Additionally, students are more easily distracted with little or no concentration

leading to poor understanding and school dropout.

In essence, this research endeavors to bridge the gap between prevailing parental perceptions, clinical understanding of ADHD, and the practical realities of academic performance of students with ADHD. Also, the study focused in North Central region, the study may not only contributes to the global discourse on ADHD but also generates localized evidence that can drive meaningful improvements in educational outcomes and student well-being. It is on this note the researchers becomes pertinent to investigate on the relationship between attention deficit hyperactivity disorder and academic performance of senior secondary school students in North Central Nigeria.

Research Questions

The following research questions were raised to guide the study.

1. What is the nature of ADHD among Senior Secondary Students in the North-
 - a. Central Nigeria?
2. What is the academic performance of senior secondary school students in North Central Nigeria?
3. What is the relationship between attention deficit hyperactivity disorder and academic performance of senior secondary school students in North Central Nigeria?
4. What is the gender difference in the ADHD of senior secondary school students in North Central Nigeria?
5. What is the difference in ADHD of senior secondary school students in North Central Nigeria based on location?
6. What is the difference in ADHD of senior secondary school students in



North Central Nigeria based on age range?

Hypotheses

Ho₁: There is no significant relationship between attention deficit hyperactivity disorder and academic performance of senior secondary school students in North Central Nigeria.

Ho₂: There is no significant difference between male and female students in ADHD of senior secondary school students in North Central Nigeria.

Ho₃: There is no significant difference between urban and rural in ADHD of senior secondary school students in North Central Nigeria.

Ho₄: There is no significant difference in ADHD of senior secondary school students in North Central Nigeria based on age range.

Methodology

Research Design

The study employed a correlational-descriptive survey design. Correlation survey design aimed at identifying predictive relationship among two or more variables. According to Creswell (2012), a correlational research design is a type of research design that predicts scores and explain the relationship among variables using correlational statistics test to describe and measure the degree of association (or relationship) between two or more variables or set scores. This research design is considered appropriate for this study because, this work is aimed at finding the correlation between ADHD and academic performance of senior secondary school students in North-Central Nigeria.

Population of the Study

The population of this study comprised all the public senior secondary school students in North-Central. The total of population of 1,891 public senior secondary schools and

748,140 students in North-Central, Nigeria (Federal Ministry of Education, 2023).

Sample Size and Sampling Procedure

A sample of 400 students was selected in accordance with Glenn's sample specification table for large populations. A multistage sampling technique was employed. First, the states within North Central Nigeria were stratified. Second, two public senior secondary schools were randomly selected from each state and the FCT. Third, simple random sampling was used to select students within schools. Finally, proportionate sampling ensured equitable distribution of respondents across participating schools. This procedure enhanced representativeness and minimized sampling bias.

Instrumentation

The instrument for data collection was adapted ADHD scale developed by Goldberg (1999). The instrument was originally 5-point scale, but was modified to a 4-point scale in line with objectives of the study. The questionnaire was titled: Inattentive, Hyperactive and Impulsive Behaviours Questionnaire (IHIBQ) contained 18 items using a Likert response format. The assessment of students' academic performances involved the compilation of students' performance in the end-of-term examinations. The students' academic records in Mathematics and English language will be collected for the analysis.

Validity and Reliability of the Instrument

To ascertain the validity of the instrument the questionnaire was subjected to measurement and evaluation and language experts for scrutiny to ensure that the instrument measure what it is supposed to measure. the critical assessments and feedback were incorporated into the final validated version of the questionnaire. The name of the validity was content and construct validity.



The reliability of the instruments was determined by conducting a pilot study with 50 respondents in schools but outside the main study area. A test-retest method was employed to determine the reliability coefficient. Test-retest method of reliability is a statistical measurement administering the same test twice over a period of time to a group of individuals. The first test was administered to the students, two weeks later the same test was administered to the same students. Students' responses were collated after which data collected was subjected to Pearson Product Moment Correlation Coefficient (PPMCC) which yielded reliability index of 0.80.

Method of Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics (percentage, mean and standard deviation). Pearson Product Moment Correlation Coefficient (PPMCC) was used to analyzed hypothesis one, t-test was used to analyzed hypotheses two and three while Analysis of Variance (ANOVA) was used to analyzed hypothesis four. All hypotheses were tested at the 0.05 level of significance.

Results

Research Question One: What is the nature of ADHD among senior secondary students in the North-Central Nigeria?

Table 1: Nature of ADHD among Senior Secondary Students in the North-Central
N = 400 (n=227)

SN	Statements	Mean	Std. Dev	Decision
1	I have difficulty sustaining attention in tasks or activities	2.65	1.09	Agree
2	I make careless mistakes because I overlook details	2.70	1.11	Agree
3	I find it hard to organize tasks and activities	2.72	1.08	Agree
4	I often lose things necessary for tasks	2.65	1.13	Agree
5	I am easily distracted by other thing	2.56	1.06	Agree
6	I forget to complete daily activities	2.63	1.09	Agree
7	I avoid or dislike activities that require a lot of thinking	2.65	1.10	Agree
8	I do not seem to listen when spoken to directly	2.70	1.14	Agree
8	I fail to follow through on instructions or tasks	2.72	1.10	Agree
9	I fidget with my hands or feet or squirm in my seat	2.62	1.13	Agree
10	I leave my seat when expected to stay seated	2.67	1.14	Agree
11	I feel restless or unable to stay still	2.78	1.05	Agree
12	I find it hard to engage in quiet activities calmly	2.65	1.08	Agree
13	I talk excessively	2.76	1.08	Agree
14	I blur out answers before questions are completed	2.83	1.04	Agree
15	I have difficulties waiting for my turn	2.66	1.12	Agree
16	I interrupt others during conversations or activities	2.59	1.09	Agree
17	I often feel "on the go" or "driven be a motor"	2.85	1.10	Agree
18	I have difficulty sustaining attention in tasks or activities	2.65	1.09	Agree
Sectional Mean		2.69	1.10	Agree

As shown in Table 1, the nature of ADHD in senior secondary students in North Central

was presented. A total of eighteen (18) items revealed agreement. The overall sectional



mean of 2.69 indicates that the students display ADHD symptoms behaviour in North Central Nigeria. Therefore, students with ADHD avoid or dislike activities that require lot of thinking.

Table 2: The academic performance of senior secondary school students

Variables	N	Minimum	Maximum	Mean
Mathematics	400	10.00	85.00	48.31
English Language	400	11.00	74.00	43.66

As shown in Table 2, the academic performance of senior secondary school students in North Central Nigeria was presented. The table indicated that academic performance of students in Mathematics shows the minimum score of 10.00 and maximum score of 85.00 with a mean score 48.31 while the analysis in English Language shows minimum score as 11.00 and maximum 74.00 arriving at 43.66 mean score. The academic performance presented the mean of both subjects with minimum of 16.50 and maximum of 74.50 with the mean

Research Question Two: What is the academic performance of senior secondary school students in North Central Nigeria?

score of 45.99. From the analysis, it was revealed that academic performance of Senior Secondary School Students in North Central Nigeria was less than average percentage which is 50%.

Hypotheses

Ho₁: There is no significant relationship between attention deficit hyperactivity disorder and academic performance of senior secondary school students in North Central Nigeria

Table 3: Correlational Test between ADHD and Academic Performance

Variables	N	$\bar{X}$	SD	r-cal	p-value	Decision
ADHD and Academic Performance	400	2.72	0.61	.812	.000	Rejected

As shown in Table 3, a correlational analysis between ADHD and academic performance was carried out. The table further revealed a mean of 2.72, standard deviation of 0.61 and an r value of .812. The table also indicates the p-value of .000 with $p < 0.05$. This implies that there is significant relationship between

ADHD and academic performance among senior secondary school students in North-Central, Nigeria.

Ho₂: There is no significant difference between male and female students in ADHD of senior secondary school students in North Central Nigeria

Table 4: t-test on the Difference between male and female students in ADHD of senior secondary school students in North Central Nigeria

Gender	Number	Mean	S.D.	t-value	df	Sig(2-tailed)	Decision
Male	123	2.68	.153	-.558	225	.577	Accepted
Female	104	2.69	.169				



As shown in Table 4, the t-test on the difference between male and female students in ADHD of senior secondary school students in North Central Nigeria was carried out. The table further revealed a mean score of 2.68 with standard deviation of 0.153 for male students, while a mean score of 2.69 with standard deviation of 0.169 was obtained for female students. The table indicates a calculated t-value of -0.558 at 225 degree of freedom with the p-value of .577

with $p > 0.05$. Therefore, the null hypothesis was accepted. This implies that there is no significant difference between male and female students in ADHD of senior secondary school students in North-Central, Nigeria.

H₀₃: There is no significant difference between urban and rural in ADHD of senior secondary school students in North Central Nigeria.

Table 5: t-test on the Difference between urban and rural in ADHD of senior secondary school students in North Central Nigeria

Location	Number	Mean	S.D.	t-value	df	Sig(2-tailed)	Decision
Urban	117	2.69	.151	.052	225	.959	Accepted
Rural	110	2.69	.170				

As shown in Table 5, the t-test on the difference between urban and rural in ADHD of senior secondary school students in North Central Nigeria was presented. The table further revealed a mean score of 2.69 with standard deviation of 0.151 for male students, while a mean score of 2.69 with standard deviation of 0.170 was obtained for female students. The table indicates a calculated t-value of 0.052 at 225 degree of freedom with the p-value of .959 with $p > 0.05$.

Therefore, the null hypothesis was accepted. This indicates that there is no significant difference between urban and rural students in ADHD of senior secondary school students in North-Central, Nigeria.

H₀₄: There is no significant difference in ADHD of senior secondary school students in

North Central Nigeria based on age range

Table 6: Analysis of Variance (ANOVA) on the difference in ADHD of senior secondary school students in North Central Nigeria based on age range

Age Range	N	Mean	SD	ADHD	Sum of Squares	df	Mean Square	F	Sig
12-15 Years	79	2.68	.154	Between Groups	.001	2	.001	.026	.974
16-19 Years	80	2.69	.163	Within Groups	5.821	224	.026		
20-Above Years	68	2.69	.167	Total	5.822	226			
Total	227	2.69	.161						

As shown in Table 6, Analysis of Variance (ANOVA) on the difference in ADHD of

senior secondary school students in North Central Nigeria based on age range was



presented. The table indicates that there are 79 respondents with mean 2.68 between the ages of 12-15 with F-Value of 0.26. the table further shows 80 respondents with age ranging from 16-19 with mean score of 2.69 and 68 respondents between the ages of 20 and above with the mean score of 2.69. The table further reveals a significant of 0.974 with $p > 0.05$. Therefore, the null hypothesis was accepted. Therefore, there is no significant difference in ADHD of senior secondary school students in North Central Nigeria based on age range.

Discussion

The study revealed that there were cases of attention deficit hyperactivity disorder (ADHD) among senior secondary school students in North Central Nigeria. This finding is consistent with the finding of Jantzer et al., (2024) found that there is significant influence on academic performance in Canada. They further indicate that ADHD is not confined to younger children, but persists into adolescence with direct implications for school functioning. This underscores the need for early identification, increased awareness, and provision of psychosocial and instructional support to mitigate academic difficulties. The finding is support with the finding of Langberg et al., (2021) revealed that there is 27% of students with ADHD in County Milan. These students often experience difficulties in concentration, organization, and time management, leading to lower academic achievement compared to their peers. The finding is align with the finding of Langberg et al., (2021) revealed that students with ADHD often experience difficulties in concentration, organization, and time management leading to low academic achievement compared to their peers.

The study found that senior secondary student's academic performance was below

average. The finding is in line with the finding of James and Dave (2022) found that ADHD symptoms significantly predicted lower grades in adolescents. This finding is an agreement with the finding of Jangmo et al. (2019) demonstrated that Swedish students with ADHD typically underperformed academically regardless of socioeconomic status and parenting styles. The finding is contradicts with Ghazi et al. (2023) established that ADHD boosts academic achievements in mathematics and sciences. The finding is similar with the findings of Gidado and Diffang (2024) discovered that there is a statistically significant relationship between conduct disorder and academic achievement of senior secondary school students in FCT, Abuja. They further highlighted that unstable home and unpeaceful learning environment is negatively affected learning skills and academic performance.

The study revealed that there is no significant relationship between ADHD and academic performance of senior secondary school students in North-Central, Nigeria. The finding is support with James and Dave (2022) who revealed that ADHD symptoms were among the most robust predictors of poor academic outcomes for adolescents. The finding concentrate with the finding of Mancil (2024) shows that there is no significant relationship between ADHD and academic performance of senior secondary school students. He further stressed that students with ADHD display lower engagement, motivation and teacher relationships resulting poor academic performance. The finding is at variance with the finding of Arnold et al. (2020) who demonstrate that there is a significant relationship between that ADHD and academic performance in senior secondary schools in South-South, Nigeria. The finding is similar with the finding of Apeh et al.,



(2023) revealed that persistent headache due to regular classes, depression, difficulty in concentration in school, frustration, thought of suicide due to poor academic performance amongst others are some of the consequences of mental health on public senior secondary school adolescents in FCT, Abuja. The finding consistent with the finding of Sigal and Yelena (2024) shows that students with ADHD have the same academic achievement as their non-ADHD peers, the underlying mechanism leading to these achievements hides crucial psychological differences. Meanwhile, an indirect effect shows that students with ADHD have less confidence in their ability to compete their academic tasks, leading to more negative attitudes towards statistics and lower grades.

The study established that there is no significant difference in the ADHD between male and female students in North Central Nigeria. The finding is in line with the finding of Gidado and Anyio (2026) who revealed that there is no significant influence of parental socio-economic status between male and female students in their manifestation of conduct disorder. They reiterated that children with CD do not consistently get the necessary support needed and equally find it difficult to adjust in the midst of friend in school and to the larger society. The finding supports the finding of Mohammad and Aboul-ata (2015) discovered that there is a negative correlation among inattention, impulsivity and male and female students' academic performance of secondary schools. The finding is at variance with the finding of Willcutt (2015) who found that there is significant relationship between inattention disorder and academic performance of secondary schools based on male and female students. He reported that a positive correlation between hypoactivity-impulsivity and academic performance. The finding is consistent with the finding of Nigg

(2023) found that ADHD symptoms might differ between boys and girls. He buttressed that girl students with ADHD may display more internalizing symptoms (anxiety, depression) compared to boy students who often show more externalizing symptoms (hyperactivity, impulsivity). The finding contracts with the finding of Judith et al., (2018) found that learners with ADHD had low overall academic achievement compared to those without ADHD in Mombasa and Kampala. They further revealed that boys with ADHD in Mombasa had better grades than girls while girls with ADHD in Kampala had better grades than boys. The finding is disagreement with the finding of Gemma, et al., (2023) found that emotional/behavioural problems, learning difficulties and neurodevelopmental disorder were more frequent among individuals from low-income population. After controlling for gender, age, parental divorce/separation, grade retention, frequency of screen use and daily meals, both ADHD and learning disorder were associated with worse educational outcomes.

The study found that there is no significant differences in ADHD prevalence between urban and rural students. The finding is agreement with the finding of Mathew (2020) shows revealed that there is no significant different in the urban and rural ADHD and academic performance. The finding contrasts with finding of Baji et al., (2023) shows that ADHD symptoms as a persisting disorder that cross students' age groups and their location. The finding is in disagreement with the finding of Mancil (2024) found that ADHD significant influence students learning outcome without their major age shift. The finding contradicts the finding of Jangmo et al. (2019) who highlighted that ADHD are higher risk for poor academic performance regardless students' location. They further stressed that ADHD symptoms at an early age has been linked to long-term



academic struggles, including lower rates of retention and lower overall academic scores.

Conclusion

This study concludes that attention deficit hyperactivity disorder (ADHD) is present among senior secondary school students in North Central Nigeria and that overall academic performance in the region is below average. Crucially, ADHD showed a statistically significant association with students' academic outcomes, underscoring ADHD as an important correlate of underachievement in this population. The study concludes that ADHD as a key, modifiable factor linked to academic underperformance and call for comprehensive supports that reach all senior secondary students in North Central Nigeria.

Recommendations

In the light of the findings of this study, the following recommendations were made:

1. Establish a school-wide early identification and support system for attention-deficit/hyperactivity disorder (ADHD), including teacher training, routine screening at entry and mid-year, clear referral pathways to health services, parent education, and classroom accommodations.
2. Make ADHD supports a core strand of school improvement plans by linking identification directly to academic interventions (e.g., individualized learning plans, behavior coaching, and exam accommodations) and monitoring outcomes to ensure gains in attendance, coursework completion, and grades.
3. Adopt gender-neutral screening, communication, and support practices; train staff to avoid gendered assumptions about inattentiveness or hyperactivity so that boys and girls receive equitable access to services.
4. Ensure equitable provision of ADHD-related resources across urban and rural schools by standardizing screening protocols, providing outreach or mobile support teams, and using tele-consultation where specialists are scarce.
5. Provide continuous, grade-spanning supports (SS1–SS3), starting with orientation on study strategies and executive skills in SS1 and sustaining progress monitoring and targeted help through to exit exams.
6. Implement the same core social–emotional and executive-function curriculum in both urban and rural schools, with minor contextual adaptations (language, examples) and equal access to trained facilitators and materials.

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