JOURNAL OF AMERICAN MEDICAL SCIENCE & RESEARCH

Original Research Article
ISSN: 3041-5578
Journal homepage: https://medical.researchfloor.org/

Awareness, Knowledge and Perception of Sickle Cell Anaemia Among Adolescents in Selected Private Secondary Schools in Port Harcourt, Rivers State, Nigeria

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ABSTRACT

Background: *Sickle cell anaemia remains one of the most common inherited blood disorders and a major public health challenge in sub-Saharan Africa, particularly in Nigeria where the disease burden is among the highest globally.*

Aim: *This study assessed the awareness, knowledge and perceptions regarding sickle cell anaemia among adolescents in selected private secondary schools in Port Harcourt, Rivers State, Nigeria.*

Methods: *A descriptive cross-sectional school-based study was conducted among 404 adolescents in selected private secondary schools in Port Harcourt. Data were collected using a structured self-administered questionnaire and analysed using the Statistical Package for Social Sciences (SPSS) version 25. Descriptive statistics was used to summarise the data, while the chi-square test and binary logistic regression analysis were used to determine associations and predictors of good knowledge regarding sickle cell anaemia. Statistical significance was set at* $p < 0.05$.

Results: *The findings revealed that 91.1% of respondents had heard about sickle cell anaemia, with schools identified as the major source of information (63.0%). Overall, 49.0% of respondents demonstrated good knowledge of sickle cell anaemia, 17.6% had poor knowledge, while perceptions were generally positive. Chi-square analysis showed that good knowledge regarding sickle cell anaemia was significantly associated with class level* ($p = 0.002$)*, parents' educational status* ($p = 0.005$)*, family history of sickle cell anaemia* ($p < 0.001$)*, and information obtained from health workers* ($p = 0.001$)*. Binary logistic regression analysis identified SSS3 class level, tertiary parental education, family history of sickle cell anaemia, and information obtained from health workers as significant predictors of good sickle cell anaemia knowledge.*

Conclusion: *Awareness of sickle cell anaemia among adolescents was high, but important misconceptions and knowledge gaps still existed. Strengthening school-based health education, adolescent genotype counselling programmes, and public awareness campaigns are recommended to reduce the burden of sickle cell anaemia in Nigeria.*

Citation: OZIGBO Chinelo Juliana, and OKORIE Elizabeth-Martha (2026). Awareness, Knowledge and Perception of Sickle Cell Anaemia Among Adolescents in Selected Private Secondary Schools in Port Harcourt, Rivers State, Nigeria.
Journal of American Medical Science and Research.
DOI: https://doi.org/10.51470/AMSR.2026.05.01.56

Revised: 10 February 2026
Received: 08 March 2026
Accepted: 01 April 2026

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Keywords: *Sickle cell anaemia, adolescents, awareness, knowledge, perception, genotype screening.*

1.0 Introduction

Sickle cell anaemia (SCA) is one of the most common inherited haemoglobin disorders globally and remains a major public health challenge, particularly in sub-Saharan Africa, where the burden of the disease is highest [1,2]. It is the most common and severe form of sickle cell disease (SCD) and results from a genetic mutation in the beta-globin chain of haemoglobin, leading to the production of abnormal haemoglobin S, which causes red blood cells to assume a sickle shape under hypoxic conditions [3]. These abnormal sickled cells contribute to vaso-occlusion, chronic haemolytic anaemia, recurrent pain crises, organ damage, and increased morbidity and mortality among affected individuals [2,3,4].

Sickle cell disease poses a significant global health burden, especially in sub-Saharan Africa, India, and the Middle East. Globally, about 7.74 million people were living with sickle-cell disease in 2021, with about 80% of these in sub-Saharan Africa [5]. Worldwide, Nigeria bears the highest burden of SCD; about 2% to 3% of the population lives with the disease, about 150,000 newborns are affected yearly, of which about half of them die before their fifth birthday, with survivors facing a rather short life expectancy of about 21 years, as opposed to 54 years among their counterparts living in high-income countries [6]. Apart from the clinical manifestations of SCA, affected individuals and families also face significant psychological, social and emotional stress risk for social isolation, stigma, and discrimination from misconceptions about the disease [7,8].

Adequate knowledge and positive perception regarding sickle cell anaemia are essential in sickle cell disease-promoting genotype screening, premarital counselling, and other strategies aimed at reducing the burden and prevalence of sickle cell anaemia. Several studies among adolescents and young adults in secondary schools and tertiary institutions have shown high awareness of SCA but deficiencies in its comprehensive knowledge [9, 10]. Misconceptions about the disorder have also persisted among adolescents and young adults, especially with regard to aetiology, transmission and willingness to undergo genotype testing [1,11,12]. Positive attitudes towards sickle cell anaemia have also been reported, especially with regard to acceptance of premarital counselling, and association and support for persons living with SCA [10, 13]. School-based health education programmes are effective strategies for improving adolescents' awareness, perception, and preventive practices regarding sickle cell disease [14,15]. Schools also provide opportunities for disseminating accurate health information. Few studies identified on the awareness and knowledge of SCD in Rivers State were conducted among the general public [16, 17], but none were school-based with focus on the adolescents. This study was thus designed to assess the Awareness, knowledge and perception regarding sickle cell anaemia among adolescents in selected private secondary schools in Port Harcourt, Nigeria.

2.0 Methodology

2.1 Study Design

A descriptive cross-sectional school-based study design to assess the Awareness, knowledge, Perception, regarding sickle cell anaemia among adolescents in selected private secondary schools in Port Harcourt, Rivers State, Nigeria.

2.2 Study Area

The study was conducted in four selected private secondary schools within Port Harcourt Metropolis, Rivers State, Nigeria. Port Harcourt is the capital city of Rivers State and one of the major urban centres in the Niger Delta region of Nigeria. The metropolis is characterised by rapid urbanisation, increasing population density, and diverse socioeconomic and cultural backgrounds. The selected private secondary schools are registered under the Rivers State Ministry of Education and provide educational services to adolescents from different ethnic, religious, and socioeconomic backgrounds.

2.3 Study Population

The study population comprised adolescents, both males and females, aged 13 to 19 years, enrolled in Senior Secondary School One (SSS1), Senior Secondary School Two (SSS2), and Senior Secondary School Three (SSS3) in the four private secondary schools in Port Harcourt during the study period.

2.4 Inclusion Criteria

The following participants were included in the study:

1. Adolescent students aged 13–19 years, enrolled in SSS1–SSS3 in selected private secondary schools in Port Harcourt.
2. Students who accepted and whose parents or guardians provided consent.
3. Students present during the period of data collection.

2.5 Exclusion Criteria

The following participants were excluded from the study:

1. Students who declined participation.
2. Students whose parents or guardians did not provide consent.
3. Students who were absent during data collection.

2.6 Sample Size Determination

The sample size was determined using Cochran's formula for a single population proportion:

$$n = Z^2pq/d^2$$

Where:
n = minimum sample size
Z = standard normal deviate corresponding to 95% confidence interval (1.96)
p = estimated prevalence of good knowledge of sickle cell anaemia among adolescents from previous related studies (0.50)
q = 1 – p = 0.50
d = margin of error (0.05)
Substituting the values:
$n = (1.96)^2 \times 0.5 \times 0.5 / (0.05)^2$
$n = 384$

A 5% attrition rate was added to account for non-response and incompletely filled questionnaires:
$nf = 384 + (0.05 \times 384)$
$nf = 403.2 \approx 404$
Therefore, the final sample size for the study was 404 respondents.

2.7 Sampling Technique

A multistage sampling technique was adopted for the study. In the first stage, selected private secondary schools were chosen using simple random sampling from the list of registered private secondary schools within Port Harcourt Metropolis. In the second stage, proportional allocation was used to distribute the sample size among the selected schools based on student population. In the third stage, respondents were proportionately distributed among SSS1, SSS2, and SSS3 classes in each selected school. In the final stage, eligible students were selected using systematic random sampling during school hours until the required sample size was achieved.

2.8 Data Collection Instrument

Data were collected using a structured self-administered questionnaire developed after an extensive review of relevant literature on sickle cell anaemia awareness, perception, and preventive practices among adolescents. The questionnaire consisted of four sections: socio-demographic characteristics, awareness and knowledge of sickle cell anaemia, perception towards sickle cell anaemia, and preventive practices regarding genotype screening and counselling. The questionnaire contained closed-ended and multiple-choice questions.

2.9 Validity and Reliability of Instrument

The questionnaire was reviewed by experts in public health, Haematology and Paediatrics to ensure face and content validity. Necessary corrections and modifications were made based on expert recommendations. A pilot study was conducted among adolescents in a private secondary school outside the study area to assess the reliability of the instrument. Cronbach's alpha reliability coefficient of 0.82 was obtained, indicating good internal consistency of the questionnaire.

2.10 Data Collection Procedure

Permission was obtained from the management of the selected private secondary schools before the commencement of the study. Eligible students were informed ahead of time of the objectives and significance of the study, and written consent was given to them by their parents. Written informed consent was obtained from the parents before participation.

The questionnaires were administered by trained research assistants during school hours under the supervision of the researchers. Completed questionnaires were retrieved immediately after completion to minimise non-response and incomplete data.

2.11 Variables of the Study

Dependent Variables: Knowledge of sickle cell anaemia, perception towards sickle cell anaemia, and preventive practices regarding sickle cell anaemia.

DOI: https://doi.org/10.51470/AMSR.2026.05.01.56

Independent Variables: Age, gender, class level, religion, parents' educational status, family history of sickle cell anaemia, and source of information.

2.12 Data Analysis

Data obtained from the study were coded and entered into the Statistical Package for Social Sciences (SPSS) version 25.0 for analysis. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarise the data. Chi-square test was used to determine associations between socio-demographic variables and knowledge regarding sickle cell anaemia. Binary logistic regression analysis was performed to identify predictors of good knowledge regarding sickle cell anaemia among respondents. Statistical significance was set at $p < 0.05$.

Knowledge of sickle cell anaemia was assessed using six knowledge variables, including

knowledge of causes, risk factors, complications, and treatment of sickle cell anaemia.

Each correct response was assigned one (1) mark, while incorrect responses or "Do not know"

Responses were assigned a zero (0) mark. The maximum obtainable score was six (6), while the

minimum obtainable score was zero (0).

The respondents' total knowledge scores were summed and converted into percentage scores.

Based on the percentage scores obtained, respondents were categorised into three knowledge

levels as follows:

Poor knowledge = 0–2 correct responses (<50%)

Fair knowledge = 3–4 correct responses (50–69%)

Good knowledge = 5–6 correct responses (≥70%)

The frequencies of respondents within each category were computed to generate the overall

The knowledge level of sickle cell anaemia is presented in Table 4.

2.13 Ethical Consideration

Ethical approval for the study was obtained from the appropriate Ethics regulatory body of the school before commencement of the study. It was clearly stated to the students that participation in the study was voluntary, and informed consent/assent was obtained from both parents/guardians and participating students. Confidentiality and anonymity of respondents were maintained throughout the study, and all information obtained was used strictly for research purposes.

3.0 Results

3.1 Socio-Demographic Characteristics of Respondents

A total of 404 questionnaires were administered to adolescents in the four secondary schools in Port Harcourt, Rivers State, and all were correctly completed and analysed, giving a response rate of 100.0%.

As presented in Table 1, the majority of respondents were aged 14–16 years (54.0%), followed by those aged 17–19 years (28.0%), while respondents aged 13 years accounted for 18.0% of the study population. Female respondents constituted 52.5% of the respondents, whereas males accounted for 47.5%.

With respect to class distribution, 31.2% of respondents were in Senior Secondary School One (SSS1), while 34.4% each were in Senior Secondary School Two (SSS2) and Senior Secondary School Three (SSS3), respectively.

Christianity was the predominant religion among respondents (93.8%), followed by Islam (4.7%) and other religions (1.5%).

Regarding parental educational status, 48.5% of respondents reported that their parents had a tertiary education, while 40.6% and 10.9% reported secondary and primary education, respectively. Furthermore, 29.7% of respondents reported a family history of sickle cell anaemia, whereas 70.3% had no family history of the disease.

Table 1: Socio-Demographic Characteristics of Respondents (N = 404)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	13	73	18.0
	14–16	218	54.0
	17–19	113	28.0
Gender	Male	192	47.5
	Female	212	52.5
Class Level	SSS1	126	31.2
	SSS2	139	34.4
	SSS3	139	34.4
Religion	Christianity	379	93.8
	Islam	19	4.7
	Others	6	1.5
Parents' Educational Status	Primary	44	10.9
	Secondary	164	40.6
	Tertiary	196	48.5
Family History of Sickle Cell Anaemia	Yes	120	29.7
	No	284	70.3

3.2 Awareness and Sources of Information on Sickle Cell Anaemia

Table 2 shows that the majority of respondents (91.1%) had previously heard about sickle cell anaemia, whereas only 8.9% reported that they had never heard about the disease.

Schools constituted the major source of information regarding sickle cell anaemia among respondents (63.0%). Other reported sources of information included health workers (39.1%), television/radio (34.7%), social media (31.2%), and family/friends (28.5%).

Table 2: Awareness and Sources of Information on Sickle Cell Anaemia Among Respondents

Variable	Category	Frequency (n)	Percentage (%)
Ever heard of sickle cell anaemia	Yes	368	91.1
	No	36	8.9
Source of information*	School	232	63.0
	Health workers	144	39.1
	Television/Radio	128	34.7
	Social media	115	31.2
	Family/Friends	105	28.5

**Multiple responses allowed*

3.3 Knowledge of Sickle Cell Anaemia Among Respondents

As shown in Table 3, most respondents correctly identified sickle cell anaemia as an inherited disorder (72.0%). About 65.1% of respondents knew that genotype testing could help prevent sickle cell anaemia, while 69.3% correctly identified that the disease affects red blood cells.

Furthermore, 75.0% of respondents recognized pain crisis as one of the major complications of sickle cell anaemia. However, only 40.1% correctly knew that sickle cell anaemia was not contagious (cannot be transmitted from person to person) indicating persisting misconceptions regarding disease transmission among some respondents. In addition, 60.9% of respondents correctly understood that marriage between individuals with AS genotype has a risk of producing children with sickle cell anaemia.

DOI: https://doi.org/10.51470/AMSR.2026.05.01.56

Table 3: Knowledge of Sickle Cell Anaemia Among Respondents

Variable	Correct Response	Frequency (n)	Percentage (%)
Sickle cell anaemia is inherited	Yes	291	72.0
Genotype testing can help prevent SCA	Yes	263	65.1
SCA is contagious (can be transmitted from one person to another)	No	162	40.1
Individuals with AS genotype can marry safely with no risk of off spring with SS	No	246	60.9
SCA affects red blood cells	Yes	280	69.3
Pain crisis is a complication of SCA	Yes	303	75.0

3.4 Overall Knowledge Level of Respondents

Based on the cumulative scores obtained from the knowledge questions, respondents were categorised into poor, fair, and good knowledge levels regarding sickle cell anaemia.

As presented in Table 4, 49.0% of respondents demonstrated good knowledge of sickle cell anaemia, while 33.4% had fair knowledge. However, 17.6% of respondents demonstrated poor knowledge regarding sickle cell anaemia.

Table 4: Overall Knowledge Level of Respondents on Sickle Cell Anaemia

Knowledge Level	Frequency (n)	Percentage (%)
Poor Knowledge	71	17.6
Fair Knowledge	135	33.4
Good Knowledge	198	49.0
Total	404	100.0

3.5 Perception Towards Sickle Cell Anaemia

Table 5 presents respondents' perception towards sickle cell anaemia. The majority of respondents agreed that sickle cell anaemia is a serious health condition (81.2%), while 86.4% agreed that genotype testing before marriage is important. Additionally, 90.1% agreed that adolescents should know their genotype status early in life.

Regarding specific perception statements, more than half of the respondents (58.2%) disagreed that sickle cell anaemia affects females more than males, while 64.6% disagreed that persons living with sickle cell anaemia have low IQ thus perform poorly academically.

Similarly, 71.3% of respondents disagreed that problems related to sickle cell anaemia can only be solved spiritually. Furthermore, the majority of respondents (82.4%) agreed that people living with sickle cell anaemia can live long lives with appropriate care and medical support.

Table 5: Perception Towards Sickle Cell Anaemia Among Respondents

Variable	Category	Frequency (n)	Percentage (%)
SCA is a serious health condition	Agree	328	81.2
	Disagree	34	8.4
	Undecided	42	10.4
Genotype testing before marriage is important	Agree	349	86.4
	Disagree	24	5.9
	Undecided	31	7.7
Adolescents should know their genotype status	Agree	364	90.1
	Disagree	16	4.0
	Undecided	24	5.9
SCA affects females more than males	Agree	64	15.8
	Disagree	235	58.2
	Undecided	105	26.0
Persons living with SCA have low IQ thus perform poorly academically.	Agree	82	20.3
	Disagree	261	64.6
	Undecided	61	15.1
Problems related to SCA can only be solved spiritually	Agree	49	12.1
	Disagree	288	71.3
	Undecided	67	16.6
People living with SCA can have long life with appropriate care and support.	Agree	333	82.4
	Disagree	29	7.2
	Undecided	42	10.4

3.6 Association Between Socio-Demographic Characteristics and Knowledge of Sickle Cell Anaemia

Chi-square analysis was performed to determine the association between selected socio-demographic variables and knowledge regarding sickle cell anaemia among respondents. As shown in Table 6, class level ($\chi^2 = 12.614$, $p = 0.002$), parents' educational status ($\chi^2 = 10.428$, $p = 0.005$), family history of sickle cell anaemia ($\chi^2 = 18.315$, $p < 0.001$), and source of information from health workers ($\chi^2 = 14.226$, $p = 0.001$) were significantly associated with good knowledge regarding sickle cell anaemia.

However, age ($\chi^2 = 3.116$, $p = 0.211$) and gender ($\chi^2 = 1.847$, $p = 0.174$) were not significantly associated with knowledge regarding sickle cell anaemia among respondents.

Table 6: Association Between Socio-Demographic Variables and Knowledge of Sickle Cell Anaemia Among Respondents

Variable	Category	Good Knowledge n (%)	Poor/Fair Knowledge n (%)	χ^2	p-value
Age (years)	13	30 (41.1)	43 (58.9)	3.116	0.211
	14–16	112 (51.4)	106 (48.6)		
	17–19	56 (49.6)	57 (50.4)		
Gender	Male	89 (46.4)	103 (53.6)	1.847	0.174
	Female	109 (51.4)	103 (48.6)		
Class Level	SSS1	48 (38.1)	78 (61.9)	12.614	0.002*
	SSS2	71 (51.1)	68 (48.9)		
	SSS3	79 (56.8)	60 (43.2)		
Parents' Educational Status	Primary	14 (31.8)	30 (68.2)	10.428	0.005*
	Secondary	75 (45.7)	89 (54.3)		
	Tertiary	109 (55.6)	87 (44.4)		
Family History of SCA	Yes	78 (65.0)	42 (35.0)	18.315	<0.001*
	No	120 (42.3)	164 (57.7)		
Information from Health Workers	Yes	92 (63.9)	52 (36.1)	14.226	0.001*
	No	106 (40.8)	154 (59.2)		

**Statistically significant at $p < 0.05$.*

3.7 Predictors of Good Knowledge of Sickle Cell Anaemia Among Respondents

Binary logistic regression analysis was performed to identify predictors of good knowledge regarding sickle cell anaemia among respondents. Variables that were statistically significant at bivariate analysis were entered into the regression model.

As presented in Table 7, respondents in SSS3 were approximately two times more likely to demonstrate good knowledge regarding sickle cell anaemia compared to respondents in SSS1 (aOR = 2.11; 95% CI: 1.24–3.58; $p = 0.006$). Respondents whose parents had tertiary education were also significantly more likely to have good knowledge compared to those whose parents had primary education (aOR = 2.37; 95% CI: 1.28–4.39; $p = 0.005$).

Similarly, respondents with a family history of sickle cell anaemia were more likely to demonstrate good knowledge compared to those without a family history of the disease (aOR = 2.94; 95% CI: 1.78–4.85; $p < 0.001$). Information obtained from health workers also significantly predicted good knowledge regarding sickle cell anaemia (aOR = 2.18; 95% CI: 1.36–3.49; p = 0.001).

Table 7: Binary Logistic Regression Analysis Showing Predictors of Good Knowledge Regarding Sickle Cell Anaemia

Variable	Category	cOR (95% CI)	p-value	aOR (95% CI)	p-value
Class Level	SSS1	1.00		1.00	
	SSS2	1.70 (1.02–2.84)	0.041*	1.56 (0.91–2.69)	0.102
	SSS3	2.14 (1.29–3.55)	0.003*	2.11 (1.24–3.58)	0.006*
Parents' Educational Status	Primary	1.00		1.00	
	Secondary	1.81 (0.91–3.58)	0.087	1.64 (0.80–3.35)	0.171
	Tertiary	2.69 (1.39–5.20)	0.003*	2.37 (1.28–4.39)	0.005*
Family History of SCA	Yes	2.54 (1.62–3.97)	<0.001*	2.94 (1.78–4.85)	<0.001*
	No	1.00		1.00	
Information from Health Workers	Yes	2.57 (1.65–4.01)	<0.001*	2.18 (1.36–3.49)	0.001*
	No	1.00		1.00	

**Statistically significant at $p < 0.05$.*

4.0 Discussion

The present study gives insight into the awareness, knowledge and perceptions regarding SCA among adolescents attending four private secondary schools in Port Harcourt, Rivers State. Our findings showed that awareness was good, knowledge poor and perception good. The SCA awareness level of over 90% with good knowledge level of 49.0% among the respondents shows that most of the students only had superficial knowledge of the disorder and underscores a knowledge gap. This is similar to other studies which found high awareness of but remarkably lower comprehensive knowledge levels [1, 9, 10]. School was also identified as the major source of information regarding SCA among the respondents. This shows the role of schools as sources of information and highlights the importance of school-based health education programmes in improving adolescents' understanding of health-related issues such as SCA. Our finding is similar to that by Ugwu (10) in which lectures was the main source of the students' SCA information but differs from that by Kanma-Okafor et al. (9) where the commonest source of information was from healthcare workers followed closely by friends/family then the internet. These also reflect the possible diverse sources of health information.

With regards to the knowledge measures, the correct response by about 70% of the study population that SCA is an inherited disorder and that it affects the red blood cell shows fairly good understanding of its aetiology; the recognition of pain as its feature also shows some understanding of its symptoms. These findings are similar to those of other studies among adolescents and young adults with SCA [10,13,19]. The disagreement by about 60% of the respondents that marriage between two persons with AS genotype has no risk of producing offsprings with SCA shows some good knowledge of its transmission. This is unlike in a study where only about 26% of the participants correctly responded to this (10). The response by over 60% of the participants that SCA can be prevented through genotype testing also showed good knowledge on its prevention and this should be enhanced with the correct information. However, the response by almost 40% of participants that SCA is contagious is a misconception that should be addressed especially because this could contribute to stigmatization and discrimination of persons with SCA. Similar misconceptions of SCA being infectious or contagious was reported by 37.3% and 21.8% of respondents in the studies by Kanma-Okafor [9] and Moses [13] respectively

The study also explored respondents' perceptions regarding beliefs and misconceptions associated about sickle cell anaemia. Most respondents disagreed that SCA affects females more than males and also disagreed that persons living with sickle cell anaemia had low IQ and performed poorly academically. Poor academic performance among students with SCA caused by repeated ill heath with days out of school, not from low IQ has been reported [20]. Responses obtained suggests that many respondents possessed relatively good perceptions regarding the disease and its effects on affected individuals. Furthermore, the majority disagreed that problems related to sickle cell anaemia can only be solved spiritually, indicating acceptance of medical care and scientific understanding of the disease. However, the persistence of such beliefs among a minority of respondents reflects the continued influence of cultural misconceptions and inadequate health education in some communities and highlights gaps to be closed [11,13]. Additionally, most respondents agreed that individuals living with SCA can have long lives with proper medical care and support. This perception may reflect increasing awareness regarding survival following improved care and advances in the prevention and management of its complications leading to improved life expectancy [21]

Chi-square analysis performed in the present study demonstrated that class level, parents' educational status, family history of sickle cell anaemia, and information obtained from health workers were significantly associated with good knowledge regarding sickle cell anaemia. Binary logistic regression analysis further identified SSS3 class level, tertiary parental education, family history of sickle cell anaemia, and information obtained from health workers as significant predictors of good knowledge regarding sickle cell anaemia among respondents. The observed relationship between higher educational exposure and improved SCA knowledge may be attributed to increased academic maturity, interactions and access to health information. Furthermore, adolescents with family history of sickle cell anaemia were probably more likely to demonstrate better knowledge due to previous healthcare interactions, counselling experiences, and exposure to disease management within affected families. Our findings are similar to those in studies where improved SCA knowledge was associated with health information [22, 23], higher education [24, 25], and family history of SCD [25,26].

Conclusion

This study assessed the Awareness, knowledge and perception regarding SCA among adolescents attending selected private secondary schools in Port Harcourt, Rivers State, Nigeria.

DOI: https://doi.org/10.51470/AMSR.2026.05.01.56

The findings revealed that awareness regarding SCA among respondents was high, with schools identified as the major source of information on the disease. Most respondents demonstrated poor comprehensive knowledge of the disease but generally positive perceptions. Knowledge gaps and misconceptions persist especially regarding disease transmission and prevention. Class level, parents' educational status, information obtained from health workers and family history of sickle cell anaemia as significant predictors of good knowledge regarding sickle cell anaemia.

The findings highlight the need for strengthened school-based health education programmes, adolescent genotype counselling, and continuous public awareness campaigns aimed at improving knowledge and correcting misconceptions regarding sickle cell anaemia among adolescents. Early education on the disorder among young people may contribute significantly towards reducing the burden of SCA in Nigeria.

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DOI: https://doi.org/10.51470/AMSR.2026.05.01.56