

Socio Economic Determinants of Academic Performance Among Undergraduate Nursing Students in South-South, Nigeria

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Abstract

The academic performance of undergraduate nursing students is a critical aspect of their professional development, as it lays the foundation for their future success as competent and compassionate healthcare professionals. This study examined the socio-economic determinants of academic performance among undergraduate nursing students in South-South region, Nigeria. Four specific objectives guided the study, descriptive cross-sectional design was employed, total population of study was 442 nursing students across Levels 200 to 500. Taro Yamane formula was used to obtain a sample size of 208 respondents. Sample technique was multistage sampling, incorporating stratification by academic level and proportionate allocation. Data were collected using structured electronic questionnaire, validated for face and content, reliability was tested for internal consistency using split-half methods. Analysis was done using SPSS version 27, applying descriptive statistics (mean and standard deviation). Findings revealed that access to textbooks and the internet was generally adequate ($M = 3.27 \pm 0.66$), while living conditions and student-teacher ratio were moderately favorable to slightly unfavorable, respectively. Financial constraints were evident but did not necessitate part-time work for most respondents. Socio-economic status influenced access to academic resources ($M = 3.33 \pm 0.73$) and created family-related academic pressure ($M = 3.34 \pm 0.64$), yet its overall effect on performance was perceived as indirect rather than determinative. The study concludes that academic outcomes are primarily shaped by resource accessibility and supportive learning environments rather than socio-economic background alone. Based on these findings, it is recommended that interventions (such as providing affordable or free access to learning materials and enhancing student-teacher engagement through mentorship programs and smaller class sizes to mitigate socio-economic disparities), aimed at improving learning resources and study conditions may help mitigate disparities linked to socio-economic constraints.

Keywords: Socio-economic determinants, academic performance, nursing students, educational resources, financial constraints

Introduction

Academic performance in nursing education extends beyond intelligence or individual effort; it is deeply influenced by the socio-economic conditions within which students operate. Undergraduate nursing students often face financial pressures, limited access to learning resources, and domestic responsibilities, all of which can hinder concentration, participation, and overall academic success. Conversely, students with stronger socio-economic support frequently experience smoother academic progression, highlighting the critical role of external factors in shaping learning outcomes.

Socio-economic status (SES) reflects a combination of income, education, occupation, and access to resources,

shaping opportunities and life trajectories (Khan et al., 2024). In higher education, SES determines the ability to procure learning materials, participate in academic activities, and achieve educational goals. Academic performance, commonly measured through continuous assessments or cumulative grade point averages (CGPA), is influenced by personal effort, institutional support, and broader socio-economic environments (Talib & Sansgiry, 2012). Despite institutional efforts to provide support systems and resources, many students continue to face socio-economic constraints such as inadequate finances, limited access to textbooks and digital tools, and poor living conditions, which can negatively affect academic achievement (Blessing, 2024; Tadese et al., 2022; Ab Razak et al., 2019; Ozcan, 2021).

For nursing students, academic performance is particularly critical because it directly influences professional competence and the quality of patient care. Nursing education demands mastery of theoretical knowledge, clinical skills, and critical thinking to ensure safe and effective practice (Cant, 2020). Socio-economic barriers, including insufficient study resources, financial stress, suboptimal learning environments, and high student–teacher ratios, often impede students’ engagement and learning outcomes. In Nigeria, systemic challenges such as underfunded institutions, inadequate infrastructure, and shortages of qualified teaching staff further exacerbate these issues (Federal Ministry of Health, 2017). At Rivers State University, Port Harcourt, undergraduate nursing students encounter diverse socio-economic constraints that may limit academic progress, potentially affecting career prospects and the quality of healthcare delivery (World Health Organization, 2019).

Empirical studies demonstrate the significant influence of SES on academic outcomes. Pryjmachuk et al. (2017) found that students from low-income households are more likely to face academic difficulties due to financial instability and restricted access to learning resources. Hussain and Khoso (2021) reported a significant positive correlation between household income and enhanced academic performance, primarily due to limited access to textbooks and internet facilities. Similarly, Choi et al. (2020) observed that SES affects both academic engagement and achievement, with financial stress acting as a key mediating factor.

Research on nursing education also highlights multiple determinants of student performance. Fajar et al. (2019) reported that teacher-, student-, home-, and school-related factors significantly influenced students’ outcomes at the Lahore School of Nursing, with gender negatively associated with academic success ($r = -0.397$, $p < .001$). Mushtaq et al. (2019) identified teacher-related factors as the most influential ($M = 3.90$), followed by school- ($M = 3.88$), student- ($M = 3.83$), and home-related factors ($M = 3.48$). Similarly, Alshammari et al. (2017) confirmed that teacher-related variables strongly affected performance ($M = 4.16$), while gender also showed a notable effect, though age, marital status, and SES were not statistically significant.

Building on these findings, this study aims to investigate the socio-economic determinants—such as access to educational resources, living conditions, and student–teacher ratios—that influence academic performance among undergraduate nursing students at Rivers State University, Port Harcourt

Materials and Methods

Research Design

A descriptive cross-sectional research design was adopted for this study. This design enabled researchers to collect data at a single point in time to examine the socio-economic determinants of academic performance among undergraduate nursing students in the study setting. This approach was appropriate as it allowed for the assessment of multiple

variables simultaneously and provided a snapshot of the population under study.

Research Setting

The study was conducted at the Department of Nursing Science, Rivers State University (RSU), Port Harcourt, Rivers State, Nigeria. RSU is a state-owned institution offering a five-year Bachelor of Nursing Science program. The Department of Nursing Science, established in March 2015, comprises 24 academic staff and 11 non-academic staff, with five classrooms and three demonstration laboratories. The department is committed to providing quality education, with adequate facilities such as classrooms, a library, hostels, and practical laboratories, fostering an optimal environment for teaching and learning. The program aligns with the standards set by the Nursing and Midwifery Council of Nigeria (NMCN), ensuring comprehensive training for nursing students.

Population for the Study

The target population comprised undergraduate nursing students across Levels 200, 300, 400, and 500, totaling 442 students. The distribution by level was as follows: Level 200 – 194 students, Level 300 – 91 students, Level 400 – 82 students, and Level 500 – 75 students. The study excluded students enrolled in other programs, non-full-time students, and transfer students with less than one academic year at RSU

Sample Size and Sampling Technique

A sample size of 208 respondents was determined using the Taro Yamane formula:

$$n = N / (1 + N(e)^2)$$

Where $N = 442$ and $e = 0.05$

$$n = 442 / (1 + 442(0.0025)) = 442 / 2.105 \approx 208.$$

A multistage sampling technique was used. The population was first stratified by academic level, followed by proportionate stratified sampling to calculate the required number of respondents for each level. Finally, simple random sampling was used to select participants within each stratum.

Procedure of Data Collection

Data were collected using a structured electronic questionnaire developed in line with the study objectives. The instrument comprised three sections: Section A captured socio-demographic information, while Sections B to C addressed socio-economic determinants influencing academic performance. The questionnaire was reviewed by the researcher’s supervisor to ensure face and content validity.

Method of Data Analysis

Data were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 27. Descriptive statistics, including frequencies, percentages, mean, and standard deviation, were used to answer the research questions. Inferential statistics were applied where necessary to test relationships between socio-economic variables and academic performance.

Ethical Considerations

Ethical approval was obtained from the Department of Nursing Science, RSU. Participation was voluntary, with informed consent obtained from all respondents. Confidentiality and anonymity were maintained, and participants were informed of their right to withdraw at any point. The researcher maintained a non-judgmental attitude throughout data collection, ensuring adherence to ethical principles in human research.

Results

Table 1: Demographic Data Result

S.No.	Variables	Frequency	%
1	Gender		
	Female	136	73%
	Male	48	25.8%
	Prefer not to say	3	1.6%
2	Age Group		
	Below 20 years	81	43.5%
	20 – 25 years	93	50%
	26 – 30 years	12	6.5%
3	Academic Year		
	Year 1	36	19.4%
	Year 2	49	26.3%
	Year 3	41	22%
	Year 4	60	32.3%
4	Religion		
	Christian	181	97.3%
	Muslim	2	1.1%
	Traditional religion	3	1.6%
5	Marital Status		
	Single	183	98.4%
	Married	2	1.1%
	Divorced/separated	1	0.5%
6	Monthly Family Income		
	Less than 50,000	45	24.2%
	50,000 -100,000	37	19.9%
	100,000 -200,000	23	12.4%
	Above 200,000	81	43.5%
7	Type of Residence:		
	On-campus hostel	68	36.6%
	Off-campus apartment	64	34.4%
	Family house	53	28.5%

Table 1 shows the social demographic characteristics of the respondents. The majority of respondents were female (73%), while males accounted for 25.8%, and a small proportion preferred not to disclose their gender (1.6%). Most participants were aged between 20 and 25 years (50%), followed by those below 20 years (43.5%), with only 6.5% aged 26–30 years. Distribution across academic years was relatively balanced, with Year 4 students representing the largest group (32.3%) and Year 1 the smallest (19.4%).

In terms of religion, an overwhelming majority identified as

Christian (97.3%), with very few respondents practicing Islam (1.1%) or traditional religions (1.6%). Most students were single (98.4%), with married (1.1%) and divorced/separated students (0.5%) comprising a very small minority.

Monthly family income varied, with the largest group earning above 200,000 NGN (43.5%), followed by less than 50,000 NGN (24.2%), 50,000–100,000 NGN (19.9%), and 100,000–200,000 NGN (12.4%). Regarding residence, most students lived on-campus (36.6%) or in off-campus apartments (34.4%), while 28.5% resided with family.

Table 2: Mean and Standard Deviation of socio-economic factors that influence the academic performance of nursing undergraduate students in Rivers State University, Port Harcourt

S.No.	Statement	SA %	A %	D %	SD %	Mean	STD
1	I have access to necessary educational resources (e.g., textbooks, internet).	73 39.2%	91 48.9%	22 11.8%	0	3.2742	0.661
2	My living conditions are conducive for studying.	43 23.1%	77 41.4%	57 30.6%	9 4.8%	2.8279	0.8399
3	The student-teacher ratio in my department is adequate.	15 8%	89 47.4%	67 36%	15 8%	2.5591	0.7564
4	I often struggle to afford necessary study materials.	25 13.4%	71 38.2%	69 37.1%	21 11.3%	2.5376	0.8644
5	My family's financial situation affects my academic performance.	23 12.4%	58 31.2%	74 39.8%	31 16.7%	2.3925	0.9074
6	I have to work part-time to support myself financially.	25 13%	45 24.2%	83 44.6%	33 17.7%	2.3333	0.9222

The results in Table 2 present the mean and standard deviation scores of selected socio-economic factors influencing the academic performance of undergraduate nursing students in Rivers State University. Access to textbooks and internet was generally adequate ($M = 3.27 \pm 0.66$). Living conditions were moderately favourable ($M = 2.83 \pm 0.84$), while the student-teacher ratio showed a slightly unfavourable perception ($M = 2.56 \pm 0.76$). Financial constraints were evident, as many students reported difficulty affording study materials ($M = 2.54 \pm 0.86$) and some impact of family finances ($M = 2.39 \pm 0.91$). However, most students did not rely on part-time work ($M = 2.33 \pm 0.92$).

Table 3: Mean and Standard Deviation of the socio-economic status influence on the academic performance of nursing students

S.No.	Statement	SA %	A %	D %	SD %	Mean	STD
1	Socio-economic status affects access to academic resources.	88 47.3%	75 40.3%	20 10.6%	3 1.6%	3.3333	0.7328
2	Students from higher socio-economic backgrounds perform better academically.	36 19.4%	56 30.1%	78 41.9%	16 8.6%	2.6022	0.8961
3	High expectation from family causes undue pressure for excellent academic performances.	79 42.5%	94 50.5%	11 5.9%	2 1.1%	3.3441	0.6409
4	I believe that students from lower socio-economic backgrounds encounters more academic challenges.	15 8.1%	28 15.1%	91 48.9%	52 27.9%	2.0323	0.8693
5	Family's socio-economic status has no impact on academic performance performance of students.	78 41.9%	89 47.8%	17 9.1%	2 1.1%	3.3065	0.6799

Table 3 shows how socio-economic status influences the academic performance of nursing students. Socioeconomic status was perceived to significantly influence access to academic resources ($M = 3.33 \pm 0.73$) and create academic pressure through family expectations ($M = 3.34 \pm 0.64$). However, respondents expressed a neutral perception regarding whether students from higher socioeconomic backgrounds perform better academically ($M = 2.60 \pm 0.90$). In contrast, most respondents disagreed that students from lower socioeconomic backgrounds face more academic challenges ($M = 2.03 \pm 0.87$). Nonetheless, a majority agreed that family socioeconomic status has no direct impact on academic performance ($M = 3.31 \pm 0.68$), indicating that its influence is perceived as indirect rather than determinative.

Discussion of Finding

The findings showed that socio-economic factors play a significant role in shaping the academic performance of undergraduate nursing students at Rivers State University. While access to textbooks and internet resources were generally sufficient, other aspects such as living conditions and the student-teacher ratio were perceived as moderately challenging, suggesting that students may face difficulties in receiving individualized attention and maintaining optimal learning environments. Financial constraints also emerged

as a key factor, with many students experiencing challenges in affording study materials and feeling the impact of family finances on their academic pursuits, although reliance on part-time work was relatively low.

These observations were consistent with Pryjmachuk et al. (2017), who reported that students from low-income households are more likely to encounter academic difficulties due to financial instability and restricted access to learning resources. Hussain and Khoso (2021) found a strong link between low

parental income and poor academic performance, primarily due to limited access to textbooks and online facilities. Similarly, Choi et al. (2020) highlighted that financial stress mediates the effect of SES on both academic engagement and achievement.

The findings suggest that while resource accessibility may support learning, broader socio-economic challenges, including financial pressures, living conditions, and institutional constraints, continue to influence academic performance. Addressing these barriers through targeted interventions could enhance learning outcomes and professional competence among nursing students.

The results furthermore showed that socio-economic status (SES) shapes certain aspects of academic life for undergraduate nursing students, particularly in terms of access to academic resources and the pressure created by family expectations. Interestingly, students did not perceive a clear advantage for peers from higher socio-economic backgrounds, nor did they strongly associate low SES with greater academic challenges. This suggests that while SES may indirectly affect students' experiences, it is not universally seen as a determinative factor in academic performance.

These perceptions align with Fajar et al. (2019), who emphasized that teacher-, student-, home-, and school-related variables collectively affect academic achievement, with gender exerting a negative influence. Mushtaq et al. (2019) similarly noted that teacher-related factors had the strongest impact, followed by school, student, and home environments. Alshammari et al. (2017) confirmed that teacher-related variables are critical, whereas SES itself did not show a statistically significant direct effect, reinforcing the notion that socio-economic influences often operate indirectly, mediated by access to resources, instructional support, and learning environments.

The findings suggest that while SES shapes opportunities and pressures, the quality of instructional support, institutional resources, and home environment may play a more immediate role in determining academic success among nursing students.

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Conclusion

Study concluded from the findings that socio-economic factors influence the academic experiences of undergraduate nursing students in the studied setting, primarily through access to learning resources and family-related academic pressures. While students perceive some challenges linked to financial constraints and living conditions, socio-economic status is generally viewed as having an indirect rather than a direct impact on academic performance. Factors such as access to textbooks, internet, and supportive learning environments appear more immediately relevant to academic outcomes than socio-economic background alone. This indicates that

targeted interventions to improve resource accessibility and study conditions may help mitigate potential disadvantages associated with lower socio-economic status.

Recommendations

Based on the findings and conclusions of this study, several recommendations are made

1. The university should prioritize providing affordable or free access to textbooks, internet facilities, and other learning materials to reduce disparities caused by socio-economic constraints.
2. Initiatives to improve student–teacher engagement, including mentorship programs and smaller class sizes, could help students navigate academic challenges more effectively.
3. Expanding scholarships, grants, or subsidized educational programs can alleviate the financial pressures that indirectly affect academic performance.
4. Awareness campaigns targeting families on realistic expectations and support strategies may reduce undue academic pressure and foster a more conducive learning atmosphere

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