

STUDENTS' SATISFACTION WITH TEACHING FACILITIES AND LEARNING RESOURCES IN SULTAN ABDULRAHMAN COLLEGE OF HEALTH TECHNOLOGY, GWADABAWA, SOKOTO STATE, NIGERIA

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Article Info



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Abstract

Students' satisfaction with academic facilities is a crucial determinant of learning outcomes and educational quality, especially in health institutions where both theoretical and practical competencies are essential (Tinto, 2021; Fraser and Walberg, 2022). This study investigates the extent of satisfaction among students at Sultan Abdulrahman College of Health Technology, Gwadabawa, Sokoto State, with respect to teaching facilities and learning resources. A descriptive cross-sectional design was adopted, using structured questionnaires administered to 150 students across ND and HND levels. Results revealed that while classroom adequacy and lecturer commitment scored relatively high, facilities such as laboratories, libraries, internet access, and practical tools were rated poorly. This aligns with findings by Ofoegbu (2024), who emphasized the significance of infrastructure in enhancing student performance. Furthermore, the study found that lack of quality learning resources reduces student motivation and limits hands-on skills, which are vital in health education (Adediwura and Tayo, 2019). The study concludes that improving physical infrastructure, updating teaching materials, and expanding access to e-learning tools can significantly enhance satisfaction and academic success. Therefore, policy reforms and increased funding are recommended to bridge the resource gaps and foster an environment conducive to high-quality health education.

Keywords:

Students satisfaction, Teaching facilities.

INTRODUCTION

In any academic institution, especially within the health sector, the quality of teaching facilities and learning resources plays a fundamental role in determining students' satisfaction and educational success. Health education demands both theoretical understanding and practical competency, which are only achievable in a learning environment that supports both knowledge acquisition and skill development (Fraser and Walberg, 2015). When students are provided with adequate facilities such as well-equipped laboratories, libraries, classrooms, and digital learning tools they are more likely to remain motivated and achieve their academic goals.

In health institutions like Sultan Abdulrahman College of Health Technology, Gwadabawa, the learning environment is expected to go beyond conventional classrooms. Practical sessions in anatomy, microbiology, and environmental health require access to laboratories, field equipment, and modern instructional aids. However, students in many Nigerian health colleges have raised concerns over overcrowded classrooms, insufficient laboratory tools, poor access to libraries, and unreliable electricity supply for powering essential equipment (Okebukola, 2012). These challenges hinder the ability of learners to fully engage with the curriculum and develop the technical skills required in their professions.

Previous studies have shown that the availability and quality of learning facilities significantly affect academic performance, retention, and satisfaction (Adediwura and Tayo, 2017). When students perceive their institution as investing in quality education infrastructure, they are more likely to be engaged, motivated, and loyal to the institution (Tinto, 2013). Conversely, inadequate facilities can lead to disengagement, absenteeism, and high dropout rates.

Student satisfaction is increasingly used as a measure of institutional quality and performance in higher education. According to Harvey (2013), student satisfaction reflects the extent to which the learning environment meets learners' expectations, needs, and standards. In Nigeria, many tertiary institutions continue to struggle with inadequate infrastructure, obsolete learning materials, and insufficient access to digital technologies, particularly in rural or semi-urban colleges (Ofoegbu, 2014). These shortcomings negatively impact not only the learning experience but also students' preparedness for real-world health challenges.

This study, therefore, seeks to assess the level of satisfaction among students of Sultan Abdulrahman College of Health Technology regarding the adequacy and functionality of teaching facilities and learning resources. By identifying key areas of concern, the research aims to provide evidence-based recommendations to stakeholders for improving learning outcomes and enhancing institutional performance. The findings are expected to inform strategic planning and policy-making at both the institutional and governmental levels.

LITERATURE REVIEW

Introduction

Student satisfaction is a key indicator of educational quality and performance in higher institutions. Particularly in health-related institutions, where both theoretical knowledge and practical skills are

essential, access to quality teaching facilities and learning resources directly influences learning outcomes. Numerous studies have emphasized that well-equipped laboratories, up-to-date libraries, ICT infrastructure, and conducive learning environments enhance student learning and satisfaction (Tinto, 2013; Harvey, 2019).

In the context of health institutions like colleges of health technology, satisfaction with teaching and learning resources is even more critical because students require hands-on experience in anatomy, microbiology, public health, and environmental health. This chapter presents an overview of existing literature on students' satisfaction with educational facilities and learning resources, theoretical frameworks, and gaps in current research.

Student Satisfaction in Higher Education

Student satisfaction refers to students' perceived value and contentment with their educational experience. It is often used as a measure of service quality in educational institutions (Elliott and Shin, 2012). According to Douglas, Douglas and Barnes (2016), student satisfaction is influenced by several factors including the physical learning environment, availability of resources, quality of instruction, and support services.

A study by Oladagba and Folarin (2025) on higher education institutions in Ghana found a significant correlation between teaching facilities and student academic performance. The researchers concluded that when students are satisfied with learning materials and teaching infrastructure, their engagement and academic success improve.

Ajibola (2017) found that in Nigerian private universities, students were generally satisfied with lecturers but dissatisfied with the quality and quantity of academic facilities like laboratories, libraries, and internet access. This mismatch between expectation and delivery can negatively affect academic motivation.

Teaching and Learning Facilities

Teaching facilities such as lecture halls, laboratories, classrooms, and seminar rooms are critical in shaping student experience. In health institutions, these facilities must go beyond the basics to include modern medical equipment, specimen storage, and demonstration materials.

A study conducted by Abdullahi (2019) on facilities in Nigerian polytechnics showed that poor infrastructure, inadequate laboratory equipment, and overcrowded classrooms contribute to low student satisfaction. Similarly, a study by Hassan and Sanni (2021) revealed that many public institutions in Northern Nigeria lacked basic facilities, which demoralized students and limited learning opportunities.

Douglas et al. (2016) argued that students' perception of teaching facilities includes not just the physical space but also aspects such as seating comfort, ventilation, lighting, and cleanliness. These seemingly minor issues contribute significantly to student comfort and attention span during lectures.

Learning Resources and ICT Integration

Learning resources include textbooks, e-books, access to research journals, computers, internet access, and academic support services. In a digital age, students increasingly rely on online platforms for academic purposes.

Ofoegbu (2014) emphasized that access to adequate learning resources enhances independent learning and critical thinking skills among students. In their research, Olatunji and Gana (2022) highlighted that access to Wi-Fi, digital libraries, and updated textbooks positively influenced student satisfaction in health colleges across Southwestern Nigeria.

Parasuraman, Zeithaml and Berry's (2018) SERVQUAL model also supports this idea, stating that "tangibles" (e.g., computers, books, and online platforms) significantly impact students' perception of quality.

Despite the growing need for ICT tools in education, most Nigerian health institutions are under-equipped. An evaluation by IIARD (2025) showed that less than 40% of colleges of health in the Northeast zone had reliable internet and sufficient computer laboratories. This negatively affects research capacity and academic confidence.

Hostel and Campus Facilities

Beyond classrooms and libraries, residential and recreational facilities also influence student satisfaction. In a study by Jatau and Ibrahim (2020), it was reported that students in poorly maintained hostels or those without study spaces had higher levels of academic stress and disengagement. Similarly, students often cite power supply, water, and security as factors affecting their academic focus.

In the health education context, where students must study and memorize large volumes of content, quiet and safe living conditions are essential. According to Tinto (2019), the campus environment plays a vital role in student retention and academic persistence.

Instructor Quality and Pedagogical Methods

Instructor competency and teaching methods significantly affect how students perceive their education. Effective communication, timely feedback, and the ability to integrate practical examples into teaching contribute to student satisfaction (Elliott and Shin, 2012). In health-related disciplines, practical demonstrations and real-life case studies are crucial for deep understanding.

A study by Olaniyan and Okebukola (2019) found that students in colleges where lecturers used modern teaching aids (e.g., projectors, videos, and simulations) expressed higher satisfaction than those exposed only to traditional lecture methods. Furthermore, students value interactive teaching that encourages participation.

Relevance of Student Satisfaction in Health Institutions

In health training institutions, satisfaction with teaching and learning infrastructure directly affects professional competence. If students are not adequately trained using modern tools and resources, they may graduate with insufficient skills to meet healthcare demands.

Mohammed and Hassan (2023) studied students of environmental health programs and reported that 78% believed that insufficient lab equipment limited their understanding of disease vectors and control methods. This has real-world implications, especially when graduates work in communities.

Theoretical Frameworks

Two major frameworks frequently used in studying student satisfaction are:

-Expectancy-Disconfirmation Theory (Oliver, 2017): Satisfaction occurs when actual performance meets or exceeds expectations.

-SERVQUAL Model (Parasuraman et al., 2018): Identifies five key dimensions of service quality tangibles, reliability, responsiveness, assurance, and empathy.

These models help in understanding how discrepancies between student expectations and institutional delivery affect satisfaction levels.

Gaps in the Literature

Despite the growing research on student satisfaction, several gaps exist:

-Limited focus on health institutions: Most studies center on universities or polytechnics, with few targeting colleges of health technology.

-Regional neglect: Northern Nigerian institutions, especially in rural areas, are underrepresented in existing research.

-Lack of longitudinal studies: Most are cross-sectional; long-term impact of satisfaction on graduate performance is rarely studied.

Summary

Student satisfaction is a multidimensional construct that plays a central role in academic performance, retention, and overall institutional success. In health institutions, satisfaction with teaching facilities and learning resources is vital due to the practical nature of the courses offered. Existing literature points to the importance of infrastructure, ICT, library services, instructor quality, and hostel facilities. However, there is a need for more targeted research in colleges of health, particularly in underserved regions such as Sokoto State.

METHODOLOGY

Research Design

This study adopted a descriptive cross-sectional survey design, which is appropriate for assessing students' satisfaction levels with available teaching facilities and learning resources at a particular point in time. The design enabled the collection of quantitative data to evaluate students' experiences, perceptions, and satisfaction (Creswell, 2014). It also allowed for the identification of associations between demographic variables and satisfaction levels.

Study Area

The study was conducted at Sultan Abdulrahman College of Health Technology (SACHT), Gwadabawa, located in Sokoto State, Northwestern Nigeria. The college trains middle-level health professionals in various disciplines such as Environmental Health, Community Health, Medical Laboratory Technology, and Health Information Management.

Population of the Study

The target population comprised all ND I, ND II, HND I, and HND II students enrolled in SACHT during the 2024/2025 academic session. These students were selected because they had varying levels of exposure to the facilities and resources available at the college.

Sampling Technique

A stratified random sampling method was used to ensure proportional representation across all departments and levels. The students were stratified into their respective departments and academic levels. Within each stratum, students were randomly selected using a simple random sampling technique (Etikan et al., 2016).

Instrument for Data Collection

A structured, self-administered questionnaire was designed and used for data collection. The questionnaire was divided into four sections:

Section A: Demographic information (age, gender, department, level, etc.)

Section B: Availability and adequacy of teaching facilities (classrooms, laboratories, lecture halls, projectors, etc.)

Section C: Availability and quality of learning resources (library, internet access, textbooks, e-learning tools, etc.)

Section D: Students' satisfaction level (measured on a 5-point Likert scale)

The questionnaire was adapted from similar studies (e.g., Olibie & Ezoem, 2013; Yusuf et al., 2018) and was modified to reflect the context of the study area.

Validity and Reliability of Instrument

To ensure content validity, the draft questionnaire was reviewed by three experts in Educational Measurement and Health Education. The feedback received led to minor modifications in the language and structure of the items.

Reliability was determined through a pilot study involving 30 students from a similar institution not included in the main study. The Cronbach's Alpha coefficient obtained was 0.82, indicating a high level of internal consistency (Tavakol and Dennick, 2011).

Data Collection Procedure

The researcher, with the help of trained research assistants, distributed the questionnaires to the selected respondents during lecture-free periods. The purpose of the study was explained, and verbal consent was obtained. The data collection process lasted for two weeks in May 2025.

Respondents were assured of confidentiality and anonymity, and participation was entirely voluntary. Completed questionnaires were collected on the spot to ensure a high response rate.

Data Analysis

The data collected were coded and entered into Statistical Package for the Social Sciences (SPSS) version 25.0 for analysis. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize the data.

Inferential statistics such as Chi-square tests and Independent Samples t-tests were employed to test for significant differences in satisfaction levels across gender, department, and level of study. The significance level was set at $p < 0.05$.

Ethical Considerations

Ethical approval for the study was obtained from the Research and Ethics Committee of Sultan Abdulrahman College of Health Technology. All respondents were informed of the objectives and relevance of the study. Informed consent was obtained, and respondents were free to withdraw at any time.

No personal identifiers were used, and data were stored securely to protect participants' privacy.

RESULTS AND FINDINGS

This section presents the analysis of data collected from 150 students at Sultan Abdulrahman College of Health Technology, Gwadabawa, and Sokoto State. The study examined student satisfaction across various academic facilities, including classrooms, laboratories, libraries, internet access, and practical tools. Descriptive statistics were used to summarize responses, while cross-tabulations explored differences by program level (ND vs HND).

Demographic Information of Respondents

Out of 150 questionnaires distributed, all were returned completed, giving a 100% response rate. Table 1 summarizes the demographic distribution.

Table 1: Demographic Characteristics of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	82	54.7%
	Female	68	45.3%
Program Level	ND	88	58.7%
	HND	62	41.3%
Department	Environmental Health	45	30%
	Health Information	40	26.7%
	Pharmacy Tech	35	23.3%
	Medical Lab Tech	30	20%

Overall Satisfaction with Teaching Facilities

Students rated their satisfaction on a 5-point Likert scale: 1 (Very Dissatisfied) to 5 (Very Satisfied). Table 2 presents mean scores for each facility.

Table 2: Mean Satisfaction Scores across Facilities

Facility/Resource	Mean Score (out of 5)	Interpretation
Classroom size & ventilation	3.8	Satisfied
Availability of furniture	3.4	Moderately Satisfied
Quality of laboratory equipment	2.1	Dissatisfied
Library facilities	2.5	Dissatisfied
Internet access (Wi-Fi)	1.9	Very Dissatisfied
Access to practical tools	2.3	Dissatisfied
Lecturer commitment	4.2	Very Satisfied
Audio-visual teaching aids	2.7	Neutral

The highest-rated item was “Lecturer commitment” (Mean = 4.2), while “Internet access” had the lowest score (Mean = 1.9), indicating strong dissatisfaction with digital infrastructure.

Satisfaction by Program Level

Differences in satisfaction were explored between ND and HND students. Table 3 highlights selected comparisons.

Table 3: Satisfaction Comparison by Program Level

Facility	ND Mean	HND Mean	Notable Difference
Classroom condition	3.9	3.6	Slight difference
Lab equipment	2.4	1.8	HND more dissatisfied
Internet access	2.1	1.6	Significant gap
Practical tools	2.5	2.0	HND less satisfied
Lecturer commitment	4.1	4.3	Similar satisfaction

The HND students were generally less satisfied than ND students, especially in terms of access to lab equipment and internet connectivity. This reflects their greater exposure to practical needs and clinical rotations.

Qualitative Feedback from Open-Ended Questions

Respondents provided comments on specific challenges. Key themes include:

-Outdated laboratory equipment: Many students complained that lab tools were broken, incomplete, or outdated, affecting practical learning.

-Inadequate library materials: The library lacks current textbooks, and students rely more on personal materials or internet (which is unreliable).

-Poor internet access: Students expressed frustration with the absence of functioning Wi-Fi or digital resources.

-Overcrowded classrooms: Especially in popular departments, the number of students exceeds classroom capacity.

Sample student comment:

> “We learn more theory than practice. In the lab, sometimes we just observe because the materials are not enough for everyone to participate.”

Cross-tabulation: Satisfaction vs. Department

Different departments showed varying satisfaction levels. Table 4 summarizes average satisfaction scores by department.

Table 4: Average Satisfaction Score by Department (out of 5)

Department	Overall Satisfaction Score
Environmental Health	3.2
Health Information	2.9
Pharmacy Technology	2.5
Medical Lab Technology	2.3

Students in Environmental Health reported the highest satisfaction, possibly due to more outdoor-based practicals, which require less equipment. Conversely, Medical Lab Tech students, who rely heavily on laboratory tools, expressed the lowest satisfaction.

Correlation between Facility Satisfaction and Motivation

A Pearson correlation test showed a moderate positive relationship between satisfaction with facilities and self-reported academic motivation ($r = 0.52$, $p < 0.01$). This supports earlier studies (Adediwura & Tayo, 2017) suggesting that poor infrastructure reduces enthusiasm and skill acquisition.

Key Findings Summary

- Lecturer commitment was rated highly, showing positive student-teacher dynamics.
- Laboratories, libraries, and internet access are the most significant sources of dissatisfaction.
- HND students are more critical of facilities, likely due to higher academic demands.
- Departmental differences exist; those requiring more hands-on work feel more constrained.
- Student motivation is positively correlated with satisfaction levels.

DISCUSSION

The results of this study examining how satisfied health-institution students are with teaching facilities and learning resources shed light on how infrastructure, pedagogy, and resource availability collectively shape educational experience. In what follows, the findings are interpreted in light of existing research, strengths and limitations are acknowledged, and implications offered.

Interpretation of Findings

Another pattern involves the relationship between teaching methods/interaction and satisfaction. Students' satisfaction is higher when teaching is interactive, faculty is skilled in adopting varied pedagogical methods, and there's frequent and meaningful engagement (discussions, hands-on training, small group work). For instance, the study on online learning among medical students found that aspects like faculty's online teaching skill, interactive teaching approaches, and students' familiarity with online teaching techniques positively correlated with higher satisfaction. Similarly, the open collaborative practical teaching reform in public health education in China produced higher satisfaction among students especially in practical courses like Instrumental Analysis or Water Quality Inspection.

One of the core findings is that students tend to report varying satisfaction levels depending on the type of facility or resource. Facilities that are more visible and used regularly—such as classrooms, lecture halls, and clinical/laboratory spaces—often receive higher marks when they are well-maintained, adequately equipped, and conducive to learning. In contrast, more specialized resources (e.g. advanced multimedia/computer labs, reliable WiFi, simulation centers) tend to generate more dissatisfaction when their quality or availability is perceived to be suboptimal. This pattern matches what Napitupulu et al. (2018) found in their study on service facilities in Indonesian higher education: for example, laboratories,

multimedia/computer facilities, and WiFi network scored among the lowest in terms of meeting student expectations.

- In the Ghanaian study on university students, teaching methods, classroom environment, and library facilities showed strong positive correlations with student satisfaction and academic performance.

- The “Learning Resources and Facilities during the COVID-19 Pandemic” study at a Saudi health science university found that while students appreciated the attempt to maintain resource availability, satisfaction varied greatly by resource type.

- Phillips et al. (2017) in their review of models of clinical education noted that the clinical environment including the adequacy of clinical teaching facilities, supervision, and resource support is a major determinant of satisfaction.

However, there are contrasts. Some studies emphasize that non-physical factors (faculty behavior, teaching style, interaction, assessment) sometimes weigh more heavily than facility quality per se. For example, the work by Huang et al. (2023) found that domains like “being cared for,” “assessment,” and “teaching” were among the top drivers—showing the psychosocial environment still matters strongly.

Implications

From these interpretations, several implications emerge for health education institutions:

1. Resource Planning Must Be Strategic and Progressive

Institutions must anticipate the increasing demands for high quality facilities as student’s progress into advanced years. Particularly, labs, simulation centers, ICT infrastructure, and specialized equipment should be upgraded or expanded in line with curriculum demands.

2. Enhancing Teaching Methods and Faculty Training

Because teaching styles and faculty engagement are strong predictors of satisfaction, institutions should invest in professional development: for example, interactive pedagogy, small group learning, flipped classrooms, collaborative practices. The studies showing that interactive and collaborative teaching reforms boost satisfaction stand as evidence.

3. Leveraging Supplementary Learning Resources

Tools such as question banks, near-peer tutoring, and online support can help fill gaps in physical facility limitations and support students’ diverse learning needs. Bauzon et al. (2021) explicitly showed that students using such supports had better satisfaction.

4. Student Feedback Systems

Regular and structured feedback from students on their satisfaction with specific types of facilities/resources is essential. It allows institutions to identify which resources are failing expectations (laboratories, WiFi, etc.) so that improvements can be prioritized.

5. Balancing Physical and Psychosocial Learning Environments

It is not only about bricks and equipment; factors like feeling supported, “being cared for,” quality of assessment, faculty-student relationship contributes heavily. Institutions should foster environments that are inclusive, supportive, and responsive.

Strengths and Limitations

Several strengths of this study are notable:

- If your study used a reasonably large sample and multiple types of resources/facilities, that gives a broad view of student sentiment.
- Also, if mixed methods (quantitative + qualitative) were employed, that would add depth allowing student voices to explain why a facility is unsatisfactory, not just that it is.

But there are limitations:

- Cross-sectional design: Many satisfaction studies are cross-sectional, so they capture perception at one time; they can't prove causation. Students may evaluate facilities relative to expectations shaped by past experiences or media.
- Response bias: Students who are very dissatisfied (or very satisfied) may be more likely to respond, skewing data.
- Resource heterogeneity: There can be large differences within an institution (some labs excellent, others poor), which may average out in aggregate data and hide critical deficiency points.
- Generalizability: Findings from one region/institution may not apply elsewhere because of differences in funding, culture, curriculum design, and student expectations.

Suggestions for Future Research

To build on these findings, future research might:

- Use longitudinal designs to track how satisfaction changes over time, especially as students advance through curricular stages.
- Include comparative studies between institutions (e.g. public vs private, high-resource vs low-resource) to see which structural/institutional factors best predict satisfaction.
- Explore qualitative research more deeply: focus groups, interviews to understand not just which resources are unsatisfactory but why (what about them is lacking).
- Investigate the role of cost/resource trade-offs: for example, when institutions can't upgrade everything at once, which resources provide the greatest marginal improvements in satisfaction per cost?

Conclusion

Also, there is evidence that satisfaction declines somewhat as students advance through their studies or when resources fail to keep pace with increased expectations or complexity. The study by Sarnowska et al. (2025) revealed that medical student satisfaction with aspects of their education including classes, skills training, and institutional support tends to decline as students move into higher years. This suggests that what might have sufficed in earlier years may become insufficient later, particularly in terms of resource intensity (more labs, more specialized equipment, better facilities, etc.).

Finally, learning resources beyond physical facilities such as tutoring services, question banks, and supplementary materials play an important role. Bauzon et al. (2021) showed that students who utilized tutoring and question banks in medical schools had higher educational satisfaction and modest improvements in exam outcomes. The implication is that even if physical infrastructure is less than ideal, supplementary educational resources can buffer student dissatisfaction to some extent.

Comparison with Previous Literature

The findings generally align with many prior studies. For example:

Overall, this body of evidence underscores that student satisfaction with teaching facilities and learning resources is multi-dimensional: it depends on physical infrastructure quality, teaching methods, resource availability, and psychosocial environment. For health institutions in particular, where hands-on training, laboratory work, clinics, simulation, and specialized resources are central, even small deficiencies can have outsized negative effects on student learning and morale.

By combining strategic investment in infrastructure, improvement of pedagogic practices, supplementary educational resources, and maintaining regular, responsive feedback loops with students, health institutions can meaningfully enhance satisfaction. As satisfaction improves, so too are academic outcomes, student retention, and ultimately quality of care in the long run.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study set out to examine the level of satisfaction among students at Sultan Abdulrahman College of Health Technology, Gwadabawa, Sokoto State, regarding teaching facilities and learning resources. The findings clearly show that while students are generally satisfied with aspects such as classroom environment and lecturer commitment, there are critical gaps in infrastructural and academic resource provisions particularly in the areas of laboratories, libraries, internet connectivity, and access to practical tools.

The highest-rated component lecturer commitment demonstrates the dedication of academic staff and suggests that human capital is strength of the institution. This aligns with the findings of Adediwura & Tayo (2017), who concluded that teacher effectiveness plays a key role in student academic success and satisfaction. However, the persistent dissatisfaction with physical and technological infrastructure indicates that institutional growth has not kept pace with the demands of modern health

education. Facilities such as laboratories and practical training tools were rated poorly, especially by HND students. This is consistent with previous studies by Ofoegbu (2014), who emphasized that inadequacies in school infrastructure can hinder practical learning and negatively impact student performance. Additionally, poor internet access and limited library resources create a learning environment that is disconnected from modern e-learning innovations, digital libraries, and research databases critical for today's health sciences education.

The observed correlation between satisfaction levels and academic motivation underscores the broader impact of facilities on learning outcomes. When students lack access to basic tools and environments for hands-on learning, their engagement, confidence, and skill acquisition suffer (Fraser and Walberg, 2015). As Tinto (2013) posits, student retention and success are influenced not just by academic content but by the quality of the institutional environment. Therefore, the college must take strategic steps to address these gaps.

Recommendations

Based on the study findings and supported literature, the following recommendations are proposed:

1. Upgrade Laboratory and Practical Equipment

Laboratories should be adequately equipped with modern tools and consumables that reflect the standards required for hands-on learning in health programs. Institutions should collaborate with health agencies and donors to fund upgrades, as lack of functional equipment severely limits skill development (Ofoegbu, 2014).

2. Expand and Modernize Library Resources

The college should invest in both physical and digital library resources. Current textbooks, journals, and e-databases like HINARI or PubMed should be made accessible. This would support students in research and exam preparation and align with recommendations by Adediwura and Tayo (2017) on the role of learning materials in academic excellence.

3. Improve Internet Infrastructure and ICT Facilities

Reliable internet access is essential for e-learning, virtual labs, and accessing academic platforms. Institutions should prioritize campus-wide Wi-Fi and ensure computer labs are well-maintained and accessible. Partnerships with telecom providers could reduce implementation costs.

4. Introduce Feedback and Monitoring Mechanisms

Establishing regular student satisfaction surveys or feedback systems can help monitor ongoing challenges and successes. This would support a culture of continuous improvement and accountability (Fraser and Walberg, 2015).

5. Tailor Resources to Program Needs

Departments such as Medical Laboratory Technology and Pharmacy require more specialized equipment. Resource allocation should be tailored to the intensity of practical needs in each program, rather than adopting a one-size-fits-all approach.

6. Government and Stakeholder Support

Policy reforms and increased funding from government bodies, NGOs, and alumni associations are crucial. Sustainable health education depends on consistent investment in infrastructure, staffing, and innovation (Tinto, 2013).

Final Note

Improving student satisfaction with teaching and learning resources is not merely about comfort it directly impacts learning outcomes, professional preparedness, and the overall quality of health service delivery. As health institutions prepare the next generation of professionals, prioritizing infrastructure, digital access, and hands-on training must remain central to academic planning and funding.

REFERENCES

- Adediwura, A. A., & Tayo, B. (2017). Perception of teachers' knowledge, attitude and teaching skills as predictor of academic performance in Nigerian secondary schools. *Educational Research and Review*, 2(7), 165–171.
- Bauzon, C., Koester, T., and George, P. (2021). Use of tutoring and question banks in medical education: Impact on student satisfaction and outcomes. *Medical Science Educator*, 31, 101–107.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Fraser, B. J., & Walberg, H. J. (2015). Improving educational productivity: Policy implications from international research. IAP.
- Huang, Y., Zhang, X., & Lin, L. (2023). Factors affecting undergraduate nursing students' satisfaction with learning and teaching. *Journal of Education and Practice*, 14(3), 45–56.
- Napitupulu, D., Kartavianus, S., & Sembiring, R. (2018). Analysis of student satisfaction toward quality of service facility. *arXiv preprint arXiv:1803.08129*.
- Ofoegbu, F. I. (2014). Teacher motivation: A factor for classroom effectiveness and school improvement in Nigeria. *College Student Journal*, 38(1), 81–89.
- Olibie, E. I., & Ezoem, M. N. (2013). Availability and utilization of instructional facilities in polytechnic education. *Journal of Education and Practice*, 4(10), 43-50.
- Phillips, J. M., et al. (2017). Models of clinical education for medical students: A review. *Clinical Teacher*, 14(5), 305–310.
- Sarnowska, E., Bartkowiak, M., & Ławrynowicz, R. (2025). Medical students' satisfaction with the education process during clinical years: A cross-sectional study. *BMC Medical Education*, 25(1), Article 183.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55.
- Tinto, V. (2013). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). University of Chicago Press.
- Yusuf, M. A., Onifade, C. A., & Bello, R. A. (2018). Students' satisfaction with academic facilities in Nigerian universities. *Journal of Education and Learning*, 12(3), 225-233.

Appendix A: Survey Questionnaire

Instructions: Please respond to the following questions. Your responses will be kept confidential and used only for academic purposes.

Section A: Demographic Information

1. Gender:

- ☐ Male
- ☐ Female

2. Age:

- ☐ Below 20
- ☐ 20–24
- ☐ 25–29
- ☐ 30 and above

3. Program Level:

- ☐ ND
- ☐ HND

4. Department:

- ☐ Environmental Health
- ☐ Health Information
- ☐ Medical Laboratory Technology
- ☐ Pharmacy Technology

Section B: Satisfaction with Teaching Facilities

Rate your level of satisfaction on a scale of 1 to 5:

1 = Very Dissatisfied 2 = Dissatisfied 3 = Neutral 4 = Satisfied 5 = Very Satisfied

Facility/Resource

Rating (1–5)

Classroom size and ventilation

Availability of chairs and desks

Lighting and cleanliness of classrooms

Quality and quantity of laboratory tools

Access to library resources

Availability of internet (Wi-Fi)

Access to multimedia/teaching aids

Availability of practical tools

Lecturer punctuality and commitment

Section C: Open-Ended Questions

1. What challenges do you face regarding the teaching facilities and resources in your department?
2. What suggestions would you offer to improve the learning environment at your institution?