PERCEPTIONS OF STUDENT ENGAGEMENT IN MEDICAL EDUCATION: A CROSS-SECTIONAL STUDY OF STUDENTS AND FACULTY IN NIGERIA

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ABSTRACT

Background: **Student engagement in medical education encompasses the various ways students participate in institutional management, educational processes, research activities, and community-oriented initiatives. Alignment between student and faculty perceptions is essential for the successful design and implementation of engagement strategies. This study uses the AMEE ASPIRE framework to measure the perceptions of students and faculty across key domains.**

Methods: **This cross-sectional study surveyed 555 medical students from the University of Ibadan and University of Ilorin and 65 faculty members from the University of Ibadan. Data analysis was done using IBM SPSS Statistics version 27. Frequencies and percentages were generated for all AMEE ASPIRE perception items. Chi-square tests were used to examine differences between perception levels and respondent category (students versus faculty), with statistical significance set at $p < 0.05$.**

Results: **While both students and faculty generally reported positive perceptions of student engagement, there were notable differences in perception about institutional governance. Students reported significantly stronger perception for involvement in vision and mission development (89.7% vs 66.2%; $p<0.001$), committee representation (95.7% vs 87.7%; $p=0.006$), policy development (92.1% vs 64.6%; $p<0.001$), and leadership roles in curriculum development (86.1% vs 56.9%; $p<0.001$). Conversely, both groups showed high support for student participation in the school's education programmes, academic environment and in service delivery.**

Conclusion: **Significant perception gaps were identified in institutional governance engagement. Addressing these disparities will require formalising faculty–student partnerships and enhancing existing platforms for meaningful collaboration.**

Keywords: Student perception, Faculty perception, Student engagement, Medical education, AMEE aspire

INTRODUCTION

Student engagement is an emerging concept in higher education and is evolving, which is evident from previous data, where the association between the time and quality of effort invested by students and the learning outcomes achieved has been examined.[1] The term was earlier defined as the degree of a student's active participation in their educational experience.[2] However, decades of research have delineated student engagement into cognitive, behavioural, and emotional dimensions and broadened the definition to encompass non-academic activities like research, governance, and community activities, where both the student and institution are named as principal actors in determining learning outcomes.[3] The cognitive dimension of student engagement is defined as the psychological drive of a student to persistently invest time in the learning experience for a significant length of time.[4] Behavioural engagement is defined by the learner's conduct, interest, and participation in direct learning and school-related activities.[5] The emotional dimension is a more subjective metric that is defined by how the student feels about their institution, teachers, and peers. Emotional engagement aims to create a sense of bonding, enjoyment, and pride in the learner's perception of their learning experience.[6]

A Schools Programme for International Recognition of Excellence in Education (ASPIRE), is an initiative introduced by the AMEE (The International Association for Health Professions Education) in 2012.[7] The programme aims to create a set of internationally peer-reviewed standards for measuring the quality of educational programs in medical schools through criteria that deviates from the metrics used in conventional ranking reports.[8] The annual rankings have been critiqued to focus heavily on institutions' success in research and grant applications while only measuring the quality of educational programmes through subjective opinions of faculty collected via surveys.[9] The AMEE ASPIRE criteria appraises medical, dental and veterinary schools in student engagement, assessment of students, curriculum development, faculty development, inspirational and innovative approaches to health professions education, international collaboration in health professions education, simulation, social accountability, and technology enhanced learning. These expert-developed recommendations provide an objective way for institutions to measure and review the quality of their medical educational programmes and with a view to implement best practices. Institutions who consider their programme to have achieved excellence in any of these content areas can apply to be judged by an expert panel and are awarded an AMEE ASPIRE prize if successful.

The ASPIRE criteria for student engagement recommends that students are actively engaged in the development of institutional policies, with their impact apparent in the decision-making related to their programme. It is also recommended that students are engaged in local community projects healthcare service delivery, and faculty research projects. Sixteen ASPIRE prizes for excellence in student engagement have been awarded to institutions in Europe, North America, Asia, and Oceania[10], with the strategies of successful schools extensively studied.[11] Notably, no institution in Africa has yet been a recipient of this prestigious award. Additionally, there is a dearth of literature assessing how faculty and students perceive the recommended practices in the ASPIRE criteria, particularly in low-resource settings where defining excellence has proven a challenge.[10] Student opinions have been collected in Saudi-Arabian institutions[13], but never in Africa. More importantly, these opinions have never been contrasted with that of faculty members, a comparison that is paramount because both groups are required to collaborate to achieve optimum student engagement. Therefore, this study was designed to assess and compare the perceptions of students and faculty regarding student engagement practices as outlined in the ASPIRE criteria, with the goal of identifying alignment, gaps, and opportunities for strengthening student engagement within medical schools in Nigeria.

MATERIALS AND METHODS

Study design

A cross-sectional observational study was conducted between June and August 2024 across two medical schools in Nigeria.

Study setting and sample

The study was conducted at the University of Ibadan and University Ilorin, two federal universities in southwestern Nigeria, which were purposefully selected based on their student population and long-standing establishment. The study population included medical students from second to sixth year while first-year students were excluded because they primarily take foundational science courses and are not yet fully integrated into medical school. Faculty participants were drawn from the Colleges of Medicine, University of Ibadan, which includes academic staff involved in teaching medical students.

Sample size determination

The sample size for each participating university was determined independently using Cochran's formula ($n_0 = Z^2p(1"p) / e^2$) for estimating proportions, with a subsequent finite population correction ($n = n_0 / 1 + (n_0-1)/N$) . The calculation assumed a 95% confidence level (Z = 1.96), a 5% margin of error (e = 0.05), and a proportion estimate of 0.5 to maximise sample size. With a total medical-student population of 750 in the University of Ibadan and 900 in the University of Ilorin, the sample size was 254 and 269 respectively.

Sampling and recruitment

Students were recruited by sharing the survey link to the class-specific and central students' WhatsApp groups in each institution. To support the recruitment process and ensure broad dissemination, student correspondents were identified from both universities to assist in posting the survey link across the relevant WhatsApp groups. Faculty members were contacted individually through their official institutional email addresses. Follow-up reminders were sent over a four-week period to maximise participation.

Study instrument

The study employed a questionnaire designed based on the AMEE ASPIRE criteria for excellence in student engagement. The instrument consisted of 21 Likert-scale items each ranked across strongly disagree, disagree, agree and strongly agree. There were 7 questions focused on engagement in policy and decision-making process; 8 questions focused on

evaluation of educational programme; 2 questions focused on academic community (school's research and participation in meetings); and 4 questions focused on the local community, service delivery and extracurriculars. Sociodemographic data collected included age, gender, university, and year of study for the students, while gender and years of experience were collected for faculty members. This study instrument was hosted on Google forms and distributed electronically to participants.

Data analysis

Data analysis was performed using IBM SPSS software version 27. Descriptive statistics, including frequencies, percentages, means and standard deviations, were computed for the age, sex, institution, student's level, and the AMEE ASPIRE criteria items. Perceptions were categorized as "good perception" for responses of "agree" and "strongly agree", and "poor perception" for responses of "disagree" and "strongly disagree". The association between students' and faculty members' perceptions and the AMEE ASPIRE criteria items was assessed using a Chi-square test. A statistical significance level of $p < 0.05$ was set for all analyses.

Ethical Approval

Ethical approval for the study was granted by the Joint University of Ibadan/University College Hospital Ethics Committee with ethical approval number 24/0213. The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki,

RESULTS

As presented in Table 1, a total of 555 students participated, with 48.3% (n = 268) from University of Ibadan and 51.7% from University of Ilorin (n = 287). The gender distribution comprises 64% males and 36% females. Across academic levels, 20.5% from 200 level, 24% from 300 level, 24.1% from 400 level, 20.9% from 500 level and 10.5% from 600 level. The mean age was 22.6 ± 2.4 years, with 62.2% within 22–26 years and 32.8% within 17-21 years. A total of 65 faculty members participated. Among them, 70.8% were male and 29.2% were female. 55.4% had less than 18 years of teaching experience, while 44.6% had at least 18 years of experience.

Table 2 presents the comparison of perceptions between students and faculty members on engagement in policy, mission, and vision of the school. A significantly higher proportion of students than faculty believed that students should be involved in the development of the school's mission and vision (89.7% vs 66.2%, $\chi^2 = 29.08$, $p < 0.001$); establishment of policy statements or guidelines (92.1% vs 64.6%, $\chi^2 = 45.50$, $p < 0.001$); student representation on school committees (95.7% vs 87.7%, $\chi^2 = 7.57$, $p = 0.006$) and student leadership roles in the curriculum, including decision-making related to content and delivery (86.1% vs 56.9%, $\chi^2 = 35.27$, $p < 0.001$) and students active

Table 1: Sociodemographic characteristics of students and faculty

STUDENTS **Variable**		**Frequency**	**Percentage (%)**
Institution	University of Ibadan	268	48.3
	University of Ilorin	287	51.7
Sex	Male	355	64
	Female	200	36
Students' level in University	200	114	20.5
	300	133	24
	400	134	24.1
	500	116	20.9
	600	58	10.5
Age	17-21	182	32.8
Mean±SD (22.60±2.405)	22-26	345	62.2
	27-31	26	4.7
	≥32	2	0.4
FACULTY			
Sex	Male	46	70.8
	Female	19	29.2
Experience	< 18 years	36	55.4
	≥ 18 years	29	44.6

Table 2: Perception of student and faculty on engagement in policy, mission and vision

ASPIRE Criteria / Perception		FACULTY f(%)	STUDENT f(%)	χ^2	p-value
[1.1 I believe that students should be involved in the development of the school's vision and mission]	Good	43 (66.2)	498 (89.7)	29.08	<0.001
	Poor	22 (33.8)	57 (10.3)		
[1.2 I believe that students should be represented on school committees]	Good	57 (87.7)	531 (95.7)	7.57	0.006
	Poor	8 (12.3)	24 (4.3)		
[1.3 I believe that students should be involved in the establishment of policy statements or guidelines.]	Good	42 (64.6)	511 (92.1)	45.50	<0.001
	Poor	23 (35.4)	44 (7.9)		
[1.4 I believe that students should be involved in the accreditation process for the school]	Good	44 (67.7)	432 (77.8)	3.35	0.067
	Poor	21 (32.3)	123 (22.2)		
[1.5 I believe that students should have a management/leadership role in relation to elements of the curriculum. This may relate to their involvement in decisions regarding the content or delivery of the curriculum]	Good	37 (56.9)	478 (86.1)	35.27	<0.001
	Poor	28 (43.1)	77 (13.9)		
[1.6 I believe that students' views should be taken into account in decisions about faculty (teaching staff) promotion]	Good	45 (69.2)	394 (71.0)	0.08	0.768
	Poor	20 (30.8)	161 (29.0)		
[1.7 I believe that students should play an active part in faculty (staff) development activities]	Good	35 (53.8)	395 (71.2)	8.21	0.004
	Poor	30 (46.2)	160 (28.8)		

roles in staff development activities (71.2% vs 53.8%, $\chi^2 = 8.21$, $p = 0.004$).

Table 3 presents perceptions about the school's education programme. Faculty had relatively higher good perception about students' evaluation of the curriculum and teaching processes (81.5% vs 77.3%, $p = 0.437$), feedback informing curriculum development (93.8% vs 93.5%, $p = 0.918$), students being active learners responsible for their own learning (96.9% vs 93.3%, $p = 0.259$), involvement in peer assessment (89.2% vs 88.8%, $p = 0.922$), developing

Table 3: Perception of student and faculty on engagement in school's education programme

ASPIRE Criteria / Perception		FACULTY f(%)	STUDENT f(%)	χ^2	p-value
[2.1 I believe that students should evaluate the curriculum and teaching and learning processes.]	Good	53 (81.5)	429 (77.3)	0.60	0.437
	Poor	12 (18.5)	126 (22.7)		
[2.2 I believe that the feedback from the student body should be taken into account in curriculum development.]	Good	61 (93.8)	519 (93.5)	0.11	0.918
	Poor	4 (6.2)	36 (6.5)		
[2.3 I believe that students should participate as active learners with responsibility for their own learning.]	Good	63 (96.9)	518 (93.3)	1.27	0.259
	Poor	2 (3.1)	37 (6.7)		
[2.4 I believe that students should be involved formally and/or informally in peer teaching.]	Good	61 (93.8)	522 (94.1)	0.004	0.947
	Poor	4 (6.2)	33 (5.9)		
[2.5 I believe that students should be engaged in the development of learning resources for use by other students.]	Good	57 (87.7)	504 (90.8)	0.65	0.418
	Poor	8 (12.3)	51 (9.2)		
[2.6 I believe that students should provide a supportive or mentor role for other students]	Good	59 (90.8)	526 (94.8)	1.75	0.186
	Poor	6 (9.2)	29 (5.2)		
[2.7 I believe that students should be encouraged to assess their own competence]	Good	56 (86.2)	515 (92.8)	3.52	0.061
	Poor	9 (13.8)	40 (7.2)		
[2.8 I believe that students should engage in peer assessment]	Good	58 (89.2)	493 (88.8)	0.01	0.922
	Poor	7 (10.8)	62 (11.2)		

Table 4: Perception of student and faculty on engagement within academic and local community

ASPIRE Criteria / Perception		FACULTY f(%)	STUDENT f(%)	χ^2	p-value
[3.1 I believe that students should be engaged in school research projects carried out by faculty members.]	Good	61 (93.8)	528 (95.1)	0.20	0.652
	Poor	4 (6.2)	27 (4.9)		
[3.2 I believe that students should be supported in their participation at local, regional or international medical and health professions education meetings.]	Good	63 (96.9)	540 (97.3)	0.03	0.861
	Poor	2 (3.1)	15 (2.7)		
[4.1 I believe that students should be involved in local community projects]	Good	62 (95.4)	521 (93.9)	0.23	0.627
	Poor	3 (4.6)	34 (6.1)		
[4.2 I believe that students should participate in the delivery of local healthcare services]	Good	57 (87.7)	501 (90.3)	0.43	0.512
	Poor	8 (12.3)	54 (9.7)		
[4.3 I believe that students should participate in healthcare delivery during electives/attachments oversea]	Good	56 (86.2)	509 (91.7)	2.22	0.136
	Poor	9 (13.8)	46 (8.3)		
[4.4 I believe that students should be engaged with arranged extracurricular activities]	Good	62 (95.4)	518 (93.3)	0.40	0.524
	Poor	3 (4.6)	37 (6.7)		

learning resources (90.8% vs 87.7%, p = 0.418), mentorship other students (94.8% vs 90.8%, p = 0.186) and self-assessment of competence (92.8% vs 86.2%, p = 0.061).Students had slightly higher perception of students' involvement in peer teaching (93.8% vs 94.1%, p = 0.947).

Table 4 presents the student and faculty perceptions of engagement within the academic community and local community. Students had relatively higher good perception of students engagement in terms of involvement in school research projects (93.8% vs 95.1%, p = 0.652), support for students in attending local and international meetings (96.9% vs 97.3%, p = 0.861) while faculty members were slightly more likely to support student participation in extracurricular activities (95.4% vs 93.3%, p = 0.524) and participation in local healthcare services (96.4% vs 93.9%, p = 0.627).

Discussion

Our study's most notable finding was the disparity between student and faculty perspectives regarding involvement in institutional governance and curriculum development. The disparity between faculty and students' perception about involvement in school's vision and mission aligns with Healey and colleagues' work highlighting persistent gaps between student and staff perspectives on engagement in higher education governance.[14] The difference may reflect what Bovill and Bulley described as tension between traditional hierarchical structures in medical education and contemporary pushes for student partnership.[15] This disconnect is further highlighted by observations made by Bovill *et al.* about the challenges of implementing student-faculty partnerships in higher education.[16]

The high support among students for representation on committees and involvement in policy development indicates strong student appetite for institutional engagement. However, the lower faculty support highlights what Trowler and Trowler identified as common institutional resistance to deep student partnership.[17] This resistance appears particularly pronounced in areas traditionally seen as faculty domains, such as curriculum development.

The higher support from students about involvement in the accreditation process raises important questions about quality assurance in medical education in Nigeria. This aligns with growing international emphasis on student involvement in quality processes[18], though the lower faculty support suggests potential concerns about student capacity to contribute meaningfully to these technical processes.

The strong student support for involvement in curriculum evaluation alongside high faculty endorsement suggests common ground exists in teaching and learning partnerships. This area of consensus corroborates with what Cook-Sather *et al.* identified as often being an effective starting point for developing broader student-staff partnerships.[19] Despite the overall comparability of perceptions, faculty expressed a slightly higher appraisal of students' involvement in curriculum evaluation and active learning than students' own self-ratings. Our results show that faculty members This reversed pattern from the general trend merits further investigation and may reflect what Bovill *et al.* described as the complex dynamics of teaching and learning partnerships.[16]

The notably high agreement between students and faculty regarding student involvement in research projects and participation in medical and health professions meetings represents a potential area for developing deeper engagement. This consensus supports Fielding's theoretical framework of student voice, particularly the 'students as co-researchers' dimension.[20] This is also in agreement with Boyer's scholarship of teaching and learning framework, suggesting research collaboration may provide structured opportunities for meaningful student-faculty partnership.[21] These we believe have relevance for medical education in Nigeria and similar contexts. The strong support for student involvement in community projects and healthcare delivery reflects the growing emphasis on social accountability in medical education.[22]

While not explicitly measured, the findings hint at resource constraints affecting engagement implementation - particularly in areas requiring significant time investment from faculty. This reflects common challenges identified in student engagement literature and may be particularly pertinent in resource-limited settings.[23]

This study makes a valuable contribution to understanding student engagement in medical education within a Nigerian context. The findings suggest both opportunities and challenges in developing meaningful student partnership, while highlighting the need for carefully managed change processes that account for both student and faculty perspectives. Further research examining the implementation of specific engagement initiatives, particularly in resource-limited settings, would be valuable.

Strengths and limitations

To the best of our knowledge, this is the first African study to compare student and faculty perception of student engagement using the AMEE ASPIRE framework. However, it assessed perceptions among students and faculty from only two federal universities, which may limit the generalisability of the findings, particularly to state and private universities that may have different contexts. Our study relied mainly on quantitative data, hence, may have unintentionally omitted certain nuances that may have been obtained by a qualitative approach.

Recommendations

Our findings suggest that fostering meaningful partnerships between students and faculty requires not only recognising existing engagement gaps but also addressing them through deliberate structural and cultural changes. This involves implementing inclusive policy reforms that clearly define the roles of students in decision-making, investing in capacity-building initiatives that equip both staff and students with the skills needed for effective collaboration, and ensuring adequate resource allocation that reflects local institutional contexts.

Future research should build on these insights by examining how engagement strategies can be adapted and sustained in resource-constrained settings, where limitations in funding, infrastructure and training often hinder meaningful participation. This line of inquiry would benefit from qualitative research designs, including interviews, focus groups and observational studies, which can provide deeper insight into lived experiences, perceptions and the contextual nuances that quantitative approaches may overlook.

CONCLUSION

This study underscores the multifaceted nature of student engagement in medical education, highlighting both the strengths and gaps in collaboration between students and faculty within the Nigerian medical schools. While significant progress is evident in areas such as research collaboration and community involvement, disparities in perceptions regarding governance and curriculum development reveal persistent structural and cultural barriers.

Consent For Publication

Not Applicable

Availability of Data and Materials

This will be shared on request from the corresponding author.

Conflict of Interest

The authors declare no conflict of interest with respect to publication of this article.

Authors' Contribution

AAA and DMA conceptualised the study. AAA, DMA, MIA, SWJ, LAL, BAY and OMF-A collected the data. AAA analysed the data. AAA, DMA, MIA and OMF-A wrote the manuscript. All authors read and approved the manuscript.

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