



Original Article

Student Involvement In Health-Related Conferences In Nigeria: A Scoping Review

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Abstract

Participation in scientific conferences supports the career trajectories of healthcare students. Although these benefits are well established, student involvement in conferences in low- and middle-income countries has not been systematically examined. This scoping review mapped the extent to which health-related conferences held in Nigeria intentionally incorporated student-focused provisions. This was conducted in accordance with the Joanna Briggs Institute methodology and reported using the PRISMA ScR framework. Fully in-person and hybrid national and international health-related conferences held in Nigeria between October 2023 and September 2025 were eligible. Searches were conducted across professional association websites, conference webpages, and social media, with supplementary enquiries to organisers where required. Records were independently screened and data extracted on student invitations, registration support and other student-focused measures. Data were analysed descriptively and synthesised narratively. 80 conferences met the inclusion criteria. 54, 67.5% were national events and conducted fully in-person (58, 72.5%), mostly in Abuja, the Federal Capital Territory (26, 32.5%), Lagos (16, 20%), and Rivers (6, 7.5%) states. Invitations directed specifically to students were identified in 13.8% of conferences, while 7.5% included student-specific abstract presentation categories. Subsidised student registration fee was offered by 19 (23.8%) of conferences. No conferences provided bursaries, travel or accommodation support; student-led sessions. Student involvement in health-related conferences held in Nigeria during the review period was limited. The absence of student representation, combined with geographic clustering of events, constrains equitable access for students. Deliberate strategies to embed student-focused provisions within conference planning are needed to engender early career development.

Keywords: Student engagement, Scientific conferences, Health professions education, Research capacity building, Nigeria

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Introduction

Scientific conferences and professional meetings are widely recognised as critical platforms for the advancement of healthcare practice, research dissemination, and professional socialisation [1-3]. They facilitate the exchange of emerging evidence, foster interdisciplinary collaboration, and provide opportunities for mentorship and career development across health professions [1-3]. For students in the healthcare fields, early exposure to conferences plays a particularly formative role, supporting the development of research literacy, scientific communication skills, professional identity formation, and long-term academic engagement [4,5].

Despite these recognised benefits, healthcare students in low- and middle-income countries continue to face substantial barriers to conference participation [6,7]. In Nigeria, interest in research and professional development among healthcare students is well documented. National surveys have shown that medical and allied health students express strong motivation to engage in research and academic activities but encounter structural and financial obstacles that limit participation in conferences and scientific meetings [6,8].

Conference organisers and professional associations play a central role in shaping inclusivity and access. Evidence from international settings suggests that deliberate student-focused measures such as discounted registration fees, student bursaries, travel grants, dedicated student abstract categories, mentorship sessions, and student representation on organising committees can substantially improve student participation and engagement [9,10]. When such measures are embedded into conference planning, they contribute to more equitable access, stronger professional pipelines, and sustained research capacity development.

However, in the Nigerian context, there has been no systematic mapping of the extent to which national and international health-related conferences intentionally incorporate student-focused provisions. While individual conferences may offer ad hoc support, the overall landscape of student inclusion, support mechanisms, and geographical accessibility remains poorly documented. Without this evidence, it is difficult for organisers, policymakers, academic institutions, and funders to identify gaps or implement targeted strategies to strengthen student participation.

This scoping review, therefore, aimed to systematically identify national and international health-related conferences held in Nigeria between October 2023 and September 2025 and to examine the extent to which student involvement was explicitly planned and supported. Specifically, the review mapped the presence of student invitations, student abstract opportunities, registration support, bursaries, mentorship activities, and other student-focused measures. By describing current practices and identifying gaps, this study seeks to inform future conference planning and policy efforts aimed at promoting equitable student access, strengthening early career development, and enhancing national health research capacity.

Methods

Study design

This study was conducted as a scoping review in accordance with the Joanna Briggs Institute methodology for scoping reviews and reported in line with the PRISMA ScR checklist [11]. A scoping review approach was selected because evidence on student involvement in conferences is heterogeneous, dispersed across formal and informal sources, and not amenable to traditional effectiveness synthesis. The review aimed to map the extent, nature, and characteristics of planned student involvement rather than to assess conference quality or outcomes. This scoping review protocol was not prospectively registered in a public registry. However, an

Review question

The review addressed the following question:

To what extent were healthcare students explicitly included in the planning of national and international health-related conferences held in Nigeria between October 2023 and September 2025?

Eligibility criteria

The review included national or international conferences and scientific meetings related to health, healthcare professions, public health, or health systems that were held physically in Nigeria during the study period. Eligible events could be organised by professional associations, academic institutions, government agencies, non-governmental organisations, or international bodies operating in Nigeria.

The review focused on evidence of *planned student involvement*. This included any explicit provision or measure intended to support or encourage student participation, such as public invitations to students, student-specific categories in abstract calls, discounted or waived registration fees for students, bursaries or scholarships, travel or accommodation support, dedicated student sessions or tracks, student awards, mentorship activities, or student representation on organising committees.

Only conferences with an in-person component held in Nigeria were eligible. Hybrid conferences were included if the primary physical meeting occurred in Nigeria. Fully virtual events without a physical Nigerian venue were excluded.

Types of evidence sources

Given the absence of a single central registry of conferences, a broad range of evidence sources was considered eligible. These included conference websites and programme booklets, registration and abstract submission pages, event flyers and posters, archived web pages, social media announcements, newsletters, media coverage, and event reports.

Exclusion criteria

The review excluded meetings that were local, departmental, or institution-specific without national or international reach, student-only events without broader professional participation, workshops or trainings limited to a single institution, fully virtual events, and conferences held outside Nigeria. Student involvement was defined a priori as explicit, planned inclusion documented in publicly available materials or confirmed by organisers, and conferences with implied but non-explicit student eligibility were conservatively coded as not reporting student involvement.

Information sources

Searches were conducted across multiple platforms. These included websites of national and international professional associations, conference and organisational websites, an event listing platform (Eventbrite), universities and teaching hospital event calendars, and social media platforms including LinkedIn, X, Facebook, and Instagram. The Internet Archive was searched for removed or outdated webpages. Google Scholar and PubMed were searched for published conference reports, and direct enquiries to conference secretariats and student associations were made where necessary.

Search strategy

A comprehensive search strategy was developed and piloted by the review team, with iterative refinement informed by consultation with professional association leaders and student representatives. Searches combined terms related to conference type, location, health discipline, year, and student involvement. Core search terms included combinations of: conference OR meeting OR symposium OR workshop OR summit, AND Nigeria OR Nigerian, AND Health OR medical OR medicine, AND 2023 OR 2024 OR 2025.

Speciality or profession-specific keywords were added for fields such as surgery, nursing, pharmacy, physiotherapy, dentistry, pathology, public health, internal medicine, cardiology, oncology, and radiology (Table 1). Searches were conducted between October and November 2025.

Table 1: Combined Keywords for the Search

Category 1	Category 2	Category 3	Category 4	Category 5
Nigeria	Health	Conference	2023	Abuja/Each of the Nigerian 36 States, e.g. Abia, Adamawa, etc
Nigerian	Medical	Meeting	2024	
Nigerians	Medicine	Forum	2025	
	Epidemiology	Symposium		
	Nursing/Nurse	Seminar		
	Radiology/Radiologist	Summit		
	Physiotherapy/Physiotherapist	Assembly		
	Physician	Convention		
	Trauma	Workshop		
	Gynaecology/Gynaecologist/Obstetrics	Panel		
	Dental/Dentist	Colloquium		
	Oncology/Cancer	Presentation		
	Pharmacy/Pharmacist	Plenary		
	Cardiology	Council		
	Midwife			
	Haematology/Haematologist			
	Microbiology/Microbiologist			
	Pathology/Pathologist			
	Psychology/Psychologist/Therapy			
	Laboratory			
	Virology/Virologist			
	Psychiatry/Psychiatrist/Mental			
	Dietetics/Nutrition			

PubMed Search String

(Health OR Medical OR Medicine OR Nursing OR Nurse OR Physiotherapy OR Physiotherapist OR Trauma OR Radiology OR Dentist OR Dental OR Pharmacy OR Pharmacist OR Midwife OR Haematology OR Haematologist OR Pathology OR Pathologist OR Laboratory OR Psychology OR Psychiatry OR Dietetics OR Nutrition OR Microbiology OR Virology OR Oncology OR Cardiology OR Cancer OR Obstetric OR Physician OR Gynaecology OR Gynaecologist) AND (Conference OR Meeting OR Forum OR Symposium OR Seminar OR Summit OR Assembly OR Convention OR Workshop OR Panel OR Colloquium OR Presentation OR Plenary OR Council) AND (Nigeria OR Nigerian OR Nigerians) AND (2023 OR 2024 OR 2025)

Screening and selection

All retrieved records were collated into a central database, and duplicates were removed. Two reviewers independently screened titles and available source information for eligibility, followed by full source screening of potentially relevant records. Discrepancies were resolved through discussion, with arbitration by a third reviewer where required. Reasons for exclusion at the full screening stage were documented. The study selection process was summarised using an adapted PRISMA ScR flow diagram.

Data extraction

A standardised data extraction form was developed, piloted on ten conferences, and refined prior to full extraction. One reviewer extracted data, and a second reviewer independently checked all entries for accuracy and completeness. Extracted variables included: conference name, dates, location, host organisation, and professional speciality organising the event. Data were also extracted on the scope, whether national or international, and format, whether in-person or hybrid. Data relating to student invitations, abstract categories, and registration, bursaries, travel or accommodation support were also collected. The full details of the extracted information are available in Appendix 1.

Data analysis

Quantitative data were summarised using descriptive statistics, including frequencies and proportions. Patterns of students' involvement were explored. The geographic distribution of conferences was mapped by state to assess regional concentration.

Qualitative data from free text descriptions, programme documents, and organiser communications were analysed using descriptive content analysis to identify recurring themes related to student inclusion and exclusion. Findings were synthesised narratively and presented using tables, figures, and summary matrices.

Results

Identification of conferences and data sources

The search process identified 115 health-related conferences and scientific meetings held within the review period. After removal of duplicates and exclusion of events that did not meet eligibility criteria, 80 conferences were included in the final analysis. Reasons for exclusion included duplication (17), insufficient publicly available information (6), or events occurring outside the defined timeframe (7) (Figure 1).

Conference information was retrieved primarily from professional association websites or other webpages announcing the event (99/115) and social media platforms (16/115).

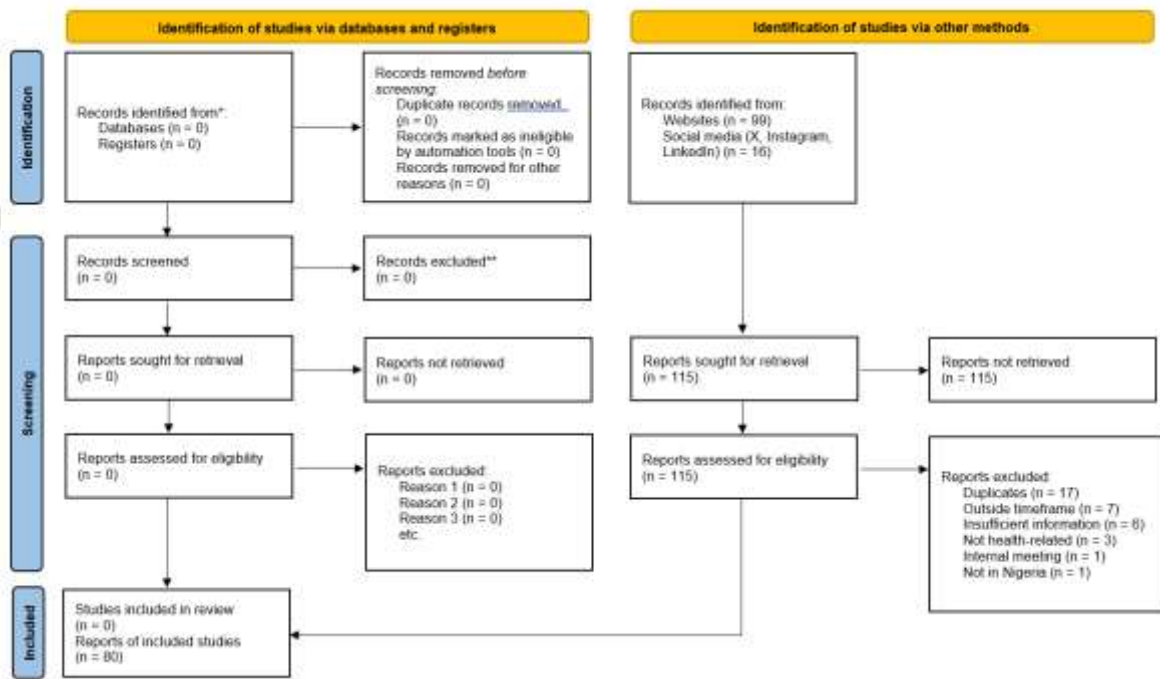


Figure 1. PRISMA Flow Diagram Showing the Data Sources

Characteristics of included conferences

The 80 included conferences represented a wide range of health-related disciplines. Pathology accounted for the largest proportion with 16 conferences (20%), followed by surgery with 14 conferences (17.5%). Pharmacy and internal medicine each contributed 11 conferences (13.8%). Multispecialty or general health meetings accounted for 15 conferences (18.7%). Smaller numbers were observed for nursing, dietetics, dentistry, and physiotherapy.

Most conferences were national in scope. Fifty-four conferences (67.5%) were classified as national meetings, while 25 conferences (31.2%) were international conferences hosted in Nigeria. One of the recorded events (1.2%) occurred at the state level.

Regarding delivery format, 58 conferences (72.5%) were conducted fully in-person, while 22 conferences (27.5%) adopted a hybrid format combining in-person and virtual participation.

Across the study period, 15 conferences (75%) were held in 2023, 20 conferences (25%) in 2024, and 45 conferences (56.3%) in 2025 (Table 2).

Table 2: Characteristics of included conferences

Characteristics N=80		Frequency	Percentage (%)
Specialty/Profession	Pharmacy	11	13.8
	Pathology	16	20.0
	Physiotherapy	1	1.2
	Dentistry	2	2.5
	Surgery	14	17.5
	Internal Medicine	11	13.8
	Dietetics	4	5.0
	Nursing	6	7.5
	General	15	18.7
Type of meeting	National	54	67.5
	International	25	31.2
	State	1	1.3
Format	In-Person	58	72.5
	Hybrid	22	27.5

Year or event	2023	15	18.7
	2024	20	25.0
	2025	45	56.3

Geographical distribution of meetings

Conferences were unevenly distributed across Nigeria (Figure 2), with clear geographic clustering in the Federal Capital Territory, Abuja, with 26 conferences (32.5%), Lagos State with 16 conferences (20%), and Rivers State with 6 conferences (7.5%).

Kano, Oyo, and Akwa Ibom States hosted 4 conferences each (5%). Several states hosted only a single conference (1.2%) during the review period.

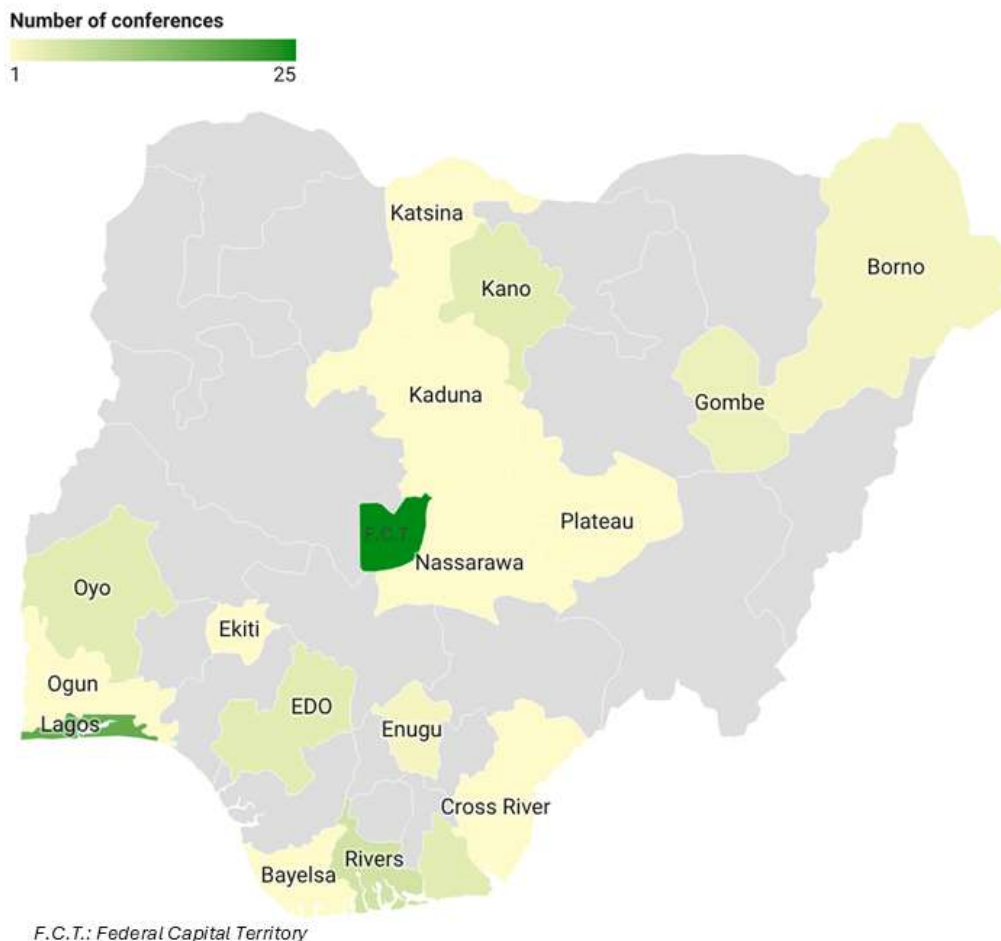


Figure 2. Geographical Distribution of Health Conferences in Nigeria.

Student invitations and abstract opportunities

Explicit provision for student participation was limited across the included conferences (Table 3). Only 11 conferences (13.8%) issued a clear public invitation directed at students. The remaining 69 conferences (86.2%) did not reference students as a target audience in publicly available materials.

Student-specific abstract categories were even less common. Only 6 conferences (7.5%) included a student category within their abstract submission process, while 74 conferences (92.5%) did not provide any explicit opportunity for student-led abstract submission.

Student registration support and financial provisions

Nineteen conferences (23.8%) offered some form of student registration support, most commonly through reduced registration fees or student-specific pricing tiers (Table 3). No conference explicitly offered bursaries, scholarships, travel grants, or accommodation support for students. There was also no evidence of student awards, presentation prizes, or financial incentives aimed at encouraging student participation.

Table 3: Student invitations and opportunities in conferences

Characteristics	Frequency	Percentage (%)
Student invitation		
Yes	11	13.8
No	69	86.2
Student abstract		
Yes	6	7.5
No	74	92.5
Support for student registration		
Yes	19	23.8
No	61	76.2

Student-focused activities and leadership opportunities

None of the included conferences reported dedicated student-focused sessions, student-led tracks, mentorship programmes, or structured networking activities specifically designed for students. There was no documented student representation on organising committees, nor evidence of formal partnerships with student associations in conference planning or delivery.

Overall, structured opportunities for student leadership, mentorship, presentation, and professional networking were largely absent across the conferences reviewed.

Discussion

This scoping review, to the best of our knowledge, provides the first systematic examination of student involvement in national and international health-related conferences held in Nigeria. The findings demonstrate that student participation was limited, inconsistently supported, and rarely embedded within conference planning frameworks in Nigeria. Most conferences did not explicitly invite students, offered no student abstract categories, and provided minimal or no financial or structural support for student attendance. These findings highlight a substantial missed opportunity to leverage conferences as platforms for early professional development and research capacity building.

The low proportion of conferences offering student invitations or abstract opportunities is particularly concerning. Active participation through abstract submission and presentation is a key mechanism through which students develop research confidence, scientific communication skills, and professional identity [5,12]. The absence of student abstract categories across the majority of conferences suggests that students were positioned primarily as passive observers rather than emerging contributors to scientific discourse. This contrasts with practices in many high-income settings, where student poster sessions, early career tracks, and trainee presentation awards are increasingly standard components of professional meetings [3,13].

Financial barriers emerged as a dominant structural limitation. Although a minority of conferences offered reduced registration fees for students, none provided bursaries, travel grants, or accommodation support. Financial constraints have consistently been identified as one of the strongest predictors of limited conference participation among healthcare students in low- and middle-income countries [14]. In Nigeria, where many students rely on personal or family funding, the absence of financial support mechanisms excludes capable and motivated students, particularly those from less-resourced institutions [6]. Evidence from international contexts indicates that targeted financial support substantially increases student attendance, diversity, and engagement at conferences [14].

The complete absence of structured student-focused activities such as mentorship sessions, career workshops, or networking events further limits the developmental value of conferences for students. Mentorship has been shown to play a critical role in shaping research engagement, academic persistence, and career progression among health professions students [15]. Conferences provide a unique environment for informal mentorship and professional socialisation, yet this potential appears largely underutilised in the Nigerian context. The lack of student representation on organising committees also suggests limited student voice in conference design and priority setting.

Geographical concentration of conferences in the Federal Capital Territory, Abuja, Lagos, and Rivers State represents an additional barrier to equitable access. While these cities offer logistical advantages due to centrality and easy connectivity as industrial hubs, the clustering of events reinforces regional inequities and disproportionately disadvantages students from many northern, south-eastern, and north-central states. Travel costs, security concerns, and time away from training are likely amplified for students outside these hubs. Similar geographic inequities in access to academic opportunities have been documented in other low- and middle-income settings and are associated with long-term disparities in academic exposure and professional advancement [6]. More geographically inclusive conference planning could help mitigate these disparities.

Taken together, these findings suggest that student inclusion has not been systematically prioritised in conference planning during the review period. This may reflect broader structural challenges, including

limited funding, competing organisational priorities, and the absence of national guidance on student engagement within professional meetings. However, the consistent lack of student-focused provisions across disciplines and organiser types indicates a need for deliberate cultural and structural change rather than isolated improvements.

Professional associations, academic institutions, and policymakers have an important role to play in addressing these gaps. Introducing student abstract categories, subsidised registration, bursaries, and mentorship programmes are relatively low-cost interventions with high potential impact. Formal engagement with student associations during conference planning could further enhance outreach and relevance. Evidence suggests that early investment in student professional development yields long-term benefits for workforce capacity, leadership development, and national research output [16,17].

From a policy perspective, strengthening student access to conferences aligns with national goals related to health workforce development and research capacity building. Conferences can serve as critical entry points into academic careers, particularly in contexts where formal research training opportunities are limited. Ensuring that students are meaningfully included is therefore not only an educational issue but also a strategic investment in the future of the Nigerian health system.

Recommendations

Improving student participation in health-related conferences in Nigeria requires coordinated action. At a national level, the Federal Ministry of Education and the National Universities Commission should promote the integration of conference participation into health professional training, recognise it as part of student professional development, and encourage universities to establish travel and participation grants. The Federal Ministry of Health should work with professional associations to embed student participation within health workforce development strategies, support national bursary schemes, and ensure student representation at government-convened health events.

Professional associations and conference organisers should take the lead in embedding student inclusion within conference design. Key measures include introducing student abstract categories, offering discounted registration and targeted financial support, and incorporating mentorship, leadership development, and networking activities into conference programmes. Inclusion of student representatives on planning committees, structured outreach to universities and student associations, and rotation of conference venues across regions would further promote equitable access.

Universities and training institutions should complement these efforts by supporting abstract preparation, recognising conference participation academically, and facilitating student mobilisation. Institutions should structure and permit student participation in such events without negative consequences. Student associations should advocate for inclusion in conference planning and champion students' mobilisations for conferences. In addition, these associations can prepare students through training activities and document participation barriers to inform advocacy.

Limitations

This review has certain limitations. It drew primarily on publicly available information, so informal or internally communicated initiatives aimed at students may not have been fully captured. This could result in some under-reporting of relevant activities. To mitigate this, we consulted representatives from professional organisations. Additionally, the review focused on mapping the presence of planned student involvement in conferences, rather than evaluating its quality, reach, or effectiveness from student attendees.

In addition, the exclusion of conferences with insufficient publicly available information may have introduced selection bias and led to underestimation of student inclusion, particularly where student-focused provisions were implemented informally or not publicly documented.

These limitations highlight valuable opportunities for future research. Subsequent studies could usefully employ surveys and qualitative methods involving students and conference organisers to better understand barriers, facilitators, and lived experiences of participation. Comparative and longitudinal research would also be beneficial in assessing the longer-term impact of conference engagement on students' career development and research capacity. Such work would complement and build upon the foundational overview provided here.

Conclusion

This scoping review demonstrates that student involvement in national and international health-related conferences held in Nigeria between October 2023 and September 2025 was limited and unevenly supported. Most conferences did not explicitly invite students, offered no student-specific abstract opportunities, and provided minimal financial or structural support for student participation. Conferences were heavily concentrated in a small number of major industrial hubs, creating additional geographic barriers for students in other regions.

These findings highlight a significant gap between the recognised value of early professional engagement and current conference planning practices. Deliberate strategies are needed to strengthen student inclusion, including subsidised registration, bursaries, student abstract categories, mentorship activities, and geographically inclusive conference planning. Embedding student-focused measures within professional meetings represents a practical and scalable approach to strengthening research capacity, supporting early career development, and promoting equity within the Nigerian health workforce.

Addressing these gaps will require coordinated action from professional associations, academic institutions, funders, and policymakers. Ensuring meaningful student participation in conferences is an investment in the future of healthcare leadership, research, and professional excellence in Nigeria.

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