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Review Article

National assessment and accreditation council (NAAC) for physiotherapy institutes: a review of processes and unique challenges

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Abstract

Background & Objective: The growing demand for qualified physiotherapists has led to the rapid creation of physiotherapy colleges across India. This highlights the need for better educational standards through accreditation. The National Assessment and Accreditation Council (NAAC), under the University Grants Commission, plays a key role in checking educational institutions. It looks at teaching methods, governance, research output, facilities, and student engagement. This systematic review aims to address the role of the NAAC accreditation process made for physiotherapy colleges, find existing barriers, and outline NAAC's vision and checking criteria.

Materials & Methods: This systematic review was done by following a structured search strategy across PubMed, Google Scholar, and ResearchGate up to 2024. From an initial pool of 106 records, 11 studies met the inclusion criteria and were combined. The search was done using keywords such as NAAC, Physiotherapy, Medical Institutes, Accreditation, Education, Quality Assurance, enhanced by Boolean operators. Articles and reports addressing NAAC accreditation and its relevance to physiotherapy and allied health education were screened and combined to capture recurring themes, challenges, and opportunities. The most common challenges found were infrastructure, funding, and resources for faculty development.

Results: The review highlights accreditation as a critical factor of institutional credibility and graduate competency. Around the world, accreditation is seen as a benchmark for educational quality. In India, physiotherapy colleges often face barriers including shortages of qualified faculty, infrastructure limits, restricted funding, and not enough international work together. Also, gaps in research culture and limited awareness of NAAC's key indicators add to uneven preparedness among institutions.

Conclusion: This narrative review is among the first to focus specifically on NAAC accreditation in Indian physiotherapy education. Accreditation is positioned as a driver for enhancing institutional quality, aligning curricula with workforce demands, and improving graduate employability. Addressing systemic barriers through policy reforms, targeted capacity building, and strengthened institutional governance will be essential to effectively embed accreditation practices. Future studies based on data are recommended to check these findings and look into strategies for sustainable quality assurance across physiotherapy programs in India.

Keywords: NAAC, physiotherapy, accreditation, higher education, quality assurance, key indicators, educational challenges

Introduction

Physiotherapy education in India has expanded rapidly over recent decades. This reflects its growing recognition as a critical component of modern healthcare. With more than 450 physiotherapy (PT) institutions currently running, the sector plays a key role in preparing professionals to address rehabilitation needs across clinical, community, and sports contexts. However, the steep rise in the number of institutions has not always

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been matched by consistent improvements in quality. This results in marked disparities in educational standards across regions [1]. Making sure of high-quality training has therefore become a priority for regulatory bodies, academic stakeholders, and healthcare policymakers. The competence of physiotherapy graduates directly affects patient outcomes and the effectiveness of rehabilitation practices. Accreditation provides a structured and evidence-based way to assess and enhance educational quality [1]. In India, the National Assessment and Accreditation Council (NAAC)—set up as an autonomous body under the University Grants Commission (UGC)—has emerged as the principal authority responsible for checking higher education institutions [2–4]. NAAC's framework is distinctive compared to other national and regional accreditation mechanisms. It emphasizes not only institutional accountability but also the promotion of university excellence, continuous quality enhancement, and benchmarking against globally recognized indicators. Its multidimensional assessment criteria include curriculum design and relevance, teaching-learning processes, research productivity, faculty qualifications, infrastructure, governance, and student support systems [5, 6].

Despite its advantages, physiotherapy and medical institutions in India continue to face big hurdles in achieving NAAC accreditation [6–8].

Reported barriers include inadequate physical infrastructure, restricted clinical training opportunities, less than ideal student-faculty ratios, not enough research output, and limited investment in faculty development programs [9–13].

Social factors further complicate this landscape. Disparities in regulatory oversight, especially in states lacking physiotherapy councils, weaken uniformity in standards. Also, the growth of private colleges—though instrumental in expanding access—has intensified competition. Sometimes this prioritizes financial gain over academic rigor, thereby complicating efforts toward keeping accreditation quality.

These challenges reflect both structural and social constraints that hinder the widespread adoption of accreditation practices. Around the world, organizations such as the World Health Organization (WHO) and the World Physiotherapy stress the importance of aligning professional education with international standards. This ensures workforce readiness and health equity [14]. These organizations advocate for the alignment of educational standards with global competencies. This ensures that healthcare professionals are well prepared to address the evolving demands of health systems.

In the Indian context, aligning PT education with such international benchmarks will need policy reform, effective accreditation processes, and a redesign of curricula that focus on outcomes and competencies. India's health system operates under a federal structure. Physiotherapy is categorized under the Allied and Healthcare Professions by the Ministry of Health & Family Welfare [15].

For India, combining such global benchmarks into physiotherapy education will need targeted reforms. It also requires effective implementation of NAAC processes and curricula oriented toward competency-based outcomes. While the importance of NAAC accreditation is acknowledged, a complete synthesis of the specific processes, challenges, and insights relevant to physiotherapy colleges is lacking. This systematic review aims to fill this gap. It addresses the role of the NAAC accreditation process made for physiotherapy colleges, finds existing barriers, and outlines NAAC's vision and checking criteria.

Materials & Methods

Design and setting(s)

This systematic review was done in accordance with the PRISMA guidelines, as shown in **Figure 1**. It was designed to combine and critically check existing evidence about the National Assessment and Accreditation Council (NAAC) accreditation process in the context of physiotherapy education in India. The review specifically looked at institutional challenges, accreditation procedures, and the broader implications of accreditation on educational quality and healthcare workforce development.

Research question

The review was guided by the research question: "What are the processes and challenges of NAAC accreditation faced by physiotherapy institutes in India?"

Search strategy

The following strategy groups terms into 3 initial concepts, combining them with the "AND" operator. All searches were run with a publication date limit up to December 2024.

1. Core concept groups

Group A - Subject Focus: "Physiotherapy" OR "Physical Therapy" OR "Physiotherapy Education"

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Group B - Quality/Assessment: "Accreditation" OR "Educational Quality" OR "Key Indicators" OR "Quality Assurance"

Group C - Specific Context: "NAAC" OR "Higher Education" OR "Medical Institutes"

2. Database-specific search strings

(a) PubMed: This search uses MeSH where possible, combined with free-text terms to maximize sensitivity. Search string:

(("Physical Therapy Speciality" [Mesh] OR "Physiotherapy" OR "Physical Therapy" OR "Physiotherapy Education") AND ("Accreditation" OR "Educational Quality" OR "Key Indicators" OR "Quality Assurance") AND ("NAAC" OR "Higher Education" OR "Medical Institutes")).

(b) Google scholar & ResearchGate: These platforms rely on direct keyword combinations. The search string is a direct combination of the three concept groups. Search string: (("Physiotherapy" OR "Physical Therapy" OR "Physiotherapy Education") AND ("Accreditation" OR "Educational Quality" OR "Key Indicators" OR "Quality Assurance") AND ("NAAC" OR "Higher Education" OR "Medical Institutes")).

3. Supplementary strategy

Hand-Searching: the reference lists of all included policy documents and final articles were manually hand-searched to find additional, highly relevant studies that may have been missed by the electronic search.

De-duplication: all results retrieved from the three databases were exported to citation management software for systematic removal of duplicates before screening

Eligibility criteria

Studies were eligible if they: Looked at NAAC accreditation processes, objectives, or checking criteria; Reported challenges specific to health sciences or physiotherapy institutes; and Discussed the impact of accreditation on institutional performance or healthcare education.

Both qualitative, quantitative, and mixed-methods studies published in English were included. Exclusion criteria were: (a) studies without data-based or policy relevance to health sciences/physiotherapy education, (b) articles not accessible in full text, and (c) opinion pieces without methodological grounding.

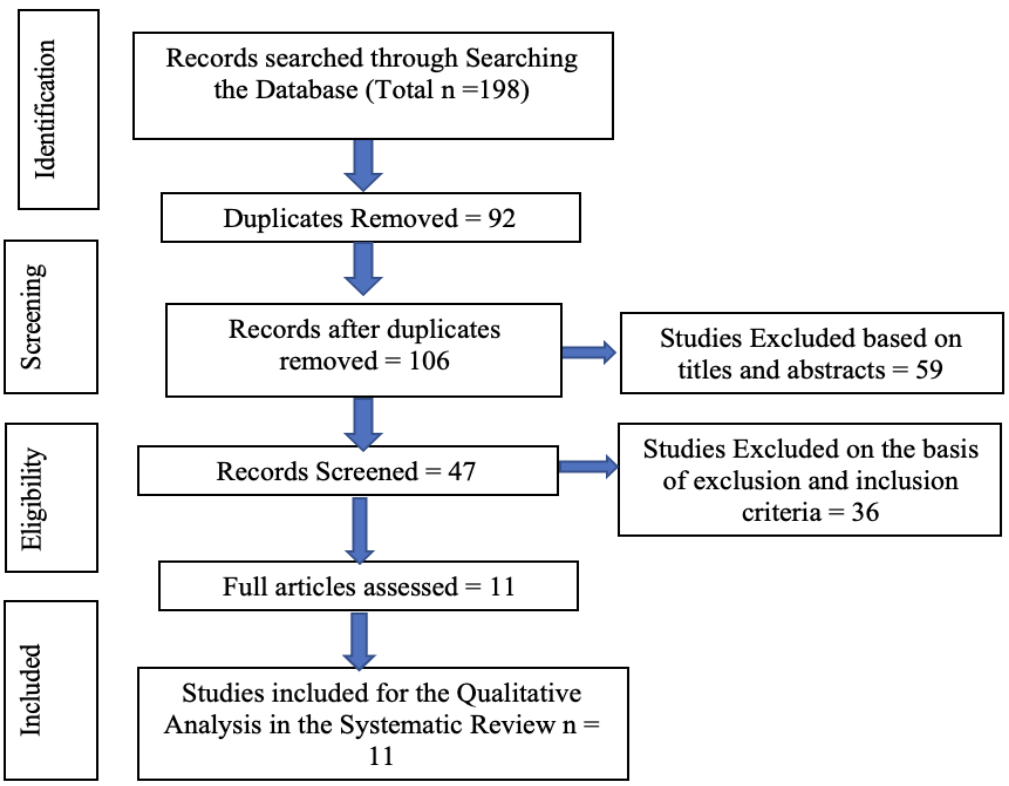


Figure 1. PRISMA flowchart

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Study selection process

All records found were screened in two stages. Titles and abstracts were first independently reviewed by two researchers to figure out relevance.

Full texts of potentially eligible studies were then retrieved and assessed for inclusion. Disagreements were resolved by consensus or the involvement of a third reviewer.

Results

Our search yielded 11 studies, comprising 5 research articles, 4 guidelines/policy documents, and 2 internet sources, with a particular emphasis on physiotherapy institutions in India, as shown in **Figure 1**.

The included works covered both descriptive accounts of the National Assessment and Accreditation Council (NAAC) framework and survey-based studies looking into institutional and faculty perspectives.

The NAAC framework: key components for physiotherapy

The NAAC, set up in 1994 by the University Grants Commission, functions as an autonomous agency for assessing and accrediting higher education institutions (HEIs) across India [7].

The framework emphasizes formative quality improvement rather than punitive checking.

It is guided by five core values: national development, global competencies, value inculcation, technological use, and pursuit of excellence.

Accreditation is given through a Cumulative Grade Point Average (CGPA) system ranging from A++ to C. Institutions falling below the threshold get a "Not Accredited" status as shown in **Figures 2 & 3** [16].

The accreditation process is started through institutional self-study and the preparation of a Self-Study Report (SSR), then followed by external peer review.

Eligibility requirements include a minimum of six years of institutional operation or two graduating student cohorts.

There is also data submission to the All India Survey on Higher Education (AISHE) [5, 7].

These features collectively position NAAC as a complete quality assurance system with broader applicability to professional education, including physiotherapy. Within physiotherapy institutions, assessment uses a dual framework:

Part A covering general health sciences education, and Part B checking discipline-specific components such as clinical training, internships, and professional readiness, as mentioned in **Tables 1 & 2.** The Internal Quality Assurance Cell (IQAC) plays a key role in continuous monitoring and in making sure of adherence to post-accreditation recommendations [6].

Perceived benefits of accreditation

Accredited institutions consistently reported enhanced credibility, better student enrollment, and access to UGC and RUSA funding schemes [16, 17].

Institutions getting consecutive "A" grades across three cycles benefited from extended accreditation validity. This underscores the institutional value of sustained quality assurance.

Perceived challenges: evidence from the literature

Quality assurance in higher education faces big pressure from the rise of distance learning and the commercialization of private institutions. This often leads to underqualified faculty, fewer resources and funding, difficulty meeting evolving community expectations, and inadequate infrastructure.

Global cooperation is essential to address these issues.

Medical and physiotherapy education must meet 21st-century health needs, but they struggle with outdated curricula and weak quality assurance.

NAAC's uniform criteria overlooked institutional differences.

Also, strict regulatory guidelines hinder the creation of interdisciplinary programs and internationalization efforts [4–9].

Faculty perspectives: findings from the 2024 survey

A cross-sectional survey done in 2024 among physiotherapy faculty members provided insight into institutional awareness and implementation challenges related to NAAC accreditation.

Although all participants reported awareness of the accreditation process, only 75% showed familiarity with its procedural requirements [9].

Notably, only one-quarter of respondents were employed in NAAC-accredited institutions. This reflects disparities in accreditation uptake.

Respondents identified data collection and analysis as the most big procedural hurdles. Other often cited challenges included limited infrastructural resources, low research productivity, and inadequate awareness of

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evolving NAAC guidelines [9].Recommendations emerging from the survey emphasized the need for more inclusive and transparent processes.
This includes structured feedback from students, alumni, and industry stakeholders. The findings also highlighted the impact of commercialization within private institutions, leading to deficiencies in infrastructure and faculty quality [18].

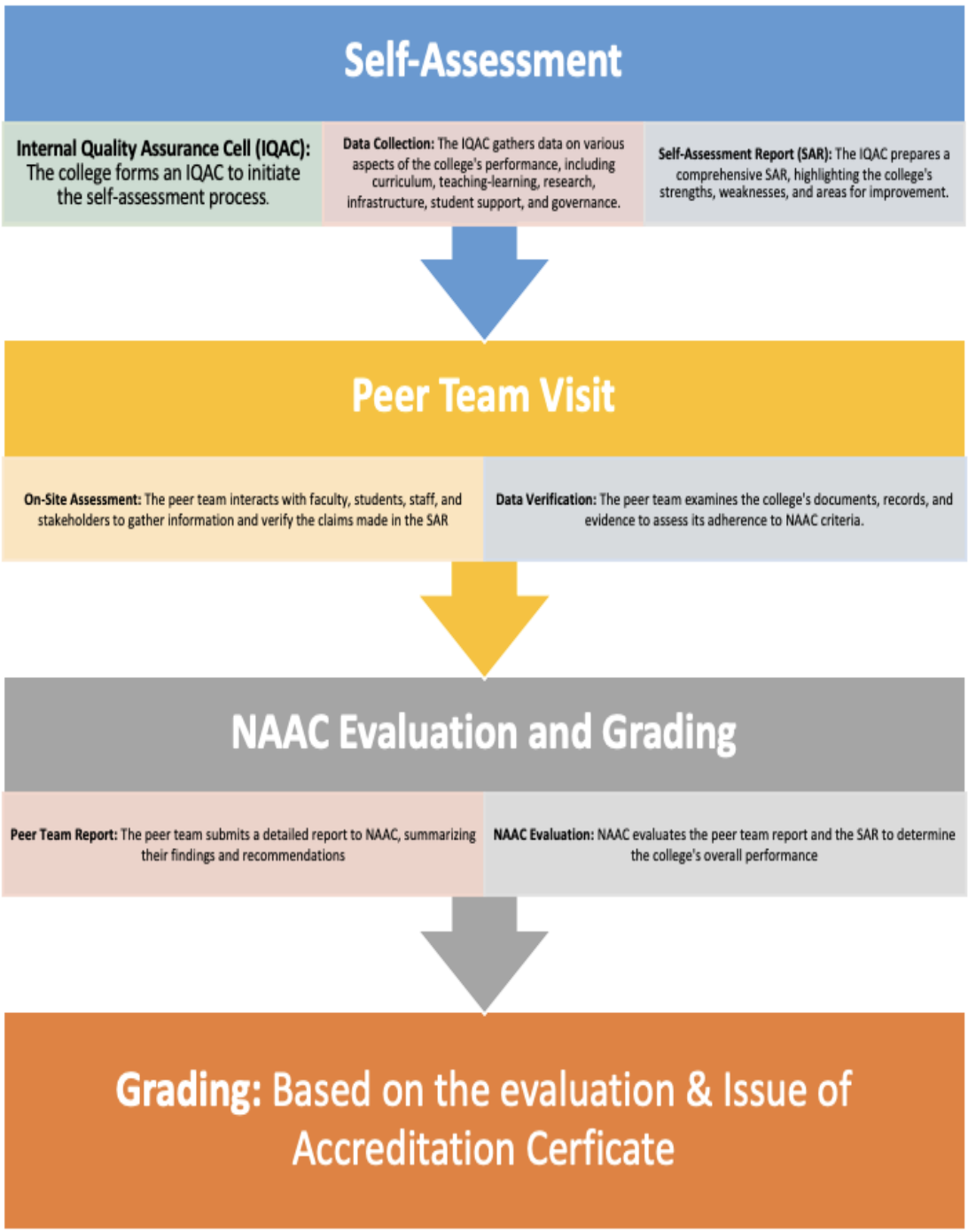


Figure 2. Process for NAAC accreditation
Abbreviations: IQAC, internal quality assurance cell; NAAC, national assessment and accreditation council; SAR, self-assessment report.

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Here are the steps involved in the process of getting your Institute NAAC Accredited:

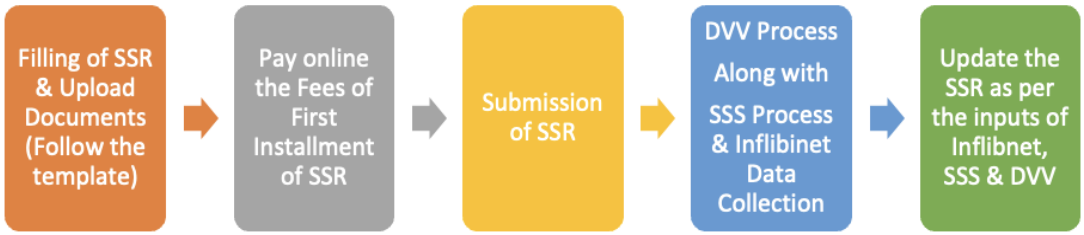
Step I – Registration of HEI



Step II – IIQA Submission of IIQA Process



Step III – SSR Submission Process



Step IV – NAAC Team Visit / Online Verification

Step V – Preparation of report by the team

Step VI – Grading and Accreditation Certificate

Figure 3. Steps involved in the process of getting NAAC accreditation

Abbreviations: DVV, data validation and verification; HEI, higher education institute; IIQA, institutional information for quality assessment; NAAC, national assessment and accreditation council; SSR, self-study report; SSS, student satisfaction survey.

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Table 1. Components of NAAC accreditation for physiotherapy colleges

PARAMETERS	PART A	PART B
Total Marks	*900*	*100*
Scope of Metric	*General, applicable to all health science institutions*	*Physiotherapy specific*
Key Indicators	*I to VII Key Criteria common to all institutions (e.g., curricular design, teaching-learning processes, infrastructure, student support, governance)*	*VIII Key Criteria focuses on clinical competencies, simulation labs, etc.*

Note: The National Assessment and Accreditation Council (NAAC) framework for health sciences is divided into two parts. Part A consists of generic criteria applicable to all institutions, while Part B contains profession-specific criteria.
Abbreviations: NAAC, national assessment and accreditation council; n, number; etc., et cetera.

Table 2. Criteria distribution and weightage for NAAC accreditation

Key areas	Criterion (number of metrics)	Qualitative (QlM) & quantitative (QnM) metrics	Total marks
PART A: General Criteria			
1.1*(U) Curriculum design and development* *1.1*(A) Curriculum planning and implementation 1.2 Academic flexibility 1.3 Curriculum enrichment 1.4 Feedback system	Curriculum design & implementation (4)	Qualitative - 15 Quantitative - 65	80
2.1 Student enrolment and profile 2.2 Catering to student diversity 2.3 Teaching-learning process 2.4 Teacher profile and quality 2.5 Evaluation process and reforms 2.6 Student performance and learning outcomes 2.7 Student satisfaction survey	Teaching-learning evaluation (7)	Qualitative - 100 Quantitative - 180	280
3.1 Resource mobilization for research 3.2 Innovation ecosystem 3.3 Research publications and awards 3.4 Extension activities 3.5 Collaboration	Research, innovation & extension (5)	Qualitative - 30 Quantitative - 90	120
4.1 Physical facilities 4.2 Clinical, equipment and laboratory learning resources 4.3 Library as a learning resource 4.4 It infrastructure 4.5 Maintenance of campus infrastructure	Infrastructure & learning resources (5)	Qualitative - 51 Quantitative - 49	100
5.1 Student support 5.2 Student progression 5.3 Student participation and activities 5.4 Alumni engagement	Student support & progression (4)	Qualitative - 12 Quantitative - 108	120
6.1 Institutional vision and leadership 6.2 Strategy development and deployment 6.3 Faculty empowerment strategies 6.4 Financial management and resource mobilization 6.5 Internal quality assurance system	Governance & leadership (5)	Qualitative - 51 Quantitative - 49	100
7.1 Institutional values and social responsibilities 7.2 Best practices 7.3 Institutional distinctiveness	Institutional values & best practices (3)	Qualitative - 72 Quantitative - 28	100
PART A TOTAL			**900**
PART B: Physiotherapy specific sriteria			
8.1.1 Clinical postings / industry exposure 8.1.2 Clinical skills and simulation laboratories 8.1.3 Procedures for quality of care and patient safety 8.1.4 Teacher additional certifications 8.1.5 Measurement of clinical competencies 8.1.6 Accredited teaching hospital/lab 8.1.7 Medico-legal practices sensitization 8.1.8 Introduction to healthcare practices 8.1.9 Rehabilitation and disability familiarization 8.1.10 Advanced equipment facilities	Physiotherapy specific criteria	Qualitative - 30 Quantitative - 70	100
PART B TOTAL			**100**
GRAND TOTAL			**1000**

Note: This table presents the detailed framework for the National Assessment and Accreditation Council (NAAC) accreditation of physiotherapy colleges, showing the distribution of qualitative and quantitative metrics across key criteria. Part A consists of generic institutional criteria, while Part B contains profession-specific criteria for physiotherapy.
Abbreviations: NAAC, national assessment and accreditation council; QlM, qualitative metrics; QnM, quantitative metrics; BPT, bachelor of physiotherapy.

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Comparative context: international accreditation standards

A comparative review of global frameworks revealed notable differences. These included the World Federation of Medical Education (WFME), the World Confederation for Physical Therapy (WCPT), and the WHO Global Benchmarking Tool [14]. International frameworks focus on outcome-based education, longitudinal tracking of graduates, faculty development, and interprofessional work together—areas that remain underdeveloped in NAAC [15]. While NAAC is mainly input- and process-oriented, global standards emphasize graduate competencies, social accountability, and international partnerships.

Discussion

This review highlights three key dimensions: (1) NAAC provides a structured and standardized accreditation framework applicable to physiotherapy institutions; (2) faculty surveys show both awareness and persistent challenges in carrying out accreditation processes; and (3) comparative analysis shows gaps between NAAC and international benchmarks, particularly in outcome-based and competency-driven education.

The recurring challenges found, such as infrastructural deficits, faculty shortages, low research output, and procedural complexity, reflect systemic limits within Indian higher education. The survey findings highlight a discrepancy between procedural awareness and operational execution. This indicates a need for institutional capacity-building in data management, resource optimization, and research culture. Also, the commercialization of private institutions adds to variability in infrastructure quality and faculty qualifications. This ultimately affects accreditation readiness and institutional credibility [18–21].

Beyond procedural shortcomings, multiple structural challenges continue to constrain physiotherapy education in India.

The shortage of qualified faculty and difficulties in keeping skilled educators remain persistent. This needs a nationally standardized pay structure and the creation of an Indian higher educational service to prevent attrition. Funding disparities, particularly at the state and institutional levels, make inequities worse. Many colleges rely heavily on tuition fees. Accountability deficits also persist. Physiotherapy schools often struggle to align education, research, and service activities with community health needs [8–26].

The teaching-learning process is further hindered by inadequate faculty training and limited adoption of modern pedagogical approaches. This includes competency-based and interprofessional education. Innovation is constrained by rigid regulatory frameworks. These limit the development of interdisciplinary programs. Also, India's aspirations for internationalization remain underdeveloped. Curricula and research outputs are often outdated, restricting competitiveness with global higher education systems. Together, these challenges highlight the limits of a uniform accreditation framework. They underscore the need for more context-sensitive criteria [8–26].

Compared to global accreditation frameworks, NAAC remains less focused on graduate outcomes and community impact. WFME and WCPT emphasize social accountability, international exposure, and interprofessional learning. These are features that could enrich NAAC's criteria. Adoption of such benchmarks could not only elevate institutional quality but also align Indian physiotherapy education with global healthcare demands.

For policymakers, these findings highlight the urgency of tailoring accreditation frameworks to diverse institutional contexts. This is particularly important for newer and rural colleges. Strengthening faculty development, making sure of fair funding models, and making interdisciplinary programs easier are essential for long-term improvement. For institutional leaders, building robust IQAC mechanisms and fostering research culture remain critical to sustaining quality accreditation outcomes.

This review acknowledges certain limits. The survey sample was limited in size, which may constrain generalizability.

Also, the standardized nature of NAAC's framework may not well capture the contextual diversity of HEIs, particularly those in under-resourced settings. Reliance on published literature and survey data also raises the possibility of publication bias. Future work should include mixed-methods approaches, combining large-scale surveys with qualitative interviews across stakeholder groups. Longitudinal studies assessing the impact of accreditation on student performance, faculty development, and institutional outcomes would provide more robust evidence. Also, comparative research involving international accreditation frameworks could inform modifications to NAAC that better address global trends in health professions education.

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Conclusion

Physiotherapy education in India is at a critical juncture. It needs simultaneous focus on accreditation, faculty development, and curricular innovation. Accreditation through NAAC offers a structured pathway to enhance quality, accountability, and international credibility. Strengthening faculty capacity through fair compensation and professional development is vital to sustaining teaching standards and accreditation readiness. Adopting competency-based curricula and fostering partnerships with clinical facilities can make sure graduates are practice-ready and aligned with evolving healthcare demands. As higher education expands, balancing growth with quality and addressing systemic challenges will be essential. This will build a resilient, globally competitive physiotherapy education system capable of meeting national and international health priorities.

Ethical considerations

Not applicable as this is a review article.

Artificial intelligence utilization for article writing

During the preparation of this work, the authors used Grammarly to check and improve grammar and language. After using this tool, the authors reviewed and edited the content as needed and took full responsibility for the publication's content.

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None.

Conflict of interest statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Author contributions

A brief description of each author's contributions: AC, HK: Study concept and design; AC, HK: Data collection; AC, HK: Analysis and interpretation of data; AC, HK: Drafting of the manuscript; AC, HK: Critical revision

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Data availability statement

All data supporting the findings of this study are available within the article and its supplementary materials.

References

1. Duarte N, Vardasca R. Literature review of accreditation systems in higher education. *Educ Sci*. 2023;13(6):582. https://doi.org/10.3390/educsci13060582
2. National Assessment and Accreditation Council. Health science university manual in multi-languages [Internet]. Bengaluru: NAAC; 2025 [cited 2025 Aug 14]. Available from: http://naac.gov.in/index.php/en/2-uncategorised/241-health-science-university-manual-in-multi-languages
3. Pillai KNM, Srinivas G, Madhusudananpillai KN. A study of the post-accreditation scenario in the North Eastern Region of India: a meta-evaluation of the National Assessment and Accreditation Council processes and procedures. *Qual High Educ*. 2006;12(2):95–106. https://doi.org/10.1080/13538320600916615
4. Lyndem B, De UK. *Education in North East India: experience and challenge*. New Delhi: Concept Publishing Company; 2004.
5. University Grants Commission (India). Quality mandate e-book [Internet]. [cited 2025 May 29]. Available from: https://www.ugc.gov.in/e-book/Quality%20Mandate%20E-BOOK.pdf
6. National Assessment and Accreditation Council. Revised autonomous colleges manual [Internet]. Bengaluru: NAAC; 2020 [cited 2025 May 29]. Available from: http://naac.gov.in/index.php/en/resources/publications/manual
7. Doddaiah S, Bhat D, Hathur B, et al. Assessment and accreditation of a medical college by National Assessment and Accreditation Council: an overview. *Int J Adv Med*. 2020;7(2):354-360. https://doi.org/10.18203/2349-3933.ijam20200093
8. Supe A, Burdick WP. Challenges and issues in medical education in India. *Acad Med*. 2006;81(12):1076–80. https://doi.org/10.1097/01.ACM.0000246699.94234.ab
9. Avi C, Kaushik H. National Assessment and Accreditation Council: awareness & perception of

[Downloaded from edujournal.zums.ac.ir on 2026-11-28]

[DOI: 10.61882/edcj.18.4.153]

physiotherapy faculty. *VIMS J Phys Ther*. 2024;6(2):70–4. https://doi.org/10.46858/VIMSJPT.6211
10. Majumder MAA, Haque M, Razzaque MS. Editorial: Trends and challenges of medical education in the changing academic and public health environment of the 21st century. *Front Commun*. 2023;8:1153764. https://doi.org/10.3389/fcomm.2023.1153764
11. Torres-Calixto MG. Trends and challenges of medical education. *Rev Fac Med*. 2021;69(3):e84330. https://doi.org/10.15446/revfacmed.v69n3.84330
12. Majumder AA, D'Souza U, Rahman S. Trends in medical education: challenges and directions for need-based reforms of medical training in South-East Asia. *Indian J Med Sci*. 2004;58(9):369–80. https://pubmed.ncbi.nlm.nih.gov/15470278
13. Saxena V, Kulshetra S, Khan B. Higher education in India: a role of research. *Int J Res Educ Technol.* 2010;1(1):97–106. https://www.iosrjournals.org/iosr-jrme/papers/Vol-6%20Issue-6/Version-8/F0606084144.pdf
14. World Physiotherapy. Standards of physical therapy practice guideline [Internet]. [cited 2025 May 29]. Available from: https://world.physio/sites/default/files/2020-07/G-2011-Standards-practice.pdf
15. Ministry of Health and Family Welfare. Model curriculum handbook: physiotherapy [Internet]. New Delhi: MoHFW; 2017 [cited 2025 May 29]. Available from: https://mohfw.gov.in/Organisation/departments-health-and-family-welfare/pms/model-curricula-allied-and-healthcare-streams-0
16. Kumar S. NAAC - An overview, top NAAC colleges and universities, benefits, grading system. College Dekho [Internet]. [cited 2025 May 29]. Available from: https://www.collegedekho.com/articles/national-assessment-and-accreditation-council-naac
17. National Assessment and Accreditation Council. Home [Internet]. [cited 2025 May 29]. Available from: http://naac.gov.in/index.php/en/
18. Thakur P. NAAC: Accreditation, quality education, issues & challenges. *Int J Multidiscip Educ Res.* 2020;9(1–5):142– 8. https://www.academia.edu/41920108/NAAC_ACCREDITATION_QUALITY_EDUCATION_ISSUES_and_CHALLENGES
19. Thibault GE. The future of health professions education: emerging trends in the United States. *FASEB BioAdv*. 2020;2(8):685–694. https://doi.org/10.1096/fba.2020-00061
20. Wartman SA. The empirical challenge of 21st-century medical education. *Acad Med*. 2019;94(10):1412–1415. https://doi.org/10.1097/ACM.0000000000002866
21. Boniol M, Kunjumen T, Nair TS, et al. The global health workforce stock and distribution in 2020 and 2030: a threat to equity and 'universal' health coverage? *BMJ Glob Health*. 2022;7:e009316. https://doi.org/10.1136/bmjgh-2022-009316
22. Waghmare L, Srivastava T, Tankhiwale S. Quality assurance in medical schools of rural India: the seven strategic challenges. *Indian J Appl Res*. 2011;4:9–11. https://doi.org/10.15373/2249555X/FEB2014/107
23. Agarwal P. Higher education in India: the need for change (Working Paper No. 80) [Internet]. Indian Council for Research on International Economic Relations; 2006. https://doi.org/10.2139/ssrn.963888
24. Gary NE, Boelen C, Gastel B, Ayers W, editors. Improving the social responsiveness of medical schools: proceedings of the 1998 Educational Commission for Foreign Medical Graduates/World Health Organization Invitational Conference. *Acad Med*. 1999 Aug;74(8 Suppl):S3–S94. https://eric.ed.gov/?q=Medical+AND+perspectives&ff1=locAfrica&id=EJ591514
25. Medical Council of India. Website [Internet]. [cited 2025 May 29]. Available from: http://www.mciindia.org/
26. Mitra SK. Internationalization of education in India: emerging trends and strategies. *Asian Soc Sci*. 2010;6(6):3–12. 10.5539/ass.v6n6p105

[Downloaded from edujournal.zums.ac.ir on 2026-11-28]

[DOI: 10.61882/edcj.18.4.153]