

Student and Faculty Perspectives on Factors Influencing Academic Proficiency in Physiotherapy Education: A Qualitative Study

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ABSTRACT

Background: There are many factors involved in the academic success of undergraduate physiotherapy students, both cognitive, emotional and environmental in nature. In the traditional assessment-based education system, students who are often labeled as 'sluggish' and 'potential' are not fully understood. To develop inclusive and competency based educational system, it is necessary to explore stakeholder perceptions.

Methods: In a qualitative exploratory study, faculty members and undergraduate physiotherapy students were used for the methods of focused group discussions (FGDs). Eighteen focus group discussions were conducted using a semi-structured interview guide focusing on life transitions, academic engagement, theory-practice integration, self-directed learning, critical thinking, and advancement toward expertise. The information was audio recorded, transcribed verbatim and analyzed by using inductive theme analysis.

Results: The results indicated that there were 10 main themes that emerged from the analysis: (1) the impact of life transitions on academic engagement; (2) time management and self-regulation; (3) motivation and learning readiness; (4) the role of support systems; (5) challenges in bridging theory and practice; (6) growth of critical thinking and clinical reasoning; (7) capacity to self-direct learning; (8) learning strategies and use of resources; (9) concept mapping and developing expertise; and (10) reflective learning and the formation of professional identity. Slow learners were perceived by the teachers and students as having the same potential to learn, but required guided experiential approach, emotional support and structured academic scaffolding.

Conclusion: A complex interplay of educational, emotional and personal elements that shapes to a student's level of academic competency in physiotherapy education. The results confirm the necessity of implementing learner-centred educational frameworks emphasising learner self-management, self-awareness, and connecting theory with practice, to enhance outcomes for future physiotherapy students.

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INTRODUCTION

The education of health professionals to be capable and engaged with their sociocultural responsibilities plays an essential role in strengthening health care systems. In this regard, contemporary reforms to physiotherapy education focus on shifting from content-based curricula to learner-centred and competency-based learning.¹ The success of academic excellence in physiotherapy education is rooted in the integration of both theoretical content and clinical reasoning, self-regulation, communication skills and professional identity development.²

The national changes occurring in India as a result of the implementation and promotion of the National Education Policy (NEP) 2020, emphasising experiential learning, learner flexibility, critical thinking and learner independence have resulted in a greater emphasis on

transitioning physiotherapy education to competency-based learning.³ However, many traditional-style didactic teaching methods are still prevalent in undergraduate physiotherapy education and limit students' opportunities for actively participating and applying knowledge to clinical practice.⁵

The gap that continues to exist between theory and clinical practice in health professions education is a long-standing issue. In order to support students develop a contextual understanding of their chosen profession, the use of problem-based and experiential learning methods have been proposed to assist them develop their ability to apply theoretical knowledge to clinical practice successfully.^{6,7} However, the lack of emphasis on clinical reasoning development and reflective practice skills continues to be an obstacle for physiotherapy students to be able to bridge this gap.⁸

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The academic performance of undergraduates has been recognized as a complex construct influenced by their cognitive ability, motivation, self-regulation, psychosocial well-being, and learning environment.^{9,10} Although reflective activities and active learning strategies have shown positive effects on student learning and increasing engagement with their studies, they are not used consistently throughout undergraduate curricula. A key method for documenting or capturing stakeholder perspectives, lived experiences, and other nuances regarding complex educational settings is through qualitative methods.^{11,12}

A key method for documenting or capturing stakeholder perspectives, lived experiences, and other nuances regarding complex educational settings is through qualitative methods. Thematic analysis is supported by validated qualitative reporting guidelines,^{13,14} and this qualitative exploratory study aimed to understand the factors affecting the academic proficiency of undergraduate's physiotherapy students especially targeting the students who need extra academic support due to the scarcity of qualitative evidence from India that would explore both student and faculty viewpoints on academic proficiency in physiotherapy education.

OBJECTIVES

1. To explore students' and faculty members' perceptions of factors influencing academic proficiency among undergraduate physiotherapy students.
2. To identify challenges and facilitators specific to slow and potential learners.
3. To generate qualitative themes as evidence for new educational frameworks

MATERIALS AND METHODS

Study Design

This qualitative exploratory study utilized interpretive phenomenology as the guide for determining undergraduate physiotherapy students' and instructors' perceptions of academic success. To achieve methodological transparency and rigor, the research adhered to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines.

Research Team and Reflexivity

Focus groups (FG) were conducted in a calm and supportive educational setting at Indian undergraduate physiotherapy schools to enable candid sharing of ideas. Separate FG sessions were held for both students and instructors to maximize the opportunity for each group to express their unique views.

Study Setting

The research was conducted at Indian undergraduate physiotherapy schools to facilitate open communication, thus focus groups were conducted in a calm and supportive educational environment. There were also separate focus groups for both students and instructors.

Participant selection

For the study, participants were recruited using purposive sampling and the study was registered with the clinical trial registry of India and approved by the university central ethical committee. Faculty members and undergraduate physiotherapy students volunteered to participate in the study, after providing informed consent. Students were representative of a range of academic achievement to capture a variety of learning experiences. Those who were not able or did not want to join any targeted group discussion were not able to join. This study lasted a period of time between March 2023 and June 2025.

Data Collection

Focused group discussions (FGDs) were employed to gather data. In total there were eighteen FGDs. The literature search and national education systems were studied, and a semi-structured interview guide was developed and face validated by a panel of experts. General questions were asked about learning experiences and academic engagement before it was discussed how theory is linked to practice, how to use self-directed learning, critical thinking, motivation and support networks. Contextual factors including institutional context, teaching-learning strategies, peer and teacher support and transitions were also explored. Participants' recommendations for methods to improve academic competency, especially for students in need of extra academic support, were presented at the end of focus group discussions. Audio recordings were made of each FGD (approximately 60-90 minutes) with the permission of the participants.

Data Analysis

Verbatim transcriptions of audio recordings were made. After familiarization, coding, topic creation, review, and refining, thematic analysis was carried out. To enable themes to surface from the data, an inductive method was employed. Investigator triangulation and iterative topic review enhance trustworthiness.

Results

Analysis revealed ten major themes:

1. Impact of Life Transitions on Academic Engagement

Participants highlighted that personal and environmental changes disrupted academic routines. Ten main themes emerged from the analysis:

1. How Life Transitions Affect Academic Engagement

Participants emphasized that emotional stability and academic habits were disturbed by personal and contextual changes, especially for slow learners.

Quotes taken verbatim:

- "Even if the intention is there, it becomes very difficult to concentrate on studies when there are problems at home." (Student)
- "Some students take prolonged time to return to

academics after life disruptions, not because they are weak, but because they need time." (Faculty)

2. Academic Self-Control and Time Management

Time management was proven to have a considerable impact on academic advancement, according to both students and teachers. "Once we guide them with a schedule, their performance improves significantly." (Faculty)

3. Motivation and Learning Readiness

Feedback, emotional support, and attainable goals were said to have an influence on motivation, which was characterized as flexible.

Quotes taken verbatim:

- "I feel capable sometimes, but I lose confidence when I fail repeatedly." (Students)
- "When small accomplishments are acknowledged, potential learners respond very well." (Faculty)

4. Support Systems' Function

Support from family, peers, and mentors was perceived as crucial for academic continuity.

Verbatim quotes:

- "When teachers encourage us, we feel confident to try again." (Student)
- "Emotional support works as much as academic teaching." (Faculty)

5. Theory–Practice Integration Challenges

It was noted that there was a glaring disconnect between clinical application and theoretical understanding.

Quotes taken verbatim:

- "We can write exam answers, but it's hard to apply them to patients." (Students)
- "Though they are aware of the theory, slow learners hesitate when making clinical decisions." (Faculty)

6. Development of Critical Thinking and Clinical Reasoning

It was believed that traditional teaching approaches did not adequately develop critical analysis. Quotes taken verbatim: • "We are rarely asked to consider the rationale behind a treatment." (Students) • "When students are exposed to case-based discussions, their critical thinking improves." (Faculty)

7. Ability to Learn on Your Own

The degree to which students were prepared for independent learning varied.

Quotes taken verbatim: • "I wait for teachers to tell me what I need to learn." (Students) • "Even slow learners begin to recognize their own learning gaps with guidance." (Faculty)

7. Capacity for Self-Directed Learning

It was believed that traditional teaching approaches did not adequately develop critical analysis.

Quotes taken verbatim:

- "We are rarely asked to consider the rationale behind a treatment." (Students)
- "When students are exposed to case-based discussions, their critical thinking improves." (Faculty)

8. Learning Strategies and Resource Utilisation

Participants discussed the challenges of selecting pertinent educational resources.

Verbatim quotes:

- "We don't look into other resources and rely primarily on notes." (Students)
- "Students learn better when videos and clinical demonstrations are used." (Faculty)

9. Mapping Concepts and Developing Expertise

The development of expertise was thought to depend on the integration of knowledge.

Quotes taken verbatim:

- "Unless someone helps us link them, subjects feel disconnected." (Students)
- "Students are able to see the larger clinical picture thanks to concept mapping." (Faculty)

10. Reflective Learning and Professional Identity Formation

Through reflection, students were able to identify their strengths, weaknesses, and opportunities for professional development.

Quotes taken verbatim:

- "I didn't realize my mistakes until I thought back on what I had learned." (Students)
- "Students become responsible professionals through reflection." (Faculty)

DEPTHS OF ACADEMIC ENGAGEMENT

Discussion

The qualitative exploratory study provides detailed insights into teachers and students' perceptions of academic competence in undergraduate physiotherapy education. The findings show that ability is not the only factor that affects learners who require greater academic assistance; other factors such as personal, pedagogic, and environmental factors also do.

Burnout, mental health, and psychosocial stress were all found to be significant in the level of academic involvement of participants. A number of participants indicated that they were not motivated, focused and studying well due to their everyday problems. This is consistent with existing literature that indicates there is a relationship between psychological distress and poor academic outcomes by students pursuing a health career. 15" These findings suggest the need for these institutions to set up frameworks for overall wellness of students in educational settings.

Authors of the faculty narratives see self-regulation, motivation and time management as skills that can be taught using a structured approach rather than skills that are inherent. This finding resonates with existing theories in the field of self-regulated and intrinsic motivation, in which curriculum design emphasizes opportunities to develop these competencies rather than assuming that they are already present. The opportunities to develop these competencies through curriculum design were frequently mentioned by faculty, a finding which resonates closely with established theories related to self-regulated and intrinsic motivation, which emphasize opportunities to develop these competencies rather than assuming that they are already present.

One of the commonalities among the majority of the participants is the challenge experienced in implementation of the theoretical knowledge. Both faculty and students reported too few opportunities for practice of guided clinical reasoning and opportunities for reflective conversation. Multiple studies have reported similar barriers to learning among health professions students and the importance of providing such opportunities to facilitate deeper learning of what is being learned is noted, as is the perception that this type of teaching/learning method leads to student success.^{6, 11} It was found that self-directed learning is highly significant but is not applied sufficiently particularly those with slow learning ability and have no previous experience in self-directed learning and that learners need structures to develop their ability in self-directed learning. The findings of this study are consistent with the previous studies conducted by others which concluded that explicit scaffolding enhances students' self-directed learning skills in physiotherapy courses. Rather, a formalised alignment of curriculum must be taken as well as using concept mapping and reflective practice to help foster professional development and integrate knowledge. The application of reflective practice will enable learners to recognise their own learning needs and make adjustments to their practice to increase their professional accountability, as is typical in medical education research.^{12, 16}

Participants also pointed out the growing need for digital and blended learning resources – many of them are also going to need flexibility. There are different pieces of research that have indicated that the use of technology in physiotherapy education has positive effects in regards to engagement, pacing and the application of knowledge.^{24, 25}

These findings point to need national and international campaigns for learner-centred, competency-based education.^{3, 4} In order to enhance academic performance, undergraduate physiotherapy students need inclusive education systems that use the concepts of self-regulated learning, provide emotional support, use reflective practice, and demonstrate connections between theory and practice.

CONCLUSION

The qualitative research presented here examines the intricate nature of life events, students' new learning environment and learning location, and their influence on students' academic performance in physiotherapy education. The slow learner type of student can benefit from an organized, compassionate and competency based approach to teaching. These students are not less able than their peers, they require supportive educational experiences. The results found give a good basis for a new system for the development, implementation and evaluation of educational processes in physiotherapy based on qualitative data collection methods.

STRENGTHS

- 1) Faculty and undergraduate students within physiotherapy were included in the study, which provides for triangulation of information;
- 2) Eighteen targeted group discussions were conducted, providing for an in-depth exploration of each group and data saturation;
- 3) A semi-structured interview guide was used, which allowed for the development of emergent themes while maintaining consistency amongst the groups;
- 4) Inductive thematic analysis was supported by the use of verbatim quotes from participants, enhancing confirmability and trustworthiness; and
- 5) An emphasis was placed on the student population who need additional academic support, which has been an understudied portion of the physiotherapy program.
6. Findings are more contextually relevant when they are in line with the National Education Policy 2020 and competency-based education principles.

Limitations

1. The statistical generalizability of results outside of the study environment is limited by the qualitative exploratory approach.
2. The format of the group discussion raises the likelihood of social desirability bias.
3. Instead of using standardized academic metrics, learners are categorized according to their perceived academic performance.
4. Lack of long-term monitoring to evaluate how treatments have affected attitudes over time.
5. Only teachers and students' perspectives were included; administrators or clinical supervisors might have offered more information.

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