

Emotional Intelligence Among Undergraduate Physiotherapy Students: A Cross-Sectional Study

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ABSTRACT

Background: Emotional intelligence (EI) is a multidimensional construct that involves the ability to perceive, interpret, and manage emotional information effectively. It includes recognizing one's own emotions as well as those of others, differentiating between them, and using this awareness to guide thinking and behavior. In physiotherapy practice, emotional competencies are essential for establishing effective patient-therapist relationships and delivering high-quality care. This study aimed to evaluate the level of emotional intelligence among physiotherapy students.

Methods: A cross-sectional study was conducted among 122 undergraduate physiotherapy students, comprising 60 preclinical students (first and second year) and 62 clinical students (third and final year). Emotional intelligence was measured using the Schutte Emotional Intelligence Scale, a validated 33-item self-report instrument.

Results: Among the 122 participants, 60 (49.18%) were in the preclinical group and 62 (50.82%) were in the clinical group. The mean age of preclinical students was 19.47 ± 0.85 years, while that of clinical students was 21.48 ± 1.21 years. Analysis using an unpaired t-test revealed a statistically significant difference in total emotional intelligence scores between the two groups

($p = 0.01$), with clinical students demonstrating higher scores.

Conclusion: The findings indicate that emotional intelligence is higher among clinical physiotherapy students compared to preclinical students. These results highlight the importance of integrating emotional skill development, alongside academic knowledge and ethical training, to prepare students as competent and well-rounded healthcare professionals.

Keywords: Empathy, emotional intelligence, physiotherapy, student.

INTRODUCTION

Physical therapy, as a branch of allied healthcare, involves continuous interpersonal engagement. Practitioners are required to communicate effectively, collaborate with multidisciplinary teams, provide patient education and counselling, and actively participate in rehabilitation processes. With the increasing emphasis on team-based healthcare delivery, emotional intelligence has become an essential competency for physiotherapy graduates. [1,2] In recent years, there has been growing interest in the role of emotional intelligence (EI) within medical education and research contexts. [3]

Emotional intelligence refers to the capacity to perceive, interpret, and regulate emotions in oneself and others. It encompasses several core components, including self-

awareness, emotional regulation, motivation, empathy, and social competence. [4-6] This construct involves not only recognizing emotional states but also using that awareness to inform thinking and behavior. [7] Evidence suggests that individuals with higher EI are more likely to establish meaningful interpersonal relationships, which may positively influence both academic success and personal development. [8] In clinical settings, empathy—an important element of EI—has been associated with improved patient interactions, more accurate clinical assessments, and greater adherence to treatment recommendations. [9]

Beyond patient care, emotional intelligence plays a crucial role in managing professional relationships within healthcare environments. Effective collaboration with colleagues, clear communication with patients' families, and the ability to navigate complex social dynamics are all influenced by EI. [10] Morrison highlights that emotional intelligence skills are particularly important in establishing trust with patients, making informed clinical decisions, functioning effectively within teams, and coping with occupational stress. [11]

There is a growing shift toward incorporating learner-centered and experiential teaching approaches in medical education to strengthen emotional and interpersonal competencies. Physiotherapy students often represent diverse demographic and cultural backgrounds, which may influence their emotional development and interpersonal skills. In this context, the present study was conducted to assess the level of emotional intelligence among physiotherapy students.

MATERIALS & METHODS

The present study adopted a cross-sectional design. The undergraduate physical therapy program spans four and a half years and culminates in the award of a Bachelor of Physiotherapy degree. [12] Students in the first and second years are categorized as preclinical, focusing primarily on

foundational subjects, whereas those in the third and fourth years are considered clinical students, with an emphasis on practical training and case-based learning.

A total of 122 students participated in the study, including 60 preclinical and 62 clinical students. Participation was entirely voluntary, and informed consent was secured from all individuals before their involvement. Ethical approval for the study was granted by the Institutional Research Review Committee.

Information on demographic variables—such as age, gender, year of study, previous academic performance, presence of healthcare professionals in the family, type of pre-university education, and residential background—was collected. Emotional intelligence was assessed using the Schutte Self-Report Emotional Intelligence Test (SSEIT), which consists of 33 items. Responses were recorded on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The overall score was obtained by summing individual item responses. The instrument evaluates four dimensions: perception of emotions, utilization of emotions, regulation of one's own emotions, and management of others' emotions. The SSEIT has demonstrated high reliability, with a reported coefficient of 0.90, where higher scores indicate greater emotional intelligence. [13]

Statistical Analysis

The collected data were organized using Microsoft Excel and subsequently analyzed with SPSS software (version 20.0). Descriptive statistics were applied to summarize demographic characteristics. Continuous variables were expressed as mean values along with standard deviations, whereas categorical variables were presented as frequencies and percentages. Comparisons between preclinical and clinical groups, as well as between male and female participants, were conducted using the unpaired t-test. A p-value of less than 0.05 was considered indicative of statistical significance.

RESULTS

Table 1 presents the demographic profile of the participants. Among the 122 students included in the study, 60 (49.18%) belonged to the preclinical group, while 62 (50.82%)

were in the clinical group. The average age of preclinical students was 19.47 ± 0.85 years, whereas clinical students had a mean age of 21.48 ± 1.21 years.

Table 1. Demographic characteristics of participants.

Characteristics		Preclinical Students (N = 60)	Clinical Students (N = 62)
Age (Mean $\pm$ SD)		19.47 $\pm$ 0.85	21.48 $\pm$ 1.21
Medical Professional in the Family	Yes	15	16
	No	45	46
Board of schooling	SSC	47	53
	CBSE	8	3
	ICSE	5	6
Place of stay	Hostelite	12	6
	Day scholar	48	56

Analysis using the unpaired t-test revealed a statistically significant difference in the total SSEIT scores between the two groups ($p =$

0.01). Clinical students demonstrated higher emotional intelligence scores compared to their preclinical counterparts (Table 2).

Table 2. Comparison of emotional intelligence scores between preclinical and clinical students.

Schutte Emotional Intelligence Scale	Preclinical Students (N = 60)	Clinical Students (N = 62)	Unpaired t-test p value
Total Score	119.08 $\pm$ 8.16	121.63 $\pm$ 10.83	0.01*
Subscales			
Perception of Emotions	32.98 $\pm$ 4.54	34.91 $\pm$ 4.13	0.015*
Managing own Emotions	31.78 $\pm$ 3.62	32.42 $\pm$ 3.35	0.316
Managing others Emotions	30.3 $\pm$ 3.03	30.66 $\pm$ 2.67	0.486
Utilization of Emotions	23.97 $\pm$ 4.07	23.63 $\pm$ 3.81	0.637

DISCUSSION

The findings of this study indicate that students in the clinical phase of physiotherapy education have higher emotional intelligence than those in the preclinical stage. In the early years of training, students mainly focus on establishing a strong foundation in basic medical sciences. Instruction at this stage is usually delivered through lectures and simulated demonstrations, with limited interaction in actual clinical settings. As students move into the clinical phase, their learning shifts toward hands-on experiences in hospitals and community environments. This transition introduces them to case-based learning and direct patient care, allowing them to apply their theoretical knowledge practically. Regular interaction with patients helps students improve their communication skills, enhance their

understanding of ethical practice, and gain valuable clinical experience. ^[14]

The structure of the physiotherapy curriculum itself may contribute to the development of emotional intelligence. Senior students are often engaged in coursework that emphasizes professionalism, ethical decision-making, and effective communication. In addition, continuous patient engagement during clinical postings can foster empathy and improve emotional awareness. These educational and experiential factors may account for the higher emotional intelligence scores observed among clinical students.

The results of this study are consistent with findings from previous research. A study conducted at Putra Medical School in Malaysia reported that final-year medical students had significantly higher emotional

intelligence levels than first-year students. [15] Similarly, longitudinal research has demonstrated that emotional intelligence tends to improve progressively throughout medical training, indicating a developmental trend over time. [16]

Age may also play a role in the differences observed between preclinical and clinical students. Since clinical students are generally older, their higher emotional intelligence scores may partially reflect greater maturity and life experience. Earlier studies involving medical students have also identified a positive association between age and emotional intelligence. [17,18]

Despite these insights, several limitations should be acknowledged. The cross-sectional design restricts the ability to establish causal relationships between the training stage and emotional intelligence. Longitudinal studies would provide a clearer understanding of how emotional intelligence evolves throughout physiotherapy education. Additionally, reliance on self-reported measures introduces the possibility of response bias, including social desirability effects. Another limitation is that the sample was drawn from a single institution, which may affect the broader applicability of the findings. Future research involving multiple institutions would help improve generalizability.

Emotional intelligence plays a critical role in healthcare practice. It supports effective patient interactions, enhances teamwork, contributes to stress management, and strengthens leadership capabilities. For this reason, it is important for educational programs to actively promote the development of emotional intelligence alongside clinical knowledge and technical skills. Integrating targeted training strategies within physiotherapy curricula may help cultivate professionals who are not only competent but also empathetic and adaptable, ultimately improving patient care outcomes.

CONCLUSION

This study assessed emotional intelligence among physiotherapy students and found that those in the clinical phase scored higher than their preclinical peers. The findings highlight the importance of fostering emotional intelligence as an integral component of physiotherapy education. In addition to developing theoretical knowledge and practical skills, students should be encouraged to build emotional competencies to become well-rounded and effective healthcare professionals.

Declaration by Authors

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