

Advocating Problem-Based Learning in Physiotherapy Education in Pakistan



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Dear Editor,

Pakistan follows a conventional educational system consisting of traditional instructional techniques¹. The instructor imparts knowledge through laboratory experiments and didactic lectures using this approach. These teaching methods emphasize theoretical learning, increasing the value of hands-on practical sessions¹. However, overlooking problem-solving abilities and communication skills hinders our education in this evolving era. In the medical realm, physiotherapy demands a correlation of theoretical knowledge with real-life clinical cases because theoretically ideal and isolated signs and symptoms are rare. The limited clinical correlation with theoretical knowledge makes it hard for students to comprehend what arises². Thus, applying more contemporary teaching strategies, such as problem-based learning (PBL), is an approach to developing learners' diagnostic and therapeutic skills by providing real-world problems as theoretical case scenarios that enhance students' critical thinking². Additionally, it ensures the integration of their theoretical knowledge in their training for future professional medical practice, enhances learner engagement, and improves knowledge retention. Cognitive researchers advise that instructors need preliminary training, especially in evaluating and facilitating PBLs³.

For the past few decades, PBL has been gaining momentum and showing efficacy for learning globally⁴. Medical schools revise their courses to reflect the evolving nature of the health profession. It is acknowledged to be among the first few advantageous approaches to acquiring problem-solving skills that define the nature of a problem by using correct information, ensuring the availability of appropriate resources, and monitoring the whole process to achieve real-life problem-solving skills⁵. Using PBL, students can broaden the breadth of their learning by integrating concepts, enabling them to practice and overcome complicated legitimate circumstances and scenarios⁶. For integrating PBL into the physiotherapy education system, there is a need to develop a blending of different teaching approaches—curriculum-aligned cases and discussion, setting up small student groups for self-directed learning. It is also vital to train facilitators to supervise students closely and adaptably while resolving issues⁷. For instance, the University of Indianapolis provides PBL-focused professional development, and Twente University requires PBL training for new lecturers³. First-year students at Aalborg University

attend courses in project management and collaborative learning. PBL improves students' clinical reasoning, teamwork, and active lifetime learning abilities while preparing them for practice as doctors in the real world. In clinical settings, students can use their problem-solving capabilities to practice successfully⁸. Developing skills during a project helps students control their anxiety, which can be minimized with advanced planning and direction⁹. Moreover, short-term clinical postings and knowledge of clinical subjects enable students to use their theoretical grasp of pathologies in the clinical setting, strengthening and extending their expertise and advancing students' skills in an eclectic learning style¹⁰. Although PBL traditionally does not consist of conventional, teacher-dominant lectures, a hybrid PBL method can be introduced with lectures to address all aspects of educational patterns¹¹. It establishes a connecting bridge between practices on the one hand and theories on which they are based on the other.

Presently, PBL is incorporated into several medical universities all over the world. In Asia and Pakistan, it has been conducted in several private medical institutions with hundreds of students, acknowledging the role of PBL in developing conceptualization, interpersonal skills and analytical abilities by conducting research in its different departments. However, many public sector medical schools employ a traditional, lecture-based curriculum compared to private universities. They find it challenging to adopt PBL because of their larger student bodies and lack of funding¹². There may also be shortcomings of PBL, including the degree of information to be attained, an unambiguous approach to what to teach and how the learning outcome would be achieved and wise selection of teaching materials. Moreover, it may entail lengthy and inattentive study groups, an overwhelming sense of responsibility, and anxiety about making poor decisions without a facilitator's direction⁸.

Unfortunately, to the author's knowledge, there is limited evidence to claim that higher education authorities have taken strides to incorporate PBL in physiotherapy programs, leaving behind a significant practice gap that leads to a lack of opportunities in research work and damages life-long learning¹³. Therefore, through this letter, it is unequivocally proposed that PBL be incorporated into the physiotherapy program and studies be conducted to evaluate the effects of a PBL program, find out student satisfaction and possible disadvantages, and examine competencies influenced by it¹⁴.

Conflict of Interest

None.

References

1. Fida S, Rehman S, Naemullah M. Comparison of Effectiveness of Blended Learning Strategy and Traditional Learning Strategy on the Academic Performance of the Students in the Subject of Economics at Higher Education Level in Pakistan. *International Journal of Business and Management Sciences*. 2022 Dec 9;3(3):118-38.

2. Campo L, Galindo-Domínguez H, Bezanilla MJ, Fernández-Nogueira D, Poblete M. Methodologies for fostering critical thinking skills from university students' points of view. *Education Sciences*. 2023 Jan 27;13(2):132.
3. Na H. CBT-LLM: A Chinese Large Language Model for Cognitive Behavioral Therapy-based Mental Health Question Answering. arXiv preprint arXiv:2403.16008. 2024 Mar 24.
4. Kronenfeld JP, Saberi RA, Cioci AC, Urrechaga EM, Ryon EL, Thorson CM, Hui VW, Rodgers SE, Sands LR. Implementation of a Surgical Problem-Based Learning Curriculum: A One-Year Single-Center Experience. *The American Surgeon*. 2022 Mar 12:00031348211068014.
5. Aslan A. Problem-based learning in live online classes: Learning achievement, problem-solving skill, communication skill, and interaction. *Computers & Education*. 2021 Oct 1;171:104237.
6. Stentoft D. Problem-based projects in medical education: extending PBL practices and broadening learning perspectives. *Advances in Health Sciences Education*. 2019 Dec;24(5):959-69.
7. Nawabi S, Javed MQ, Bilal R. Problem-based learning and team-based learning as a novel package approach. *J Coll Physicians Surg Pak*. 2021 Jun 1;30(6):710-5.
8. Vanishree et al. Problem-based learning (PBL) and its limitations. *J Coll Physicians Surg Pak*. 2018;28(2):56-63.
9. Randles S, Dewick P, Hannan E, Nicholson DT, Rietbergen M, Taylor C, Vargas VR, Wadham H, Withycombe Keeler L. Applying enquiry and problem based learning to mission-oriented innovation policy: from policy to pedagogy to teaching and learning practice. *Journal of International Education in Business*. 2022 Apr 20;15(1):52-73.
10. Jhala M, Mathur J. The association between deep learning approach and case based learning. *BMC medical education*. 2019 Dec;19:1-4.
11. Trullàs JC, Blay C, Sarri E, Pujol R. Effectiveness of problem-based learning methodology in undergraduate medical education: a scoping review. *BMC medical education*. 2022 Feb 17;22(1):104.
12. Ali S, Aslam S, Qayyum A, Hina H, Nasir H, Saleem R, Khan SI, Manzoor A, Nawaz N. Perceptions of Students about Problem Based Learning at the College Level in Faisalabad. *Journal of Education and Social Studies*. 2023 Apr 30;4(1):112-8.
13. Ali MF, Butt SA, Basim M. Perception of dental students about PBL method for constructive learning. *Pakistan Journal of Medicine and Dentistry*. 2019 Apr 4;8(1):6-.
14. Aldayel AA, Alali AO, Altuwaim AA, Alhussain HA, Aljasser KA, Bin Abdulrahman KA, Alamri MO, Almutairi TA. Problem-based learning: medical students' perception toward their educational environment at Al-Imam Mohammad Ibn Saud Islamic University. *Advances in medical education and practice*. 2019 Feb 26:95-104.



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All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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