

### The incompetence of competency? making CBME work in Pakistan

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Competency-Based Medical Education (CBME) shows a change from conventional medical training that is time-specific to an outcomes-specific approach, ensuring that medical graduates acquire competencies for efficient practice [1]. Healthcare provision in Pakistan is marked by issues like scarcity of trained professionals and discrepancies in quality of care, but CBME may be a breath of fresh air. However, there are major impediments to implementing this system at the undergraduate (MBBS) and postgraduate (residency) levels, including faculty, student, and systemic issues. This paper investigates these challenges and proposes contextually appropriate techniques for CBME to operate in Pakistan.

CBME emphasizes competencies that can be measured, including clinical abilities and decision-making, and these are best reflected with methods such as Entrustable Professional Activities (EPAs), which measure preparation for independent practice [2]. This emphasizes learner autonomy and accountability, so CBME is best applied to workplace-based assessment [3]. In Pakistan, the implementation of such a framework comes with its challenges. Many Pakistani medical universities lack the necessary infrastructure and faculty training. In one survey, 72.2% of institutions cited resource difficulties that hampered the required training [4]. Of the Departments of Medical Education (DMEs) in Pakistan, only 5.6% have full-time heads, and the majority (61.1%) do not have professional Medical Education qualifications, restricting leadership for transformation [4]. Furthermore, 61% of institutions confront faculty and management opposition to change, indicating cultural inertia [4].

This was exacerbated by the PM & DC's sudden change to a modular curriculum without adequate training and preparation, leading to practices such as fake timetables and incomplete implementation [5].

CBME demands considerable training and expertise for assessment; this can only be implemented by extensive faculty development, which is the soul of the system. However, this poses the biggest bottleneck in our system as longitudinal faculty development programs are few, and most faculty, having been taught and trained under conventional systems, resist the transition to CBME [5]. According to 2020 research, 66.6% of colleges have a deficit of skilled staff, with many teachers untrained in CBME frameworks [4]. Faculty often operate under the misconception that clinical excellence automatically translates to teaching effectiveness, creating barriers to their growth as medical educators [5]. Research from 2020 reveals that two-thirds of medical institutions face significant shortages of qualified teaching staff, with many educators lacking proper training in competency-based medical education approaches. The situation is worsened by technological challenges, where faculty members are not digital natives but rather “refugees” trying to explore the terrain [5].

Students from a rote-oriented school/college program face hurdles transitioning to CBME's self-directed, competency-focused approach. Even after entering medical school, the competitive program, high patient load, and lack of research facilities pose problems. In a recent study, 40% of Pakistani medical students cited time constraints due to heavy workloads, limiting engagement with self-directed learning [6]. Financial constraints, such as high publishing fees (e.g., 1300 USD for Scopus-indexed journals) and outdated facilities, like inadequate labs, restrict opportunities for hands-on practice essential for CBME [7].

Regulatory authorities and frameworks in the country pose systemic barriers. A 2018 study showed that 38.9% of colleges were not properly coordinating with PM&DC, and clarity of PM&DC guidelines has been lacking since 2008 [4].

This is further exacerbated by an absence of standardization for Health Professions Education (HPE) programs<sup>[5]</sup>. The accreditation processes, which often require a checkbox-style list for compliance and do not have flexibility or room for innovation, also mark a major deterrent to CBME adoption<sup>[7]</sup>. Other issues that exist but may not be very blatant, like the significant brain drain of doctors from the country, all further strain already limited resources. Global success stories in CBME may offer valuable insights, such as a study sharing how Kotter's change principles resulted in a successful transition to CBME at Queens University<sup>[8]</sup>. A phased implementation strategy starting with postgraduate programs, enhancing existing tools, creating capacity-building opportunities for faculty, and seeking collaboration may help<sup>[9]</sup>. A collaborative national task force comprised of PMDC, the Higher Education Commission (HEC), medical colleges, and healthcare institutions might offer the coordinated leadership required for this transformation, drawing on Canada's successful transition<sup>[10]</sup>.

Faculty development is at the heart of this effort. The success of programs like the Certificate in Health Professions Education (CHPE), which has now trained over 1,700 medical educators, shows the potential for scalable capacity building. Partnerships with organizations like the World Federation for Medical Education (WFME) to develop cost-effective, modular training pathways may assist in the faculty's preparedness<sup>[5]</sup>.

A thoughtful pilot approach in selected institutions would allow educators and administrators to refine their methods and address implementation challenges before expanding nationwide<sup>[8]</sup>. Simultaneously, strengthening the Departments of Medical Education through qualified leadership and fostering public-private partnerships for essential infrastructure such as simulation laboratories could help address the significant 72.2% resource gap currently facing medical education<sup>[4]</sup>.

Students can be supported by inexpensive digital solutions such as mobile app trackers for competency tracking<sup>[7]</sup>.

Implementing CBME in Pakistan is certainly complex but not impossible. Addressing institutional inertia at the level of systems, faculty, and students is essential. A phased approach, with regulatory body support, faculty development, and student assistance, is the way forward. This, along with stakeholder engagement and continuous evaluation, will benefit our healthcare system.

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