

A Holistic and Innovative Approach to Postgraduate Medical Education

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The field of medical education in Pakistan is undergoing a significant transformation, with an increasing emphasis on innovation to address the changing requirements of the healthcare sector. Postgraduate medical education plays a crucial role in shaping proficient and competent healthcare professionals. Considering this, various innovative measures can be explored to improve the quality of postgraduate medical education in Pakistan. A learning objectives-based self-directed study plan can serve as the basis for the professional development of residents right from the commencement of their residency program [1].

Competency-based medical education (CBME) represents a paradigm shift in postgraduate medical education and has sparked considerable discussion and debate [2]. Unlike traditional assessment tools, CMBE focuses on measuring the actual skills, knowledge, and attitudes that are essential for effective clinical practice. By employing this method, the Association of American Medical Colleges (AAMC) unveiled the Core Entrustable Professional Activities for Entering Residency (Core EPAs) in 2014. This initiative outlines 13 tasks that encompass various competencies, and students are expected to be capable of performing them with minimal supervision upon entering residency. Numerous medical schools in the United States have since embraced, adapted, and extended these EPAs. These EPAs have now been expanded and are extensively employed in postgraduate medical training globally [3]. With the global adoption of CBME approaches, there is a need to redirect attention towards elucidating the implementation of CBME frameworks, understanding their functioning in our clinical practice, and assessing their impacts on our postgraduate medical education system [4].

Embracing digital tools and artificial intelligence, educational institutions are revolutionizing the traditional methods of teaching and learning. Virtual simulations, online lectures, and interactive multimedia resources have provided postgraduate trainees with dynamic and engaging educational experiences. Incorporating

a technology-driven approach in postgraduate medical education not only enhances accessibility to educational resources but also cultivates adaptability and proficiency in utilizing modern tools like 3D printing and artificial intelligence [5]. As Pakistan's postgraduate medical education system continues to evolve digital healthcare-based learning stands out as a catalyst for innovation and excellence.

Another strategy for enhancing postgraduate medical education encompasses the substantial enrichment of the learning experience through exposure to global medical practices and collaborations with esteemed institutions. Through exchange programs with international medical centers, residents gain valuable insights into diverse healthcare systems, research opportunities, cultural perspectives, and advanced medical technologies. This exposure not only broadens their horizons but also enhances their understanding, maturity, and proficiency in safe clinical practices [6]. There should be a focus on promoting innovative initiatives such as the PIONEERS (Pakistan Italy, Oncology Network Experiences) exchange program for postgraduate trainees [7, 8].

One often overlooked aspect of enhancing the postgraduate medical education system is the impact of leadership skills. While much attention is rightfully given to the acquisition of medical knowledge and clinical skills, the importance of leadership abilities cannot be overstated. Effective leadership is integral in navigating complex and dynamic healthcare systems, where skills like team building, decision-making, emotional intelligence, and effective communication are paramount [9]. Therefore, the integration of leadership skill development into the postgraduate medical education curriculum is important for preparing healthcare professionals for the multifaceted challenges of their roles. Beyond acquiring medical knowledge, fostering leadership skills ensures that individuals can effectively lead and collaborate within healthcare teams which will result in better patient care [10].

Nevertheless, the role of a mentorship program in postgraduate medical training is instrumental in cultivating the professional and personal development of aspiring healthcare professionals. A well-structured mentorship initiative provides a supportive framework where experienced mentors guide and advise

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postgraduate trainees through the complexities of their medical journey, while the mentee remains in the driving seat. Effective mentorship can help mitigate the rates of burnout among residents while simultaneously enhancing their performance and improving patient care [11].

The adoption of innovative approaches in postgraduate medical education in Pakistan is essential for developing versatile and proficient healthcare professionals. Incorporating structured study plans, utilizing technology for learning, executing competency-based assessments, advocating for global collaborations, and endorsing research initiatives collectively elevate the standards of postgraduate medical education. Furthermore, the integration of leadership skill development *via* mentorship programs is equally essential. These holistic measures not only improve the quality of medical education but also play a pivotal role in advancing patient-centered healthcare delivery throughout the nation.

REFERENCES

1. Karim MU, Qureshi BM, Abbasi AN. Impact of a learning objective based self-study plan in an introductory radiation oncology curriculum. *Int J Radiat Oncol Biol Phys* 2020; 108(3): 836-7. DOI: <https://doi.org/10.1016/j.ijrobp.2020.05.050> PMID: 32976796
2. Bentley H, Quoc Vo CD, Zaki-Metias K, Nikpanah M. Competency-based medical education in radiology graduate medical education: overview and future perspectives. *Radiographics* 2023; 43(5): e220197. DOI: <https://doi.org/10.1148/rg.220197> PMID: 37053101
3. Zetkolic M, Moriarty JP, Amin A, Angus S, Dalal B, Fazio S, *et al.* Exploring competency-based medical education through the lens of the UME–GME transition: a qualitative study. *Acad Med* 2024; 99(1): 83-90. DOI: <https://doi.org/10.1097/acm.0000000000005449> PMID:
4. Brydges R, Boyd VA, Tavares W, Ginsburg S, Kuper A, Anderson M, *et al.* Assumptions about competency-based medical education and the state of the underlying evidence: a critical narrative review. *Acad Med* 2021; 96(2): 296-306. DOI: <https://doi.org/10.1097/acm.0000000000003781> PMID: 33031117
5. Abbasi AN, Khan L, Ali N, Hafiz A, Abrar S, Jangda AQ, *et al.* Rationale of utilization of 3D printing techniques in clinical practice of radiation oncology: paving the way for the establishment of clinical digital health multidisciplinary team. *Pak J Radiol*. 2021; 31(4): 254-7.
6. Hina M, Ali T, Tariq M, Ahmed B, Abbasi AN. Correspondence Letter to “Does Current Training in Radiation Oncology Prepare Radiation Oncologists to Optimally Manage Patients With Head and Neck Cancer?”. *Am J Clin Oncol* 2023; 46(10): 474. DOI: <https://doi.org/10.1097/coc.0000000000001037> PMID: 37743557
7. Karim MU, D’Aviero A, Khan AMH, Abbasi AN. Importance of international exchange programme in postgraduate training. *J Coll Physicians Surg Pak* 2018; 28(12): 981-2. DOI: <https://doi.org/10.29271/jcpsp.2018.12.981> PMID: 30501844
8. Khan AMH, Tariq M, Khan AMH, Hina M, Ali T, Jawwad U, *et al.* Global Village Oncology Network (GVON)—an emerging platform from an emerging country—an international working initiative. *Pak J Radiol* 2023; 33(2): 72-5.
9. Abbasi AN, Tariq M, Karim MU, Casa C. Emotional intelligence training can be incorporated as an essential component of postgraduate medical education: paving the way towards the development of multidisciplinary team culture. *J Coll Physicians Surg Pak* 2023; 33(3): 362-3. DOI: <https://doi.org/10.29271/jcpsp.2023.03.362> PMID: 36945173
10. Khan AMH, Ali T, Khan AMH, Tariq M, Qureshi BM, Ali N, *et al.* 236 importance of leadership skill development among health care professionals in LMIC. *Radiother Oncol* 2023; 186: S102.
11. Deb L, Desai S, McGinley K, Paul E, Habib T, Ali A, *et al.* Mentorship in postgraduate medical education. In: *Contemporary Topics in Graduate Medical Education-Volume 2*. IntechOpen; 2022. DOI: <https://doi.org/10.5772/intechopen.98612>