

Evolution of Post Graduate Curricula in Pakistan

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Postgraduate medical training started with the apprenticeship model. This system heavily relied on tradition and subjectivity. In the middle of the 20th century, there was a gradual shift to an objective-based structure which had its roots in the works of Ralph Tyler and Benjamin Bloom. As a result, the curriculum became focused on predefined objectives in the cognitive, psychomotor, and affective domains. This drive was aimed to standardize the learning criteria across various centers and align the tools for assessment for postgraduate medical students.¹

In our country, the College of Physicians and Surgeons Pakistan (CPSP) has been the main center of postgraduate medical education since its inception in 1962. With both local and foreign-trained faculty members, it was one of the first centers to start training in Medical Education in collaboration with the World Health Organization in 1979.² Various supervisor workshops and certifications by the Department of Medical Education helped equip the faculty with the tools required for curricular development.³ Thus new curricula in each discipline were developed and were called “structured training programs”. They were based on the objective approach and largely focused on summative assessments with very few formative assessments.⁴

In the last two decades, new evidence and methods of postgraduate teaching and assessment have evolved in the west.⁵ Due to technological enhancements in patient care and vast development in the scientific pool of medical knowledge, there was a demand to define outcome-based competencies that strongly align with the demands of the workplace. As a result, competency-based curriculum models were developed which “de-emphasized time-based training and promised greater accountability, flexibility, and learner-centeredness”.¹ CANMEDS (Canadian Medical Education Directives for Specialists) and

ACGME (Accreditation Council for Graduate Medical Education) are two of the most popular systems having a competency-based framework which has been developed and successfully implemented in North America.

Competency-based programs differ from objective-based ones in the fact that instead of prescribing how to teach or learn, they focus on the demonstration of various competencies required for practice. A competency-based curriculum must exhibit “teacher-learner relationship and responsibility, workplace-based assessment approach, alignment of competencies with criterion-referenced assessment, and flexible training duration”.⁶ The system focuses on the attainment of competencies by the trainee to determine readiness for unsupervised practice rather than the length of their training.

The structure of a competency-based curriculum is not based solely on objectives but rather uses defined Entrustable Professional Activities (EPAs) which align the teaching and assessment at the workplace with the competency frameworks. Another key aspect of this curricular structure is milestones which are based on the skill development framework of Dreyfus and Dreyfus.¹ Both these key elements ensure that the trainee has attained the desired level of clinical skill to practice.

The teaching of these competencies is often done in a workplace setting. Assessments employ Work Place Based Assessment (WPBA) tools such as Directly Observed Procedural Skills (DOPS) for procedural skills, Mini Clinical Evaluation Exercises (Mini-CEX), and Chart Based Recall (CBR) for clinical reasoning skills and 360-degree feedback for professionalism, interpersonal and communication skills. The system also caters to the extent of differential achievement of learners by offering targeted help to trainees in form

of regular formative feedback which is an essential component of WPBAs.⁷

As with other, in vogue ideas of medical education, the College of Surgeons and Physicians Pakistan was the first to develop a competency-based curricular framework nearly a decade ago. It was centered on patient care and involved professionalism, pedagogy, and advocacy as essential competencies to be acquired by the specialists.^{4,8}

One key area where the CPSP fellowship program has developed since then is the development of portfolios⁹ in the form of an electronic log (e-log) system for regular monitoring of training. The e-log system also includes reflections by supervisors and trainees which is a step in the right direction.¹⁰ Other technological solutions such as learning management systems, mobile applications, simulation, and social media if added could further enhance student learning and engagement.^{11,12}

A close inspection of the current fellowship and membership structured training programs of CPSP reveals that despite the claim of running a competency-based framework, none of the key features of this system like defined EPAs, milestones, and WPBA strategies exist. Also, there is a lack of curricular alignment with the core competencies. So, it is difficult to consider it as a competency-based framework of postgraduate medical education in a true sense.

Other medical universities in the country have relatively recently developed their Master of Surgery (MS) and Doctor of Medicine (MD) curricula. Wide variations exist in their induction, teaching & learning, assessment, and evaluation criteria. Also, limited literature is available to study their curricular structural design. Instead of adopting the new competency-based framework, most have chosen to retain the archaic objective-based curricular model. Unfortunately, with no guidelines from the nascent Pakistan Medical Commission, most programs tend to evolve in the light of the Higher Education Commission's curriculum recommendations which are based on the older objective-based approach.¹³

Rawalpindi Medical University right from its inception had the vision to develop a University Residency Program for post-graduate studies in Medicine, Surgery, and allied disciplines based on ACGME competency-based curriculum. Under this program, we train hundreds of trainees with regular monitoring via workplace-based assessment and 360-degree feedback forms. These are evaluated by the Quality Enhancement Cell in 6 monthly cycles with

feedback provided to the trainees, supervisors, and administration. The trainee is also required to log cases and activities with reflections in their logbooks. Each clinical case is also added to their online portal for record and evaluation. These regular formative tools with monitoring and feedback help the trainee assess their weaknesses, supervisors plan their trainee's progress and administration take decisions for improvement. Formative assessments are done at the end of each year comprising of MCQ, SAQ, and OSCE formats. At the end of the program, a comprehensive summative assessment is also conducted to certify competence.

Nine years ago, Wasim Jafri¹⁴ wrote that "The competency-based model provides an exceptional opportunity for Pakistani postgraduate medical institutes". We believe that today Rawalpindi Medical University is a pioneer among the medical sector universities in providing this excellent opportunity to its trainees and supports other partnering universities in developing competency-based curricula.

Reference

1. Ten Cate O. Competency-based postgraduate medical education: past, present and future. *GMS journal for medical education*. 2017;34(5).
2. Akhtar J, Chaudhry ZU. Postgraduate medical education in Pakistan. *J Coll Physicians Surg Pak*. 2013;23(1).
3. Siddiqui ZS. The Changing Face of Medical Education: Implications for Pakistan. *Nishtar Medical Journal*. 2012;4(1 & 2):3-8.
4. Chaudhry ZU. Establishing a System of Postgraduate Medical Education in Pakistan. *Journal of Medical Regulation*. 2015;101(3):37-40.
5. Weggemans MM, Van Dijk B, Van Dooijeweert B, Veenendaal AG, Ten Cate O. The postgraduate medical education pathway: an international comparison. *GMS journal for medical education*. 2017;34(5).
6. Iobst WF, Sherbino J, Cate O Ten, et al. Competency-based medical education in postgraduate medical education. *Medical teacher*. 2010;32(8):651-656.
7. Shah R, Ahluwalia S. The challenges of understanding differential attainment in postgraduate medical education. *British Journal of General Practice*. 2019;69(686):426-427.
8. Shaikh SH. A reform agenda outline for medical education in Pakistan. *J Coll Physicians Surg Pak*. 2009;19(6):331-332.
9. Heeneman S, Driessen EW. The use of a portfolio in postgraduate medical education—reflect, assess and account, one for each or all in one? *GMS journal for medical education*. 2017;34(5).
10. Gondal KM, Iqbal U, Ahmed A, Khan JS. Supervisors' perspective on electronic logbook system for postgraduate medical residents of CPSP. *J Coll Physicians Surg Pak*. 2017;27(9):540-543.
11. Bullock A, Webb K. Technology in postgraduate medical education: a dynamic influence on learning? *Postgraduate medical journal*. 2015;91(1081):646-650.
12. Memon AR, Rathore FA. Moodle and Online Learning in Pakistani Medical Universities: An opportunity worth exploring in higher education and research. *J Pak Med Assoc*. 2018;68(7):1076-1078.
13. Shakoori T, Tariq K, Saeed MS, Ahmed M, Asif A. Elevating the MD/MS/MDS Qualification: A Curriculum Update from a Public Sector Medical University, Lahore, Pakistan. *Annals of King Edward Medical University*. 2018;24(2):814-817.
14. Vakani FS, Jafri W, Jafri F, Ahmad A. Towards a competency-based postgraduate medical education. *Journal of College of Physicians and Surgeons Pakistan*. 2012;22(7):476.