EDITORIAL

Surgical education and training

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Surgical education and training has witnessed a paradigm shift in the last three decades. Up until the 20th century, surgical education and training were mainly through an apprenticeship model. Trainees primarily learned by directly observing their mentors and duplicating these actions in their clinical practices [1].

In the 20th century, Sir William Halsted introduced a more formal and structured surgical training format, which involves vigorous interactions of trainees with surgical patients. Emphasis was laid on understanding fundamental principles of surgical diseases and acquisition of surgical skills in a stepwise fashion[2]. The basic Halstedian surgical education model and training has gone through significant changes in the last few decades. These changes have brought about more structured and measurable parameters of evaluation in surgical training. The introduction of core surgical competencies by the American College of Graduate Medical Education (ACGME) is one such example[3]. The current landscape of surgical education is directed towards competency-based or outcome-based surgical education.

This rapid evolution in surgical education and training in the last few decades has also posed additional challenges. The ever-increasing body of evidence in diagnosing and managing different surgical diseases requires both the trainee and trainer to stay updated. Working hour directives further complicates the training. This means more comprehensive training and education in a shorter time frame[1]. Concern for patient safety is another issue that the trainers have to keep in mind. At the same time, striking a balance between services with educational value are being debated. Another challenge that the surgical community faces is the decline in the number of motivated and active mentors for trainees. The scarcity of influential mentors can be explained by factors like a lack of active involvement and engagement by supervisors, increase work burden and demand with the same number of operating room slots and time, a paucity of financial compensation for their mentorship, and a deficiency of persuasive impact of mentorship on their professional career[4].

In recent times, the pandemic of COVID-19 has had a profound effect on surgical education and training. A decline in the number of elective surgeries and limited exposure of residents in emergency procedures has negatively impacted the overall training and experience of surgical residents in almost all specialties. Similarly, fewer complex cases, a limited number of residents in clinics or wards, and a decline in the regular educations academic activities have also played their part in the surgical resident's training during this pandemic. However, the medical community has responded to these challenges to minimize the impact on education. The innovative learning tools like teleconference and webinars, provision of different online learning strategies like flip board classroom, innovations in social media applications, implementation of virtual consults, incorporation of simulation and virtual reality for skill acquisition, and introduction of different online assessment strategies have played a pivotal role in the continuity of surgical education and training in these difficult times[5].

Like other low–middle-income countries (LMIC), Pakistan faces the challenges like shortage of trained surgical individuals, non-uniform presence of trained surgeons across different geographical locations, absence of centralized structured training body, and lack of will for improvement by government bodies. In the face of these challenges, we need to develop cost-effective systems to produce an adequate number of skilled surgeons. We have to improve the existing health systems to tackle the disparity of available health facilities between urban and rural environments[6].

This supplement focuses on different aspects of surgical education in our region. An effort has been made to address the current issues and challenges in surgical training, potential solutions that are compatible with our learning environment, innovations in imparting effective surgical training, and the impact our training programs

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have made nationally and internationally over the last twenty-five years of surgical training.

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