

Commentary: Enhancement of cognitive and surgical skills of phacoemulsification in residency or fellowship program: A multiapproach training

Gandhi Bhatt *et al.*^[1] described in their article how the introduction of a structured short-term phacoemulsification training program improved the ICO-OSCAR (International Council of Ophthalmology's Ophthalmology Surgical Competency Assessment Rubric) score and learning curve and decreased the complication rate. Cataract surgery, especially phacoemulsification under a microscope, needs precision and accuracy for the best outcome regarding vision and nil complication. But it needs enough training for steady hand-eye coordination, knowing machine parameters in detail, and learning the surgery process step by step. In recent years, the training process changed from simple observation at the side view arm of the microscope at the assistant's stool to the wet-lab training with goat's eye and now with the surgical simulator. Accreditation Council for Graduate Medical Education (ACGME) in the USA has mandated that all residency training programs (including ophthalmology) teach and assess six general competencies (i.e., medical knowledge, communication and interpersonal skills, patient care, professionalism, practice-based learning, and systems-based practice). Changes in the modern health care system and residency training have increased the demand for objective measurements of surgical competency under patient care competency in ACGME. There are many objective assessment scores developed in the recent years for cataract surgery training among residents.^[2] The ICO-OSCAR score recently has changed the perspectives of the training program. It is widely accepted globally where a trainee has to give an exit exam to achieve a certain score.^[3] In our country, very few institutions have structured training programs for the

residents and trainees. It needs proper planning, resources, human resources, and time. The All India Ophthalmic Society is already working for a streamlined residency curriculum across the country, but it will take time to implement it in all institutions.^[4] The structured training program with a feedback system, video recording of the case, and a video review by both the trainee and the trainer simultaneously improve the trainee's confidence and cognitive skills. It also improves the OSCAR score after each case in each step. The immediate feedback of the trainer during surgery and the review of the trainee's surgical video help the trainees understand their own mistake and improve their decision-making power. A scoring system should evaluate the process of learning phacoemulsification in each step. The trainee should not enter the next step until their score becomes satisfactory in the previous step. This structured program not only improves the surgical skills but also reduces the complication rate. Phacoemulsification is still not the universal technique for cataract surgery across the globe, especially in developing countries. So ICO-OSCAR.ECCE (International Council of Ophthalmology's Ophthalmology Surgical Competency Assessment Rubric: Extracapsular Cataract Extraction) score system can also be applied for extracapsular cataract extraction surgery.^[3] According to the last survey, postcataract surgery complications are still an important cause of blindness (the third most common cause) in those above 50 years old in India, accounting for 7.2% of blindness.^[5] This needs urgent attention among policymakers and senior members of the ophthalmological society to reduce this iatrogenic blindness that cannot be ignored. It can be reduced largely by proper and adequate training under supervision with the expense of both time and resources. It can be done through a long-term fellowship program, residency program, or multiple short-term training programs. Many nongovernment organizations and the corporate sector started the Phaco Development Programme for a short period with a specialist trainer using the ICO-OSCAR score and improved the surgical skills among the trainee ophthalmologists.^[6] Although the original ICO-OSCAR scoring system was developed for surgery in the patient's

eye, the modified OSCAR score system can also be applied during wet-lab sessions to develop self-awareness about the gaps in each step.^[7] In a few limited government institutions in India, the surgical simulator training has also started recently. Although it is expensive, it has a program software where a resident can do autolearning, and repetition in each step enhances hand–eye coordination. Still, it cannot replace wet-lab training. Rather, it will be an additive tool. Training using the simulator has shorter phacoemulsification times, lower percentage powers, fewer intraoperative complications, and a shorter learning curve.^[8]

So a multiapproach training in a residency program or fellowship program (either long term or short term) will affect skill enhancement. This will further reduce the burden of blindness, including the iatrogenic one, in this country.

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Conflicts of interest

There are no conflicts of interest.

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