

Letter to the Editor

Development of simulation based medical education in India

Sir,

Medical education has undergone various changes in the last decades in India. From 2019 competency based medical education has been implemented as per National Medical Commission (NMC) guidelines and there was various modifications made in teaching learning methods, assessment method. The new CBME curriculum stress the importance of proficiency in several clinical skills by medical graduates rather than mere gaining of knowledge. As per NMC regulations 2020 skills lab is compulsory in medical colleges.¹ Need of skills lab now practically realized after the COVID-19 pandemic so NMC advised to start separate skills lab for COVID-19 called COVID-19 skills lab in all medical colleges and mentioned the list of the 42 topics and to train and cover all the level of health workers.²

NEED OF SIMULATION BASED MEDICAL EDUCATION

Medical training programs should ensure that students have the necessary learning opportunities and must be assessed by the appropriate methods. Clinical skill competencies including communication skills, history-taking, professional attitudes, awareness of ethical basis of healthcare, physical examination, procedural skills, clinical laboratory skills, diagnostic skills, therapeutic skills, resuscitation skills, critical thinking, clinical reasoning, problem solving, team-work, organization skills, management skills, and information technology skills should be part of the core in undergraduate curriculum.³ Cognitive teaching alone cannot bring the full-fledged medical practitioner. Every medical students must know the other domains also that is skills and psychomotor, for example only cognitive teaching about CPR is not only enough, but to know about the psychomotor domain teaching i.e., to perform the CPR in real life.

In view of bringing the best medical practitioner the simulation and skills lab were needed. Every skill is important like urinary catheterization, Ryle's tube insertion, suturing etc., all procedures were teaching in skills lab by using various simulators. The main ultimate goal of simulation based medical education is patient safety and good outcome. Simulation opens up opportunities that are not available in real event learning, such as apprenticeships, and at the same time provides a multifaceted safety container for learning.⁴ In India every year so many medical colleges newly opened by both

private and government and also already existing medical colleges increases of intake annual MBBS of the from 150 to 250. Not every students getting opportunity to learn skills from the patient side so simulation and skills lab is wonderful substitute for learning the skills. In COVID-19 pandemic situation simulation lab play important role for learning of skills among Indian medical graduate.

BARRIERS FOR IMPLEMENTATION OF SIMULATION BASED MEDICAL EDUCATION

Cost of mannequins, task trainer, medium to high fidelity mannequins were more expensive, medical colleges were less involved in implementing the skills lab in their setting and it is new concept in medical colleges, so they continuing the traditional teaching methods instead of implementing skills lab full-fledged.

Need of trained staff and full time faculty for the skills lab, is also difficulty to maintain the skills lab by additional charges from other department, will appointment the separate team for maintaining the skills lab.

Proper infrastructure including simulation room, control room, different station, air conditioner facility, faculty room must constitute.

The programs held on the skill lab is comparatively less by the faculties even inside the college campus and very less were involved for demonstrating how to use mannequins particularly high fidelity mannequins. Less involvement among the senior faculties and students, both are showing less curiosity to learn among the real patients.

CONCLUSION

I may suggest simulation based medical education is mandatory and unavoidable. All medical colleges must form special committee for simulation and skills lab and continuously helps in conducting of faculty development program and to select interested faculties for doing research and to teach the students in medical simulation. It is useful to develop the fellowship or diploma course in simulation for faculties/students of medical colleges.

At last simulation-based medical teaching learning methods gives useful opportunities to reduce risks to patients and learners, improve learners' competence and

confidence, increases patient safety, and reduce health care costs in the long run.

V. Pragadeesh Raja^{1*}, Dharani Lenin²

¹Medical simulation and skills lab, ²Department of Anaesthesia, Shri Sathya Sai Medical College and Research Institute, Ammapettai, Chengalpattu, Tamil Nadu, India

***Correspondence to**
Dr. V. Pragadeesh Raja,
E-mail: vpragadeeshraja@gmail.com

REFERENCES

1. National Medical Commission. Minimum Requirements For Annual M.B.B.S Admissions Regulation, 2020. New Delhi. The Controller of Publications. Available at: <https://www.nmc.org.in/rules-regulations/minimum-requirements-for-annual-m-b-b-s-admissions-regulation2020/>. Accessed on 26 March 2022.
2. National Medical Commission. Advisory for strengthening infrastructure for COVID trainings and nomination trainers. New Delhi. National Medical Commission. 2021. Available at: <https://www.nmc.org.in/MCIRest/open/getDocument?path=/Documents/Public/Portal/LatestNews/Advisory%20for%20strengthening%20infrastructure%20for%20COVID%20trainings%20and%20nomination%20of%20competent%20trainers-%20reg.pdf>. Accessed on 26 March 2022.
3. Ledingham McA, Harden RM. Twelve tips for setting up a clinical skills training facility. *Med Teach*. 1998;20:503-7.
4. So HY, Chen PP, Chu Wong GK, Chan TTN. Simulation in medical education. *Journal of the Royal College of Physicians of Edinburgh*. 2019;49(1).

Cite this article as: Raja VP, Lenin D. Development of simulation based medical education in India. *Int J Community Med Public Health* 2022;9:2747-8.