

Editorial

By Dr. Manisha kapdi manisha_kapdi@yahoo.com

Associate professor of Anaesthesia, SVP hospital, NHLM Medical college, Ahmedabad

Impact of Pandemic on Medical Education

Pandemic crisis is an emergency for each field in social, economic, & manpower aspects. For Medical field it is more challenging as it is double edged sword. we have to manage & treat critical patients in very large number at our risk, at the same time we have to handle Medical education of Undergraduate & postgraduate medical students who r future doctors up to the mark.

Since past 2 decades we have witnessed SARS in 2003, H1N1 in 2009, Ebola in 2016 & COVID-19 on 2019-2020., these infectious diseases spread commonly with overcrowding, air travelling (1).

As immediate effect of pandemic suspension of

Clinical rotations for undergraduates; interhospital residency rotations and combined teaching sessions have also been ceased. Elective surgeries and clinical consultations have been postponed or cancelled to prevent hospital overcrowding, protect vulnerable patient populations, and free up hospital beds. For residents in surgical and other super specialties having more of elective and nonemergency work, this will inevitably affect their hands-on surgical experience and everyday case Scenarios significantly diminish residency training.

There is tremendous amount of uncertainty as to when an outbreak will abate. To suspend Medical training indefinitely would not be practical. Medical educators will need to innovate and think out of the frame to maintain quality medical education amid in pandemic.

To overcome negative effects of pandemic we, medical educators have to lever it with technology for both undergraduate and postgraduate medical education, such as webcasts, webinars are adopted much, personal lectures and tutorials still remain a significant cornerstone of medical education but potentially be dangerous for disease spread and transmission. To overcome the situation, technology, like videoconferencing (2) and e-learning platforms, (3) can be used to deliver lectures or tutorials remotely. Discussions, which can be facilitated in real time via teleconferencing applications. teleconferencing can also be used to demonstrate medical procedures and surgical techniques (.3) Centralized teaching will, thus, still be able to continue even with the cessation of in-person lectures and interhospital movement. Lastly, UG and PG students should be encouraged to use online resources to facilitate their individual learning. instructional videos or online webinars can be integrated into training programs.

Online Courses emphasizing skills in open communication, medical ethics, and even clinical research or statistics can also be organized to develop into more holistic medical professionals.

Medical education cannot only be domain-specific knowledge and skills but also holistic noncognitive attributes such as teamwork, empathy, courage, and compassion are important qualities also, that should be in every medical student in training. During the height of Swine flu pandemic, residents have done great team work. With the COVID-19 crisis, residents across medical and surgical specialties have been rostered for shifts on the frontline for management of patients and assistance line with the screening of suspected cases, contact tracing from home, airport, Railway station, for

home care health service. Besides increasing the manpower, this has developed a belief in residents as a medical community, to combat this pandemic on a united front. Through this, residents have been taught important lessons in courage, empathy, and teamwork. It has also provided the opportunity for specialty residents to revise their general medical skills, which can sometimes be forgotten after years of highly specialized training. (4) This can cause well development of them as holistic medical professionals.

In addition, pandemics developed residents' skill sets pertaining to systems-based practice, organization, and leadership. For example, our frontline residents of Medicine, Anaesthesia & critical care, Emergency medicine have been intimately involved in critical & ventilation management of patients, other residents learn important lessons in the rational management of limited resources that are in high demand, refreshing Baseline UG knowledge. These learning opportunities can be hard to come by in training. For medical students and residents to fully benefit from these rich and precious lessons, medical educators should incorporate reflective practice into their medical teaching to encourage deeper introspection.⁵

Furthermore, pandemic crises are extremely complex; plans, guide lines, SOP change according to situations abruptly. These can be lessons of versatility, adaptation, and leadership in residents to adapt to ever-changing plans as the situation evolves. These skill sets may develop excellent health care leaders of tomorrow.

Conclusion

In nutshell in pandemic outbreak, usage of technology is key option to facilitate medical education.

Beyond their knowledge domain, the involvement of students in pandemic as a team can be beneficial for development of holistic noncognitive leadership and adaptability in them.

As medical educators, we must rise up to the challenge of continuing to teach even in times of crisis.

References:

1. Bloom DE, Cadarette D. Infectious disease threats in the twenty-first century: Strengthening the global response. *Front Immunol.* 2019; 10:549. [PMC free article] [PubMed] [Google Scholar]
2. Lamba P. Teleconferencing in medical education: A useful tool. *Australas Med J.* 2011; 4:442–447. [PMC free article] [PubMed] [Google Scholar]
- 3 Janardan V Bhatt, SPACE MEDICINE INDIAN JOURNAL OF APPLIED BASIC MEDICAL SCIENCES JULY 202] VOL 22 B 35 J
4. Kim S. The future of e-Learning in medical education: Current trend and future opportunity. *J Educ Eval Health Prof.* 2006; 3:3. [PMC free article] [PubMed] [Google Scholar]
5. Liang ZC, Wang W, Murphy D, Po Hui JH. Novel coronavirus and orthopaedic surgery: Early experiences from Singapore [published online ahead of print March 20, 2020]. *J Bone Joint Surg Am.* doi:10.2106/JBJS.20.00236. [Google Scholar]
6. Sandars J. The use of reflection in medical education: AMEE Guide No. 44. *Med Teach.* 2009; 31:685–695. [PubMed] [Google Scholar]