

Original Research Article

Impact of COVID-19 on community medicine education and training-postgraduates' perspective: a qualitative exploration

Makineedi Rama Lakshmi^{1*}, Devi Madhavi Bhimarasetty², K.V. Phani Madhavi³

¹Department of Community Medicine, Andhra Medical College, Visakhapatnam, Andhra Pradesh, India

²Department of Community Medicine, Rangaraya Medical College, Kakinada, Andhra Pradesh, India

³Department of Community Medicine, Government Medical College, Rajamahendravaram, Andhra Pradesh, India

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*Correspondence:

Dr. Makineedi Rama Lakshmi,

E-mail: makineediramy@gmail.com

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ABSTRACT

Background: World Health Organization on March 11, 2020 announced, the coronavirus disease 2019 (COVID-19) as pandemic. It has affected nearly every nation with remarkable alterations on everyday life. COVID-19 has had heartfelt impact on the medical education worldwide. Closure of the medical schools and universities has disturbed the education of future health professionals. During this pandemic, most educational institutions have opted for online education to protect their students. Online education has been gaining encouragement in almost all countries around the world. This coincides with the recently introduced competency-based medical education in India which has adopted online education. This created a new challenge for the institutions involved, the instructors and the students since they must adapt quickly to this new mode of learning.

Methods: A Qualitative approach using Systematic methods (Free listing and Pile sorting) was done among postgraduate students during the month of September 2021. A total of 32 postgraduates were included in the study.

Results: A total of 32 postgraduates were included. Among them 23 (72%) were females and 9 (28%) were males. According to salience score, effects of COVID on medical education in postgraduates' perspective in decreasing order are loss of academics, reduced clinical exposure, less student teacher interaction. One positive effect is new era of E-learning. Pile sorting resulted into two piles academic loss and technical issues.

Conclusion: COVID-19 has created a lot of impact on medical education creating psychological stress more due to online education and academics are hampered due to COVID duties.

Keywords: Qualitative method, Medical education, Postgraduates

INTRODUCTION

World Health Organization on March 11, 2020 announced, the coronavirus disease 2019 (COVID-19) as pandemic. It has affected nearly every nation with remarkable alterations on everyday life.¹ COVID-19 has had heartfelt impact on the medical education worldwide. Closure of the medical schools and universities has disturbed the education of future health professionals.² During this pandemic, most educational institutions have opted for

online education to protect their students. Online education has been gaining encouragement in almost all countries around the world. This coincides with the recently introduced competency-based medical education in India which has adopted online education. This created a new challenge for the institutions involved, the instructors and the students since they must adapt quickly to this new mode of learning.³ During the postgraduate (PG) period of medical education, the significant composition and skills of residents are developed. Global evidence on controlling mass casualty incidents have identified medical students as

cornerstone in first-line care in pandemic planning and expect every physician and senior medical student to assist in disaster situations.⁴ This pandemic has interrupted the medical education practice and the overall healthcare system. The current pandemic has seriously affected the postgraduate medical teaching and training course. The uncommon lockdowns and fear of getting infection have reduced the number of patients attending hospitals. These events have ensued in a severe decline in the clinical material and field activities affecting PG students' training and clinical experience.⁵ Present Scenario of Medical Education in India: The Indian medical system has witnessed revolutionary change in recent years with a remake in the curriculum. But, COVID has brought the classroom teaching to a halt. One of the most immediate changes introduced has been the broad cancelling of in-person medical classes, with most being replaced by recorded lectures or videos using platform like Zoom, Microsoft team etc. Though it would be relatively simpler for theory classes it would be an unnerving task for practical assignments which require hands-on training. In India, we have been following the traditional teacher-centric pattern which does not use advanced technologies in medicine as much as developed countries. So, the transition to the online system would be a difficult and more challenging task. Though some of private institutions may find it easier to adjust to the revamped system, government institutions will find it hard with limited resources.⁶

Objectives

Objectives of current study was to know the postgraduates' perspective of how COVID-19 has impacted community medicine education and training.

METHODS

A Qualitative approach using Systematic methods i.e., Free listing and Pile sorting was done among postgraduate students during the month of September 2021. Postgraduates of community medicine from various colleges, who were gathered for a zonal CME at Andhra Medical College, Visakhapatnam, were approached at the end of training session. We have explained the purpose of study and a total of 32 postgraduates gave consent to participate in the study. Research question framed was "What is the impact of COVID-19 on Community Medicine education and training in your perspective?" Confidentiality of information was assured.

Data collection method

After Free listing the opinions given by postgraduates, content analysis was done using Anthropac software version 1.0.1.36 to compute Smith's Saliency Score for items. From saliency score, a total of 8 items were selected for pile sorting. The pile sorted items were subjected to Cultural domain analysis Visual Anthropac Pile sort version 1.0.1.36.

RESULTS

A total of 32 postgraduates were included. Among them 23 (72%) were females and 9(28%) were males. Loss of academics is the major impact due to COVID-19 with a Saliency score of 0.568, followed by no clinical exposure (0.453), less student teacher interaction (0.224), lack of concentration (0.14), new era of e-learning (0.095), psychological stress (0.094), and technical issues (0.06) as shown in (Table 1).

Table 1: Postgraduates' perspective how COVID-19 impacted medical education.

Item	%	Average Rank	Saliency
loss of academics	65.6	1.38	0.568
no clinical exposure	62.5	2	0.453
less student teacher interaction	37.5	2.42	0.224
lack of concentration	25	2.5	0.14
psychological stress	18.8	2.67	0.094
no field activities	18.8	2.17	0.12
new era of e-learning	15.6	2.4	0.095
technical issues	12.5	2.5	0.066
affordability	3.1	4	0.013
loss of family	3.1	2	0.025
defects in system	3.1	3	0.016
importance of public health doctors	3.1	1	0.031

Pile1: named as impact on curriculum includes; loss of academics, no clinical exposure, less student teacher interaction, no field activities. Pile 2: named as Impact on Individual: includes- lack of concentration, new era of E-learning, psychological stress, technical issues (Figure 1).

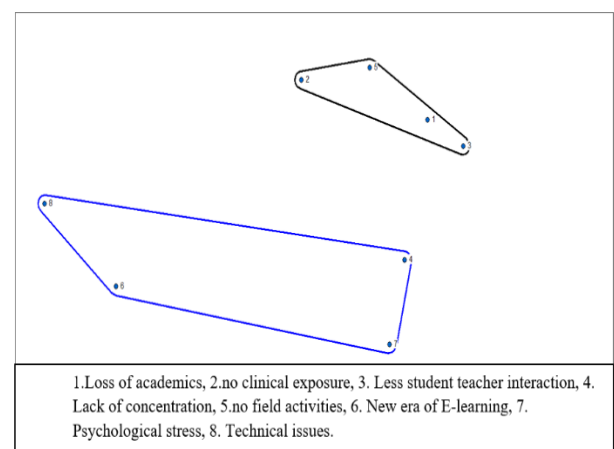


Figure 1: Cognitive mapping reveals the distribution of COVID-19 impact on education into two major categories.

DISCUSSION

The goal of community medicine is to promote health and well-being and prevent disease, disability and death. They apply their knowledge and skills in medicine, social, economic, and behavioral sciences to improve health and quality of life of individuals, families, communities and population through disease prevention and health promotion. Community medicine postgraduates (PGs) are trained in community oriented care. The PGs work under the guidance of the community physician (faculty of community medicine) in the RHTC/UHTC to provide community based curative, preventive, and promotive care. Postgraduates will be exposed to primary healthcare and work experience in resource limited settings. There by postgraduate training is utmost important. They are the future. COVID-19 has created lot of impact on medical education, including community medicine education and training. Post graduates are facing challenges rendering services and public health problems. Hence our study was taken up to understand the post graduate's perspective how they feel COVID has impacted their education. In our study, impact of COVID-19 on Community Medicine education and training postgraduate's perspective- the impact is found to be: Academics loss with no clinical exposure and reduced student teacher interaction, no field activities, lack of concentration, new era of E-learning, psychological stress, technical issues. In a study conducted by Ahmed Saad et al, 55% of responders disliked the unsociable aspect of virtual meetings, as it diminished chances of networking.¹ Sahana Giliyaru et al found that 75% of the respondents felt that their training has deteriorated in the pandemic. Up to 50% of the surveyed students noticed deterioration of their physical and mental well-being during the pandemic.² Lack of technical skills was the first challenge identified in online teaching in a study conducted by Nimavat et al. The students will not be able to develop necessary clinical skills through online education systems, which may exacerbate the burden on their mental health.³ The PGs posted for COVID-19 duties are exposed to mental stress and possibly a high possibility of acquiring the viral infection said Patil et al.⁴ Although this pandemic has offered new learning modes like teleconsultation, videoconferencing, virtual simulations, digital podcasts, etc., how much actual knowledge transfer and skill gain will be achieved is unanswered, The pandemic has forced the PGs to avoid "face-to-face" interactions and the social distancing with the patients, colleagues, and the teachers, leading to severe impact on their clinical teaching said Raju Vaishya.⁵ In a study conducted by Bhola Nath et al, they found that COVID-19 has affected medical education in cancelling the medical conferences. These conferences, and the associated presentations that medical students give, are essential to building up their capacities and interactions with the experts in the field which now will be lacking.⁶ COVID-19 with the need for social distancing forced the suspension of traditional classroom teaching and a rise in adoption of remote learning approaches such as virtual classrooms, e-learning which is distressing said Menon et

al.⁷ In a study conducted by Sharma et al they revealed that medical students are at increased risk of mental or psychological disorders, with a significantly higher prevalence of depression, depressive symptoms and suicidal ideations relative to the general population. Poor health behaviors, sleep deprivation during COVID-19 and pre-existing chronic diseases among medical students could adversely affect physical and mental health, with cardiovascular disease, diabetes, obesity and chronic neurological comorbidities associated with increased risk of hospitalization and severe illness due to COVID-19.⁸ Alsoofi et al found that more than half of their study participants said that e-learning can't be useful for clinical aspects 65% reported difficulty using the internet for participating in study groups and discussions.⁹ COVID-19 has impacted student-teacher, student-student, and student-patient interactions said Seema Rajesh et al.¹⁰

CONCLUSION

Current pandemic is a new challenge for postgraduates' medical education and training. While the short term impact is quite known, the long term effect of COVID-19 on medical education remains unknown. A novel and innovative curriculum has to be developed which enables the current and future residents to achieve necessary capability and competency. Teachers all over the medical field in India should contribute in the advancement of medical education with the requisite changes in the curriculum and transformations across various disciplines in medicine. Regardless of the difficulties that the students and teachers would face in these disturbing times of the pandemic, it would provide them a bright side to change the face of medical education in the country for the better.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Saad A, Giliyaru S, Gulia A, Vemuri N, Botchu R. The impact of coronavirus disease 2019 on medical conferences and continuing medical education. *Indian J Musculoskelet Radiol*. 2021;3:70-1.
2. Giliyaru S, Hegde G, Gajjala S, Vemuri O, Azzopardi C, Hurley P, Botchu R. COVID-19 pandemic and medical education. *Indian J Med Sci*. 2021;73(1):64-5.
3. Nimavat N, Singh S, Fichadiya N, Sharma P, Patel N, Kumar M, Chauhan G, Pandit N. Online Medical Education in India - Different Challenges and Probable Solutions in the Age of COVID-19. *Adv Med Educ Pract*. 2021;12:237-43.
4. Patil A, Ranjan R, Kumar P, Narang H. Impact of COVID-19 Pandemic on Post-Graduate Medical Education and Training in India: Lessons Learned and Opportunities Offered. *Adv Med Educ Pract*. 2021;12: 809-16.

5. Vaishya R. Plights of medical postgraduate students during COVID-19 pandemic. *J Postgrad Med Educ Res*. 2021;54(3):158-9.
6. Kumari R, Nath B, Chandra H. Scenario of medical education after Covid in India. *Indian J Forensic Community Med*. 2021;8(3):141-2.
7. Menon V, Padhy SK, Rina K. COVID-19 pandemic and implications for graduate medical training. *Indian J Psychiatry*. 2020;62(5):609-10.
8. Sharma D, Bhaskar S. Addressing the Covid-19 Burden on Medical Education and Training: The Role of Telemedicine and Tele-Education During and Beyond the Pandemic. *Front Public Health*. 2020;8: 589-97.
9. Alsoufi A, Alsuyihili A, Msherghi A, Elhadi A, Atiyah H, Ashini A, et al. Impact of the COVID-19 pandemic on medical education: Medical students' knowledge, attitudes, and practices regarding electronic learning. *PLoS One*. 2020;15(11):e0242905.
10. Rao SR, Gurram L, K VB, Lewis S. Impact of COVID-19 on oncology education and training in India. *Ecancermedicalscience*. 2020;14:107.

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