

## Commentary: COVID-19 pandemic and stress level of residents and fellows during ophthalmology training

The ongoing coronavirus disease 2019 (COVID-19) pandemic not only affected the physical health of those infected but also the mental health of healthcare workers including residents, doctors, nurses, and other staff. As ophthalmic examination requires close contact with the patient, and with conjunctivitis as a possible clinical manifestation of COVID-19, ophthalmologists are highly vulnerable to infection.<sup>[1]</sup> This prevailing fear of acquiring an infection while examining a patient has hampered the quality of clinical examination and training for the ophthalmology residents and fellows. Adding to the challenges, to prevent spread of infection, a lockdown was imposed with suspension of elective medical services, and residents from all departments (including ophthalmology) were posted in COVID-19 screening areas, wards, and intensive care units (ICUs) to handle the crisis. The most commonly performed surgery by an ophthalmology trainee is cataract surgery (an elective surgery), and it was significantly curtailed or stopped. Compared to other surgical branches, ophthalmological surgeries are microsurgeries that require continuous training, learning to handle the operating microscope, and good hand-eye and foot coordination. This essential hands-on training was absent, and the trainees were in despair. Since the ophthalmology residents were posted in COVID-19 areas (with hectic shifts), besides loss of ophthalmology training, they were also isolated from their family members, performing tasks they were ill-prepared for. Thus, fear of infection, hampered training, shifting of work to COVID-19 areas, a necessity to use adequate personal protective equipment (PPE), unavailability of definitive treatment modality for COVID-19, and isolation from family members significantly affected their mental health.

Based on an online survey among trainee ophthalmologists ( $n = 716$ ) in India, Mishra *et al.* reported that 80.7% of them felt that the COVID-19 lockdown had negatively impacted their surgical training.<sup>[2]</sup> In a survey by Alahmadi of Saudi ophthalmology residents ( $n = 142$ ), most of the participants reported that the number of elective surgeries (93.8% of the participants) and office-based procedures (82.9%) had markedly reduced during the COVID-19 pandemic, and only half of them were satisfied with the virtual model of education.<sup>[3]</sup> A recent study by Aragão *et al.* on 271 ophthalmology residents and fellows reported that the participants whose surgical training was interrupted during the pandemic had a higher level of stress.<sup>[4]</sup> They also stated that the women participants had a higher level of stress compared to the men. This could be attributed to the gender difference in domestic workload and coping mechanisms added to the professional shortcomings due to the pandemic. Most of the studies reported that one-third to half of the ophthalmology trainees were dealing with depression with a significant increase in anxiety, stress, and insomnia during this pandemic.<sup>[2,5]</sup> The increased level of anxiety during the COVID-19 pandemic among ophthalmologists was also attributed to fear of transmitting the disease to their family members.

For the well-being of the trainees, mental health awareness sessions must be conducted regularly and affected individuals must be asked to seek professional help. Since the COVID-19 pandemic has significantly affected clinical experience, it is necessary to take adequate measures to catch up on the lost training before it is too late. As multiple waves of this pandemic are a distinct possibility, training programs need to evolve accordingly. During the peak time of COVID-19 cases, virtual theory classes and case discussions have to be continued to educate the residents. A wet-lab or simulator-based hands-on surgical training facility has to be implanted in all the ophthalmology training centers based on feasibility. Surgical training on animal and cadaveric eyes in the wet lab is a simple and relatively inexpensive option where most of the surgical procedures (cataract surgeries, squint surgeries, corneal surgeries, glaucoma surgeries) can be practiced and mastered.<sup>[6-8]</sup> Discussions on previously recorded and unedited surgical videos to highlight how each step has to be performed, the complications that can occur, and how they can be avoided/managed can also help to improve surgical training. Whenever there is a drop in COVID-19 cases, clinical ward rounds with case discussions and physical theory classes should be conducted with increased frequency. Compared to virtual classes, physical classes have the advantage of better one-to-one interaction and also internet connectivity issues cannot interrupt the flow. The consultant or trainer should reduce the number of surgeries performed by them and give more chances to the residents and fellows compared to pre-COVID-19 times. Preference has to be given to the final year residents and fellows as they have lesser time to catch up.

It is incumbent upon ophthalmic educators and teachers to continuously innovate their teaching methods based on current challenges so that the training of the next generation of ophthalmologists does not remain incomplete.

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## References

1. Sen M, Honavar SG, Sharma N, Sachdev MS. COVID-19 and eye: A review of ophthalmic manifestations of COVID-19. *Indian J Ophthalmol* 2021;69:488-509.
2. Mishra D, Nair AG, Gandhi RA, Gogate PJ, Mathur S, Bhushan P, *et al.* The impact of COVID-19 related lockdown on ophthalmology training programs in India-Outcomes of a survey. *Indian J Ophthalmol* 2020;68:999-1004.
3. Alahmadi AS, Alhatlan HM, Bin Helayel H, Khandekar R, Al Habash A, Al-Shahwan S. Residents' perceived impact of COVID-19 on Saudi ophthalmology training programs-a survey. *Clin Ophthalmol* 2020;14:3755-61.
4. Aragão IO, Alencar TG, Soares AK, da Rocha CS, Ventura CV. Effects of COVID-19 pandemic on stress level of residents and fellows during ophthalmology training. *Indian J Ophthalmol* 2022;70:2174-3.
5. Khanna RC, Honavar SG, Metla AL, Bhattacharya A, Maulik PK.

Psychological impact of COVID-19 on ophthalmologists-in-training and practising ophthalmologists in India. *Indian J Ophthalmol* 2020;68:994-8.

6. Pujari A, Basheer S, Rakheja V, Gagrani M, Saxena R, Phuljhele S, *et al.* Extraocular muscle surgery on goats' eye: An inexpensive technique to enhance residents' surgical skills. *Indian J Ophthalmol* 2019;67:1688-9.
7. Pujari A, Rakheja V, Modaboyina S, Das D, Tripathi M, Phuljhele S, *et al.* Simulation of complex strabismus surgical procedures on goat eyes. *Eur J Ophthalmol* 2021;11206721211045190. doi: 10.1177/11206721211045190.
8. Kapoor A, Mahalingam K, Pujari A, Agarwal T, Gupta V, Gupta S. Goniotomy on Goat's eye (GOGE) model: To improve angle-based surgery skills of the residents. *Curr Eye Res* 2021;1-4. doi: 10.1080/02713683.2021.2018468.

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<b>Quick Response Code:</b>	<b>Website:</b> www.ijo.in
	<b>DOI:</b> 10.4103/ijo.IJO_1049_22

**Cite this article as:** Mahalingam K, Saxena R. Commentary: COVID-19 pandemic and stress level of residents and fellows during ophthalmology training. *Indian J Ophthalmol* 2022;70:2174-5.