

Impact of COVID-19 on urology residency in India – Results of a nationwide survey

The novel coronavirus (COVID-19) pandemic has brought about unprecedented uncertainty and chaos to the lives and training of urology residents. Residents at many centers across the country have been deputed to the frontlines in the fight against COVID-19. As health-care workers, the residents have soldiered on despite the disruption to their careers and training.

As we enter the 6th month of this on-going global pandemic, the direct and long-term effects of this pandemic on urological training are yet to be understood. However, various urology programs across the globe have acknowledged that the practical and psychological implications of low case volumes, lack of nonemergent surgeries, and the lack of adequate surgical preparedness cannot be overlooked.^[1-3]

We conducted a nationwide, cross-sectional, anonymous, online survey among urology residents in India for 3 weeks from June 21, 2020, to July 11, 2020, to study the impact of COVID-19. The questionnaire was developed to understand the impact of COVID-19 in three domains—training and academics, clinical work, and personal life (7–9 questions each) [Supplementary Material]. The questionnaire was disseminated through social media (Facebook, WhatsApp, and Twitter) as well as E-mail. The study was approved by the Institutional Review Board and Ethical Committee of Christian Medical College and Hospital, Vellore, India (IRB no. 13133/7/2020).

In this nationwide survey, we received 286 responses over 3 weeks, representing forty cities and 18 states. The majority of the respondents were in their final year of training (55.9%). Of the respondents, 61.2% worked in a medical college hospital.

RESULTS OF THE SURVEY

Impact on academics and training

81.1% of the respondents stated that COVID-19 had a detrimental effect on their training [Figure 1]. Around 80% felt that the lack of surgical exposure had a negative impact to their training. The residents reported a reduction in case-load across all subspecialties by almost 90%.

Although bedside teaching and operative training have taken an obvious hit, it was reassuring to note

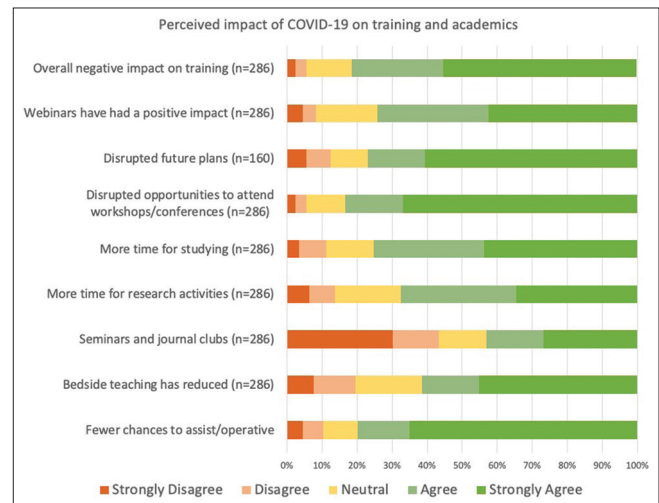


Figure 1: Perceived implications of COVID-19 on training and academics

that majority of the respondents have utilized their time for research activities (67.5%) and gaining theoretical knowledge (75.2%). Moreover, >70% of the respondents reported the use of virtual seminars, presentations, and multidisciplinary meetings at their centers.

The perceived impact of the pandemic on the academics and training was similar between government and private institutes ($P > 0.05$) and between those enrolled for Mch Urology versus DNB Urology ($P > 0.05$).

Majority of the residents (74%) agreed that webinars and virtual conferences were a resourceful mode of continuing medical education with a mix of practical, didactic lectures and video-based teaching and supported by fairly good evidence (29%–high levels I/II and 52.3%–moderate level III).

Impact on clinical work: Urology and COVID-care

Disturbingly, less than half the respondents reported workforce restructuring and social distancing at work (43.8% and 46.8%, respectively). Furthermore, it was concerning to note that only 66.5% of the respondents reported focused training and updates by their institutes regarding COVID-19 management and protocols [Figure 2].^[4,5] Less than 60% of the residents felt adequately prepared for redeployment. Only 35.6% and 53.5% of respondents felt adequate PPE as per regulations was available in the clinical area and operation rooms, respectively. Unfortunately, these findings were consistent with other surveys from India.^[6]

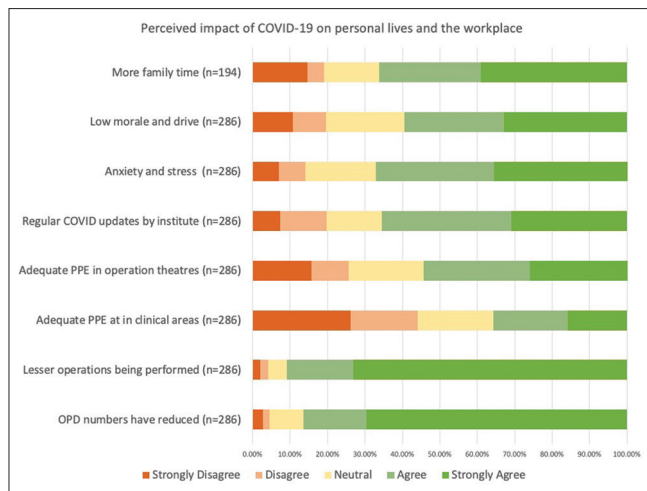


Figure 2: Perceived impact and changes due to COVID-19 on clinical work and personal life

Impact on personal life and morale

Disruption due to COVID-19-related restrictions, fear of infecting family members, nonavailability of adequate PPE, and lack of job opportunities are an added source of anxiety and stress, which was reported by more than two-thirds of our respondents.^[7,8] It also dents the morale and focus of a young trainee. Similar results have been reported by two studies from India, among psychiatrists and ophthalmologists^[6,9] and from the USA and Italy.^[1,2]

IMPLICATIONS OF THE SURVEY

As urology residents contribute in the COVID-19 frontlines, the urological training programs, apart from ensuring the future competence of these young urologists, have an added responsibility to ensure their safety and well-being. To this end, psychological support systems, helplines, and access to counseling services should be ensured.^[10]

Forming teams working alternately, with 2-weeks-off, will reduce PPE usage and reduce exposure to potential COVID-19 carriers while providing adequate time for those who come in contact to quarantine and providing additional time for research and non-bedside learning.

The impact of this pandemic is likely to result in residents feeling incompetent as a urologist. Incorporation of surgical simulation in training programs, which combine both technical (virtual reality and wet laboratories) and nontechnical skills (real-life scenarios and teamwork),^[11] will go a long way in improving the surgical preparedness of residents. While advanced simulators may not be afforded by most of the programs in the country, basic laparoscopy simulators and wet laboratories should be a part of all training programs. Additional support systems and mentorship should be offered to those who finish their residency this year. Workshops specifically meant to bridge the gap in

clinical experience can also be organized. Policies and guidelines made for the resumption of practice should not neglect the challenges faced by young urologists who have been impacted by this pandemic. We believe that structured e-learning modules and simulated surgical-training should be part of a revamped curriculum to maintain uniform standards across the board. These novel methods will ensure that our training systems are more flexible and can cope with extraordinary circumstances such as this. It may well be the way forwards, not just in the short-term but even for the future.

In conclusion, the COVID-19 pandemic has decreased the clinical and surgical exposure of trainees and has had a perceived negative impact on academics, training, and personal lives of a resident. It would be important to ensure measures to mitigate the effects of the pandemic and enable both technical and emotional support systems for the residents who have been affected to ensure the safety of the clinician and patients.

Acknowledgments

We acknowledge the help of all the Urology Residents of our institute in forwarding the survey to their colleagues and providing valuable feedback.

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REFERENCES


1. Fero KE, Weinberger JM, Lerman S, Bergman J. Perceived impact of urologic surgery training program modifications due to COVID-19 in the United States. *Urology* 2020;143:62-7.
2. Amparore D, Claps F, Cacciamani GE, Esperto F, Fiori C, Liguori G, et al. Impact of the COVID-19 pandemic on urology residency training in Italy. *Minerva Urol Nefrol* 2020;72:505-9.
3. He K, Stolarski A, Whang E, Kristo G. Addressing general surgery residents' concerns in the early phase of the COVID-19 pandemic. *J Surg Educ* 2020;77:735-8.
4. Kwon YS, Tabakin AL, Patel HV, Backstrand JR, Jang TL, Kim IY, et al. Adapting urology residency training in the COVID-19 Era. *Urology* 2020;141:15-9.
5. Nassar AH, Zern NK, McIntyre LK, Lyng D, Smith CA, Petersen RP, et al. Emergency restructuring of a general surgery residency program during the coronavirus disease 2019 pandemic: The University of Washington experience. *JAMA Surg* 2020;155(7):624-7.
6. 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.
7. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open* 2020;3:e203976.
8. Maunder R, Hunter J, Vincent L, Bennett J, Peladeau N, Leszcz M, et al. The immediate psychological and occupational impact of the

- 2003 SARS outbreak in a teaching hospital. *CMAJ* 2003;168:1245-51.
9. Nanjundaswamy MH, Pathak H, Chaturvedi SK. Perceived stress and anxiety during COVID-19 among psychiatry trainees. *Asian J Psychiatr* 2020;54:102282.
 10. Benedek DM, Fullerton C, Ursano RJ. First responders: Mental health consequences of natural and human-made disasters for public health and public safety workers. *Annu Rev Public Health* 2007;28:55-68.
 11. Shamim Khan M, Ahmed K, Gavazzi A, Gohil R, Thomas L, Poulsen J, *et al.* Development and implementation of centralized simulation training: Evaluation of feasibility, acceptability and construct validity. *BJU Int* 2013;111:518-23.

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Financial support and sponsorship: Nil.

Conflicts of interest: There are no conflicts of interest.

Access this article online	
Quick Response Code:	Website:
	www.indianjurol.com
	DOI:
	10.4103/iju.IJU_413_20

How to cite this article: Cheriyar A, Kumar S. Impact of COVID-19 on urology residency in India – Results of a nationwide survey. *Indian J Urol* 2020;36:243-5.

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