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Letter Regarding: COVID-19 Impact on Surgical Resident Education and Coping

Firstly, we congratulate the authors of the paper titled "COVID-19 Impact on Surgical Resident Education and Coping."¹ This is a very timely paper. During the last year and a half, the COVID-19 pandemic has had a negative impact on residency training in surgical departments. With the onset of the pandemic, the volume of surgeries taking place in surgical departments decreased, due to the postponement or cancellation of many elective surgeries. As a natural result of this, surgical residents lacked sufficient opportunities to practice and improve their surgical skills. For this reason, and because of concerns about the risk to residents of being exposed to the COVID-19 virus, the curricula and methods used for core residency training programs had to be adapted. Virtual training methods have been developed to replace standard training methods.

As is well known, training within surgical departments is very important for surgical residents and it has both a theoretical and a practical component. Since theoretical training can be maintained through online resources, it can be stated that this component has suffered less harm from the pandemic. The above mentioned paper showed that the web-based lectures provided through their residency programs were the most popular virtual-education activities among the participants of the study. As might be expected, participants mentioned that COVID-19 had negatively impacted their opportunities to spend time in the operating room and clinical volume, but that it had also allowed more time for self-study and research activities.¹

Surgical practice is the key element in improving surgical skills for residents. The paper proposed some valuable recommendations for minimizing the negative effects of the decrease in the number of operations made by surgical residents and for maintaining the required standard of surgical education. An important point to consider is what type of videos should be provided to the surgical residents. Watching edited videos may not be an effective way for a resident to improve his or her surgical skills.²⁻⁶ Open access, unedited, full-length original videos prepared by well-respected experts in the field would surely be more beneficial because they would allow residents to witness the complications or unwanted situations

that can arise during a given procedure. At the same time, surgical residents would be given the opportunity to observe potential methods of coping with such problems. This would also eliminate the risk of surgical procedures appearing effortless and simple. Edited videos may create the mistaken perception that surgical procedures are easier than they in fact are.^{7,8} Surgical associations could provide access to libraries of full-length videos free of charge to their members.

We would like to learn what the authors' opinions are on unedited, full-length surgical videos in the training of surgical residents.

Disclosure

The author reported no proprietary or commercial interest in any product mentioned or concept discussed in this article.

REFERENCES

- Wise CE, Bereknyei Merrell S, Sasnal M, et al. COVID-19 impact on surgical resident education and coping. J Surg Res. 2021;264:534–543.
- Danilovic A, Torricelli FCM, Dos Anjos G, et al. Impact of COVID-19 on a urology residency program. Int Braz J Urol. 2021;47:448–453.
- 3. Torricelli FC, Guglielmetti G, Duarte RJ, Srougi M. Laparoscopic skill laboratory in urological surgery: tools and methods for resident training. Int Braz J Urol. 2011;37:108–111.
- 4. Duarte RJ, Cury J, Oliveira LC, Srougi M. Establishing the minimal number of virtual reality simulator training sessions necessary to develop basic laparoscopic skills competence: evaluation of the learning curve. Int Braz J Urol. 2013;39:712–719.
- Hisano M, Duarte RJ, Colombo Jr JR, Srougi M. Is there a model to teach and practice retroperitoneoscopic nephrectomy? *Minim Invasive Ther Allied Technol.* 2013;22:33–38.
- Sell NM, Cassidy DJ, McKinley SK, et al. A needs assessment of video-based education resources among general surgery residents. J Surg Res. 2021;263:116–123.
- Atan A. Training problems of residents in urology. Turk J Urol. 2016;42:117–119.

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8. Atan A. RE: impact of COVID-19 on a urology residency program. Int Braz J Urol. 2021;47:908–910.

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