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Correspondence

Medical students' perspective. A letter to the editor on "impact of coronavirus (COVID-19) pandemic on surgical practice – Part 1"

Dear Editor,

We read with great interest the article written by A. Al-Jabir et al. entitled "Impact of coronavirus (COVID-19) pandemic on surgical practice – Part 1" [1]. The authors highlighted the widespread disruption that COVID-19 has had on various elements of surgical practice and training and we would like to comment our judgement regarding the topic.

The emergence of the coronavirus disease has taken the entire world by storm and has truly caused a paradigm shift in many walks of life. As medical students who have a special interest in surgery, we have been particularly disheartened by the missed learning opportunities and surgical exposure through suspension of our clinical placement blocks. There has been a shift from teaching in the clinical environment to the adaptation of delivering teaching through online platforms. In addition to this, the cancellation of surgical conferences has meant that aspiring surgeons have been delayed in showcasing their research and projects. We feel that this disruption to our studies may result in students being less competent in clinical skills as prolonged absence from the clinical environment and patient contact will inevitably result in a decrease in students' confidence and ability.

Though all undergraduate education has significantly been impeded, we believe that surgical teaching has long been under-exposed and thus the restrictive effects of the pandemic has amplified this [2]. Furthermore, factors such as career opportunities, academic opportunities and early exposure to surgery – all of which have decreased – have shown to significantly increase the likelihood of medical students pursuing surgical careers [3,4]. It concerns us that a future consequence of this current situation is a decline of applicants for surgery.

One significant limitation of current steps taken to requite missed surgical training is the lack of technical practice available. In contrast to other specialties in which treatment can be delivered via medication, surgery is a practical discipline and online teaching cannot replace the visual and highly tactile aspects of being in theatre. Though current shifts in delivering surgical training include the flipped classroom model, video-conferencing and surgical videos, these solutions will not facilitate the improvement of technical skills [5]. Traditional simulation equipment can help make up for lost time in theatre, but they are usually within hospitals where access is limited. One possible method to overcome this may be distributing virtual reality (VR) systems which can simulate the theatre environment and procedures. It has also been demonstrated that immersive VR surgical simulation can even be superior to traditional training methods; surgical trainees who underwent VR training showed higher accuracy, success rates and efficiency in cadaveric pedicle screw replacement procedures than colleagues who

trained using standard surgical video and spinal model training [6].

As the trajectory of the effects of the coronavirus remains unclear, steps towards ensuring the adverse impact towards prospective surgical applicants need to be addressed. In addition to the suggestion stated above, medical schools could proactively engage with aspiring surgeons with the provision of suturing kits and allowing students to practice in isolation and within small groups following social distancing guidelines. Regardless, each and every student will be experiencing various nuances due to the extensive effects that coronavirus has had on their education and personal lives. As students and medical schools adapt during these uncertain times, further studies are warranted to best find ways to negate the impact that coronavirus has on medical education.

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None to declare.

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