THE SELF-REPORTED IMPACT OF CORONAVIRUS (COVID-19) ON SURGICAL EDUCATION IN CANADIAN GENERAL SURGERY RESIDENTS

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SUMMARY

The COVID-19 pandemic has impacted surgical education in an unprecedented way. This study analyzed the perceived impact of the pandemic on general surgery training via an anonymous electronic survey. Responses were gathered on the topics of resident redeployment, exposure to training opportunities, work hours and training program adaptations. General themes emerging included reports of decreased work hours, reduced clinics, and decreased exposure to procedural time and patient care overall. We describe the major concerns general surgery residents identified, in addition to novel training methods implemented during this time and what role these teaching modalities may have in the future of surgical education.

INTRODUCTION

The restrictions imposed by the COVID-19 pandemic have presented new challenges to medical educators. Most institutions have attempted to mitigate the impact on training by transitioning to web-based educational platforms. Residency programs have developed innovative solutions such as virtual teaching/case discussions, accessing surgical video libraries, implementing telehealth clinics, curating online question banks and creating procedural simulations.

PURPOSE

This study was conducted to assess the perceived impact of COVID-19 on Canadian surgical resident education. We discuss the unique challenges in adapting surgical teaching to a virtual format and how novel training methods implemented during the pandemic may be useful for the future of surgical education.

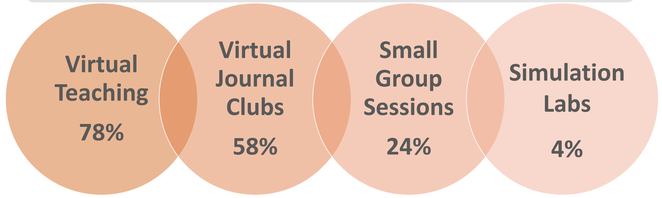


Fig 1. Training program adaptations

METHODS

Data collection occurred anonymously via electronic questionnaire. All Canadian general surgery residents were invited to participate through the Canadian Association of General Surgeons website and their program directors. The questionnaire was developed to determine the perceived impact of the pandemic on surgical resident's time away from service, exposure to training opportunities, exam preparedness and educational concerns. Online and alternative teaching methods were evaluated for effectiveness. Descriptive statistics were analyzed via SPSS. Local research ethics board approval was obtained.

RESULTS

Eighty three responses were received from 13 residency programs with representation from across all 5 years of postgraduate training. General themes that emerged in response to our survey were identified. Decreased work hours, as well as reduced clinics, procedural time and exposure to patient care represented the most significant concerns. Most residents believed that the pandemic posed a risk to their personal health and safety at work. Most agreed that the pandemic had negatively impacted their overall learning and development as a resident. The majority of learners felt their programs had made adaptations during the pandemic to improve exposure to learning such as moving teaching to online platforms, providing OR video recordings and integrating simulation technology.

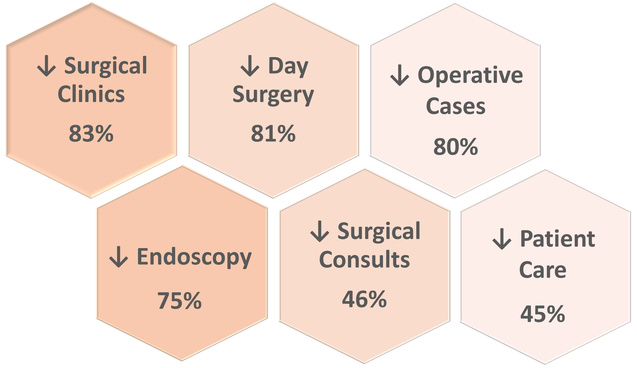


Fig 2. Perceived exposure to training opportunities

CONCLUSIONS

The COVID-19 pandemic has negatively impacted surgical training in the eyes of Canadian general surgery residents. However, the responses to our survey identify that the majority of training programs have made positive adaptations to improve exposure to learning opportunities through online platforms. This was found to be more conducive to learning while off-site, elicited more attending physician participation and provided convenience and scheduling flexibility for residents. These novel methods could be evaluated for superiority to the traditional model of training in future studies. Overall, this study provides valuable insight into the early impact of the pandemic on surgical training and may begin to address the question of what changes to education may be useful in the future.

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