**Clinical Librarian Service Search Results**

**Request:** What literature is there on the impact of COVID-19 on medical undergraduates?

**Summary**

There is substantial literature on the impact of COVID-19 on teaching undergraduate medical students. A few articles also consider ways to support them. Extremely brief articles which cover similar ground to many other articles have been excluded.

[Overviews](#_Overviews): Three overviews discuss the pandemic, discussing the various impacts on medical education from a student perspective. These are from the UK (1d), USA (1a, 1c), and Ireland (1b). Another is based on the experiences of authors from 3 countries (1e).

[Personal impact on students](#_Personal_impact_on): Research discusses a wide range of possible impacts on students. There are personal reflections and experiences (2a, 2c, 2l, 2r, 2s, 2t, 2w, 2x, 2y, 3d), qualitative research (2u, 2v), and quantitative and survey data (2d, 2f, 2g, 2i, 2k). Impacts include concerns about the quality of education received (2f, 2q, 2y); mental health issues (2f, 2j, 2k, 2q, 2s, 2t, 2u); difficulties with professional role development (2d, 2e, 2g, 2i, 2y); isolation from colleagues (2b, 2q); and loss of clinical experience (2g, 2i, 2x). Individual articles also mention:

* Medical students not eligible to work in clinical settings (e.g. intercalating) (2a)
* Students who are also parents (2c)
* Prejudice against Asian students (2o)

A number of authors also describe interventions to support students:

* A Learning Community programme (2b)
* Virtual pastoral support (2h)
* Debriefing after emotionally difficult clinical situations (2m)
* Peer mentoring (2n)
* Interventions to address racism (2p)
* Frequent communication about the pandemic as the situation changed (3u)
* Involving students in decisions about changes to learning and the clinical role of students (2y, 3v)

Student suggestions for support include mentoring (2g); a range of online educational activities (2g, 2i, 2q); and training for educators to enable them to use the technology effectively (2q). Students also made use of personal social resources, including video chats, social media, exercise and hobbies, to reduce anxiety (2k, 2t).

[Student work during COVID-19](#_Student_work_during): A systematic review of the role of students in disasters and pandemics found that (3o): *“Medical students played a wide variety of clinical and non-clinical roles including education and logistics, although medical assistance was the most commonly reported role. Challenges included a lack of preparedness and negative mental health impacts.”*

A number of articles discuss the various roles students undertook to support the response to COVID-19, often volunteering in hospitals (3a, 3e, 3f, 3h, 3j, 3k, 3m, 3p, 3r, 3u, 3v) or supporting telehealth (3c, 3h, 3i, 3l, 3n, 3q, 3v) or providing health information to the public (3s, 3t, 3v). Many students and other authors describe this as a learning experience which at least partly mitigated the loss of planned clinical placements (2m, 2r, 3a, 3c, 3e, 3f, 3h, 3i, 3m, 3n, 3p, 3u). Some authors also discuss students’ motivation for participating (3b, 3g).

[Impact on career choice](#_Impact_on_career): Several articles discuss the impact of COVID-19 on career choice. This may be through student volunteers having insight into specialties they would not have considered, or through difficulty in accessing training opportunities in the relevant specialty (3a, 4a-4d).

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**Current at:** 9th October 2020

**Time taken for search:** 4 hours.

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Evidence Search: Medical undergraduates COVID-19 (LS168). Lindsay Snell (2020). Derby, UK: University Hospitals of Derby & Burton NHS Foundation Trust Library and Knowledge Service.

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Kind regards,

Lindsay Snell

Clinical Librarian

Email: [Lindsay.snell@nhs.net](mailto:Lindsay.snell@nhs.net)

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**Results**

# Overviews

## 1a. In Crisis: Medical Students in the COVID-19 Pandemic

**Source:** Khamees, D.; Brown, C. A.; Arribas, M.; Murphey, A. C.; Haas, M. R. C.; House, J. B. (2020) *Aem Education & Training* 4(3)(284-290

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32704600&id=doi:10.1002%2Faet2.10450&issn=2472-5390&isbn=&volume=4&issue=3&spage=284&pages=284-290&date=2020&title=Aem+Education+%26+Training&atitle=In+Crisis%3A+Medical+Students+in+the+COVID-19+Pandemic.&aulast=Khamees&pid=%3Cauthor%3EKhamees+D%3BBrown+CA%3BArribas+M%3BMurphey+AC%3BHaas+MRC%3BHouse+JB%3C%2Fauthor%3E%3CAN%3E32704600%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 1b. Medical students and COVID-19: the need for pandemic preparedness

**Source:** O'Byrne, L.; Gavin, B.; McNicholas, F. (2020) *Journal of medical ethics* 46(9)(623-626

<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32493713&id=doi:10.1136%2Fmedethics-2020-106353&issn=1473-4257&isbn=&volume=46&issue=9&spage=623&pages=623-626&date=2020&title=Journal+of+medical+ethics&atitle=Medical+students+and+COVID-19%3A+the+need+for+pandemic+preparedness&aulast=O%27Byrne&pid=%3Cauthor%3EO%27Byrne+L.%3BGavin+B.%3BMcNicholas+F.%3C%2Fauthor%3E%3CAN%3E631985470%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

The COVID-19 pandemic has prompted unprecedented global disruption. For medical schools, this has manifested as examination and curricular restructuring as well as significant changes to clinical attachments. With the available evidence suggesting that medical students' mental health status is already poorer than that of the general population, with academic stress being a chief predictor, such changes are likely to have a significant effect on these students. In addition, there is an assumption that these students are an available resource in terms of volunteerism during a crisis. This conjecture should be questioned; however, as those engaging in such work without sufficient preparation are susceptible to moral trauma and adverse health outcomes. This, in conjunction with the likelihood of future pandemics, highlights the need for 'pandemic preparedness' to be embedded in the medical curriculum. Copyright © Author(s) (or their employer(s)) 2020. No commercial re-use. See rights and permissions. Published by BMJ.

**Database:** MEDLINE

## 1c. Impacts and challenges of United States medical students during the COVID-19 pandemic

**Source:** Rolak, S.; Keefe, A. M.; Davidson, E. L.; Aryal, P.; Parajuli, S. (2020) *World Journal of Clinical Cases* 8(15)(3136-3141

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32874968&id=doi:10.12998%2Fwjcc.v8.i15.3136&issn=2307-8960&isbn=&volume=8&issue=15&spage=3136&pages=3136-3141&date=2020&title=World+Journal+of+Clinical+Cases&atitle=Impacts+and+challenges+of+United+States+medical+students+during+the+COVID-19+pandemic.&aulast=Rolak&pid=%3Cauthor%3ERolak+S%3BKeefe+AM%3BDavidson+EL%3BAryal+P%3BParajuli+S%3C%2Fauthor%3E%3CAN%3E32874968%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

The delivery of medical student education has changed rapidly during the coronavirus disease 2019 (COVID-19) pandemic. Students in their pre-clinical years have transitioned to online courses and examinations. Students in their clinical years are not permitted on clinical rotations, and face uncertainties in career exploration and the residency application process. Medical students in all stages of training are volunteering and helping their communities. The future presence of COVID-19 throughout the United States is unknown, and medical students are eager to return to their training. This paper outlines current challenges in medical student education and the various responses that have been adopted. We also discuss possible future directions for students through involvement in telemedicine, outpatient clinic visits, and non-respiratory inpatient care tasks as adequate personal protective equipment, COVID-19 testing, and resources become more widely available.

**Database:** MEDLINE, Ovid Technologies

## 1d. Understanding the consequence of COVID-19 on undergraduate medical education: Medical students' perspective

**Source:** Sani, I.; Hamza, Y.; Chedid, Y.; Amalendran, J.; Hamza, N. (2020) *Annals of Medicine & Surgery* 58(117-119

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32983429&id=doi:10.1016%2Fj.amsu.2020.08.045&issn=2049-0801&isbn=&volume=58&issue=&spage=117&pages=117-119&date=2020&title=Annals+of+Medicine+%26+Surgery&atitle=Understanding+the+consequence+of+COVID-19+on+undergraduate+medical+education%3A+Medical+students%27+perspective.&aulast=Sani&pid=%3Cauthor%3ESani+I%3BHamza+Y%3BChedid+Y%3BAmalendran+J%3BHamza+N%3C%2Fauthor%3E%3CAN%3E32983429%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

The coronavirus disease 2019 pandemic has significantly influenced the normal operations of all human affairs on a global scale. Indeed, the pandemic has had a considerable impact on the delivery of medical education in the UK for both pre-clinical and clinical year students. In response to the escalating case fatality rate due to the pandemic, there has been widespread termination of clinical placements, face-to-face teaching sessions, and examinations that require a physical presence by UK medical schools. It is hoped that the cancellation of the aforementioned activities will greatly reduce the exposure of medical students to the coronavirus however, the consequences of these actions may pose substantial issues for the learning experience and professional development of medical students. One such issue is the lack of regular communication between students and personal tutors which may give rise to burnout within students and impede academic performance. Furthermore, the suspension of clinical placements may result in a gradual reduction in students' clinical skills competence. The practice of medicine is grounded upon the application of basic science which involves undertaking clinical procedures and as such, students may be at a disadvantage due to the missed opportunity to refine these essential skills. In this article, we provide an overview of the consequences of the COVID-19 pandemic on medical education, specifically regarding curriculum delivery and assessment of students. We also adopt a holistic approach by considering the impact of the pandemic on the mental wellbeing of medical students during this unprecedented time. We offer pragmatic suggestions to uphold the quality of medical education such as the implementation of virtual interprofessional education sessions to solve clinical vignettes and virtual consultation skills with simulated patients. We conclude with suggested areas for future research to examine the effectiveness of a virtual interprofessional education model on both short and long-term learning as well as encouraging medical students and academic staff to trial innovative methods of teaching. Despite the resultant complications of the pandemic on medical education, these challenging times may present a serendipitous opportunity for medical students to cultivate the personal attributes expected of a doctor in the face of adversity. In light of the pandemic, there is scope to reconsider the effectiveness of current medical education and welcome innovative methods of delivering education whilst ensuring quality. The combination of recent telecommunication developments with current teaching methodologies may positively change the future landscape of medical education.

**Database:** MEDLINE, Ovid Technologies

## 1e. "The storm has arrived": the impact of SARS-CoV-2 on medical students

**Source:** Klasen, J. M.; Vithyapathy, A.; Zante, B.; Burm, S. (2020) *Perspectives on Medical Education* 9(3)(181-185

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32458382&id=doi:10.1007%2Fs40037-020-00592-2&issn=2212-2761&isbn=&volume=9&issue=3&spage=181&pages=181-185&date=2020&title=Perspectives+on+Medical+Education&atitle=%22The+storm+has+arrived%22%3A+the+impact+of+SARS-CoV-2+on+medical+students.&aulast=Klasen&pid=%3Cauthor%3EKlasen+JM%3BVithyapathy+A%3BZante+B%3BBurm+S%3C%2Fauthor%3E%3CAN%3E32458382%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

In a few weeks, the global community has witnessed, and for some of us experienced first-hand, the human costs of the COVID-19 pandemic. There is incredible variability in how countries are choosing to thwart the disease's outbreak, sparking intense discussions around what it means to teach and learn in the era of COVID-19, and more specifically, the role medical students play in the midst of the pandemic. A multi-national and multi-institutional group made up of a dedicated medical student from Austria, passionate clinicians and educators from Switzerland, and a PhD scientist involved in Medical Education from Canada, have assembled to summarize the ingenious ways medical students around the world are contributing to emergency efforts. They argue that such efforts change COVID-19 from a "disruption" to medical students learning to something more tangible, more important, allowing students to become stakeholders in the expansion and delivery of healthcare.

**Database:** MEDLINE, Ovid Technologies

# Personal impact on students

## 2a. A letter to the editor: the impact of COVID-19 on intercalating and non-clinical medical students in the UK

**Source:** Abedi, M.; Abedi, D. (2020) *Medical Education Online* 25(1)(1771245

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32449490&id=doi:10.1080%2F10872981.2020.1771245&issn=1087-2981&isbn=&volume=25&issue=1&spage=1771245&pages=1771245&date=2020&title=Medical+Education+Online&atitle=A+letter+to+the+editor%3A+the+impact+of+COVID-19+on+intercalating+and+non-clinical+medical+students+in+the+UK.&aulast=Abedi&pid=%3Cauthor%3EAbedi+M%3BAbedi+D%3C%2Fauthor%3E%3CAN%3E32449490%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 2b. Learning Communities Engage Medical Students: A COVID-19 Virtual Conversation Series

**Source:** Anderi, E.; Sherman, L.; Saymuah, S.; Ayers, E.; Kromrei, H. T. (2020) *Cureus* 12(8)(e9593

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32923199&id=doi:10.7759%2Fcureus.9593&issn=2168-8184&isbn=&volume=12&issue=8&spage=e9593&pages=e9593&date=2020&title=Cureus&atitle=Learning+Communities+Engage+Medical+Students%3A+A+COVID-19+Virtual+Conversation+Series.&aulast=Anderi&pid=%3Cauthor%3EAnderi+E%3BSherman+L%3BSaymuah+S%3BAyers+E%3BKromrei+HT%3C%2Fauthor%3E%3CAN%3E32923199%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

Context Challenges to medical education have been pervasive during the COVID-19 pandemic, and medical students, in particular, have faced numerous obstacles as a result. One of the greatest losses for medical students was the inability to gather with their peers and a lost sense of community. The Learning Community (LC) program at Wayne State University School of Medicine (WSU SoM) expanded our offerings through the use of the Zoom platform to increase a sense of connectedness among medical students. The first initiative of its kind at WSU SoM, the Virtual Conversation series enabled students to share their pandemic challenges while also connecting with physicians on the COVID-19 frontlines. Students were offered eight online sessions with physicians and residents who were able to share insight regarding (1) how to succeed as a medical student on rotation during COVID-19, (2) potential implications of the pandemic on residency applications, (3) the utility of telemedicine, (4) tips for patient encounters, and (5) realities of serving as a physician during a global health crisis. Methods Residents and clinical physicians on the COVID-19 frontlines participated in 40-minute discussions with WSU SoM students through Zoom. Electronic Qualtrics surveys were distributed to medical student attendees of the Virtual Conversation series and responses were received via Likert scale, open text, and ranking questions. Results Qualtrics results demonstrated 55% of medical students (n=55) reported they learned new information about the COVID-19 pandemic from the perspective of physicians. Additionally, 62% of medical students described the Virtual Conversation series as 'extremely useful'. Conclusion The Virtual Conversation series emphasizing different medical aspects of COVID-19 provided a unique benefit to medical students' understanding of the current landscape of healthcare, the anticipation of their future roles as physicians, connectedness with their community, and opportunity to practice flexibility as they begin to apply online learning with real-world situations in the health system.

**Database:** MEDLINE, Ovid Technologies

## 2c. Medical education engagement during the COVID-19 era-A student parents perspective

**Source:** Sharma, S.; Sharma, V.; Arowoshola, L. (2020) *Medical Education Online* 25 (1) (1788799)

<https://4315973.odslr.com/resolver/full?sid=OVID:emcadb&id=pmid:&id=doi:10.1080%2F10872981.2020.1788799&issn=1087-2981&isbn=&volume=25&issue=1&spage=1788799&pages=&date=2020&title=Medical+Education+Online&atitle=Medical+education+engagement+during+the+COVID-19+era-A+student+parents+perspective&aulast=Arowoshola&pid=%3Cauthor%3EArowoshola+L.%3C%2Fauthor%3E%3CAN%3E2005474831%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

The COVID-19 pandemic has affected the delivery of medical education and has limited the ability of student parents to fully engage with their studies. Student parents have been faced with additional challenges such as increased childcare roles and home-schooling responsibilities, splitting their focus. Identifying the issues student parents face and adopting workable solutions at all levels, will ensure the best outcomes for these students and better preparedness for the future. Copyright © 2020, © 2020 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

**Database:**

## 2d. The impact of the COVID-19 pandemic on final year medical students in the United Kingdom: a national survey

**Source:** Choi, B.; Jegatheeswaran, L.; Minocha, A.; Alhilani, M.; Nakhoul, M.; Mutengesa, E. (2020) *BMC Medical Education* 20(1)(206

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32600460&id=doi:10.1186%2Fs12909-020-02117-1&issn=1472-6920&isbn=&volume=20&issue=1&spage=206&pages=206&date=2020&title=BMC+Medical+Education&atitle=The+impact+of+the+COVID-19+pandemic+on+final+year+medical+students+in+the+United+Kingdom%3A+a+national+survey.&aulast=Choi&pid=%3Cauthor%3EChoi+B%3BJegatheeswaran+L%3BMinocha+A%3BAlhilani+M%3BNakhoul+M%3BMutengesa+E%3C%2Fauthor%3E%3CAN%3E32600460%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

BACKGROUND: The coronavirus disease (COVID-19) global pandemic has resulted in unprecedented public health measures. This has impacted the UK education sector with many universities halting campus-based teaching and examinations. The aim of this study is to identify the impact of COVID-19 on final year medical students' examinations and placements in the United Kingdom (UK) and how it might impact their confidence and preparedness going into their first year of foundation training. METHODS: A 10-item online survey was distributed to final year medical students across 33 UK medical schools. The survey was designed by combining dichotomous, multiple choice and likert response scale questions. Participants were asked about the effect that the COVID-19 global pandemic had on final year medical written exams, electives, assistantships and objective structured clinical examinations (OSCEs). The survey also explored the student's confidence and preparedness going into their first year of training under these new unprecedented circumstances. RESULTS: Four hundred forty students from 32 UK medical schools responded. 38.4% (n = 169) of respondents had their final OSCEs cancelled while 43.0% (n = 189) had already completed their final OSCEs before restrictions. 43.0% (n = 189) of assistantship placements were postponed while 77.3% (n = 340) had electives cancelled. The impact of COVID-19 on OSCEs, written examinations and student assistantships significantly affected students' preparedness (respectively p = 0.025, 0.008, 0.0005). In contrast, when measuring confidence, only changes to student assistantships had a significant effect (p = 0.0005). The majority of students feel that measures taken during this pandemic to amend their curricula was necessary. Respondents also agree that assisting in hospitals during the outbreak would be a valuable learning opportunity. CONCLUSIONS: The impact on medical student education has been significant, particularly affecting the transition from student to doctor. This study showed the disruptions to student assistantships had the biggest effect on students' confidence and preparedness. For those willing to assist in hospitals to join the front-line workforce, it is crucial to maintain their wellbeing with safeguards such as proper inductions, support and supervision.

**Database:** MEDLINE, Ovid Technologies

## 2e. Identity in lockdown: supporting primary care professional identity development in the COVID-19 generation

**Source:** Cullum, R. J.; Shaughnessy, A.; Mayat, N. Y.; Brown, M. E. (2020) *Education for Primary Care* 31(4)(200-204

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32589524&id=doi:10.1080%2F14739879.2020.1779616&issn=1473-9879&isbn=&volume=31&issue=4&spage=200&pages=200-204&date=2020&title=Education+for+Primary+Care&atitle=Identity+in+lockdown%3A+supporting+primary+care+professional+identity+development+in+the+COVID-19+generation.&aulast=Cullum&pid=%3Cauthor%3ECullum+RJ%3BShaughnessy+A%3BMayat+NY%3BBrown+ME%3C%2Fauthor%3E%3CAN%3E32589524%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

The current COVID-19 pandemic has dramatically impacted undergraduate medical studies. Whilst challenges for knowledge and clinical skills are being actively addressed, wider considerations such as the impact on professional identity development have been mostly neglected thus far. A robust professional identity is linked to professional behaviour and has been shown to reduce burnout and be an important factor for general practice career choice amongst medical students. The Communities of Practice Model is a sociocultural approach that conceptualises the formation of professional identity through student engagement within a community. We argue the current suspension of clinical placements holds the potential to negatively influence such identity acquisition. In this commentary we explore how the Communities of Practice Model may inform professional identity development of medical students within the COVID-19 environment, considering digital communities and volunteering roles within primary care. We further encourage educators and institutions to consider professional identity in future planning to address the challenges posed by the current situation, both in terms of placement loss but also changes in the way primary care is delivered. Such considerations will be essential if we are to avoid problems relating to poor medical student professional identity development in future.

**Database:** MEDLINE, Ovid Technologies

## 2f. Spotlight on the shift to remote anatomical teaching during Covid-19 pandemic: Perspectives and Experiences from the University of Malta

**Source:** Cuschieri, S.; Calleja Agius, J. (2020) *Anatomical sciences education.* 21(<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32956579&id=doi:10.1002%2Fase.2020&issn=1935-9780&isbn=&volume=&issue=&spage=&pages=&date=2020&title=Anatomical+sciences+education&atitle=Spotlight+on+the+shift+to+remote+anatomical+teaching+during+Covid-19+pandemic%3A+Perspectives+and+Experiences+from+the+University+of+Malta&aulast=Cuschieri&pid=%3Cauthor%3ECuschieri+S.%3BCalleja+Agius+J.%3C%2Fauthor%3E%3CAN%3E632943860%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

Covid-19 has spread globally, affecting all nations. Preventive measures were implemented by governments including the closure of universities. The aim of this study was to evaluate the student's perspectives and experiences on the shift to remote preclinical medical education while enquiring whether there has been any psychological impact on the students. A customized questionnaire utilizing Likert-scale based questions and the Generalized Anxiety Disorder-7 assessment tool was distributed online to enrolled preclinical medical students at the Faculty of Medicine and Surgery at the University of Malta. Quantitative and qualitative analyses of the data gathered was carried out. Multivariant logistic regression analyses was performed to establish independent variables associated with anxiety symptoms. A total of 172 responded out of a cohort of 299 preclinical students (58%). The majority perceived a positive learning experience following the shift to remote lectures however it was not the case for small group teaching including dissection sessions. Nonetheless students reported concerns about their education, examinations, progression to next academic year and wellbeing. Less than half the students exhibited symptoms of anxiety. Students exhibiting "moderate" worry (OR:7.6; CI95%:1.98-29.31; P < 0.01) and "severe" worry (OR: 2.0; CI95%: 5.0-80.5; P < 0.01) on their mental, emotional and wellbeing due to Covid-19 were associated with anxiety symptoms after adjusting for cofounders. Apart from the short-term effects, the Covid-19 pandemic may have a long-term impact on both the medical education and the students' future careers. It is important that the implemented changes in medical education are recorded and studied since such data will be essential on how to proceed post-Covid-19 pandemic. Copyright This article is protected by copyright. All rights reserved.

**Database:**

## 2g. Medical Student Concerns Relating to Neurosurgery Education During COVID-19

**Source:** Guadix, S. W.; Winston, G. M.; Chae, J. K.; Haghdel, A.; Chen, J.; Younus, I.; Radwanski, R.; Greenfield, J. P.; Pannullo, S. C. (2020) *World Neurosurgery* 139(e836-e847

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32426066&id=doi:10.1016%2Fj.wneu.2020.05.090&issn=1878-8750&isbn=&volume=139&issue=&spage=e836&pages=e836-e847&date=2020&title=World+Neurosurgery&atitle=Medical+Student+Concerns+Relating+to+Neurosurgery+Education+During+COVID-19.&aulast=Guadix&pid=%3Cauthor%3EGuadix+SW%3BWinston+GM%3BChae+JK%3BHaghdel+A%3BChen+J%3BYounus+I%3BRadwanski+R%3BGreenfield+JP%3BPannullo+SC%3C%2Fauthor%3E%3CAN%3E32426066%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

BACKGROUND: The coronavirus disease 2019 (COVID-19) pandemic has created significant obstacles within medical education. For medical students interested in pursuing neurosurgery as a specialty, the educational policies surrounding COVID-19 have resulted in unique challenges. The present study used a nationwide survey to identify the concerns of medical students interested in pursuing neurosurgery during the COVID-19 pandemic. METHODS: Students who had previously registered for medical student neurosurgery training camps were sent an online Qualtrics survey requesting them to assess how the COVID-19 pandemic was affecting their neurosurgical education. The Pearson chi2 test and post hoc pairwise Fisher exact test were used for analysis of categorical variables, and the 2-tailed paired Student t test was used for continuous variables. RESULTS: The survey was distributed to 852 medical students, with 127 analyzed responses. Concerns regarding conferences and networking opportunities (63%), clinical experience (59%), and board examination scores (42%) were most frequently cited. Of the third-year medical students, 76% reported >=1 cancelled or postponed neurosurgery rotation. On average, students were more likely to take 1 year off from medical school after than before the start of the COVID-19 pandemic, measured from 0 to 100 (25.3 +/- 36.0 vs. 39.5 +/- 37.5; P = 0.004). Virtual mentorship pairing was the highest rated educational intervention suggested by first- and second-year medical students. The third- and fourth-year medical students had cited virtual surgical skills workshops most frequently. CONCLUSIONS: The results from the present nationwide survey have highlighted the concerns of medical students regarding their neurosurgery education during the COVID-19 pandemic. With these findings, neurosurgery organizations can consider targeted plans for students of each year to continue their education and development.

**Database:** MEDLINE, Ovid Technologies

## 2h. Medical education adaptations during a pandemic: Transitioning to virtual student support

**Source:** Hodgson, Jessica C.; Hagan, Pamela (2020) *Medical Education* 54(7)(662-663

<http://search.ebscohost.com/login.aspx?direct=true&AuthType=athens&db=cin20&AN=143823386&site=ehost-live&custid=ns010363>

Using the existing system of personal tutor groups, personal tutors were encouraged to switch to online virtual tutor groups via university‐supported software packages, to which all staff and students have access free of charge. The two universities involved in this initiative have institutional subscriptions to the Microsoft® Teams (Microsoft Corp., Redmond, WA, USA) application, which was used for one‐to‐one video calls and for the instant messaging group chat function.

**Database:** CINAHL, EBSCOhost

## 2i. The importance of medical student perspectives on the impact of COVID-19

**Source:** Kapila, V.; Corthals, S.; Langhendries, L.; Kapila, A. K.; Everaert, K. (2020) *British Journal of Surgery* 107(10)(e372-e373

<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32687601&id=doi:10.1002%2Fbjs.11808&issn=0007-1323&isbn=&volume=107&issue=10&spage=e372&pages=e372-e373&date=2020&title=British+Journal+of+Surgery&atitle=The+importance+of+medical+student+perspectives+on+the+impact+of+COVID-19&aulast=Kapila&pid=%3Cauthor%3EKapila+V.%3BCorthals+S.%3BLanghendries+L.%3BKapila+A.K.%3BEveraert+K.%3C%2Fauthor%3E%3CAN%3E2005619582%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

**Database:** Embase, Ovid Technologies

## 2j. Prevalence of Anxiety in Medical Students during the COVID-19 Pandemic: A Rapid Systematic Review with Meta-Analysis

**Source:** Lasheras, I.; Gracia-Garcia, P.; Lipnicki, D. M.; Bueno-Notivol, J.; Lopez-Anton, R.; de la Camara, C.; Lobo, A.; Santabarbara, J. (2020) *International Journal of Environmental Research & Public Health [Electronic Resource]* 17(18)(10

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32927871&id=doi:10.3390%2Fijerph17186603&issn=1660-4601&isbn=&volume=17&issue=18&spage=&pages=&date=2020&title=International+Journal+of+Environmental+Research+%26+Public+Health+%5BElectronic+Resource%5D&atitle=Prevalence+of+Anxiety+in+Medical+Students+during+the+COVID-19+Pandemic%3A+A+Rapid+Systematic+Review+with+Meta-Analysis.&aulast=Lasheras&pid=%3Cauthor%3ELasheras+I%3BGracia-Garcia+P%3BLipnicki+DM%3BBueno-Notivol+J%3BLopez-Anton+R%3Bde+la+Camara+C%3BLobo+A%3BSantabarbara+J%3C%2Fauthor%3E%3CAN%3E32927871%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

The novel coronavirus disease (COVID-19) pandemic has brought a great deal of pressure for medical students, who typically show elevated anxiety rates. Our aim is to investigate the prevalence of anxiety in medical students during this pandemic. This systematic review and mini meta-analysis has been conducted following the PRISMA guidelines. Two researchers independently searched PubMed on 26 August 2020 for cross-sectional studies on medical students during the COVID-19 outbreak, with no language restrictions applied. We then performed a manual search to detect other potentially eligible investigations. To the 1361 records retrieved in the initial search, 4 more were added by manual search on medRxiv. Finally, eight studies were finally included for qualitative and quantitative analysis, which yielded an estimated prevalence of anxiety of 28% (95% CI: 22-34%), with significant heterogeneity between studies. The prevalence of anxiety in medical students is similar to that prior to the pandemic but correlates with several specific COVID-related stressors. While some preventive and risk factors have been previously identified in a non-pandemic context, knowledge and cognitions on COVID-19 transmission, treatment, prognosis and prevention negatively correlate with anxiety, emerging as a key preventive factor that may provide a rationale for why the levels of anxiety have remained stable in medical students during the pandemic while increasing in their non-medical peers and the general population. Other reasons for the invariability of anxiety rates in this population are discussed. A major limitation of our review is that Chinese students comprised 89% the total sample, which could compromise the external validity of our work.

**Database:** MEDLINE, Ovid Technologies

## 2k. COVID-19 and the mental well-being of Australian medical students: impact, concerns and coping strategies used

**Source:** Lyons, Z.; Wilcox, H.; Leung, L.; Dearsley, O. (2020) *Australasian Psychiatry* 1039856220947945

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32772729&id=doi:10.1177%2F1039856220947945&issn=1039-8562&isbn=&volume=&issue=&spage=1039856220947945&pages=1039856220947945&date=2020&title=Australasian+Psychiatry&atitle=COVID-19+and+the+mental+well-being+of+Australian+medical+students%3A+impact%2C+concerns+and+coping+strategies+used.&aulast=Lyons&pid=%3Cauthor%3ELyons+Z%3BWilcox+H%3BLeung+L%3BDearsley+O%3C%2Fauthor%3E%3CAN%3E32772729%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

OBJECTIVE: Medical students are vulnerable to poor mental well-being. The recent COVID-19 pandemic has disrupted student life and had significant effects on curricula delivery at medical schools around Australia. The study aimed to assess the impact of COVID-19 on medical student mental well-being, assess concerns and determine activities used by students to help with the situation. METHOD: An online cross-sectional survey was designed. Questions focused on concerns and impact of COVID-19. The Kessler-10 (K10) measured psychological distress. RESULTS: Two hundred and ninety-seven students participated with a 37.5% response rate. Mean K10 score was 20.6 indicating moderate psychological distress. There were no significant differences in K10 mean score or distress level (low, moderate, high, very high) between students in different years of the medical course. Deterioration in mental well-being since COVID-19 onset was reported by 68% students. Main negative impacts were on social connectedness, studies and stress levels. Concerns related to uncertainty about returning to normal and graduation. Common activities were using video chats, social media, exercise and hobbies. CONCLUSIONS: The impact of COVID-19 on mental well-being has led to legitimate concerns by students regarding their studies and progress through the medical course. We hope to minimise these disruptions, and reassure and support students to ensure that academic goals are achieved.

**Database:** MEDLINE, Ovid Technologies

## 2l. The Class of COVID-19: Texas Medical Students Struggle with Uncertainty

**Source:** Price, S. (2020) *Texas Medicine* 116(6)(16-18

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32645184&id=doi:&issn=0040-4470&isbn=&volume=116&issue=6&spage=16&pages=16-18&date=2020&title=Texas+Medicine&atitle=The+Class+of+COVID-19%3A+Texas+Medical+Students+Struggle+with+Uncertainty.&aulast=Price&pid=%3Cauthor%3EPrice+S%3C%2Fauthor%3E%3CAN%3E32645184%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

Texas medical students struggle to fight the pandemic in their own way while adjusting to a lot of uncertainty.

**Database:** MEDLINE, Ovid Technologies

## 2m. Transparency about death: students on COVID-19

**Source:** Raniolo, G.; O'Keeffe, C.; Omrani, O. A. (2020) *The clinical teacher* 17(4)(447-449

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32815285&id=doi:10.1111%2Ftct.13227&issn=1743-4971&isbn=&volume=17&issue=4&spage=447&pages=447-449&date=2020&title=The+clinical+teacher&atitle=Transparency+about+death%3A+students+on+COVID-19.&aulast=Raniolo&pid=%3Cauthor%3ERaniolo+G%3BO%27Keeffe+C%3BOmrani+OA%3C%2Fauthor%3E%3CAN%3E32815285%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 2n. Peer mentoring for medical students during the COVID‐19 pandemic via a social media platform

**Source:** Rastegar Kazerooni, AmirAli; Amini, Mitra; Tabari, Parinaz; Moosavi, Mahsa (2020) *Medical Education* 54(8)(762-763

<http://search.ebscohost.com/login.aspx?direct=true&AuthType=athens&db=cin20&AN=144579352&site=ehost-live&custid=ns010363>

The article focuses on the social media platform created by students at Shiraz University's medical school, which employed the near-peer mentoring method. Topics covered include the impact of the COVID-19 pandemic on the mental and emotional state of medical students, the training that senior students had received to instruct junior medical students in coping with anxiety and stress brought about by the pandemic, and the role of care and support in the mental health of medical students.

**Database:** CINAHL, EBSCOhost

## 2o. COVID-19-related prejudice toward Asian medical students: A consequence of SARS-CoV-2 fears in Poland

**Source:** Rzymski, P.; Nowicki, M. (2020) *Journal of Infection and Public Health* 13(6)(873-876

<https://4315973.odslr.com/resolver/full?sid=OVID:emcadb&id=pmid:&id=doi:10.1016%2Fj.jiph.2020.04.013&issn=1876-0341&isbn=&volume=13&issue=6&spage=873&pages=873-876&date=2020&title=Journal+of+Infection+and+Public+Health&atitle=COVID-19-related+prejudice+toward+Asian+medical+students%3A+A+consequence+of+SARS-CoV-2+fears+in+Poland&aulast=Rzymski&pid=%3Cauthor%3ERzymski+P.%3BNowicki+M.%3C%2Fauthor%3E%3CAN%3E2005794828%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

The coronavirus disease 2019 (COVID-19) outbreak caused by SARS-CoV-2 has triggered global panic. We have conducted an anonymous online survey of Asian medical students in Poland to assess whether they experience any form of prejudice related to the ongoing pandemic. As demonstrated, the COVID-19 outbreak had triggered xenophobic reactions toward students of Asian-origin (n = 85) before the first SARS-CoV-2 case was confirmed in Poland. Facing prejudice, including discrimination related to COVID-19, may add to feelings of isolation of students of Asian origin who study abroad, and affect career development, especially for students. We recommend that universities should proactively develop policies that support students, faculty, and staff affected by discriminatory behavior both during the current outbreak and in the future. However, preventing such behaviors should also be enforced by national authorities Copyright © 2020 The Author(s)

**Database:** Emcare, Ovid Technologies

## 2p. Preventing COVID-19 prejudice in academia

**Source:** Rzymski, P.; Nowicki, M. (2020) *Science* 367(6484)(1313

<https://4315973.odslr.comUI> - 2005367570 <https://4315973.odslr.com/resolver/full?sid=OVID:emcadb&id=pmid:&id=doi:10.1126%2Fscience.abb4870&issn=0036-8075&isbn=&volume=367&issue=6484&spage=1313&pages=1313&date=2020&title=Science&atitle=Preventing+COVID-19+prejudice+in+academia&aulast=Rzymski&pid=%3Cauthor%3ERzymski+P.%3BNowicki+M.%3C%2Fauthor%3E%3CAN%3E2005367570%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

**Database:**

## 2q. Pre-Clinical Remote Undergraduate Medical Education During the COVID-19 Pandemic: A Survey Study

**Source:** Shahrvini, B. B.; Baxter, ; Coffey, C. S.; MacDonald, B. B. V.; Lander, S. L. (2020) *Res Sq* 10(10

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32702722&id=doi:10.21203%2Frs.3.rs-33870%2Fv1&issn=&isbn=&volume=&issue=&spage=&pages=&date=2020&title=&atitle=Pre-Clinical+Remote+Undergraduate+Medical+Education+During+the+COVID-19+Pandemic%3A+A+Survey+Study%26nbsp.&aulast=Shahrvini&pid=%3Cauthor%3EShahrvini+BB%3BBaxter%3BCoffey+CS%3BMacDonald+BBV%3BLander+SL%3C%2Fauthor%3E%3CAN%3E32702722%3C%2FAN%3E%3CDT%3EPreprint%3C%2FDT%3E>

Background: The COVID-19 pandemic has necessitated a sudden transition to remote learning in medical schools. We aimed to assess student perceptions of remote learning during the pre-clinical curricular training phase. Methods: A survey was distributed to first- and second-year medical students enrolled at the University of California San Diego School of Medicine in March 2020. Frequencies of responses to structured multiplechoice questions were compared regarding impacts of remote learning on quality of instruction and ability to participate, value of various remote learning resources, living environment, and preparedness for subsequent stages of training. Responses to open-ended questions about strengths and weaknesses of the remote curriculum and overall reections were coded for thematic content. Results: Of 268 students enrolled, 104 responded (53.7% of first-year students and 23.9% of second-year students). Overall, students felt the quality of instruction and their ability to participate had been negatively affected. Most (64.1%) preferred the flexibility of learning material at their own pace. Only 25.5% of respondents still felt connected to the medical school or classmates. Most second-year students (56.7%) felt their preparation for the USMLE Step 1 exam was negatively affected and 43.3% felt unprepared to begin clerkships. In narrative responses, most appreciated the increased flexibility of remote learning but recognized that digital fatigue, decreased ability to participate, and lack of clinical skills and hands-on lab learning were notable deficits. Conclusions: Videocasted lectures uploaded in advance, electronic health record and telehealth training for students, and training for teaching faculty to increase technological fluency may be considered to optimize remote learning curricula.

**Database:** MEDLINE, Ovid Technologies

## 2r. COVID-19: A Medical Student's Perspective

**Source:** Shamapant, N. (2020) *Aem Education & Training* 4(3)(181-182

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32704583&id=doi:10.1002%2Faet2.10465&issn=2472-5390&isbn=&volume=4&issue=3&spage=181&pages=181-182&date=2020&title=Aem+Education+%26+Training&atitle=COVID-19%3A+A+Medical+Student%27s+Perspective.&aulast=Shamapant&pid=%3Cauthor%3EShamapant+N%3C%2Fauthor%3E%3CAN%3E32704583%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 2s. Covid-19: healthcare students face unique mental health challenges

**Source:** Smith, C. A. (2020) *BMJ* 369(m2491

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32601100&id=doi:10.1136%2Fbmj.m2491&issn=0959-8138&isbn=&volume=369&issue=&spage=m2491&pages=m2491&date=2020&title=BMJ&atitle=Covid-19%3A+healthcare+students+face+unique+mental+health+challenges.&aulast=Smith&pid=%3Cauthor%3ESmith+CA%3C%2Fauthor%3E%3CAN%3E32601100%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 2t. The power of 'pause': A time for medical students to reflect and mobilise

**Source:** Spach, Natalie C. (2020) *Medical Education* 54(8)(676-677

<http://search.ebscohost.com/login.aspx?direct=true&AuthType=athens&db=cin20&AN=144579355&site=ehost-live&custid=ns010363>

The author reflects on the implications the COVID‐19 pandemic holds for training, practice, public health, and health policy reform.

**Database:** CINAHL, EBSCOhost

## 2u. "The COVID-19 outbreak"—An empirical phenomenological study on perceptions and psychosocial considerations surrounding the immediate incorporation of final-year Spanish nursing and medical students into the health system

**Source:** Collado-Boira, Eladio J.; Ruiz-Palomino, Estefanía; Salas-Media, Pablo; Folch-Ayora, Ana; Muriach, Maria; Baliño, Pablo (2020) *Nurse Education Today* 92

<http://search.ebscohost.com/login.aspx?direct=true&AuthType=athens&db=cin20&AN=144657932&site=ehost-live&custid=ns010363>

The COVID-19 pandemic has caused an unprecedented health crisis worldwide, with the numbers of infections and deaths worldwide multiplying alarmingly in a matter of weeks. Accordingly, governments have been forced to take drastic actions such as the confinement of the population and the suspension of face-to-face teaching. In Spain, due to the collapse of the health system the government has been forced to take a series of important measures such as requesting the voluntary incorporation of final-year nursing and medical students into the health system. The objective of the present work is to study, using a phenomenological qualitative approach, the perceptions of students in this exceptional actual situation. A total of 62 interviews were carried out with final-year nursing and medicine students from Jaime I University (Spain), with 85% reporting having voluntarily joined the health system for ethical and moral reasons. Results from the inductive analysis of the descriptions highlighted two main categories and a total of five sub-categories. The main feelings collected regarding mood were negative, represented by uncertainty, nervousness, and fear. This study provides a description of the perceptions of final-year nursing and medical students with respect to their immediate incorporation into a health system aggravated by a global crisis.

**Database:** CINAHL, EBSCOhost

## 2v. "We Signed Up for This!" - Student and Trainee Responses to the Covid-19 Pandemic

**Source:** Gallagher, T. H.; Schleyer, A. M. (2020) *New England Journal of Medicine* 382(25)(e96

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32268020&id=doi:10.1056%2FNEJMp2005234&issn=0028-4793&isbn=&volume=382&issue=25&spage=e96&pages=e96&date=2020&title=New+England+Journal+of+Medicine&atitle=%22We+Signed+Up+for+This%21%22+-+Student+and+Trainee+Responses+to+the+Covid-19+Pandemic.&aulast=Gallagher&pid=%3Cauthor%3EGallagher+TH%3BSchleyer+AM%3C%2Fauthor%3E%3CAN%3E32268020%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 2w. Cancelled medical student placements: the COVID-19 effect

**Source:** Hunter, J.; Murdoch, S. (2020) *Postgraduate Medical Journal* 12(12

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32796109&id=doi:10.1136%2Fpostgradmedj-2020-138638&issn=0032-5473&isbn=&volume=&issue=&spage=ostgradmed&pages=&date=2020&title=Postgraduate+Medical+Journal&atitle=Cancelled+medical+student+placements%3A+the+COVID-19+effect.&aulast=Hunter&pid=%3Cauthor%3EHunter+J%3BMurdoch+S%3C%2Fauthor%3E%3CAN%3E32796109%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 2x. Response to: Medical students' preference for returning to the clinical setting during the COVID-19 pandemic

**Source:** Reddy, R. K.; Palmer, E. G. (2020) *Medical education.* 21(<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32564376&id=doi:10.1111%2Fmedu.14283&issn=1365-2923&isbn=&volume=&issue=&spage=&pages=&date=2020&title=Medical+education&atitle=Response+to%3A+Medical+students%27+preference+for+returning+to+the+clinical+setting+during+the+COVID-19+pandemic&aulast=Reddy&pid=%3Cauthor%3EReddy+R.K.%3BPalmer+E.G.%3C%2Fauthor%3E%3CAN%3E632146105%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

As fourth-year medical students in the UK who have had to adapt to working from home amidst nationwide cancellation of clinical placements, we read with interest Compton et al.'s survey assessing the prevalence of medical students' preference for re-entering clinical environments during the COVID-19 pandemic1 . Copyright This article is protected by copyright. All rights reserved.

## 2y. The Role of Medical Student Government in Responding to COVID-19

**Source:** Schuiteman, S.; Ibrahim, N. I.; Hammoud, A.; Kruger, L.; Mangrulkar, R. S.; Daniel, M. (2020) *Academic medicine : journal of the Association of American Medical Colleges.* 09(<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32520750&id=doi:10.1097%2FACM.0000000000003542&issn=1938-808X&isbn=&volume=&issue=&spage=&pages=&date=2020&title=Academic+medicine+%3A+journal+of+the+Association+of+American+Medical+Colleges&atitle=The+Role+of+Medical+Student+Government+in+Responding+to+COVID-19&aulast=Schuiteman&pid=%3Cauthor%3ESchuiteman+S.%3BIbrahim+N.I.%3BHammoud+A.%3BKruger+L.%3BMangrulkar+R.S.%3BDaniel+M.%3C%2Fauthor%3E%3CAN%3E632047354%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

The COVID-19 outbreak has sown clinical and administrative chaos at academic health centers throughout the country. As COVID-19-related burdens on the health care system and medical schools piled up, questions from medical students far outweighed the capacity of medical school administrators to respond in an adequate or timely manner, leaving students feeling confused and without clear guidance. In this Perspective, incoming and outgoing executive leaders of the University of Michigan Medical School Student Council and medical school deans outline the specific ways they were able to bridge the gap between medical students and administrators in a time of crisis. To illustrate the value of student government during uncertain times, the authors identify the most pressing problems faced by students at each phase of the curriculum-preclerkship, clerkship, and postclerkship-and explain how Student Council leadership partnered with administrators to find creative solutions to these problems and provide guidance to learners. They end by reflecting on the role of student government more broadly, identifying 3 guiding principles of student leadership and how these principles enable effective student representation.

**Database:** Ovid Technologies

# Student work during COVID-19

## 3a. A letter regarding maternity medical student experiences during the COVID-19 pandemic

**Source:** Alberman, S.; Sagoe, P.; Fairhurst, J.; Lane, A.; Gafson, I. (2020) *Obstetrician and Gynaecologist.* <https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:&id=doi:10.1111%2Ftog.12694&issn=1467-2561&isbn=&volume=&issue=&spage=&pages=&date=2020&title=Obstetrician+and+Gynaecologist&atitle=A+letter+regarding+maternity+medical+student+experiences+during+the+COVID-19+pandemic&aulast=Alberman&pid=%3Cauthor%3EAlberman+S.%3BSagoe+P.%3BFairhurst+J.%3BLane+A.%3BGafson+I.%3C%2Fauthor%3E%3CAN%3E2006741934%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

**Database:**

## 3b. Support for mobilising medical students to join the COVID-19 pandemic emergency healthcare workforce: a cross-sectional questionnaire survey

**Source:** Astorp, M. S.; Sorensen, G. V. B.; Rasmussen, S.; Emmersen, J.; Erbs, A. W.; Andersen, S. (2020) *BMJ open* 10(9)(e039082

<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32938602&id=doi:10.1136%2Fbmjopen-2020-039082&issn=2044-6055&isbn=&volume=10&issue=9&spage=e039082&pages=e039082&date=2020&title=BMJ+open&atitle=Support+for+mobilising+medical+students+to+join+the+COVID-19+pandemic+emergency+healthcare+workforce%3A+a+cross-sectional+questionnaire+survey&aulast=Astorp&pid=%3Cauthor%3EAstorp+M.S.%3BSorensen+G.V.B.%3BRasmussen+S.%3BEmmersen+J.%3BErbs+A.W.%3BAndersen+S.%3C%2Fauthor%3E%3CAN%3E632895859%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

OBJECTIVE: To identify what motivates medical students to join a pandemic emergency healthcare workforce. DESIGN: Cross-sectional study. SETTING: Aalborg University, Denmark. PARTICIPANTS: All medical students. MAIN OUTCOME MEASURES: Motivational points as perceived by the students to be important. Demographic characteristics and 11 motivational domains scored on a Visual Analog Scale from 0 (low) to 100 (high) responding to the question: 'To what degree are the following statements important for you to join a national emergency preparedness workforce?' The questionnaire was developed by an expert panel in a process of four iterations. RESULT(S): A total of 486 students of 688 (70.6%) completed the survey within 7 days in March 2020. 80% had decided to join the pandemic emergency healthcare workforce. Ranked median scores for motivational statements in each domain were: care, 100; learn, 90; pride, 83; team, 77; needed, 75; safety, 75; supervision, 75; job, 73; duty, 66; salary, 62; historic, 50. Supervision (p<0.001), salary (p<0.001) and duty (p=0.001) were given increasing priority with advancing study years. Interestingly, students added that support by the university and clarification of study plans were priorities. CONCLUSION(S): Results guide decision-makers and colleagues on how to motivate or reinforce medical students in joining the pandemic emergency healthcare workforce. Importantly, students emphasised protection for themselves. Copyright © Author(s) (or their employer(s)) 2020. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

**Database:** Embase, Ovid Technologies

## 3c. Medical student mobilization during a pandemic: The Ochsner Clinical School response to COVID-19

**Source:** Ayoub, P.; Chang, D. D.; Hussein, N.; Stewart, K.; Wise, A.; Malik, I.; Robbins, K.; Savage, B.; Johnson, M.; Shah, S. (2020) *Ochsner Journal* 20(2)(146-150

<https://4315973.odslr.com/resolver/full?sid=OVID:emcadb&id=pmid:&id=doi:10.31486%2Ftoj.20.0069&issn=1524-5012&isbn=&volume=20&issue=2&spage=146&pages=146-150&date=2020&title=Ochsner+Journal&atitle=Medical+student+mobilization+during+a+pandemic%3A+The+ochsner+clinical+school+response+to+COVID-19&aulast=Ayoub&pid=%3Cauthor%3EAyoub+P.%3BChang+D.D.%3BHussein+N.%3BStewart+K.%3BWise+A.%3BMalik+I.%3BRobbins+K.%3BSavage+B.%3BJohnson+M.%3BShah+S.%3C%2Fauthor%3E%3CAN%3E2004604484%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

## 3d. "Medical Students on the Front Line of COVID 19"

**Source:** Bender, S.; Florentine, E.; Isralowitz, R. (2020) *Journal of Loss and Trauma.* <https://4315973.odslr.com/resolver/full?sid=OVID:emcadb&id=pmid:&id=doi:10.1080%2F15325024.2020.1808362&issn=1532-5024&isbn=&volume=&issue=&spage=1&pages=&date=2020&title=Journal+of+Loss+and+Trauma&atitle=%22Medical+Students+on+the+Front+Line+of+COVID+19%22&aulast=Bender&pid=%3Cauthor%3EBender+S.%3BFlorentine+E.%3BIsralowitz+R.%3C%2Fauthor%3E%3CAN%3E2005895095%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

## 3e. Lessons learned: Contribution to healthcare by medical students during COVID-19

**Source:** Bosveld, M. H.; van Doorn, D. P. C.; Stassen, P. M.; Westerman, D.; Bergmans, Dcjj; van der Horst, I. C. C.; van Mook, Wnka (2020) *Journal of Critical Care* 19(19

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32980234&id=doi:10.1016%2Fj.jcrc.2020.09.015&issn=0883-9441&isbn=&volume=&issue=&spage=&pages=&date=2020&title=Journal+of+Critical+Care&atitle=Lessons+learned%3A+Contribution+to+healthcare+by+medical+students+during+COVID-19.&aulast=Bosveld&pid=%3Cauthor%3EBosveld+MH%3Bvan+Doorn+DPC%3BStassen+PM%3BWesterman+D%3BBergmans+DCJJ%3Bvan+der+Horst+ICC%3Bvan+Mook+WNKA%3C%2Fauthor%3E%3CAN%3E32980234%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

An overview of the experiences with deployment of undergraduate medical students in a Dutch university center during the COVID-19 pandemic is provided from organisational and educational perspectives. Medical students' and specialists' experiences during the first peak of COVID-19 underscore the preliminary suggestion that students can be given more enhanced (yet supervised) responsibility for patient care early in their practicums.

**Database:** MEDLINE, Ovid Technologies

## 3f. Medical student volunteering during COVID-19: lessons for future interprofessional practice

**Source:** Buckland, R. (2020) *Journal of interprofessional care* 1-3

<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32962471&id=doi:10.1080%2F13561820.2020.1822790&issn=1469-9567&isbn=&volume=&issue=&spage=1&pages=1-3&date=2020&title=Journal+of+interprofessional+care&atitle=Medical+student+volunteering+during+COVID-19%3A+lessons+for+future+interprofessional+practice&aulast=Buckland&pid=%3Cauthor%3EBuckland+R.%3C%2Fauthor%3E%3CAN%3E632955431%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

Due to the unprecedented pressures on healthcare systems during the COVID-19 pandemic, many medical students internationally volunteered to assist in hospitals. In the United Kingdom, most students worked in roles similar to Healthcare Assistants: helping to support nurses in providing patient care. Although the current situation is exceptional, with medical students eager to contribute to the COVID-19 response, they have also gained valuable experience in interprofessional collaboration. By working closely with nurses, medical students have gained practical understanding of the different roles within the hospital environment and been involved in providing hands-on care to patients. The experience of the current pandemic has shown the willingness of medical students to volunteer in Healthcare Assistant roles and demonstrated the ability of hospitals to successfully integrate students into established nursing teams. This short report provides a reflection on the advantages of these placements and argues for their continuation in future practice.

## 3g. Medical students' preference for returning to the clinical setting during the COVID‐19 pandemic

**Source:** Compton, Scott; Sarraf‐Yazdi, Shiva; Rustandy, Felicia; Radha Krishna, Lalit Kumar (2020) *Medical Education* 54(10)(943-950

<http://search.ebscohost.com/login.aspx?direct=true&AuthType=athens&db=cin20&AN=146104164&site=ehost-live&custid=ns010363>

Objectives: The coronavirus disease 2019 (COVID‐19) pandemic has led to widespread disruptions in the clinical education of medical students. In managing students' return to the clinical setting, medical schools face the challenge of balancing education, service and risk considerations. To compound this challenge, medical students may prefer not to re‐enter during a period of great uncertainty, leading to substantive downstream sequelae on individual, institutional and national levels. Understanding students' views on resuming clinical experiences, therefore, is an important consideration. The purpose of this study was to assess medical students' preference for re‐entering the clinical setting during the COVID‐19 pandemic and to explore personal and environmental characteristics associated with that preference. Methods: We conducted an electronic survey of currently enrolled medical students at the Duke‐NUS Medical School, less than a month into the COVID‐19 pandemic. Survey items were aligned with a conceptual framework related to medical students' preference for returning to the clinical setting. The framework consisted of three domains: (a) non‐modifiable demographic information; (b) factors thought to be modifiable through the course of medical education, including burnout, tolerance for ambiguity, motivation and professionalism, and (c) students' perception of COVID‐19 infection risk to self. Results: Approximately one‐third (n=63) of 179 students preferred not to return to the clinical setting. Results of a multivariable analysis indicated that compared to this group, the two‐thirds (n=116) of students favouring return showed evidence of greater autonomous (or internal) motivation, a greater sense of professional responsibility and a lower self‐perception of harbouring risk to patients. Conclusions: Students' preference on returning to the clinical environment stems from the interplay of several key factors, and is substantively associated with perceptions of professional responsibility and their own potential risk to the health care system. Mindfully considering and addressing these issues may help medical schools in their preparation for returning students to the clinical setting.

**Database:** CINAHL, EBSCOhost

## 3h. Responding to hospital system and student curricular needs: COVID‐19 Student Service Corps

**Source:** Edelman, David S.; Desai, Urmi A.; Soo‐Hoo, Sarah; Catallozzi, Marina (2020) *Medical Education* 54(9)(853-854

<http://search.ebscohost.com/login.aspx?direct=true&AuthType=athens&db=cin20&AN=145115106&site=ehost-live&custid=ns010363>

The article discusses the deployment of the COVID-19 Student Service Corps (CSSC) at Columbia University Irving Medical Center to support health systems and their patients, workforce and communities facing the COVID-19 pandemic through interprofessional student service-learning projects. Topics include guiding principles developed by the CSSC, project areas to consider given local health care setting needs, and important resources for administration of the CSSC.

**Database:** CINAHL, EBSCOhost

## 3i. Lessons from a Free Clinic During Covid-19: Medical Students Serving Individuals Experiencing Homelessness Using Tele-Health

**Source:** Heflin, K. J.; Gillett, L.; Alexander, A. (2020) *Journal of Ambulatory Care Management* 43(4)(308-311

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32858731&id=doi:10.1097%2FJAC.0000000000000352&issn=0148-9917&isbn=&volume=43&issue=4&spage=308&pages=308-311&date=2020&title=Journal+of+Ambulatory+Care+Management&atitle=Lessons+from+a+Free+Clinic+During+Covid-19%3A+Medical+Students+Serving+Individuals+Experiencing+Homelessness+Using+Tele-Health.&aulast=Heflin&pid=%3Cauthor%3EHeflin+KJ%3BGillett+L%3BAlexander+A%3C%2Fauthor%3E%3CAN%3E32858731%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 3j. Covid-19: the medical students responding to the pandemic

**Source:** Kinder, F.; Harvey, A. (2020) *BMJ* 369(m2160

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32540952&id=doi:10.1136%2Fbmj.m2160&issn=0959-8138&isbn=&volume=369&issue=&spage=m2160&pages=m2160&date=2020&title=BMJ&atitle=Covid-19%3A+the+medical+students+responding+to+the+pandemic.&aulast=Kinder&pid=%3Cauthor%3EKinder+F%3BHarvey+A%3C%2Fauthor%3E%3CAN%3E32540952%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 3k. SWAB team instead of SWAT team: Medical students as a frontline force during the COVID-19 pandemic

**Source:** Klasen, J. M.; Meienberg, A.; Nickel, C.; Bingisser, R. (2020) *Medical Education* 54(9)(860

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32403176&id=doi:10.1111%2Fmedu.14224&issn=0308-0110&isbn=&volume=54&issue=9&spage=860&pages=860&date=2020&title=Medical+Education&atitle=SWAB+team+instead+of+SWAT+team%3A+Medical+students+as+a+frontline+force+during+the+COVID-19+pandemic.&aulast=Klasen&pid=%3Cauthor%3EKlasen+JM%3BMeienberg+A%3BNickel+C%3BBingisser+R%3C%2Fauthor%3E%3CAN%3E32403176%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 3l. Implementation and Process of a COVID-19 Contact Tracing Initiative: Leveraging Health Professional Students to Extend the Workforce During a Pandemic

**Source:** Koetter, P.; Pelton, M.; Gonzalo, J.; Du, P.; Exten, C.; Bogale, K.; Buzzelli, L.; Connolly, M.; Edel, K.; Hoffman, A.; Legro, N. R.; Medina, D.; Sood, N.; Blaker, J.; Kearcher, K.; Sciamanna, C. (2020) *American Journal of Infection Control.* <https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32798633&id=doi:10.1016%2Fj.ajic.2020.08.012&issn=0196-6553&isbn=&volume=&issue=&spage=&pages=&date=2020&title=American+Journal+of+Infection+Control&atitle=Implementation+and+Process+of+a+COVID-19+Contact+Tracing+Initiative%3A+Leveraging+Health+Professional+Students+to+Extend+the+Workforce+During+a+Pandemic&aulast=Koetter&pid=%3Cauthor%3EKoetter+P.%3BPelton+M.%3BGonzalo+J.%3BDu+P.%3BExten+C.%3BBogale+K.%3BBuzzelli+L.%3BConnolly+M.%3BEdel+K.%3BHoffman+A.%3BLegro+N.R.%3BMedina+D.%3BSood+N.%3BBlaker+J.%3BKearcher+K.%3BSciamanna+C.%3C%2Fauthor%3E%3CAN%3E2007713187%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

Background: The Centers for Disease Control and Prevention recommends aggressive contact tracing to control the COVID-19 pandemic. In this work, we (1) describe the development of a COVID-19 contact tracing initiative that includes medical, nursing, and public health students, and is led by clinicians and infectious disease epidemiologists within our health system, and, (2) articulate process steps for contact tracing including workflows and telephone scripts, and, (3) highlight the key challenges and strategies to overcome these challenges. Method(s): A single academic institution-based contact tracing initiative was rapidly scaled to 110 health professional students, four physicians, two epidemiologists, and a research team. Following training, students called patients who were COVID-19 positive and the individuals they were in contact with to ensure proper isolation and quarantine measures. Students also assisted those who faced barriers to quarantine. Implications: In total, between March 24 and May 28 - this initiative completed contact tracing for 536 confirmed cases, which resulted in the identification of 953 contacts. We aim to disseminate this process, including telephone scripts and workflow, to other health systems for use in their initiatives to respond to the COVID-19 pandemic and future public health emergencies. Copyright © 2020 Association for Professionals in Infection Control and Epidemiology, Inc.

## 3m. A letter to the editor: reflection on medical student volunteer role during the coronavirus pandemic

**Source:** Levene, A.; Dinneen, C. (2020) *Medical education online* 25(1)(1784373

<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32594902&id=doi:10.1080%2F10872981.2020.1784373&issn=1087-2981&isbn=&volume=25&issue=1&spage=1784373&pages=1784373&date=2020&title=Medical+education+online&atitle=A+letter+to+the+editor%3A+reflection+on+medical+student+volunteer+role+during+the+coronavirus+pandemic&aulast=Levene&pid=%3Cauthor%3ELevene+A.%3BDinneen+C.%3C%2Fauthor%3E%3CAN%3E632222332%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

**Database:** Embase, Ovid Technologies

## 3n. Contributions of Health Professions Students to Health System Needs During the COVID-19 Pandemic: Potential Strategies and Process for U.S. Medical Schools

**Source:** Long, N.; Wolpaw, D. R.; Boothe, D.; Caldwell, C.; Dillon, P.; Gottshall, L.; Koetter, P.; Pooshpas, P.; Wolpaw, T.; Gonzalo, J. D. (2020) *Academic Medicine* 15(15

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32701558&id=doi:10.1097%2FACM.0000000000003611&issn=1040-2446&isbn=&volume=&issue=&spage=&pages=&date=2020&title=Academic+Medicine&atitle=Contributions+of+Health+Professions+Students+to+Health+System+Needs+During+the+COVID-19+Pandemic%3A+Potential+Strategies+and+Process+for+U.S.+Medical+Schools.&aulast=Long&pid=%3Cauthor%3ELong+N%3BWolpaw+DR%3BBoothe+D%3BCaldwell+C%3BDillon+P%3BGottshall+L%3BKoetter+P%3BPooshpas+P%3BWolpaw+T%3BGonzalo+JD%3C%2Fauthor%3E%3CAN%3E32701558%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

The COVID-19 pandemic poses an unprecedented challenge to U.S. health systems, particularly academic health centers (AHCs) that lead in providing advanced clinical care and medical education. No phase of AHC efforts is untouched by the crisis, and medical schools, prioritizing learner welfare, are in the throes of adjusting to suspended clinical activities and virtual classrooms. While health professions students are currently limited in their contributions to direct clinical care, they remain the same smart, innovative, and motivated individuals who chose a career in health care and who are passionate about contributing to the needs of people in troubled times. The groundwork for operationalizing their commitment has already been established through the identification of value-added, participatory roles that support learning and professional development in health systems science (HSS) and clinical skills. This pandemic, with rapidly expanding workforce and patient care needs, has prompted a new look at how students can contribute. At the Penn State College of Medicine, staff and student leaders formed the COVID-19 Response Team to prioritize and align student work with health system needs. Starting in mid-March 2020, the authors used qualitative methods and content analysis of data collated from several sources to identify 4 categories for student contributions: the community, the health care delivery system, the workforce, and the medical school. The authors describe a nimble coproduction process that brings together all stakeholders to facilitate work. The learning agenda for these roles maps to HSS competencies, an evolving requirement for all students. The COVID-19 pandemic has provided a unique opportunity to harness the capability of students to improve health.Other AHCs may find this operational framework useful both during the COVID-19 pandemic and as a blueprint for responding to future challenges that disrupt systems of education and health care in the United States.

**Database:** MEDLINE, Ovid Technologies

## 3o. A rapid systematic review exploring the involvement of medical students in pandemics and other global health emergencies

**Source:** Martin, A.; Blom, I. M.; Whyatt, G.; Shaunak, R.; Viva, M. I. F.; Banerjee, L. (2020) *Disaster medicine and public health preparedness* 1-30

<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32873349&id=doi:10.1017%2Fdmp.2020.315&issn=1938-744X&isbn=&volume=&issue=&spage=1&pages=1-30&date=2020&title=Disaster+medicine+and+public+health+preparedness&atitle=A+rapid+systematic+review+exploring+the+involvement+of+medical+students+in+pandemics+and+other+global+health+emergencies&aulast=Martin&pid=%3Cauthor%3EMartin+A.%3BBlom+I.M.%3BWhyatt+G.%3BShaunak+R.%3BViva+M.I.F.%3BBanerjee+L.%3C%2Fauthor%3E%3CAN%3E632758478%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

OBJECTIVES: The role of medical students in the current COVID-19 pandemic is rapidly evolving. The aim of this review is to explore the involvement of medical students in past global health emergencies, to help inform current and future scenarios. METHOD(S): A rapid systematic review was undertaken, including articles from online databases discussing the roles, willingness and appropriateness of medical student involvement in global health emergencies. Data were extracted, appraised and written up as a narrative synthesis. This paper was registered with PROSPERO (CRD42020177231). RESULT(S): 28 articles were included. Medical students played a wide variety of clinical and non-clinical roles including education and logistics, although medical assistance was the most commonly reported role. Challenges included a lack of preparedness and negative mental health impacts. 91.7% of included articles about willingness found medical students were more willing to be involved than not. CONCLUSION(S): This review shows medical students are capable and willing to be involved in global health emergencies. However, there should be clear protocols for the roles that they play, taking into account the appropriateness. As a rapid review, there were study limitations and more research is required regarding the impact of these roles on medical students and the system.

**Database:** Embase, Ovid Technologies

## 3p. Medical students working as health care assistants: a letter response in the COVID-19 pandemic

**Source:** Mitchell, H.; Coronelli, M.; Sanderson, J. (2020) *The clinical teacher* 16(16

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32672005&id=doi:10.1111%2Ftct.13219&issn=1743-4971&isbn=&volume=17&issue=5&spage=583&pages=&date=2020&title=The+clinical+teacher&atitle=Medical+students+working+as+health+care+assistants%3A+a+letter+response+in+the+COVID-19+pandemic.&aulast=Mitchell&pid=%3Cauthor%3EMitchell+H%3BCoronelli+M%3BSanderson+J%3C%2Fauthor%3E%3CAN%3E32672005%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 3q. Reducing Social Isolation of Seniors during COVID-19 through Medical Student Telephone Contact

**Source:** Office, E. E.; Rodenstein, M. S.; Merchant, T. S.; Pendergrast, T. R.; Lindquist, L. A. (2020) *Journal of the American Medical Directors Association* 21(7)(948-950

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32674825&id=doi:10.1016%2Fj.jamda.2020.06.003&issn=1525-8610&isbn=&volume=21&issue=7&spage=948&pages=948-950&date=2020&title=Journal+of+the+American+Medical+Directors+Association&atitle=Reducing+Social+Isolation+of+Seniors+during+COVID-19+through+Medical+Student+Telephone+Contact.&aulast=Office&pid=%3Cauthor%3EOffice+EE%3BRodenstein+MS%3BMerchant+TS%3BPendergrast+TR%3BLindquist+LA%3C%2Fauthor%3E%3CAN%3E32674825%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

Social isolation has been associated with many adverse health outcomes in older adults. We describe a phone call outreach program in which health care professional student volunteers phoned older adults, living in long-term care facilities and the community, at risk of social isolation during the COVID-19 pandemic. Conversation topics were related to coping, including fears or insecurities, isolation, and sources of support; health; and personal topics such as family and friends, hobbies, and life experiences. Student volunteers felt the calls were impactful both for the students and for the seniors, and call recipients expressed appreciation for receiving the calls and for the physicians who referred them for a call. This phone outreach strategy is easily generalizable and can be adopted by medical schools to leverage students to connect to socially isolated seniors in numerous settings.

**Database:** MEDLINE, Ovid Technologies

## 3r. COVID-19: medical students in clinical research

**Source:** Prior, S. D.; McKinnon, T.; Gresty, V.; Mulligan, M.; Richards, L.; Watson, A.; Green, C. A. (2020) *The clinical teacher.* 27(<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32851803&id=doi:10.1111%2Ftct.13241&issn=1743-498X&isbn=&volume=&issue=&spage=&pages=&date=2020&title=The+clinical+teacher&atitle=COVID-19%3A+medical+students+in+clinical+research&aulast=Prior&pid=%3Cauthor%3EPrior+S.-D.%3BMcKinnon+T.%3BGresty+V.%3BMulligan+M.%3BRichards+L.%3BWatson+A.%3BGreen+C.A.%3C%2Fauthor%3E%3CAN%3E632713005%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

**Database:** Embase, Ovid Technologies

## 3s. Deploying Medical Students to Combat Misinformation During the COVID-19 Pandemic

**Source:** Quadri, N. S.; Thielen, B. K.; Erayil, S. E.; Gulleen, E. A.; Krohn, K. (2020) *Academic pediatrics* 20(6)(762-763

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32502537&id=doi:10.1016%2Fj.acap.2020.05.024&issn=1876-2859&isbn=&volume=20&issue=6&spage=762&pages=762-763&date=2020&title=Academic+pediatrics&atitle=Deploying+Medical+Students+to+Combat+Misinformation+During+the+COVID-19+Pandemic.&aulast=Quadri&pid=%3Cauthor%3EQuadri+NS%3BThielen+BK%3BErayil+SE%3BGulleen+EA%3BKrohn+K%3C%2Fauthor%3E%3CAN%3E32502537%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 3t. Medical Student Development of K-12 Educational Resources During the COVID-19 Pandemic

**Source:** Reardon, R.; Beyer, L.; Carpenter, K.; Irwin, M.; Kester, K.; Laird, J.; Moore, C.; Shah, P.; Conrad, R. (2020) *Academic Pediatrics* 20(6)(763-764

<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32502534&id=doi:10.1016%2Fj.acap.2020.05.022&issn=1876-2859&isbn=&volume=20&issue=6&spage=763&pages=763-764&date=2020&title=Academic+Pediatrics&atitle=Medical+Student+Development+of+K-12+Educational+Resources+During+the+COVID-19+Pandemic&aulast=Reardon&pid=%3Cauthor%3EReardon+R.%3BBeyer+L.%3BCarpenter+K.%3BIrwin+M.%3BKester+K.%3BLaird+J.%3BMoore+C.%3BShah+P.%3BConrad+R.%3C%2Fauthor%3E%3CAN%3E2007001530%3C%2FAN%3E%3CDT%3ENote%3C%2FDT%3E>

**Database:** Embase, Ovid Technologies

## 3u. One medical school's experience of sustaining general practice teaching in the time of COVID-19

**Source:** Reath, J. Tan, L. Brooks, M. Burges, J. Lindsay, N. Lo, W. Shakur, S. Trankle, S. A. Wong, K. C. (2020) *Australian journal of general practice* 49(no pagination)(<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32757558&id=doi:10.31128%2FAJGP-COVID-29&issn=2208-7958&isbn=&volume=49&issue=&spage=&pages=&date=2020&title=Australian+journal+of+general+practice&atitle=One+medical+school%27s+experience+of+sustaining+general+practice+teaching+in+the+time+of+COVID-19&aulast=Reath&pid=%3Cauthor%3EReath+J.%3BTan+L.%3BBrooks+M.%3BBurges+J.%3BLindsay+N.%3BLo+W.%3BShakur+S.%3BTrankle+S.A.%3BWong+K.C.%3C%2Fauthor%3E%3CAN%3E632547158%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

Challenges have been encountered in maintaining the Western Sydney University general practice program but effective strategies have been adopted to manage the impact of COVID-19.

**Database:**

## 3v. Medical Student Mobilization During a Crisis: Lessons From a COVID-19 Medical Student Response Team

**Source:** Soled, D.; Goel, S.; Barry, D.; Erfani, P.; Joseph, N.; Kochis, M.; Uppal, N.; Velasquez, D.; Vora, K.; Scott, K. W. (2020) *Academic Medicine* 95(9)(1384-1387

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7188031/>

PROBLEM: On March 17, 2020, the Association of American Medical Colleges recommended the suspension of all direct patient contact responsibilities for medical students because of the COVID-19 pandemic. Given this change, medical students nationwide had to grapple with how and where they could fill the evolving needs of their schools' affiliated clinical sites, physicians, patients, and the community. APPROACH: At Harvard Medical School (HMS), student leaders created a COVID-19 Medical Student Response Team to: (1) develop a student-led organizational structure that would optimize students' ability to efficiently mobilize interested peers in the COVID-19 response, both clinically and in the community, in a strategic, safe, smart, and resource-conscious way; and (2) serve as a liaison with the administration and hospital leaders to identify evolving needs and rapidly engage students in those efforts. OUTCOMES: Within a week of its inception, the COVID-19 Medical Student Response Team had more than 500 medical student volunteers from HMS and had shared the organizational framework of the response team with multiple medical schools across the country. The HMS student volunteers joined any of the 4 virtual committees to complete this work: Education for the Medical Community, Education for the Broader Community, Activism for Clinical Support, and Community Activism. NEXT STEPS: The COVID-19 Medical Student Response Team helped to quickly mobilize hundreds of students and has been integrated into HMS's daily workflow. It may serve as a useful model for other schools and hospitals seeking medical student assistance during the COVID-19 pandemic. Next steps include expanding the initiative further, working with the leaders of response teams at other medical schools to coordinate efforts, and identifying new areas of need at local hospitals and within nearby communities that might benefit from medical student involvement as the pandemic evolves.

**Database:** MEDLINE, Ovid Technologies

# Impact on career choice

## 4a. Effect of the COVID-19 pandemic on medical student career perceptions: a national survey study

**Source:** Byrnes, Y. M.; Civantos, A. M.; Go, B. C.; McWilliams, T. L.; Rajasekaran, K. (2020) *Medical education online* 25(1)(1798088

<https://4315973.odslr.com/resolver/full?sid=OVID:embase&id=pmid:32706306&id=doi:10.1080%2F10872981.2020.1798088&issn=1087-2981&isbn=&volume=25&issue=1&spage=1798088&pages=1798088&date=2020&title=Medical+education+online&atitle=Effect+of+the+COVID-19+pandemic+on+medical+student+career+perceptions%3A+a+national+survey+study&aulast=Byrnes&pid=%3Cauthor%3EByrnes+Y.M.%3BCivantos+A.M.%3BGo+B.C.%3BMcWilliams+T.L.%3BRajasekaran+K.%3C%2Fauthor%3E%3CAN%3E632439353%3C%2FAN%3E%3CDT%3EArticle%3C%2FDT%3E>

BACKGROUND & OBJECTIVE: The COVID-19 pandemic and resulting cancellation of medical student clinical rotations pose unique challenges to students' educations, the impact of which has not yet been explored. DESIGN: This cross-sectional survey study collected responses from 13 April 2020 until 30 April 2020. Students at US allopathic medical schools completed the survey online. RESULT(S): 1,668 responses were analyzed. A total of 337 (20.2%) respondents thought the pandemic would affect their choice of specialty, with differences across class years: 15.2% (53) of first-years (MS1s), 26.4% (92) of second-years (MS2s), 23.7% (162) of third-years (MS3s), and 9.7% (22) of fourth-years (MS4s) (p < 0.0001). Among all classes, the most common reason chosen was inability to explore specialties of interest (244, 72.4%), and the second was inability to bolster their residency application (162, 48.1%). Out of the MS3s who chose the latter, the majority were concerned about recommendation letters (68, 81.0%) and away rotations (62, 73.8%). As high as 17.4% (119) of MS3s said they were more likely to take an extra year during medical school as a result of the pandemic. Region of the US, number of local COVID cases, and number of local COVID deaths had no effect on whether respondents thought the pandemic would affect their specialty choice. CONCLUSION(S): Our study found that about one-fifth of surveyed medical students currently believe that the COVID-19 pandemic will affect their choice of specialty, with many of these citing concerns that they cannot explore specialties or obtain recommendation letters. With prolonged suspension of clinical rotations, targeted efforts by medical schools to address these concerns through enhanced virtual curriculum development and advising strategies will become increasingly important. Further study is needed to explore whether these cross-sectional student perspectives will manifest as changes in upcoming National Residency Matching Program data.

## 4b. A UK perspective on the effect of the COVID-19 pandemic on medical student career perceptions

**Source:** Elsawy, F. Malik, R. B. Kazi, M. Ladan, Z. (2020) *Medical Education Online* 25(1)(1810968

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32815785&id=doi:10.1080%2F10872981.2020.1810968&issn=1087-2981&isbn=&volume=25&issue=1&spage=1810968&pages=1810968&date=2020&title=Medical+Education+Online&atitle=A+UK+perspective+on+the+effect+of+the+COVID-19+pandemic+on+medical+student+career+perceptions.&aulast=Elsawy&pid=%3Cauthor%3EElsawy+F%3BMalik+RB%3BKazi+M%3BLadan+Z%3C%2Fauthor%3E%3CAN%3E32815785%3C%2FAN%3E%3CDT%3ELetter%3C%2FDT%3E>

The COVID-19 pandemic has altered the normal delivery of medical education globally. Following the cancelation of traditional course components such as elective placements, UK medical students have been able to carry out temporary roles within the NHS. We believe these events may have an effect on medical students' future choice of specialty.

**Database:** MEDLINE, Ovid Technologies

## 4c. Letter: Preliminary National Survey Results Evaluating the Impact of COVID-19 Pandemic on Medical Students Pursuing Careers in Neurosurgery

**Source:** Garcia, R. M. Reynolds, R. A. Weiss, H. K. Chambless, L. B. Lam, S. Dahdaleh, N. S. Rosseau, G. (2020) *Neurosurgery* 87(2)(E258-E259

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32385510&id=doi:10.1093%2Fneuros%2Fnyaa214&issn=0148-396X&isbn=&volume=87&issue=2&spage=E258&pages=E258-E259&date=2020&title=Neurosurgery&atitle=Letter%3A+Preliminary+National+Survey+Results+Evaluating+the+Impact+of+COVID-19+Pandemic+on+Medical+Students+Pursuing+Careers+in+Neurosurgery.&aulast=Garcia&pid=%3Cauthor%3EGarcia+RM%3BReynolds+RA%3BWeiss+HK%3BChambless+LB%3BLam+S%3BDahdaleh+NS%3BRosseau+G%3C%2Fauthor%3E%3CAN%3E32385510%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

**Database:** MEDLINE, Ovid Technologies

## 4d. Effect of COVID-19 in selecting otolaryngology as a specialty

**Source:** Go, B. Rajasekaran, K. (2020) *Head & Neck* 42(7)(1409-1410

<https://4315973.odslr.com/resolver/full?sid=OVID:medline&id=pmid:32633093&id=doi:10.1002%2Fhed.26251&issn=1043-3074&isbn=&volume=42&issue=7&spage=1409&pages=1409-1410&date=2020&title=Head+%26+Neck&atitle=Effect+of+COVID-19+in+selecting+otolaryngology+as+a+specialty.&aulast=Go&pid=%3Cauthor%3EGo+B%3BRajasekaran+K%3C%2Fauthor%3E%3CAN%3E32633093%3C%2FAN%3E%3CDT%3EJournal+Article%3C%2FDT%3E>

Coronavirus disease 2019 has undoubtedly impacted the health care system while causing lasting and profound implications for medical education. Senior medical students seeking exposure to the field of otolaryngology now find themselves in the challenging position of obtaining the experiences to make an informed decision on a future specialty. Virtual electives using comprehensive online material, discussion, and videos as well as the advent of telemedicine may be potential solutions to increase exposure to otolaryngology. While incorporating opportunities for authentic patient interactions is still a challenge, it is crucial that the academic otolaryngology community prioritize seeking solutions for interested medical students.

**Database:** MEDLINE, Ovid Technologies

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**Databases searched:** Medline, Embase, Emcare, Cinahl.

**Search history:**

Database: Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R) <1946 to October 02, 2020>

Search Strategy:

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1 covid-19.mp. (54913)

2 (wuhan adj2 coronavir\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (59)

3 ncov.mp. (1267)

4 sars-cov\*.mp. (20942)

5 exp Coronaviridae/ (35516)

6 exp Coronaviridae Infections/ (37490)

7 lockdown\*.mp. (2224)

8 (social\* adj2 distan\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (5767)

9 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 (78062)

10 education, medical/ or exp education, medical, undergraduate/ (80325)

11 Faculty, Medical/ (13385)

12 students/ or students, health occupations/ (62444)

13 students, medical/ (34343)

14 (student or undergrad\* or under-grad\* or universit\* or "higher education").mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (534441)

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The search was translated for other listed databases.

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