Neurosurgical Forum LETTERS TO THE EDITOR

Social media in neurosurgery recruitment during COVID-19 and beyond

TO THE EDITOR: The article by Lazaro and colleagues¹ highlights the centralized role of virtual education during the COVID-19 pandemic (Lazaro T, Srinivasan VM, Rahman M, et al. Virtual education in neurosurgery during the COVID-19 pandemic. *Neurosurg Focus*. 2020;49[6]:E17). We aimed to supplement these efforts by pointing to the importance of social media during this crisis and implications for boosting long-term recruitment into neurosurgery.

Online networking should be considered an invaluable platform to ensure that residency applicants are well informed during the COVID-19 pandemic, with special attention to social media platforms. Not only can social media help prepare residency applicants, but it can also be channeled to bolster recruiting efforts during the pandemic and beyond. Online platforms can help promote key resources in front of a wide audience, including educational programs, opportunities for mentorship, and even career preparation training camps.²

Moreover, social media has been an expanding outlet for exposing and recruiting medical students to the field. Although most medical students may come across a few critical neurosurgical emergencies in their formal curriculum (i.e., epidural vs subdural hematoma, cauda equina syndrome, etc.), the sophisticated and innovative nuances of our field are left to be sought after, with the breadth of neurosurgery remaining obscured for many candidates. Furthermore, current pandemic restrictions on student clinical exposure have reduced opportunities for shadowing, inpatient rounds, outpatient clinic, surgeries, and more.

Although a social media spotlight on specific programs or physicians offers a window into the practice and lifestyle of neurosurgery residents and attendings, the separation of personal and work life on social media is an ongoing challenge for medical influencers. In addition to separating professional and personal life on social media, neurosurgeons in training and practice must also be mindful of a viewership composed of current and future patients. Although many healthcare institutions have social media policies to protect patient privacy, the social media-conscious medical professional takes all audiences into ac-

count when marketing their “brand” (which can require direction from mentors and role models within our field). Additionally, the time required to build and maintain profiles and posted content across various platforms is difficult to estimate and may require substantial effort (filming short clips, editing videos/photos, providing commentary on research/program outreach/professional accomplishments, etc.). Such time-intensive social media endeavors may benefit from support to aid in both production and editing of content to outweigh conflicting demands.

A unique component of the neurosurgery community at all levels—from experienced physician to early medical student—is the opportunity for networking, forming relationships (and even friendships) that occurs at conferences. As such, encouraging conference participation among medical students through social media during the pandemic can help expose them to the prolific academic community within neurosurgery, serving to ignite future research passions and spark collaborations amongst the next generation of aspiring surgeon-scientists.

Inevitably, as has been the case for many sectors of society, great change has arisen alongside the tragedies of the COVID-19 pandemic, and with this change has come an opportunity for learning through experimentation.^{3–9} Ultimately, the most effective social media outreach methods can be identified, after which social media can be leveraged to increase and retain medical student interest in neurosurgery.

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References

1. Lazaro T, Srinivasan VM, Rahman M, et al. Virtual education in neurosurgery during the COVID-19 pandemic. *Neurosurg Focus*. 2020;49(6):E17.
2. Radwanski RE, Winston G, Younus I, et al. Neurosurgery training camp for sub-internship preparation: lessons from the inaugural course. *World Neurosurg*. 2019;127:e707-e716.
3. Bray DP, Stricsek GP, Malcolm J, et al. Maintaining neuro-

surgical resident education and safety during the COVID-19 pandemic. *Neurosurgery*. 2020;87(2):E189-E191.

4. Chae JK, Haghdel A, Guadix SW, et al. COVID-19 impact on the medical student path to neurosurgery. *Neurosurgery*. 2020;87(2):E232-E233.
5. Lin Z, Zhang C, Zhang Y, et al. Deep brain stimulation telemedicine programming during the COVID-19 pandemic: treatment of patients with psychiatric disorders. *Neurosurg Focus*. 2020;49(6):E11.
6. El-Ghandour NMF, Ezzat AAM, Zaazoue MA, Gonzalez-Lopez P, Jhavar BS, Soliman MA. Virtual learning during the COVID-19 pandemic: a turning point in neurosurgical education. *Neurosurg Focus*. 2020;49(6):E18.
7. Servadei F, Arráez MA, Chen J, Golfinos JG, Qureshi MM. Introduction. COVID-19 and neurosurgery. *Neurosurg Focus*. 2020;49(6):E1.
8. Mohanty A, Srinivasan VM, Burkhardt JK, et al. Ambulatory neurosurgery in the COVID-19 era: patient and provider satisfaction with telemedicine. *Neurosurg Focus*. 2020;49(6):E13.
9. Carter BS, Chiocca EA. COVID-19 and academic neurosurgery. *J Neurosurg*. 2020;133(1):8-9.

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Response

The letter by Brown et al. emphasizes an important point regarding the shift to virtual communication in the medical community over the last few years. The COVID-19 pandemic accelerated this process considerably, which has led to a rapid expansion of online resources for education and social media engagement throughout the neurosurgery community. Moreover, Brown et al. highlight the role of social media as an outreach method for recruitment and bolstering medical student interest in neurosurgery. As a result, many neurosurgery programs have swiftly increased their social media presence.¹

Unequivocally, social media played a major role in the most recent neurosurgery application cycle. Training programs across the country had to adapt to an entirely virtual interview process, and as a result, created or significantly increased their activity on multiple social media platforms.² Although the impact on medical student recruitment has yet to be quantified, the experience at our own institution has been positive overall—we joined with several other programs to offer virtual subinternship experiences and medical student social events in the past year.

In addition to education and recruitment, social media can be useful to promote publications and other academic endeavors for professional development. Several studies by Alotaibi et al. show a positive correlation between social media presence and stronger publication indices for both neurosurgical departments and journals, suggesting a greater academic productivity for those involved in social media.^{2,3} Furthermore, when used effectively and regularly, social media has the potential to increase the

visibility of scientific works and facilitate networking in the neurosurgery community.³

Although social media is a potentially valuable tool for recruitment and professional development, there are major caveats. First and foremost, posts on social media are not monitored for appropriate content, nor do they go through any peer-review process, which can lead to the inadvertent spread of misinformation throughout the medical community and general public. In addition, although the American Medical Association has published guidelines for the ethical use of social media,⁴ serious personal and professional risks exist with every post. Content containing de-identified surgical videos or diagnostic imaging, for example, continues to be a contentious issue of privacy and confidentiality.⁵

Last, neurosurgery trainees and medical students are populations that are especially vulnerable to the pitfalls of social media. Although the intent of many posts is to increase engagement in the neurosurgery community, the content is highly curated and limited in perspective, and as a result, users can get a biased view of neurosurgery based on the top influencers in the field. In addition, many trainees and students have social media profiles that contain professional and personal content that can have negative consequences for an individual's reputation, if the content is politically or emotionally charged, for example.

Overall, the educational, recruitment, and professional opportunities that social media has brought to the neurosurgery community are numerous but should be balanced by a strict adherence to professionalism, humanism, and honesty. Although the potential drawbacks are hard to quantify, great care should be taken to be mindful of the limitations and ethical considerations of its use.

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References

1. Chisolm P, Singh N, Zaniewski R, Rais-Bahrami S, Rozzelle CJ. Neurosurgical residency adaptations for the residency application cycle amid the COVID-19 pandemic: acute on chronic sequelae. *Interdiscip Neurosurg Adv Tech Case Manag*. 2021;25:101177.
2. Alotaibi NM, Guha D, Fallah A, et al. Social media metrics and bibliometric profiles of neurosurgical departments and journals: is there a relationship? *World Neurosurg*. 2016;90:574-579.E7.
3. Alotaibi NM, Samuel N, Guha D, et al. Social media for academic neurosurgical programs: the University of Toronto experience. *World Neurosurg*. 2016;93:449-457.
4. Shore R, Halsey J, Shah K, Crigger BF, Douglas SP. Report of the AMA Council on Ethical and Judicial Affairs: professionalism in the use of social media. *J Clin Ethics*. 2011;22(2):165-172.
5. George DR, Rovniak LS, Kraschnewski JL. Dangers and opportunities for social media in medicine. *Clin Obstet Gynecol*. 2013;56(3):453-462.

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