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REPLY: DIVERSITY OF OUR FUTURE WORKFORCE IS CONTINGENT UPON OUR VIRTUAL PANDEMIC PRESENCE

Reply to the Editor:

In their thoughtful article, Boskovski and colleagues[1] highlighted strategies to facilitate the mentorship of cardiothoracic (CT) trainees through the pandemic, particularly in terms of clinical and educational needs. In their letter to the Editor, Do-Nguyen and colleagues[2] address the impact of the pandemic and consequent mentoring needs of students and residents interested in CT surgery who haven't yet begun their CT training. The pandemic substantially impacted prospective CT applicants, especially those without access to thoracic surgical programs. The current era has resulted in cancellations of sub-internship rotations and decreased case volumes for many institutions, with resulting downstream effects on ability of applicants to gain early exposure, identify advisors, and receive mentorship.

Do-Nguyen and colleagues[2] bring forth a call to action for faculty and CT trainees to engage and involve medical students. While we, as CT surgeons, may no longer have the same opportunities to work firsthand with students to assess their technical skills, medical decision making, and the like, we must find ways to support students interested in our specialty and to provide both mentorship and sponsorship. Do-Nguyen and colleagues provide excellent suggestions for the innovative education and evaluation of applicants, including offering virtual program visits, engaging in digital communications, sharing remote didactics, and expanding the reach of educational programs.

In terms of issues of mentorship in CT surgery, critical dialogue centers around the importance of exposure, networking, and sponsorship of women and other underrepresented minorities.[3] "You can't be what you can't see" is a phrase that has become common in social media streams, highlighting the importance of helping students and prospective CT trainees envision themselves as part of our specialty, with role models to whom they can relate. In this new pandemic-altered world, the need for virtual interaction makes these issues of diversity more relevant than ever, in that we must ensure that the outward-facing digital identity of our specialty reflects the great diversity of the talent and expertise in CT surgery. When planning webinars and virtual meetings, it's critical that organizers avoid homogeneous groups of surgeons on panels and speaker lists, with efforts deliberately directed toward including women, African Americans, Latinos, and other underrepresented groups. In addition, we can use our collective voices on social media to promote and bring attention to the content created by underrepresented minorities, as well as to promote their accomplishments and achievements in our field. We, as a specialty, can control the perceived face of CT surgery through the educational material, webinars, blogs, and social media content put forth during this time.

Do-Nguyen and colleagues also highlight that a sense of equity must be used to recognize the impact of the pandemic on individual students and applicants. This is particularly important given that the pandemic seems to exacerbate issues of inequity. This is true not only in terms of disproportionate rates of infection and job loss among certain populations but it also impacts one's access to high-speed Internet, computers, and dedicated spaces for virtual interactions. We must be extremely careful not to judge or penalize potential applicants to our field based on these types of challenges.

Finally, while Drs Boskovski and Do-Nguyen and their colleagues have emphasized the need for mentorship to

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overcome loss of clinical exposure to CT surgery during the pandemic, we must not forget the need to provide mentorship for the nonclinical, pandemic-related stressors. Existing CT trainees as well as applicants to our field may be simultaneously juggling their medical education along with caring for older family members or young children, facilitating virtual education for school-aged children, weathering financial losses, and dealing with innumerable additional challenges that may have surfaced due to the pandemic.[4] We must be aware that these types of issues may affect all potential applicants to our field, and they may disproportionately impact certain demographic groups. For example, it's been shown that the pandemic has resulted in greater home- and parenting-related burdens for women in academia as compared with men.[5]

In considering all of these circumstances, it is clear that the diversity of our future workforce relies on us providing equitable virtual opportunities for all prospective applicants, ensuring that our online presence reflects the diversity of our field, and that we consider the ways that the pandemic may be disproportionately limiting the ability of subgroups of applicants to gain mentorship and participate in virtual experiences.

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REPLY: THE MORE THINGS CHANGE…

Reply to the Editor:

The COVID-19 pandemic has spared no aspect or tier of surgical training and education. The immediate challenges presented by decreased case volumes[1] to cardiothoracic surgery fellows and their programs represent only the tip of the iceberg. In their Letter to the Editor, Do-Nguyen and colleagues[2] call attention to an equally important problem below the surface—namely, the engagement, assessment, and education of medical student and resident applicants to our thoracic surgery programs. Cancellation of elective rotations and limitations on travel drastically decrease the opportunities for applicants to identify mentors and advisors and for programs to educate and evaluate prospective trainees.

The authors call for dedicated and creative involvement with medical students and residents interested in cardiothoracic surgery. Owing to the restrictions of the pandemic, this involvement may be primarily digital, at least at first. Social media, virtual didactics, and online discussion forums may allow programs to cast a broader net and improve equity in our educational and outreach efforts. These types of large-scale online interactions, which play to the strengths of widely available technology, must be followed up individually to forge strong mentoring relationships.

Throughout its evolution, our specialty has always risen to challenges and leveraged new technology, coming out stronger on the other end. Our response to the pandemic will shape the approach to cardiothoracic surgical education irrespective of what the "new normal" looks like. Consultation with the media and information technology content experts in our institutions will increase our ability to reach applicants and other students. As our curricula lean more heavily on virtual resources, didactic material may need to be redesigned to facilitate online learner assessment. In addition, faculty will need training in virtual education and assessment.

Regardless of how each individual program responds to the challenges of reaching applicants and trainees in this environment, the key to the continued strength of our field will be the development of the next generations of surgeons through dedicated time and effort in the mentoring and sponsorship of our trainees. This may be in person or online, as evidence supports the efficacy of surgical telementoring.[3] Recognize that whatever challenges we now face during the pandemic, our mentees face equal if not greater uncertainty regarding their careers and life choices. In addition to providing professional guidance and networking assistance, mentors can lend invaluable support through reassurance, affirmation, and authentic acknowledgement of how the pandemic has impacted us.

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