Global Pandemics and the Aspiring Plastic Surgery Applicant: Challenges and Potential Solutions

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Dear Editor,

Beginning in mid-March 2020, efforts to prepare for, prevent, and treat Coronavirus disease 2019 (COVID-19) have had an unprecedented impact on the United States healthcare environment. It has already exhibited a significant effect on the practice of all fields of medicine, including Plastic Surgery. The future trajectory of the pandemic and its consequences remain fluid. An important consideration should be made regarding the changing landscape of medical education over the weeks and months, especially as it applies to Plastic Surgery. Many medical schools across the country, in an effort to avoid contact with potential coronavirus carriers and infection or dissemination of the virus, have instructed students to remain at home and engage in self-driven learning. Those medical students who are able to continue clinical duties have limited exposure to the full breadth of Plastic Surgery procedures due to cancellations and postponements of elective cases. In this letter, we hope to discuss how COVID-19 could influence future medical student applicants to Plastic Surgery residency programs and describe potential interim solutions.

Third-year medical students, especially in the Spring semester, are generally expected to gravitate towards a specialty and either dedicate themselves to a research year or prepare for ERAS applications for residency. The third year of medical school, where students complete core clinical rotations as well as elective rotations, is instrumental in aiding students in making

this selection. Suspending clinical rotations could make it harder for many potential Plastic Surgery applicants considering Plastic Surgery as their field of specialization. It could remove opportunities to learn more about the field, decide if it is truly their best option, and network with potential Plastic Surgery mentors. The opportunity to work directly with plastic surgeons during third-year clinical elective provides a natural avenue for students to receive instruction, encouragement, letters of recommendation, and to become involved in research done by that faculty member.

Surgical subspecialties, including Plastic Surgery, place a great deal of value on fourth year visiting sub-internships, also known as “away” or “audition” rotations. These are typically organized through the AAMC Visiting Student Application Service (VSAS) program during the first few months of the fourth year of medical school. The start dates for sub-internships vary by institution but the first set of rotation blocks often commence around May or June. At the time of writing, VSAS has been suspended for 2020. Even if VSAS were to return to operation in the coming months, it is likely that individual institutions would opt to postpone or minimize sub-internship opportunities, especially in regions severely stricken by COVID-19 infection. Sub-internships are essential opportunities to gain exposure to the field and network with mentors from other institutions. They allow students to determine how well their interests and personalities might mesh with a particular program apart from their own, and they give programs an opportunity to directly evaluate potential applicants. These away rotations are often vital for medical students whose home institution does not have a Plastic Surgery residency program. Survey data demonstrate that the majority of matched Plastic Surgery applicants rotated or were medical students at the institution where they matched, and the proportion of interns fitting this

description has increased over the past several years. (1) The combination of travel restrictions, postponement of surgeries, financial burdens, limited medical student access to hospitals, and family and personal obligations due to COVID-19 has the potential to interrupt sub-internships for the approaching application cycle. Clinical electives and sub-internships immerse students in the field of Plastic Surgery and help them establish a foundation of knowledge upon which to build during their first year of residency. Removing or reducing these clinical experiences, therefore, creates a significant barrier for the aspiring plastic surgeon with regards to their education and future career. Finally, a note should be made about the incoming class of residents that matched in March 2020. Travel restrictions, hotel closings, and limited store supplies present a challenge to these soon-to-be physicians who matched into a program outside of their geographic location, as now would typically be the time to begin organizing relocation efforts.

In addition to the obstacles faced by medical students during times of national crisis, program directors and academic faculty will find it more difficult to evaluate students without direct clinical interactions. On the 2018 National Resident Matching Program survey of program directors, 95% of Plastic Surgery program directors cited letters of recommendation as an important factor in deciding to interview an applicant. (2) Additionally, 67% cited rotations within the program director's department (whether it be a home student or an "audition" rotation) as an important factor in selecting interviewees; 47% cited audition rotations done at other institutions; and 81% cited personal prior knowledge of the applicant. These factors also significantly contributed to decisions made about ranking applicants after interviews. The current pandemic has the potential to obfuscate previously employed interview selection criteria and limit the ability of faculty members to advocate on behalf students to their programs of interest.

With these obstacles in place, the burden is placed on students, medical school administrators, and faculty to collaborate on efforts to provide alternative means of networking and education. At our institution, medical students have formed a program called Loma Linda University (LLU) Aid. (3) Their mission statement is to “to fulfill the needs of the Loma Linda community in the wake of COVID-19” by lightening the burden on healthcare providers and medical students. LLU Aid allows healthcare workers to request assistance with errands, pet-sitting, and personal wellness from medical students whose clinical rotations have currently been suspended. This cause provides a means for students to stay connected to the healthcare environment, and potentially form contacts with future mentors. In addition, students can be encouraged to reach out to potential research advisors and participate in ongoing research studies from home. This permits students to explore the specialty and to demonstrate interest and acuity to their mentors. Programs should strongly consider inviting medical students from their home institution and interested medical students from outside institutions to participate in departmental conferences, provided HIPAA standards are maintained. As we have migrated to a password-protected Zoom platform for our weekly didactic sessions, it is a simple matter to include students who are not geographically close.

To aid the interviewee selection process, programs could consider implementing new methods for applicant evaluation. Due to recent changes in interview scheduling, some have proposed introducing secondary applications as a means to reduce congestion. (4) This would have the added benefit of allowing program directors to identify students with a serious interest in their program. Additionally, secondary applications would incentivize students to learn as much as

possible about programs prior to being invited for an interview. This could help offset the missed opportunity for an applicant and Plastic Surgery program to get to know one another through visiting rotations. Finally, with regards to alleviating logistical issues of relocation, students often rely on one another to provide options for low-cost, temporary housing. These strategies can be employed to benefit students who require a place to stay during sub-internships or while searching for housing near their future Plastic Surgery program. These solutions could hopefully serve as a model for alternative educational approaches for the future of COVID-19, and for future instances where medical education is suspended.

As physicians and innovators, it is our role to thoughtfully adapt to interruptions or alterations in the practice and instruction of Plastic Surgery. Plastic surgeons have a great propensity to engage in research relating to education, and we are certain that future efforts will be made to elaborate upon and quantify the impact of these challenges and the effectiveness of solutions.

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