The authors reported no conflicts of interest.

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REPLY: EXTINCT? FAR FROM IT

Reply to the Editor:

As yet another match day has passed us by, the debate over the lack of interest in pursuing a career in cardiothoracic surgery continues. Lodhia and colleagues[1] recently provided an additional perspective of medical students in the United Kingdom regarding their experiences, or lack thereof, and how it impacted their pursuit of a cardiothoracic surgery. With regards to exposure, many have stated the impact of early and continued exposure to cardiothoracic surgeons.[2,3] As we have previously written, the benefits of a cardiothoracic surgery rotation extend beyond those who pursue cardiothoracic surgery,[4] and the presence of cardiothoracic surgeons on medical school curriculum committees and involvement with general surgery departments is essential to provide exposure for many individuals.

Perhaps the more important discussion is the perception versus reality of interest and pursuit of cardiothoracic surgery. In the most recent National Resident Matching Program match data, there were a total of 459,049 students who applied for the match with only 38 positions available in (integrated) thoracic surgery. For those 38 spots there were 120 applicants (78 of which were fourth-year medical students) with a 100% fill rate.[5] In addition, in the match for thoracic surgery independent programs following general surgery, there were 96 positions with 88 filled, for a fill rate of 91.7%.[6] These numbers indicate that cardiothoracic surgery remains very competitive.

Cardiothoracic surgeons have remarkably transformed a specialty in low demand with numerous unfilled positions to one with many more applicants than spots. While we should continue our current efforts to provide initial and continued exposure in medical school, we should also focus on attracting the best medical students and general surgery residents, and ensuring individuals who are bright and motivated get an appropriate exposure to the field. The demand for cardiothoracic surgeons nationwide will continue for the foreseeable future. We are not going extinct.

Dr Mokadam is a consultant and investigator for Abbott, Medtronic, and SynCardia and a consultant for Carmat. Dr Ganapathi reported no conflicts of interest.

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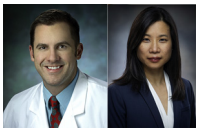

REPLY: PRESERVING OUR OSLERIAN HERITAGE

Reply to the Editor:

We can only instill principles, put the student in the right path, give him method, teach him how to study, and early to discern between essentials and non-essentials.

—Sir William Osler[1]

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Lodhia and colleagues[2] offer a fresh perspective on the workforce issues raised by the survey conducted by Coyan and colleagues.[3] They cite deficiencies in the medical school years, including lack of exposure to surgery, surgical skills training, and clinical anatomy teaching. We agree with these sentiments. In the report by Coyan and colleagues,[3] only 22% of students responded. The low response rate may be explained by the very trends that Lodhia and colleagues[2] discuss. With limited exposure to surgical principles and practice, students may feel unequipped to develop and express personal opinions on a surgical career. Worse, they may never include surgery in their consideration set of a career possibility. Two questions confront us: Who is responsible for these trends, and Who should be monitoring these trends?

In modern medical school curricula, medical students do not have adequate time and exposure to fully weigh and judge which specialty might be best suited to their skills, temperament, and career goals. The rapid pace of innovation and superspecialization, especially at academic medical centers, has exacerbated this problem. Other relevant educational trends include an increasing proportion of time dedicated to nontraditional areas of medicine, such as social determinants of health[4] and health systems science.[5] Although these are becoming crucial aspects of complete training for modern-day physicians, time is limited and these new areas demand sacrifice from other, traditional aspects of training.

As Lodhia and colleagues[2] point out, in the United Kingdom lack of primary care providers has elicited a government mandate for 50% of medical school graduates to enter general practitioner (GP) training. The response by universities of altering curricula generates questions and downstream effects that must be analyzed. Does exposure alone drive specialization? If not, then does increasing GP exposure at the cost of minimizing time for other specialties pose more harm than benefit? Second, are GPs better physicians with deeper knowledge of anatomy and surgical patients? Third, what is the influence on all future health care professionals, especially non-GPs, produced by these broad changes?

The insidious creep of socioeconomic trends and fads altering the foundations of medical training requires safeguards. Physicians uphold an oath to serve the greater good, but we must satisfy societal needs without corrupting individual autonomy. Physician dissatisfaction and burnout are on the rise. Although many cite factors such as work quantity and pace, regulatory demands, and electronic health records,[6] the best protection will be ensuring that individuals are well equipped to identify the specialty that will provide them the highest and most durable sense of value and self-realization. Borkan and colleagues[7] advocate that the proper solution should be circumscribed rather than global change. Surgeons of all specialties have an equal responsibility to ensure that the foundational years provide proper training for their future workforce. The societal need for more primary care must not result in a compromise of other specialties. We are now confronted by Osler, and his words that hold just as true today. If we do not get the opportunity with students to instill principles, give methods, teach how to study and to discern, precious few will choose the arduous path to becoming a cardiothoracic surgeon.

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