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**REPLY FROM
AUTHORS:
INCREASING MEDICAL
STUDENT INTEREST IN**



**CARDIOTHORACIC SURGERY:
EXPOSURE MATTERS**

Reply to the Editor:

We read with interest the letter from Lodhia and colleagues in reference to our recent publication in the *Journal* regarding medical student perceptions of cardiothoracic surgery as a career choice.^{1,2} The letter was penned by a group of medical students in the United Kingdom and describes aspects within their training environment leading to limited exposure to not only cardiothoracic surgery but surgical specialties in general. While our study concentrated on characterizing the exposure and perceptions of a single academic center in the United States, our findings clearly are more indicative of global trends, as we are finding from the responses to our original publication.³

The trend to shift medical student instruction toward general practice (as termed in the letter) or primary care is likely a result of necessity due to what the authors correctly identify as aging populations in both countries; although this may be driven by government health policy leaders, what is missing is the realization that the need for specialty care (including cardiothoracic surgery) rapidly increases with these aging populations as well. In fact, over the last decade, the combination of attrition from the field via retirement and an increasing population in need of cardiothoracic care has been projected to create a shortage of cardiothoracic surgeons in the coming years on the US front.^{4,5} This surely is not limited to the United States, as global life expectancy continues to increase and the burden of cardiothoracic disease continues to be a major contributor to morbidity and mortality. It is therefore our responsibility to ensure that medical students who are interested

and capable are afforded the opportunity to pursue cardiothoracic surgery. The question remains how to best execute this philosophy.

Our study points out that longitudinal experiences matter to medical students attempting to maintain interest in the field. Early mentorship with cardiothoracic surgeons, dedicated learning opportunities, and the attributes within the field itself are all important to potential future trainees.² Simulation-based interactions between cardiothoracic faculty/residents and medical students are highly valued by recruits and increase experience and exposure that students are seeking.⁶ We also agree that anatomy education and strong formal surgical rotations during the clinical years of medical school are imperative not only to those interested in cardiothoracic surgery but to physicians in general who will be on the multidisciplinary team along with cardiothoracic surgeons treating patients to facilitate the best possible outcomes.¹ Learning how best to accomplish these goals within our specialty is key to provoking local and more global changes in our diverse medical education environments and will lead to a more secure cardiothoracic surgery workforce in the future.

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