

Letter to the Editor

## Perception about radiology as a medical subspecialty among secondary school students

Bhuvan Botchu<sup>1</sup>, Molly Rennie<sup>2</sup>, Rajesh Botchu<sup>3</sup>

<sup>1</sup>Solihull School, Solihull, <sup>2</sup>Leicester High School for Girls, Leciester, <sup>3</sup>Department of Musculoskeletal radiology, Royal Orthopedic Hospital, Birmingham, United Kingdom.

Dear Editor,

Radiology is a medical specialty that uses imaging to diagnose diseases and guide treatment. It plays a crucial role in patient care.

Despite the major role that radiology plays, there has been a significant short fall of around 33% in safe staffing level of radiologists in the NHS which equates to around a lack of 2000 radiologists per year. The situation could worsen due to an expected shortage of up to 44% predicted in 2025.<sup>[1,2]</sup> This shortage would lengthen the already hampered waiting times, increase waiting lists.

Current strategies such as teleradiology and the use of artificial intelligence in reporting and streamlining workflow as well as longer term plans such as increasing medical student numbers may mitigate some of these delays.<sup>[3,4]</sup>

There have been reports of insufficient time allocated to radiology education in medical school curricula which could lead to a lack of understanding in the nuances of the specialty among newly graduated doctors and in inappropriate imaging requests or misinterpretation of images by recently qualified doctors (post-graduate doctors in training [PGDiT]).<sup>[5,6]</sup> However, various innovative measures such as online radiology courses have been used to improve radiology competency among medical students.<sup>[3]</sup>

A questionnaire-based survey to assess perceptions of radiology as a medical career was sent to school students. The questions posed revolved around training, work, and the importance of radiology as a medical discipline. Participants were predominantly secondary school students aged between 11 and 17. The majority (75%) were considering or planning to pursue a career in medicine. Whereas, a significant number (>75%) had a minimal understanding of a radiologist's role with 25% of the sample group under the

impression that radiologists are not doctors and thought a degree from the school of radiography or nursing was all that was required. Only around 30% were aware of their role in the interpretation of X-rays with a majority under the impression that radiologists actually perform X-rays, computed tomography, and magnetic resonance imaging scans, which is infact the role of radiographer. A significant number did know that radiology was a critical component of sports medicine (50%), cancer management (82%), and required a medical degree (80%). We understand that our sample size is limited and restricted to England.

The survey highlights a lack of awareness of radiologists and radiology as viable career options for school students considering medical careers. We believe the issues stem from a lack of awareness at a secondary school level (GCSE and A level) career counseling. Despite radiology's position at the forefront of digital innovation and technology, it is not presented as a viable career option at schools. This, we believe along with the reported lack of emphasis in medical school curricula, leads to inertia in career selection and inappropriate referral patterns amongst PGDiT.

We encourage raising the profile at a school level through dedicated sessions on radiology and role of radiologists as it may help reduce the shortfall in numbers of radiologists by encouraging earlier career choices.

### Declaration of patient consent

Patient's consent not required as there are no patients in this study.

### Financial support and sponsorship

Nil.

\*Corresponding author: Rajesh Botchu, Department of Musculoskeletal radiology, Royal Orthopedic Hospital, Birmingham, United Kingdom. [drbrajesh@yahoo.com](mailto:drbrajesh@yahoo.com)

Received: 09 September 2022 Accepted: 10 December 2022 EPub Ahead of Print: 04 January 2023 Published: 11 March 2023 DOI: 10.25259/IJMS\_222\_2022

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms. ©2023 Published by Scientific Scholar on behalf of Indian Journal of Medical Sciences

### Conflicts of interest

There are no conflicts of interest.

### REFERENCES

1. The Royal of Radiologist (RCR). New RCR Census Shows the NHS Needs Nearly 2,000 More Radiologists. Available from: <https://www.rcr.ac.uk/posts/new-rcr-census-shows-nhs-needs-nearly-2000-more-radiologists> [Last accessed on 2022 Aug 20].
2. NHS Digital. Referral to Treatment Waiting Times (RTT). Available from: <https://www.digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-collections/consultant-led-referral-to-treatment-waiting-times-rtt> [Last accessed on 2022 Aug 20].
3. Nabhani Y, Xie VK, Badawy M, Karim R, Abdullatif U, Negm AS, *et al.* Multidisciplinary approach of teaching radiology to medical students in Egypt: Is this an effective method? *Egypt J Radiol Nucl Med* 2021;52:292.
4. Goyen M. Outsourcing and Radiology. *Health Management*. Vol. 8; 2008. Available from: <https://www.healthmanagement.org/c/it/issuearticle/outsourcing-and-radiology> [Last accessed on 2022 Aug 20].
5. Chew C, O'Dwyer PJ, Sandilands E. Radiology for medical students: Do we teach enough? A national study. *Br J Radiol* 2021;94:20201308.
6. Holt NF. Medical students need more radiology education. *Acad Med* 2001;76:1.

**How to cite this article:** Botchu B, Rennie M, Botchu R. Perception about radiology as a medical subspecialty among secondary school students. *Indian J Med Sci* 2023;75:33-4.