

EDITORIAL

EVOLVING MEDICAL EDUCATION IN THE UK

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Medicine as a discipline has undergone profound transformations over the centuries from the discovery of life-saving treatments to the rapid advancements in technology. These medical developments, alongside shifting population health needs, have catalysed significant evolution in medical education. I thought it would be useful to use this space to explore the developments within medical education in the UK and the challenges and opportunities that lie ahead in training doctors for the future.

The number of medical schools in the UK has grown significantly over the past century. At the turn of the 20th century, there were only a handful of medical schools in the country, primarily located in major cities. As the demand for healthcare services grew, so too did the need for trained medical professionals. The 1960s and 1970s saw a significant expansion in medical education, with new medical schools being established to meet this growing need (General Medical Council, 2020). By the early 2000s, the UK had around 25 medical schools, and this number has continued to steadily increase to approximately 50 in 2024, with new institutions being founded to address regional disparities in healthcare access and to support the growing population (Medical Schools Council, 2024). Notably, in 2015, the University of Buckingham Medical School opened as the first private medical school in the UK, receiving General Medical Council (GMC) accreditation in May 2019.

There is a pressing need for more doctors to address the strain that the NHS is under but there are challenges when determining the optimal number of medical students to train each year. The Medical School Councils (UK) called for the increase of medical school places by 5,000 (from the current 9,000+ places per year) to make a total of 14,500 graduating doctors per year (Medical Schools Council, 2021). The NHS Long-Term Workforce Plan (2023) outlines a vision to expand medical training places and the development of innovative pathways like the Medical Doctor Apprenticeship (MDDA) and

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accelerated four-year curricula (NHS England, 2023). However, any expansion must be carefully balanced with the capacity of medical schools and the availability of clinical placements. The increasing inclusion of simulation technology is also being explored to enhance clinical training and make more efficient use of clinical placements (Reid et al., 2022; Gough et al., 2023).

As the population's health needs evolve, driven by factors such as aging and lifestyle changes, medical education must adapt accordingly. The rise of chronic diseases such as diabetes, heart disease, and cancer has shifted the focus of healthcare from acute care to long-term management and prevention. Medical education must adapt to all of these changes, preparing future doctors to address the challenges of chronic disease management, mental health, and the social determinants of health (NHS England, 2019). The COVID-19 pandemic further underscored the need for a healthcare workforce that is adaptable, resilient, capable of responding to emerging health threats and able to rapidly implement new protocols and technologies in response to a crisis (Rose, 2020; Greenhalgh et al., 2021).

Curriculum reform has been a key focus to address the changing medical needs of the population and the increase in demands placed upon the NHS. Modern curricula emphasise early clinical exposure, interprofessional education, and competency-based assessments. However, the extensive contributions made to the development of medicine and patient care by clinical skilled physicians whose training was scientifically grounded in the educational principles advocated by Flexner and Osler cannot be forgotten in the process of diversifying the skill set required for the future generation of doctors (Ryan, 2015). These new skills sets need to be learned and developed in addition to and not instead of the important founding scientific principles, otherwise we are at real risk of producing doctors who do not possess the characteristics that have set physicians apart from other healthcare professionals, namely high-level clinical expertise based on a solid foundation in the biomedical sciences and understanding of the pathologic basis of disease (Buja, 2019). It is essential to avoid reducing medical education to a mere checklist of skills and ensure that it retains its scientific rigor and depth. The rise of allied health professions, such as Physician Associates (PAs) and Advanced Practice Providers (AHPs), further complicates the definition of a doctor's role and underscores the need for clear distinctions in training and responsibilities (Ryan, 2015; Buja, 2019; Jones et al., 2022).

As medical education evolves, so too must the methods used to assess students' knowledge and skills. Traditional exams, while still relevant and important, are increasingly being supplemented by more dynamic forms of assessments to provide a more comprehensive evaluation of a student's abilities, ensuring they are prepared for the complexities of modern healthcare and that the learning outcomes are being met. New approaches, including workplace-based assessments (WBAs) and e-portfolios, are being integrated to provide a comprehensive view of students' competencies (Norcini & McKinley, 2023;

McLachlan et al., 2022). However, resistance to change remains a challenge in medical education. Some educators and institutions may be reluctant to adopt new teaching methods, assessments or technologies, often due to concerns about cost, disruption, or a lack of familiarity with new approaches. It is essential to address these concerns through training, support and a clear demonstration of the benefits of innovation in education (Frenk et al., 2010). Furthermore, the introduction of the Medical Licensing Assessment (MLA) aims to address concerns about inconsistent standards and quality of assessments by implementing a standardised final assessment across medical schools.

There is a growing recognition of the importance of widening access to the profession. Equality, diversity, and inclusion (EDI) are essential components of a healthcare system that reflects the society it serves. Ensuring diversity in the medical workforce is not just a matter of fairness; it also has a direct impact on patient care. A diverse healthcare workforce is better equipped to understand and address the needs of a diverse patient population, leading to improved health outcomes for all. Efforts to widen access to medical education include outreach programs, scholarships, and support services for students from underrepresented backgrounds (Department of Health, 2017). However, some criticism has emerged highlighted by approaches such as the ‘Selecting for Excellence’ project for inadvertently disadvantaging underrepresented groups (Medical Schools Council, 2023) by focusing on only increasing diversity and not sufficiently on supporting resilience and mental health among these students (Cohen et al., 2023; Patel et al., 2023).

The evolution of medicine and medical education is a continuous process, driven by advances in knowledge, technology, and societal needs. As we look to the future, it is clear that the training of doctors must be dynamic, inclusive, and responsive to the changing landscape of healthcare. The Journal of Medical Education Research (JMER) encourages ongoing dialogue and research into the best practices for training the doctors of tomorrow. By embracing innovation, widening access, and addressing the evolving health needs of the population, we can ensure that future generations of doctors are well-equipped to provide high-quality care in an increasingly complex world. As we navigate these changes, it is crucial to remain open to new ideas, while also preserving the core values of medical education: excellence, equity, and a commitment to improving the health and well-being of all individuals.

I took on this Chief Editor role as I believe JMER will promote evidence based knowledge dispersal and I hope to do this successfully during my tenure. As we look to the future of the journal, I would like to acknowledge the sterling work Dr Simon Tso (Chief Editor 2022-2024) has carried out to get the journal to its current position. He has been a constant source of wise counsel and I am very grateful for his approachable, supportive and kind nature.

I thought it would be good to end this editorial with the wise words of Hippocrates, *“Foolish the doctor who despises the knowledge acquired by the*

ancients.” I have used ChatGPT (Version 4; OpenAI 2023) to help me write this editorial and I hope the irony of this has not been lost on you. The use of AI in learning, application of knowledge, clinical practice and publishing does raise concerns and every institution has their own views on this topic. JMER values and would prefer that authors submit original articles but we recognise the increasing and evolving use of AI in supporting research and academia. Authors must be open and transparent and declare the use of AI in any aspects of their manuscripts. As a journal, we will need to reach a consensus on what is acceptable, all of which will undoubtedly lead to interesting and necessary conversations.

Disclaimer: This article was initially drafted using Chat GPT version 4 (OpenAI, 2023). The contents were fully reviewed, fact checked and critically revised by the author. Referencing and new content was added. The editorial was peer reviewed.

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