How can medical education be improved for the benefit of the patient?

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Introduction

Medical education has traditionally been designed with the doctor at its centre by focusing heavily on biomedical knowledge, clinical skills, and professional identity formation. However, if the ultimate goal of medicine is to improve patient care, then the training of future doctors must start from the patient's perspective. Sir William Osler famously stated, "The good physician treats the disease; the great physician treats the patient who has the disease" [1]. This challenge remains deeply relevant today, as the complexities of modern healthcare demand clinicians who are not only scientifically proficient but also able to navigate patient complexity, social determinants, uncertainty, and teamwork.

Despite substantial advances in biomedical science and technology, medical education still falls short in preparing clinicians fully equipped for the realities of the NHS. Persistent health inequalities, diagnostic errors, communication failures, and system inefficiencies continue to compromise care quality and patient safety [2,3]. These issues often arise not from lack of knowledge but from gaps in applying that knowledge effectively - especially under pressure, in multidisciplinary environments, and within the patient's lived context.

Moreover, effective collaboration across multidisciplinary teams is increasingly recognized as essential to delivering safe, coordinated, and compassionate care. Yet, traditional medical education often overlooks structured interprofessional learning, which is critical for preparing clinicians to communicate and cooperate effectively within diverse healthcare teams.

To build truly patient-centred medical education, reform must go beyond superficial curriculum updates. This essay argues for three interlinked reforms:

1. Embedding **longitudinal integrated clinical experiences** to foster continuity and relational insight

2. Integrating **health equity and lived experience** into core clinical competence.

3. Strengthening **clinical prioritisation and information-handling skills** critical for safe, coordinated care in a digitally saturated NHS.

4. Enhancing interprofessional education to reflect and prepare for collaborative clinical practice

Discussion

From Fragmented Rotations to Continuity: Longitudinal Integrated Clinical Experience

Traditional medical education in the UK and worldwide typically consists of short, specialty-based rotations that expose students to various clinical areas sequentially. While this broadens experience, such fragmented rotations limit opportunities to build lasting relationships with patients and to understand illness as a continuous process [4]. Students may become proficient at identifying individual diseases but often miss how conditions evolve, how treatments affect quality of life, and how trust and rapport influence care.

Longitudinal Integrated Clerkships (LICs) offer an alternative model where students follow a panel of patients across different care stages, usually within the same community. LICs support continuity in care, supervision, and learning, helping students develop stronger clinical reasoning, communication skills, and patient-centredness [5]. International studies show LICs strengthen clinical and professional identity and deepen understanding of healthcare systems [6,7].

In the UK, LIC pilots report improved patient relationships and a more holistic grasp of care coordination, though widespread adoption is limited by NHS rota variability, staffing shortages, and logistical challenges [8]. Rather than full implementation, medical schools could embed LIC principles into existing curricula through structured post-discharge follow-ups, reflective portfolios, and involvement in community chronic disease management. These strategies could help students see medicine as a continuous narrative, fostering empathy, relational insight, and awareness of social determinants of health [9]. For patients, this shift supports more compassionate, consistent care that recognises them as whole individuals, not just diagnoses.

Embed Health Equity and Lived Experience as Core Clinical Competence

Health disparities in the UK are persistent and profound. Maternal mortality rates remain significantly higher among women from Afro-Caribbean backgrounds, while life expectancy and years lived in good health are closely tied to socioeconomic deprivation [10]. These are not merely unfortunate coincidences but rather predictable consequences of structural inequalities ingrained in policies, service design, and, occasionally, clinical education.

Despite this, equity-related content in medical education is often treated as peripheral. Cultural competence is commonly addressed through isolated sessions rather than integrated into clinical reasoning and decision-making frameworks. This risks reinforcing tokenism and underprepares students to confront the systemic factors that drive health disparities.

A more robust approach centres on structural competence, including the capacity to recognise and act upon the social, economic, and political determinants of health. This includes understanding how policies on housing, immigration, or access to digital services can directly shape clinical outcomes. In parallel, cultural safety should be taught as a dynamic and reflective practice, which encourages trainees to examine their own assumptions and the historical power imbalances within medicine itself [11].

Importantly, this work must be co-created with patients and communities, particularly those who have been historically underserved. Initiatives to broaden the curriculum to better reflect diversity and inclusion involve incorporating community perspectives in curriculum design, teaching, and student evaluation [12]. This approach roots education in real-world experiences rather than solely in theoretical concepts.

For patients, this change brings clear advantages: increased trust in healthcare providers, more accurate diagnoses, and care that fully considers the broader context of their lives. For the medical profession, it cultivates clinicians who can manage complexity with humility and adaptability, which are qualities essential to delivering safe and equitable healthcare in a diverse society.

Strengthen Clinical Prioritisation and Information Handling in a Digitally Saturated NHS

The digital transformation of the NHS has revolutionised the way patient information is generated, stored, and accessed, creating unprecedented opportunities for data-driven care. However, despite this wealth of digital data, preventable patient harm remains a persistent challenge. Key factors such as inadequate documentation, unclear handovers, and fragmented clinical notes continue to undermine patient safety and compromise the quality of care [13]. This paradox highlights a crucial gap: medical education frequently treats digital systems as mere operational tools rather than complex platforms that require critical judgment and clinical insight.

Mastering the mechanics of logging into electronic health records or navigating menus is a necessary but insufficient step. What truly distinguishes effective clinicians in a digital environment is their ability to sift through vast amounts of information to identify what is clinically relevant, summarise key findings concisely, and communicate priorities clearly and unambiguously to colleagues. This is especially vital in fast-paced, high-pressure clinical settings where decisions often need to be made rapidly and collaboratively across multidisciplinary teams.

Moreover, good documentation transcends being a simple record of past events; it is the cornerstone of safe and continuous patient care. Whether a resident doctor managing an acutely unwell patient during a night shift or a senior consultant providing remote advice based on clinical notes, clear, structured, and prioritised communication within medical records ensures that critical information is not lost or misunderstood. This continuity is essential to prevent errors, reduce duplicative testing, and facilitate timely interventions.

Proficiency in clinical prioritisation and information synthesis requires several interrelated skills: the ability to filter relevant clinical details from extraneous data; to produce documentation that is concise, well-organised, and easily interpretable; and to anticipate what information subsequent care providers will need to make informed, safe decisions. These are not innate talents but professional competencies that should be actively taught and refined throughout medical training prior to entering the workforce. Integrating practical educational methods such as case-based triage exercises, real-time documentation audits, and simulations of complex handovers into undergraduate curricula offers a promising way to cultivate these competencies. These approaches could help students internalise effective information management habits, boost their confidence, and better prepare them for the realities of clinical responsibilities, ultimately easing the transition into practice and reducing anxiety among new doctors.

The Topol Review and Future Doctor Programme emphasise that digital fluency extends beyond technical know-how to include interpretive judgment and communication skills [14]. For patients, this

broader concept of digital competence results in more seamless continuity of care, enhanced clinical decision-making, and safer transitions across day and night teams within an increasingly complex and digitally integrated healthcare system.

Enhance Interprofessional Education to Reflect Collaborative Practice

Modern healthcare depends on effective teamwork among diverse professionals. Medical education should therefore incorporate structured interprofessional learning opportunities that mirror real-world clinical settings. Involving students in shared learning with nursing, pharmacy, and discharge teams builds mutual respect, clarifies interprofessional roles, and strengthens the communication skills necessary for delivering coordinated, patient-centred care. This collaborative approach is vital, as patient safety and outcomes now depend more on integrated teamwork than on individual clinical actions [15]. It also deepens students' understanding of non-medical aspects of care, such as social support and community services, which are critical for effective discharge planning.

While implementing interprofessional education can be challenging due to scheduling conflicts, differing professional cultures, and curriculum constraints, these obstacles are outweighed by its benefits. By preparing future clinicians to work effectively in multidisciplinary teams, interprofessional education helps build the communication and relational skills that are fundamental to safe, efficient, and compassionate care. Integrating such learning experiences early in training also supports breaking down professional silos, fostering a culture of collaboration that benefits both patients and healthcare systems.

Conclusion

To truly serve patients, medical education must evolve from teaching knowledge to shaping clinicians equipped for relational, equitable, and technologically complex care. Continuity through longitudinal clinical experiences deepens patient engagement and comprehension of illness journeys. Embedding structural competence and lived experience addresses inequity at its roots. Strengthening prioritisation and documentation skills enables safe, transparent care in a digital age. Additionally, fostering interprofessional education is crucial to prepare clinicians for effective collaboration within multidisciplinary teams, which is essential for coordinated and patient-centred care.

These interconnected reforms provide a practical, evidence-based framework for both educators and institutions, guiding the training of clinicians to go beyond treating diseases and focus on caring for people. In a stretched NHS, this transformation is essential for delivering safe, equitable, and compassionate care where patients are truly at the centre.

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