Prescribing leadership: filling the gap in medical education Leadership en matière de prescription : combler les lacunes de l'enseignement médical

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In the operating room, the team fell silent when an artery was nicked. All eyes turned to the staff surgeon, while I, as the medical student, stepped back anxiously, waiting to see what would happen next. The scrub nurse was eager to receive instructions for the equipment or materials needed next. The resident assisting began to isolate the source of the bleeding while waiting for guidance on how to proceed. Without a single word being spoken, a leader was identified and looked to for guidance.

Physicians are often seen as leaders within their healthcare institutions and society as a whole. They embody expertise, experience, empathy, and unwavering dedication. However, it is important to acknowledge the gap that persists in their training, specifically the absence of formal leadership education within medical school curricula and beyond. While medical education excels at equipping future physicians with the necessary knowledge and skills to diagnose and treat medical conditions, it often falls short in nurturing the leadership capabilities required for guiding teams, advocating for patients, and driving positive change within healthcare systems.

William C.H. Prentice defined leadership as "the accomplishment of a goal through the direction of human assistants" and that a successful leader relates to others, understands their motivations, and obtains their participation towards a shared goal. As physicians have the most responsibility for patient care provision, which is the shared goal in healthcare, they are seen as leaders both inherently and by definition. It is therefore crucial for physicians to understand the definition of leadership, the

relevant skills and attributes, what effective leadership looks like, and how to best utilize and apply this knowledge in their practice. This can only be achieved effectively through formal leadership education.

Some may argue that most leadership skills develop beyond undergraduate medical education. However, during residency, there are additional constraints that can further challenge the development of such skills, including increased time constraints and a focus on learning more foundational skills for patient care provision. A study conducted at Massachusetts General Hospital surveyed internal medicine residents and found that over 80% of respondents reported a need for additional formal leadership training, especially regarding leading a team, confrontation, and resolving interpersonal conflicts.² A systematic review conducted at the post-graduate level determined that more than half of existing curricula failed to be grounded in an explicit conceptual leadership framework and were overly focused on the intellectual and cognitive aspects of leadership, which seems to be the case given the competency-centric nature of medical education today.3Although many residency programs focus on formal leadership education, this highlights the importance of earlier learning experiences with such topics and the potential positive implications for medical students as they approach residency.

It is easy to understand the challenges of incorporating such a change, including the need for additional content in an already content-heavy curriculum. However, leadership is a quality that warrants care and attention. It is an aspect of education that can prepare medical students to overcome a plethora of challenges and circumstances that they will face in residency and as future physicians.

The exact process and mode of delivery for such a curriculum are beyond the scope of this paper. However, longitudinal leadership education through active engagement with concepts, projects, mentee-mentor relationships, and reflection on experiences throughout medical school is essential. Additionally, taking an interdisciplinary approach and collaborating with schools of business, public health, and management can allow for more in-depth coverage of topics and provide a comprehensive outlook. Ensuring adequate experiential learning through cases, simulations, and role-playing exercises will familiarize medical students with the required skills and attributes of leaders while facilitating growth and development.

Further research is required to identify the key topics and objectives, mode of delivery, and the best stages for incorporating leadership education without overburdening students and ensuring adequate time and reflection to achieve the curriculum's objectives. This Commentary aims

to motivate discussion and review of the current undergraduate medical curricula offered to students and to identify gaps and areas where leadership education can be incorporated or improved.

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