BMC Medical Education

COMMENT

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Mentorship in medical education: reflections on the importance of both unofficial and official mentorship programs

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Abstract

Mentorship, consisting of its official and unofficial forms, transforms medical trainees into competent and well-rounded physicians. In this commentary, we reflected on existing mentorship programs at the McMaster School of Medicine, highlighted lessons from a new peer-based mentorship program, and revisited the benefits of integrating diverse mentorship styles to enhance medical education.

Keywords Medical Education, Mentorship Styles, Education Innovation

Introduction

Mentorship is a central part of medical education that provides a source of support and guidance to help trainees navigate their training and achieve their professional goals [1]. Often classified with different typology based on their roles and interactions (e.g., teacher, advisor, coach, or advocate) with their mentees, attending physicians, residents, and experienced peers can serve as mentors to exemplify the academic and professional traits pivotal to medicine for their mentee [2, 3]. Through mentorship, medical trainees learn both the explicit components of medical education, such as the basic sciences, clinical knowledge, and clinical skills, and the implicit curriculum expected of medical professionals, such as how to operate in and lead multidisciplinary clinical teams, communicate with and advocate for patients, and serve as future mentors themselves [4].

Globally, studies have described several benefits of mentorship to medical trainees such as career guidance, skills development, research output, grantsmanship, professionalism, and personal development [4–7]. Mentors can also help trainees develop proficiency in teaching and clinical skills which position learners to contribute to medical education in turn [1]. Mentorship is also invaluable in leading and supporting trainees through the rigors and stressors inevitable in the healthcare professional training process. For instance, debriefing difficult patient encounters or workshopping alternate ways to manage workplace challenges with senior trainees or attending preceptors allows junior trainees to learn from the experiences of their mentors, thereby improving job-related well-being, reducing stress, and increasing self-efficacy in handling future issues [5–8]. The relevance of mentorship to career issues after medical training such as with tenure and promotion, research and grant success, teaching skills, job burnout and stress, and collaborative skills have also been highlighted [1]. The inverse

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has also been shown, where students without mentorship have comparatively reported worse overall well-being, poorer application success, decreased career support and reduced research productivity [9, 10].

In recognition of the key importance of mentorship on the learning, professional growth, and wellness of its trainees, most medical schools highlight the importance of mentorship in their respective mission statements [11, 12]. Medical schools also tout their strong mentorship support in admissions websites, highlighting their efforts to support medical learners' wellness, and ensuring that they have various supports to help trainees succeed academically and personally [13, 14].

Through this paper, we reiterated the benefits of a model of medical training that promotes diverse forms of mentorship consisting of unofficial (defined as consisting of case-by-case basis guidance, one-off mentorship opportunities, and connections made outside of a traditional curricular structure) and official mentorship (consisting of structured programs that serve to link mentors with mentees, often with official curriculum or topics of mentorship) styles [1]. While mentorship programs and opportunities are important in medical education, it is imperative that they are tailored with the intent of addressing learners' needs, and both parties should endeavor to incorporate their unique perspectives into the program. Under current mentorship frameworks, gaps in mentorship success can arise when mentees are unable to find mentors with similar interests, neither party takes the initiative to strengthen their connection or specific goals are not set to optimize mentorship support. This commentary aims to provide a reflection on official and unofficial mentorship styles and identify key lessons for to support mentorship program in other settings. The specific objectives are to:

- identify examples of both unofficial and official mentorship structures at a Canadian medical school (McMaster Michael G. Degroote School of Medicine),
- highlight lessons from a new mentorship program at the medical school, describing factors for its success as a model for piloting similar programs elsewhere, especially in low- and middle-income countries and.
- reflect on how to leverage the unique advantages of both mentorship structures to improve medical education and make relevant recommendations.

Unofficial mentorship

Throughout training as medical students at McMaster University, trainees are exposed to and involved in a wide variety of unofficial mentorship opportunities, including peer mentorship (See examples in Table 1). Peer mentorship relationships consist of medical students who are further along in their training guiding their peers, especially those in junior years. These connections can evolve spontaneously or arranged through pairing individuals based on common backgrounds or interests. These mentorship programs are often unstructured and left up to the mentor-mentee pair's design, with some individuals building strong longitudinal relationships with their mentors lasting through pre-clerkship, clerkship, and even further into residency. Examples of mentorship support experienced in such design include tips for studying pre-clinical knowledge, connections to research and shadowing opportunities, advice on selection of clerkship streams and ranking of clinical electives, and clinical skills practice. This unofficial mentorship style can further sustain itself when it encourages mentees to evolve into a mentor over time, perpetuating the chain of support to peers across generation of trainees.

Table 1 Comparisons of Unofficial and Official Mentorship through Reflections on Programs at McMaster University

	Unofficial Mentorship	Official Mentorship
1) Definitions	Mentorship consisting of case-by-case basis guidance, one-off mentorship opportunities, and connections made outside of a traditional curricular structure	Mentorship consisting of structured programs that serve to link mentors with mentees, often with official curriculum or topics of mentorship
2) Examples	One-off Meeting with a Research PI	Assigned Student Advisor
	Mock Interviews with a Senior Resident	MacMentors, Clerk2Clerk Mentors [13]
	Career Advice from an Attending	Ground Skills Curriculum Tutorials (Peer group-based mentorship program)
	OSCE Preparation with a Senior Clerk	Student Affairs Career Counselors
3) Advantages	Can be Individualized to Personal Interests and Goals	Reduces Systematic Barriers, Increases Accessibility
	Less Structured/Regimented Time Commitments	Demystifies the Process, Creates a Safe Space for Questions/Exploration
4) Drawbacks	Can be luck-dependent in terms of meeting the "right" person	More Time-Consuming, Greater Administrative Organization Required
	Requires Mentees to Take Greater Initiative	Less Personalized, More Redundancy or Irrelevant Components to Individuals

PI-Principal Investigator, OSCE-Objective Structured Clinical Examination

Unofficial mentorship programs extend also to mentor-mentee relationships with differences in years of training or working experience, namely the relationship between medical trainees and residents, fellows or attending physicians. Often, these mentors are able to provide longer term advice and serve as a role model regarding specialty selection, career planning, values and ethics, and physician finances. Mentors who are further along in their medical training or work experience are also able to give advice from a broader perspective, such as reviewing curriculum vitae or practicing interview questions, providing more insight into the types of candidates that stand out to programs. Again, these mentors are often more connected in their fields of expertise, allowing them to give students tailored research advice and mobilize connections to better support the career aspirations and development of their mentees.

Official mentorship

On the other hand, official mentorship programs are the ones that have greater levels of structure in terms of mentorship content. Such official mentorship opportunities are provided through student advisors, academic coaches, and career counselors, as highlighted in Table 1. While they personalize the mentorship relationship based on each mentee, these mentorship programs are usually mandated by medical programs and have stipulated topics of discussion or checklists to ensure that each trainee is on track to succeed in their medical training. These mentorship relationships specifically help students with navigating academic challenges, personal issues, and professionalism concerns, linking individuals with resources and offering advice for difficult situations.

One example of a new official mentorship pathway at the Michael G. Degroote School of Medicine is the Ground Skills Curriculum Tutorial program, an initiative started by McMaster's senior medical clerks in Summer 2023 (J.W. participated in this program). The program is designed to smoothen and improve the transition to clerkship for c2025 medical students and beyond, and it consisted of several sessions delivered across multiple days with topics of discussion aimed at building practical workplace skills for new clerks, including "Understanding the Duties of Medical Learners", "Foundational Skills for a Clinical Rotation", and "Strategies for Success and Career Development". These sessions were designed as small group, interactive sessions hosted by senior clerks (including J.W.) with a standardized curriculum developed by fellow clerks and resident advisors. The program offered multiple sessions across each of McMaster's three campuses to ensure maximum accessibility. These sessions also took place at an opportune time early in the transition to clerkship period, allowing new clerks to immediately get a chance to apply learned skills in a clinical setting and start off on their rotations on a strong note. Through the program, incoming clerks could ask questions, suggest workshop ideas, and learn from the experiences of peer mentors having spent more than half a year on the wards. Post-session feedback was overwhelmingly positive, participants cited that they enjoyed the formalized yet intimate learning structure, gained crucial perspectives from more senior learners not found elsewhere in the pre-clinical curriculum, formed new mentor relationships that persisted after the program, and alleviated anxiety entering clinical rotations.

Reflections and lessons

For both official and unofficial mentorship programs, mentorship can have strong benefits to all individuals involved. Mentors are able to learn and hone communication and leadership skills, such as empathetic listening, remaining objective, conflict resolution, and the traits that improve their abilities as a physician and a professional. For mentees, mentorship allows them to gain connections and opportunities in their fields of interest, learn from the experiences of others, and bolster their medical learning, both clinically and non-clinically. Having a strong connection with a mentor also helps make mentees more invested in mentorship and medical education as a whole, promoting them to serve as better mentors in the future.

Comparing unofficial with official mentorship programs, both mentorship styles have their advantages and weaknesses, as depicted in Table 1. Unofficial mentorship, which is traditionally the mainstay of mentorship in medical education, can be more organic connections that foster the particular interests and goals of each trainee. They are also less regimented in their structure, with more flexibility in scheduling and offering more relevant support to each mentee. On the other hand, these connections can be difficult to establish and by chance (or more luck-dependent), requiring mentees to be connected with mentors who share similar interests and have compatible mentorship styles. They also require mentees to take greater initiative in reaching out for mentorship support, which can be challenging given the busy schedules of both mentors and mentees.

Official mentorship programs, conversely, offer new perspectives in increasing mentorship accessibility and demystifying medical education. By linking mentor-mentee pairings early, programs can reduce systemic barriers that students can face in medicine, especially non-traditional students and those from marginalized communities [15]. This also ensures that finding a mentor is intentional (less by chance or "luck-based"), and that each student starts off with mentors, especially those who may have similar broad interests or backgrounds. This also demystifies medical education, allowing individuals to

ask questions or seek out support in a safe space without feeling like they are posing a burden or hindrance to potential mentors. Compared to unofficial mentorship, these programs can feel less personalized, presenting some trainees with redundant or irrelevant information. They also require a greater amount of administrative coordination and can be more time-consuming for all parties involved.

Integrating the two styles of mentorship, it can be beneficial to have strong, official mentorship programs available to students early in training, such as the peer mentorship program piloted at McMaster, allowing equitable access to mentorship support. Over time, as students work with different preceptors and supervisors, they can develop and transition to more individualized, unofficial mentorship programs that are tailored to their specific goals and needs. Through this, both official and unofficial mentorship styles can be pivotal to a trainee's development, with the context of the mentor-mentee relationship dictating the effectiveness of each modality. Notwithstanding, there is need for future studies with robust methodology to generate explicit conclusions on the development, quality assessment and implementations of official and unofficial mentorship programs.

Conclusions

Going forward, there is need to support diverse forms of mentorship during medical training. The creation of more official mentorship programs can allow trainees access to diverse official mentorship options to supplement preexisting unofficial mentorship streams. On top of this, schools can incentivize both forms of mentors through teaching credits and other initiatives that can help with their promotion in the academic ladder, legitimizing both forms of mentorship and encouraging quality mentors to engage in both forms of mentorship opportunities. Official programs also allow more formalized feedback to be provided to mentors, allowing opportunities for mentors to refine their support to trainees. Programs can also support the creation of forums for individuals interested in medical education and mentorship to meet, share their diverse experiences with creating and sustaining mentorship programs, discuss ways to promote these initiatives further, and train future mentors. This can also promote the development of more qualitative research projects designed to improve mentorship programs, improve teaching methodology and strengthen mentorship networks. These avenues can also lead to the formation of more structured approaches to train medical educators to better serve as mentors for future trainees and integrate this both vertically and horizontally within the medical curriculum. Together, these efforts will bolster both official and unofficial mentorship opportunities to improve medical education from the undergraduate to the graduate level.

Acknowledgements
The authors would like to thank and acknowledge mentors and mentees from both official and unofficial programs who have continued to support medical education and informed this reflection. The authors would also like to acknowledge the Ground Skills Curriculum team for the creation of a novel structured mentorship program for the McMaster University Michael G. Degroote School of Medicine.

Author contributions
A.T.O. and J.W. made substantial contributions to the conception and outline of the paper. J.W. conducted the research, summarized the reflections, and drafted the manuscript. A.T.O. supervised project and revised the manuscript. All authors read and approved the final manuscript.

Funding
No financial disclosures.

Data availability
No datasets were generated or analysed during the current study.

Declarations

Ethical approval
Not applicable.

Consent to participate
Not applicable.

Consent for publication
Not applicable.

Competing interests
No conflict of interest declared.

Received: 5 June 2024 / Accepted: 23 October 2024
Published online: 29 October 2024

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