Faculty development/mentoring evolution of mentorship in academic medicine

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Mentoring was first developed in the United States of America, in the 1970s within large corporations in order to support junior staff. It was in the 1990s, that mentoring programs were introduced in different medical professions, especially in the field of nursing. Formal mentoring programs for medical students and physicians were only developed in the late 1990s.[1] While there are many definitions of mentoring, the most frequently used in English scientific literature (SCOPME) is 'A process whereby an experienced, highly regarded, empathetic person (the mentor) guides another (usually younger) individual (the mentee) in the development and re-examination of their own ideas, learning, and personal and professional development. The mentor, who often works in the same field as the mentee, achieves this by listening or talking in confidence to the mentee.'[2]

Mentorship is considered critical to academic success and career development for physicians. Mentorship is known to have an important influence on personal development, career guidance, specialty/career choice, faculty retention and research productivity, including publication and grant success. Mentorship is essential for students and residents considering a career in academic medicine. For these reasons, the Liaison Committee on Medical Education (LCME) and the Accreditation Council for Graduate Medical Education (ACGME) have mandatory requirements on mentorship for accredited medical and resident training programs.[3] While mentoring is central to academic medicine, it is challenged by increased clinical, administrative, research, and other educational demands on medical faculty.[4]

Although the definition and role of mentorship has evolved over the years, the most dominant form in medicine has been novice mentoring.[5 6] It is defined as a 'dynamic, context-dependent, goal-sensitive, mutually beneficial relationship between an experienced clinician or scientist and junior clinicians and/or undergraduates focused on advancing the development of the mentee'.[7] Over the years, there have been attempts to differentiate mentoring from teaching, tutoring, role modeling, coaching and supervision in efforts to better conceptualize mentoring processes. According to a systematic review, mentors may adopt many supportive and educational roles, to be more effective. These include being a supervisor 'focused on professional development of the student', a coach facilitating learner development through use of 'deliberate practice strategies', a role model 'setting out to create a positive example of good practice', an advisor 'helping with scheduling, logistics and applications' and a sponsor 'influencing promotion and advancement'. However, one has to be careful not to merge these practices with mentoring as that could be a source of confusion in conceptualizing mentoring. In this context, mentoring is defined as a 'dynamic, context dependent, goal sensitive, mutually beneficial relationship between an experienced clinician or basic scientist and junior clinicians and or undergraduates that is focused on advancing the development of the mentee'.[8]

The author of this manuscript believes that it is important to differentiate between the three concepts of advisor, mentor and coach that are currently prevalent in medical schools of USA. Advisors are faculty members usually assigned to the student or resident on entering the medical school or the training program. The advisor is expected to meet periodically with the students/residents throughout their medical school/residency to review their academic progress, ensure compliance with LCME/ACGME requirements, assist with learning plans, and address any concerns. However, mentorship is more of a matching process (many times mentee driven but not always) based on career interests, personality, and other factors. The mentor reviews career planning, work-life balance, and any other concerns with the mentee. Mentors need not review academic progress since this is usually followed by the advisor. The emphasis of mentorship is placed on helping the mentee (student/resident/fellow or junior faculty) to consider and achieve their career goals. Mentors are expected to refer students/fellows for psychosocial support and evaluation if they determine issues that are preventing the mentee from benefitting and advancing. Mentors are expected to assist their mentees in engaging in research and quality improvement projects, submitting publications/grants, presenting cases, etc to augment their scholarly activities. With increased professional burnout rates among physicians, resident/fellows, coaching has been

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developed as a novel method to provide emotional support and professional development to residents/fellows. A very popular coaching program first implemented in 2012 at Massachusetts General Hospital (Massachusetts General Hospital Professional Development Coaching Program curriculum) has been rolled out successfully in many residency and fellowship programs across the country. As part of this program, faculty coaches are trained to help residents and fellows excel and progress throughout their training, and to assist residents and fellows earlier when they can benefit from additional guidance and support. Coaches are faculty members with whom trainees can freely discuss their work experience since they are not directly involved in their training. Coaches help them reflect on their performance, failures and achievements. Coaches help trainees identify strengths and how to use them to overcome challenges. Unlike mentoring, a coaching relationship focuses less on career development, and more on individual professional development. It is a non-evaluative, non-prescriptive, egalitarian, learner-driven, accountability-oriented relationship. As part of professional development, coaches are trained in positive psychology techniques.

While it is not clear from the literature if mentors should be assigned or self-identified and represents an area for future research, efforts need to be made to ensure that mentorship opportunities are provided to women and individuals representing diverse ethnicities.[3]

On a review of the mentoring programs of worldwide medical schools, there are both one-to-one and group mentorships, established in the first 2 years of medical school and continuing through graduation. The majority of the programs were from the USA and not many were from outside of the USA. One problem in medical schools in Europe is the high number of students. One way of making mentoring available to all students, however, could be to provide it in groups of 6–8 students. According to this review, in order for an effective mentorship relationship, a mentor is expected to empower and encourage the mentee, be a role model, help build a professional network, and assist in the mentee's personal development. A mentee is expected to set agendas, follow through, accept criticism, and be able to self-reflect on his/her performance and the benefits derived from the mentoring relationship. A successful mentoring relationship requires the active participation of both parties. The mentoring relationship can be structured or informal. It can be a relatively short process or long term. There could be breaks in the relationship, with its re-establishment at some future time. The mentoring relationship is a dynamic one and, evolves over time, during which both parties continually define and redefine their roles and expectations. It should be considered a process, not an end result, and the relationship must remain non-competitive.[9]

Mentors are often untrained raising concerns about the quality and oversight of mentoring support. A scoping review highlights the increasing importance placed on mentor training in novice mentoring. However, despite evidence that mentor training improves knowledge, skills, and attitudes and there is need to support mentors in diverse settings to meet the changing needs of their mentees. Adoption of mentor training programs has not been uniform in academic medicine, and informal mentoring is common. Hence, mentoring is suffering from a shortage of trained mentors which compromises the efficacy of novice mentoring or mentoring of a junior physician by a senior.[10]

E-mentoring is being used as a means of supplementing novice mentoring in medicine by providing accessible, timely, and longitudinal support for mentees. E-mentoring is defined as 'a computer mediated, mutually beneficial relationship between a mentor and a mentee which provides learning, advising, encouraging, promoting, and role modelling, that is often boundary less, egalitarian, and qualitatively different than face-to face mentoring'. E-mentoring maybe carried out via email, telephone calls,[11 12] learning management server,[13] and video conferencing. E-mentoring remains poorly understood[14] because of continued merging of distinct mentoring approaches such as peer, novice, mosaic, and group mentoring and the erroneous intermixing of mentoring with role modelling, supervision, coaching, networking, advising and tutoring. Due to concerns about lack of non-verbal communication and supposed difficulties in building rapport online associated with exclusive e-mentoring, it is increasingly being used in tandem with other forms of mentoring[12 15] in a blended approach. Based on the evidence presented by a systematic scoping review, e-mentoring approach is not only a distinct mentoring approach but one that is sufficiently complementary to novice mentoring to be used effectively within a blended approach.[16]

While most medical schools and residency programs in the USA have mentoring programs, mentoring programs for faculty are not as widespread. Despite the apparent benefits of mentoring, only one third to one half of faculty report having a mentor. Many have remote mentors due to lack of available faculty or lack of a mentoring program at their institution. While remote mentors can support personal and career development, advise on a project, and serve as advocates at the national level, they are unable to promote mentees within their local institutions, making it difficult for junior faculty to amass local visibility and credibility. Another issue with faculty mentoring is that few physicians will find one mentor who is able to meet all of their mentoring needs. Additionally, mentoring needs evolve as careers progress and roles change. According to a systematic review, peer mentoring and mosaic mentoring could provide helpful frameworks for building a successful mentoring network for faculty. In peer mentoring, each party has the experience of being the giver as well as the receiver, allowing mutual benefit from mentoring while developing mentoring skills themselves. For this reason, peer-mentoring may be more enduring than traditional senior–junior mentoring relationships. Peer-mentoring provides the advantage of increasing socialization while also providing help/guidance in academic work and in navigating an academic world they all share. Through peer mentorship, physicians have the opportunity to extend their collegial networks to local, regional, national, and international colleagues. Mosaic mentoring or multiple mentoring involves the mentee seeking a team of mentors, with the expectation that each mentor will perform a different role in the mentee's professional development. Careers are multifaceted and dynamic, and it may not be feasible for one mentor to support a mentee's varied needs over time. In mosaic mentoring, a group of mentors may take different roles, for example; one mentor may help with career planning, another with leadership, and others with certain academic/research projects.[17]

Some organizations are involved in offering additional mentoring support for students/trainees and junior faculty. The American Federation of Medical Research (AFMR) is particularly involved in offering mentoring support to physicians across different disciplines in keeping with its mission to develop and mentor tomorrow's leaders in medical research. To meet this strategic mission, AFMR has created a mentorship committee to oversee its mentorship activities. Each of the regional meetings has a mentorship session where interested mentees are invited to meet AFMR's senior members who are across many disciplines and career pathways. This provides an opportunity to do a needs assessment followed by some speed mentoring. Subsequently, based on the interest of the mentees, long term mentorship opportunity via e-mentoring or a blended approach is available. Additionally, there are opportunities for peer mentoring. AFMR has created a national and regional repository of mentors who are interested in serving as mentors. The regional sessions invite AFMR's regional leadership, councilors and other AFMR members interested in serving as mentors. AFMR also has a repository of information,including presentations, which are useful tools for those seeking mentorships, and those wanting to know how to make the most of mentor–mentee relationships. AFMR is also planning to hold mentorship sessions with more of a webinar concept. This would allow multiple 'mentors' to speak and address individual questions from a group of mentees, allowing more interaction without a one-on-one. This could enhance the one-on-one interactions, which some may still prefer. This national level effort would supplement regional efforts described earlier. Thus, AFMR has taken a multi-pronged approach, with regional talks or sessions, pairing of mentors and mentees, webinar mentor sessions, and a potential national session to meet its strategic mission on mentoring.

In conclusion, mentoring is an essential part of medical education that enhances the professional and personal development of future physicians and researchers as well as ongoing growth of junior faculty. While mentoring for students and residents is widespread in the USA, the same is not true outside of the USA. Even in the USA, mentoring programs for faculty are not well established. It is important to differentiate mentorship from other roles that a mentor may play in order to be effective. E-mentoring, blended approach, group mentoring and peer mentoring could be ways to meet mentorship needs at places and in fields where there are not enough mentors available. While there are many qualities expected of mentors, the most important quality of a mentor is the ability to maintain a confidential relationship and the mentor's commitment to his/her mentee's professional and personal development.

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Editor's note What is mentoring? A working definition from an old Australian surfer – you lead the mentee to water and they jump in. And you as the mentor ensures, cannot guarantee, that they will swim. How? With all the right preparation and training you have carefully given them, and the example, work ethic and commitment you have personally made. Then they will swim very well provided they: 1) have the "right stuff" that you continue to nurture and evolve from the original substrate you sensed when you first met; 2) they are so afraid to disappoint you because you continue to work as hard or harder than they; and 3) we clear the obstacles – political and academic – to allow them the latitude to grow and facilitate their passage to reach their full potential. Although full potential may vary – you still continue to dote and nurture them. This results in that feeling of great satisfaction that will re-charge you, re-energize you with the vigor necessary for renewal, resilience and perseverance as you continue your mentoring commitment. Finally, mentoring's true honorees are our families. That extra meeting when you are about to go home, the nights and weekends when mentoring occurs, time which can never be replaced with your families.

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