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Alice Fornari
Darshana T. Shah *Editors*

Mentoring In Health Professions Education

Evidence-Informed Strategies Across the Continuum

IAMSE
International Association of Medical Science Educators

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IAMSE Manuals

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Foreword

The IAMSE manual, *Mentoring In Health Professions Education: Evidence-Informed Strategies,* is a product of its co-editors' and authors' lifetime work in mentoring faculty and studying the impact of this mentoring. It is well known that success in complex organizations, especially academic medicine, is highly dependent on finding and relating to mentors at virtually every stage of one's career. Mentors can be a single person or groups of people and can be assigned through mentoring programs or found through individual encounters that occur through the workplace. However, what is clear is that successful mentor/mentee relationships yield continued growth of younger faculty and become very critical during periods of transition, when roles increase or change radically as one moves through their own career path.

In this manual, all authors use their own personal experiences, as well as a data-driven approach, to explore the many different roles and perspectives on mentoring relationships and ultimately the mentoring culture. I believe that the conceptual framework of mentorship presented in Chapter 1 by Dr. Fornari, which supports a professional working relationship, is extraordinarily accurate. In addition, the evolution from personal to professional and creating a professional identity is key to the transition from student to physician and very unlikely to be achieved fully without a mentor at multiple steps in the process.

Mentors become exceptionally important when medical educators, both physicians and non-physicians, take on significant leadership roles for the first time in their career. The transition from a very effective worker and learner to a leader clearly requires that special relationship that mentors offer in helping career transitions turn out successfully. These leaders guide the future of our academic institutions.

I myself have benefited from mentors throughout my career, but have often wondered whether there was a better way to find mentors than by just being lucky. In Chap. 1, Dr. Fornari talks about multiple different programmatic strategies to develop mentor-mentee relationships. In addition, one should realize that as your career progresses, the type of mentor needed changes, and one may move from one mentor to another, or have more than one mentor. The relationship of mentor and

mentee is often longitudinal, sometimes lifelong, and increases in its impact on both people as the relationship grows in its effectiveness and depth.

The editors look at the data with respect to the success of different strategies in mentoring, as well as different structures of diverse mentoring programs. Manual editors' and authors' personal experiences in these areas, and their presentation of these experiences as reflections in the Manual chapters, as well as proven ways to deliver these programs successfully, will be extremely helpful for all professionals who will lead mentoring programs and/or be active participants as mentees. Even with a special emphasis on the mentoring of medical educators, the messages in this book are generalizable beyond the medical educator to include diverse academic roles across the continuum. In particular, enumerating the many specific roles of a mentor beyond just the traditional concepts adds breadth and depth to understanding what can be gained from mentor-mentee relationships. I anticipate this Manual to be a valuable resource for clinicians, educators, and trainees. I believe that anyone involved in medical education and progressing through the stages of practicing, teaching, and learning in medicine will benefit from this carefully constructed manual on *Mentoring In Health Professions Education: Evidence-Informed Strategies.* This Manual will be a meaningful addition to the literature on this most important professional subject.

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Foreword

"If you don't know where you're going, you're probably not going to get there" is an expression that one of my great mentors, Dr. Robert W. Schrier, used to say. But how do we decide that where we are going is even where we want to go? Some of us have ideas derived from childhood, role models, hero figures from media, or ambitions foisted on us by our family. However, in my opinion, none of these are as important as personal mentors, or the people who have developed more experience in the pursuit of personal and/or professional goals who are willing to share the benefits of their experience. One of the other great mentors in my life, Dr. Laurence Chan, would opine that "good judgment came from experience which, in turn, came from bad judgment." Best that the experience and "bad judgment" came from someone else!

I have been blessed with great mentors. It started in my family, where my mother, Beatrice Schwartz Shapiro Barna, raised me largely without a father. (He died suddenly when I was 14.) By her actions, more than her words, she taught me most of the principles which have guided my (better) actions. However, although she was extremely intelligent, she was educated only through high school, and had essentially no experience in the world that I would try to succeed in. Fortunately, along the way, I encountered a number of kind and generous individuals who would share the lessons of their "bad judgments," and help me find my own path. Some of these, like the aforementioned individuals from my first paragraph (both extremely successful academic physicians, scientists, and administrators I encountered during my nephrology fellowship at the University of Colorado), were natural fits, but I encountered others somewhat surprisingly. For example, Dr. William Adams, an English professor and administrator concerned with minority student recruitment and success at the University of Pennsylvania, gave tremendous amounts of his personal time and energy to ensure that I succeeded in my nascent professional career. As I said, I have been blessed with great mentors—far too many to mention in this foreword.

I think it is fair to say that ideally, mentoring is a partnership devoted to integrated personal and professional growth and development. I believe it is central to academic medicine. If you find a person who has been successful in this domain, my

best guess is that she or he has had great mentoring. This partnership is essential for the mentee, but also benefits the mentor. If one is an educator, seeing a mentee go on to success (which may eclipse yours) can be a thrilling experience. I have been blessed with this experience as well. Many of my mentees have gone on to very successful careers in science, medicine, and academia, and I am pleased to celebrate the success of Dr. Darshana T. Shah among these wonderful individuals.

Unfortunately, the mentoring process is challenged in our modern world by increased demands on our medical school faculty. For those engaged in clinical practice, the demands for documentation and patient care volume are much greater than what past generations of academic physicians experienced. Research, education, and administrative demands on these faculty have not lessened. On top of this, social and personal demands are far greater than what previous generations experienced. In short, the time requirements for successful mentorship are growing more and more onerous, leaving many potential mentors less enthralled than they might have been in the past.

Additionally, it can be challenging to find the right mentoring fit; mentors and mentees may come from very different backgrounds and have limited understanding of each other's cultures and outlooks. Despite these challenges, mentoring remains the most powerful tool for creating meaningful relationships, furthering professional development, and increasing engagement and retention.

Mentoring In Health Professions Education: Evidence-Informed Strategies offers a timely, evidence-based manual for helping mentors develop the level of cultural competency needed to bridge differences encountered in mentor-mentee relationships. The manual uses case-based scenarios in each chapter to highlight common struggles faced in mentoring partnerships and to illustrate how key concepts can play out in real life. It offers an array of accessible tools and strategies designed to help you increase your self-awareness and prepare you to embrace and leverage differences in your mentoring relationships. Beyond tips and techniques, the manual helps the mentor and mentee make a genuine connection and learn from each other. I am personally thrilled to write one of the forewords to this remarkable book.

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About the Editors

Alice Fornari, EdD, FAMEE, HEC-C, RDN is a Professor in Science Education, Occupational Health and Family Medicine. She is an Associate Dean of Educational Skills Development, Zucker SOM (ZSOM) and is the Vice President of Faculty Development for the 23 hospitals of Northwell Health. Her faculty development role at both institutions is designed to align the UME, GME and CPD continuum. In June 2021 she received from IAMSE the *Distinguished Career Award for Excellence in Teaching and Educational Scholarship*.

Recognizing a need for additional faculty development to align UME and GME education, in 2016 she created and admitted the inaugural cohort to a Master of Health Professions Education (MSED) degree program. As Program Director, she supports high level faculty development for interprofessional educators who desire an advanced degree in education.

She has developed and implemented longitudinal professional development opportunities for faculty. In 2021 she launched "Just in Time Teaching TIPS (JiTTs) Infographic App as a new free open access faculty development resource. In addition, she oversees longitudinal workshop series entitled "Learning Drives Teaching and Assessment", "Educational Research Skills Development" and "Chief Resident: Leading, Managing and Mentoring". Since 2014 she has implemented an interactive online monthly medical education journal club to create a system-wide platform to discuss evidenced based medical education literature. In 2015 she co-edited her first IAMSE Manual entitled *How-To Guide for Active Learning*.

An interest in health humanities and reflective practice has supported successful implementation of health humanities curriculum at the ZSOM and Northwell Health. This focus also supports an AAMC/NEGEA SIG on Health Humanities as a Teaching and Learning Strategy.

Since 2014 she leads a longitudinal interprofessional development program, Mentoring and Professionalism in Training (MAP-IT), that focuses on developing mentoring skills in clinicians to achieve humanistic relationships with trainees, colleagues and ultimately patients across the continuum. In 2021, she is co-editor of her second IAMSE *Manual, Mentoring in Health Professions Education: Evidence Informed Strategies*.

Dr. Fornari obtained her EdD, Higher Education, College Teaching and Academic Leadership at Columbia University, Teachers College in 2001. Her research interest was focused on curriculum to support ethical decision making for healthcare professionals. Her interest in ethics education has continued and she obtained a Graduate Certificate in Clinical Bioethics from Hofstra University in 2018 and in 2021 she received certification as a Healthcare Ethics Consultant-Certified (HEC-C).

Darshana Shah, Ph.D. For more than two decades, Dr. Shah's work has focused on bolstering excellence in medical science education and building support systems to increase faculty vitality. As a professor of pathology and associate dean for faculty advancement at the Marshall University Joan C. Edwards School of Medicine, she divides her time between academic scholarship and professional development, while finding opportunities for leadership and service in her field of expertise.

Dr. Shah is deeply devoted to supporting faculty. Her vision for a multi-tiered, comprehensive faculty development office at Marshall University Joan C. Edwards School of Medicine came to fruition in 2013 and provides numerous tailored mentoring, teaching, and leadership programs and opportunities for medical school faculty. She has further propelled the Marshall University Joan C. Edwards School of Medicine into the future by founding the Marshall Journal of Medicine (MJM), West Virginia's first online, open-access, peer-reviewed journal. She presently serves as editor-in-chief.

As a scholar, Dr. Shah actively engages in obtaining external funding and implementing novel programs to transform research education across the continuum. She is part of the professional development core for a five-year grant funded by the National Institutes of Science (NIH) focused on improving health through partnership and transformative research.

Dr. Shah has held leadership positions in regional, national, and international organizations, including serving as the national elected chair of the Association of American Medical Colleges' Group on Faculty Affairs. Additionally, she has served as president of the Group for Research in Pathology Education, a national organization for pathology educators. She presently serves on the International Science of Team Science Board of Directors.

Introduction: A Guide to Your Mentoring Journey

Alice Fornari

As the introduction to this IAMSE Manual, I will provide an overview of definitions and frameworks for mentoring in health professions education and conclude with a reflection as a mentor to many early-career faculty at a medical school.

I believe, as readers of this manual, we can all agree that mentorship plays an essential role in the development of professionals, medical and science educators are not excluded. Our learners, mentees, are core to the future of medical education as a professional field. In addition, mentoring is a continuum that requires the agility to move between the skills and to sometimes be the mentor and sometimes be the mentee. I do see this as a "Venn" diagram with separate space as well as overlapping space. The premise of this book states that mentoring cannot happen on an ad hoc basis and must be formalized, even if the process is organic. If we look at mentorship as a "science" we must consider this definition of "science" proposed in the book recently published by The National Academies of Sciences, Engineering, and Medicine, *The Science of Effective Mentorship in STEMM*, as "the intellectual and practical activity encompassing the systematic study of structures and behaviors through observation experiment and theory"(page 2). They combine this with their synthesized definition of mentorship: "Mentorship is a professional, working alliance in which individuals work together over time to support the personal and professional growth, development, and success of the relational partners through the provision of career and psychosocial support" (Byars-Winston & Dahlberg, 2019, p. 2).

I favor both of these definitions presented in the national report as I do believe mentorship is a science with foundational principles, skills, and outcomes. I favor the dual model on career development and psychosocial support as two foci areas

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for mentors and mentees. More specifically career development includes career guidance, skill development, and sponsorship and psychosocial support includes psychosocial and emotional support and active role modeling.

Both roles with all the components focus on the mentees' development over time and not in a moment in time and therefore require a longitudinal relationship. To be clear active role modeling is defined as "the process in which faculty members demonstrate clinical skills, model and articulate expert thought processes and manifest positive professional characteristics" (Irby, 1986). We hope all mentees have identified role models to guide their development and that all mentees are involved in active role modeling. Academic coaching complements mentoring and is defined by the AMA as "An academic coach is a person assigned to facilitate learners achieving their fullest potential. Coaches work with learners by evaluating performance via review of objective assessments, assisting the learner to identify needs and create a plan to achieve these, and helping the learner to be accountable. Coaches, also a longitudinal relationship, help learners improve their own self-monitoring, while modeling the idea that coaching will likely benefit them throughout their career" (Deiorio et al., 2016).

Mentorship can be considered a social relationship, and this is pivotal to the development of professional identity development of the mentee across roles as a medical educator, with specific relationships focused on academic and career development, as well as personal well-being.

Finally mentoring can support a culture of "inclusive excellence." Inclusive excellence as defined by the American Colleges and Universities in 2013 states "we must attend to both the demographic diversity of students/trainees and the need to develop climates and cultures in institutions, so all have a chance to succeed." This requires mentors to work with mentees to develop their capacities and assets and institutions to commit to this philosophical approach (Universities AoACa, 2020).

Characteristics of effective mentorship include the following: collaborative learning relationship, supported by an alliance that is intentional, marked by trust and shared responsibility to make the mentorship relationship effective. As an alliance mentorship is developmental and requires critical self-reflection throughout the cycle of mentorship. As medical educators we should know trust is an effective tool for any relationship, and this includes mentorship that supports establishment of mutual goals, identification and prioritization of needs. To be effective this is a fluid relationship that is flexible, which is supported to change over time and adjust to the needs of both the mentor and mentee. Mentor-mentee relationships are fueled by shared beliefs, values, and experiences.

Mentoring is complex with inherent and acquired skills that require intentional practice and self-reflection focused on self-assessment and self-regulation. Important to note, as stated by Loosveld et al. (2020), mentors must be taught to be mentors and gain insight into their mentoring beliefs to support desirable mentoring characteristics and secure a strong mentor-mentee relationship.

Traditional mentoring relationships are dyads, and today this has expanded to triads, group mentoring, mentoring networks, and fast-growing online e-mentoring networks. The use of specific tools to support mentoring is individualized to the

relationship. The content of this Manual should provide tools for diverse mentoring styles that support relationship building between mentors and mentees.

The mentor-mentee relationship should avoid mentors being self-absorbed, overcommitted and absent, unrealistic goals of both mentor and mentee, inability to provide clear and relevant guidance, mentor-mentee mismatch, and poor communication styles leading to a dysfunctional relationship. This must be avoided as it can certainly cause harm to the individuals in the relationship.

In a National Academy of Sciences, Engineering, and Medicine report published in 2019, there are nine recommendations to support intentional, inclusive, and effective mentorship. These are an effort to minimize informal mentorship principles and polices. These are worth a serious review for anyone establishing a mentorship program within their academic institution. These include (1) adopting an operational definition of mentorship, (2) using an evidence-based approach to support mentorship, (3) establishing and using structured feedback systems to improve mentorship at all levels, (4) recognizing and responding to identities in mentorship, (5) supporting multiple mentorship structures, (6) rewarding effective mentorship, (7) mitigating negative mentorship experiences, (8) recommending funding agencies to support mentorship, and (9) recommendation to add to scholarship of mentorship (Byars-Winston & Dahlberg, 2019).

We accept there is wide variability in mentoring definitions (Mullen & Klimaitis, 2019). In addition, the theoretical frameworks to support mentoring as a *developmental relationship* need to consider equity, inclusiveness, and social justice parameters to succeed today in our home institutions. These parameters cross both career and psychosocial functions of mentoring. Leaders and mentors must never underestimate the importance of trust, values, respect, empathy, and a certain level of control as core to the mentoring process and relationships. These core tenets will support a relationship that is surrounded by a mutual feeling of belonging and connectiveness, a truly special moment for the mentor and mentee. Behaviors and skills to be explored in the content of this Manual are the ability to nurture, advise, coach, and instruct and when needed advocate and if appropriate sponsor the mentee (Mullen & Klimaitis, 2019).

Definitions to consider as you begin your journey to under the mentor-mentee relationship, which is constructed over time with phases and transitions. Kram (1983) identifies phases as: initiation, cultivation, separation, and redefinition. These phases support the framework that mentoring is a developmental process. A mentor and mentee need sufficient interaction to assess if the mentee-mentor pairing is compatible. Cultivation is where the working relationship happens and both psychosocial and career foci are addressed, nourished, and advanced. Separation marks success as the mentee is more autonomous. Finally, redefinition is a time to mature as colleagues consider a peer-to-peer relationship and actually provide mutual support. Each phase is a transition for the mentor and mentee relationship and should be normalized and valued. Mentoring relationships can be informal or formal in their style and the phases as described can be applied to either style (Loosveld et al., 2021).

The classic approach to mentoring is a dyad of a more senior person with a junior colleague for a relationship that addresses both career advancement and psychosocial development. This relationship is usually over time and builds on the mentor's knowledge, skills, past experience, and wisdom. The goal is to instill in the mentee self-confidence through active listening and appropriate and timely counseling. This relationship is characterized as hierarchal and not reciprocal. The mentee is the learner and the mentor is the teacher, and the focus is more on career advancement and less on the psychosocial development of the learner.

When we consider alternative mentoring definitions these can include behaviors of "befriending" where the mentor is professional and opens up his/her personal dimensions to the mentee. This aligns well with the psychosocial aspects of mentoring. Consideration of a boundary and monitoring when "befriending" is important to not compromise the relationship. "Mentors who befriend their mentees model professionalism and cultivate success as goals are met and expectations satisfied" (Brewer, 2016).

Mullen (2019) has outlined nine models for mentoring, many of which will be explored in this Manual: formal and informal mentoring, diverse mentoring, electronic mentoring, co-mentoring/collaborative mentoring, group or peer mentoring, multilevel and cultural mentoring. These models support a dynamic mentoring process that benefits the mentor and mentee. Each of these mentoring types has key associated relationship-based dimensions. Crow identifies multiple support roles for a mentor: guide, advisor, teacher, coach, role model, sponsor, counselor, and possibly a befriended friend (Fletcher & Mullen, 2012). As a mentor if you own these multiple roles the definition of mentoring is less concrete and has less boundaries. This should be recognized and not negatively impact agreed upon expectations, timelines, and learning activities. When mentoring is described as an "intense relationship" it is as a positive construct, dynamic and especially relevant to the cultivation phase. As the intensity grows, engagement heightens and supports empowerment and confidence building for the mentee. This requires frequent contact and communication. Intensity can be a driver of the mentor-mentee relationship and serves to keep the relationship dynamic. A tool was recently developed by a team at Maastricht University to support mentors' systematic reflection on the how, what, and why of mentoring practice. This survey instrument, MERIT (MEntor Reflection InstrumenT), is applicable to the mentoring continuum and might be a consideration for mentees in future iterations based on author feedback and possible adaptation. Reflection on mentoring beliefs and professional development can support faculty development initiatives to improve knowledge and skill specific to mentoring relationships.

As medical educators we know that our learners are mostly millennials/Generation Y born between 1991 and 1996. Before we know it Generation Z will be in our classrooms too. In addition to the classroom they represent 40–75% of the workforce by 2025. Their lives are technologically driven and especially technology that gives instant results and therefore have shorter attention spans and multitasking. They are social so workspace that is social is preferred and this includes teams. They do prefer clarity and prefer knowing expectations. The question is how

does this impact mentoring relationships? If we consider millennials deeply committed to improving society and motivated by altruism and not as focused on more traditional academic success, how does this influence mentoring? Millennials are diverse and they value and promote diversity and therefore what are our considerations for mentors' efforts with this diversity in mind? Finally, they excel with defined goals, and direct objective feedback early and often. Mentors should understand this characteristic and how it will impact communication between the mentor and mentee and the importance of agreed upon expectations early in the relationship. As mentors there is an obligation to understand their generational characteristics and adjust more traditional styles to their mentee needs (Louie et al., 2019).

To conclude what can we say mentoring is not? It is not advising, coaching or training, therapy, a one-way relationship, or a one-time fix to a problem. "Whether traditional or progressive in nature, the mentoring relationship is long term and regulated with feedback expected. Mentoring promotes the growth of the whole person through guidance, intensity, reflection, and regulated learning" (Schunk & Mullen, 2013).

Strategic initiatives in mentoring promote equity, inclusion, and social justice. When not addressed privilege, oppression, underserved populations, culturally ethnic groups, and gender negatively influence the effectiveness of the mentoring relationship and limit opportunities and overall benefits of a mentoring relationship. Mentoring will continue to be a complex system and the relationships are based on human dynamics operating within the cultures and norms of institutions and the larger society. Brewer (2016) believes the approach towards "positive mentoring" that refers to the "quality of the relationship" for mentees and whether it is encouraging. The positive mentor must monitor assumptions and negativity. The quality of the mentor-mentee relationship is what will influence mentoring effectiveness.

Reflection: Mentoring Early-Career Faculty at a New Medical School

A twitter feed message to make a mentor feel pride: *let's talk #mentorship featured here is #mentor aka "work mom" Dr@AFornari1 has been vital to my growth as an academic. She tailored her mentoring with a cellular understanding of my life knowing I am a daughter, mother and wife. Thank you for your 24-7 support!*

As an Associate Dean of Educational Skills Development at a new medical school we hired many early-career faculty who assumed full-time education roles with no clinical responsibilities upon hire; most had left their early clinical roles to pursue this new career role. As they assume a role as early-career faculty at a medical school combined with the absence of their more comfortable clinical role is certainly an adjustment that requires mentorship. As an educator focused on faculty and professional development my role is aligned to their successful transition and success. Our first mentoring interactions are focused on teaching and learning skills to

support their immediate responsibilities in new curriculum development, delivery and assessment. This development is ongoing for all the small and large group teaching and preparing the students for early clinical experiences. I had 20 years of previous higher education teaching experience and was able to mentor them to acquire confidence and purse the challenge of their educator roles with success. Their successes are "aha" moments for both the mentor and mentee. As the SOM matured mentoring progressed and I focused our mentoring discussions on how these very early-career faculty can re-enter their clinical lives and continue their medical career of choice, which has resulted with protected clinical time and continued part-time roles as clinicians. This decision to resolve the "how to" balance of educator and clinical roles is an important part of the ongoing mentoring conversations. Our third phase focus is career advancement and academic lifestyle, which includes scholarship projects, geographic connections, presentations, and publications. For most early-career faculty these academic pursuits require longitudinal conversations and many developmental milestones to be discussed, shared, and honored. Each collaboration contributes to the mentor-mentee relationship that is core to the relationship. I must say this is an area of mentoring that requires complex skills for the mentor to address knowledge, skills, and attitudes and motivate their mentee to success. For many mentees this is not organic and requires entering zones with high challenge. This changes the mentee and mentor relationship and requires skills that enable the mentee to understand this is not easy and requires patience and when success happens it is a true professional win. The mentor must moderate when the mentee needs "TLC" support versus a stronger approach that portrays the reality of scholarship. The ups and downs should be normalized to help the mentee move forward with or without success. Your reward is to be their senior author on a manuscript they are first author on! Now the final focus of mentorship is work-life integration, an ongoing challenge. My mentees all have school age children and diverse personal lives and are trying to assure their roles do not collide and thrive. A mentor is there to listen to mentees dilemmas, help them moderate their frequent sense of guilt, and develop confidence they can achieve integration. I never make it sound easy and consistently model the hard work and achievements will reward them in both worlds they live and love. Mentee success nourishes our relationships and is the greatest gift a mentor will receive. My final message to my mentees is no one achieves success alone and everyone needs a mentor and even more than one.

To conclude enjoy this *Mentoring In Health Professions Education: Evidence-Informed Strategies* Manual as a "leave on your desk or laptop/desktop screen" to access frequently in your career either as mentor or mentee. My goal would be in both roles! The Manual design begins with Mentoring as Institutional MACRO-level issues, followed by Interpersonal MICRO-level issues, and concludes with Best Practices for Mentoring as practical content to draw on in your future roles as a mentor or mentee. Each author was selected based on their previous scholarship in their chapter topic, and I do feel we have the best of the best sharing their knowledge and their own personal reflections are of utmost importance to conclude the chapter. I hope this reflective style assures the content of the chapter sticks with you as a reader and enables you to share with colleagues, both mentors and mentees.

Personal Photo. Prepared by Alice Fornari to share a gift message from a mentee

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Part I
Institutional (MACRO) Level Issues with Mentoring

Developing a Culture of Mentoring

Mitchell D. Feldman and Patricia S. O'Sullivan

1 Introduction

It is widely accepted that most successful organizations have mentorship woven into the culture. In this chapter we identify key elements of a mentoring culture and provide steps that organizations should take to move closer to a fully-integrated mentoring culture. We draw our recommendations from a case study of our own institution. The preponderance of the evidence suggests that trainees at all levels, as well as faculty, benefit from having a mentor. While most institutions seem to value mentoring, they are at different stages in integrating mentoring into the organizational culture and, like all cultures, a mentoring culture is not immutable and must be constantly adapting and changing to serve the needs of the organization and its members.

The National Research Mentoring Network defines mentoring as, "a mutually beneficial, collaborative learning relationship that has the primary goal of helping mentees acquire the essential competencies needed for success in their chosen career. It includes using one's own experience to guide another person through an experience that requires personal and intellectual growth and development." (https://nrmnet.net/blog/2019/05/08/glossary-of-nrmn-terms/) Given the breadth of this definition, we recognize that there are different kinds of mentors and mentoring relationships (Feldman et al., 2010; Geraci & Thigpen, 2017). In most institutions, the focus of mentorship is on students, graduate level learners, and junior faculty. The literature abounds with descriptions of mentoring models,(Wingard et al.,

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A. Fornari, D. T. Shah (eds.), *Mentoring In Health Professions Education*,
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2004) and the importance of mentoring skills and mentoring programs. While pertinent to developing programs, these resources do not describe the process for building a culture of mentoring.

A paradigm shift has occurred from mentoring as a nicety to mentoring as a professional responsibility expected in an organization's culture (Disch, 2018). No longer can organizations see mentorship as something that might happen; rather, it must be intentional and supported by the institution. Organizations that build and support a culture of mentoring are likely to develop faculty and learners who are more productive researchers and scholars, more skilled and effective educators, and better leaders, among other outcomes (Bland et al., 2009). They are also more likely overall to be more satisfied in their careers at that organization compared to organizations without a mentoring culture (Hall, 1976).

2 Framing

Reflecting on the importance of building this culture of mentoring requires a brief examination of what characterizes an organizational culture. Watling et al. (2020) and colleagues summarized the organizational culture literature, acknowledging that multiple disciplines have examined this concept and generally describe culture as both the shared assumptions, beliefs, and values that characterize a setting and resources, and the strategies that an organization makes available to those in the organization. The organizational culture of mentoring must embrace both shared values and resources. Shared values are the ones that transcend those existing in the organization's micro-culture to the organization overall. Expecting mentoring to be available to support ones career development is one of those shared values. Accrediting agencies such as the Liaison Commission for Medical Education and the Accreditation Council of Graduate Medical Education have standards that indicate institutions must support with resources the needs and growth of their faculty.

With this framing of organizational culture, we now examine how an organization uses shared values and resources to build this culture of mentoring. To do this, we use the example of the University of California San Francisco (UCSF), that built an intentional organizational mentorship culture, and identify the steps in this transformation that we believe are most useful.

3 Case Study: Steps to Creating a Culture of Mentoring

As the UCSF story illustrates (see Box 1), transformation requires a long-term perspective to create a mentoring culture. Institutional values and norms established over many years generally are resistant to change. Establishing a new set of values and norms requires a series of strategic steps, as well as flexibility, since each organization has its own challenges to overcome to implement lasting change. In *Good*

Box 1: UCSF Case Study

Case Study: The University of California, San Francisco Faculty Mentoring Program

The University of San Francisco (UCSF) is a leading biomedical research university focusing solely on graduate-level health science education. UCSF consists of four professional schools, including the Schools of Medicine, Dentistry, Pharmacy, and Nursing, as well as a Graduate Division. UCSF has a long history and tradition of supporting the professional growth of trainees, pre- and post-doctoral fellows, and junior faculty. To this end, the ***UCSF Faculty Mentoring Program (FMP)*** was established in 2006 in all four professional schools to recruit and retain the highest quality faculty, increase faculty diversity through improved mentoring of under-represented faculty, and improve faculty career satisfaction and success. This program, led by the newly created position of Associate Vice Provost for Faculty Mentoring, was one of the first and most comprehensive of its kind nationally, and transformed the mentoring climate at UCSF. Prior to the launch of the program, a faculty climate survey found that many faculty were dissatisfied with both the availability and quality of mentoring at UCSF. In response, UCSF built a program that has become a national model for faculty mentoring. Each new faculty member coming to UCSF is assigned a mentor. Mentorship training programs have provided skills to mentors. Faculty climate surveys provide evidence of program success. A 2017 climate survey indicated a significant shift in faculty attitudes about mentoring; 82% of faculty reported that they were satisfied with the quality of mentoring they receive at UCSF. Furthermore, 83% said that mentoring was important in making their experience at UCSF positive; this association was even greater for women and faculty under-represented in healthcare. In addition, prior research showed that UCSF faculty with mentors were more satisfied with their time allocation at work and had higher academic self-efficacy compared to faculty without mentors. Overall, the faculty mentoring program has had a profound impact on the mentoring culture at UCSF as summarized by external consultants: *"Efforts to promote mentoring at UCSF appear to have paid off."*

Questions related to this case include:
Why create a mentoring culture?
What are the key components of a culture of mentoring?
What are the major threats to maintaining a culture of mentoring?
What data support and drive culture change?
What role does leadership have in creating a culture of mentoring?
What is the currency in the culture that helps to reinforce mentoring?
How is a culture of mentoring embedded in an institution?
What should be monitored to keep the culture evolving?

to Great, Collins (2001) describes that good to great companies understand that continued improvement and incremental, tangible accomplishments lead to transformational change. To create a culture of mentoring, requires focusing on early wins and accomplishments supported by data to build momentum and sustained change. Below, we describe steps worth considering in building a culture of mentoring.

3.1 Step 1: Collect Data—Assess Current Culture and Needs

First, collect data on the current mentoring climate and the needs of various stakeholders. Data are key since many elements of the current culture will not be immediately visible; in fact, most may lie below the surface of observed behavior. The cultural iceberg model (Hall, 1976) posits that the visible elements of organizational culture, such as the stated mission and vision, and specific academic policies and procedures, are not as important as the values and norms of the organization that create the so called "unwritten rules" impacting the attitudes, feelings, and relationships of the faculty, staff, and trainees. To enact lasting change, both the visible and the hidden components of the organizational culture must be understood and gradually modified.

UCSF conducted its first Faculty Climate Survey in 2002; the findings catalyzed the creation of the Faculty Mentoring Program (FMP) in 2006. Survey respondents indicated that they were dissatisfied with both the availability and quality of mentoring at UCSF; only 1/3 reported that they were satisfied with the mentoring available to them and just 12% felt that UCSF did a "good job" providing formal mentoring. Of all the issues surveyed that year, from parking to research funding, dissatisfaction with the mentoring climate stood out. This led to the creation of an Academic Senate Task Force, and eventually to the creation of the Associate Vice Provost (AVP) of Faculty Mentoring who, along with the UCSF Office of Faculty and Academic Affairs, was given the responsibility and flexibility to create a new, innovative program to address these challenges. UCSF repeats the faculty climate survey every few years and the FMP leadership monitors and adjusts goals and components based on the data received.

3.2 Step 2: Engage Leadership

Successfully engaging leadership of the organization requires making the "business case" for a formal, institution-wide mentoring program. Leadership are engaged when they recognize that the costs (both in financial and human capital) of recruiting, training, and retaining the best faculty can be at least partially offset by supporting formal mentoring programs. Leaders must be convinced that a culture of mentorship can help academic health centers to attract the best faculty, support their

professional development, and enhance their career satisfaction (Choi et al., 2019; Feldman et al., 2010; Wingard et al., 2004). This is particularly true for recruitment and retention of women and URiM faculty (Rodríguez et al., 2014). Data that help support the business case at your institution, as well as data that demonstrate other key benefits of mentoring, such as enhanced faculty satisfaction and increased productivity, will help to capture the attention and support of leadership. Obtaining this support early in the process and at strategic intervals thereafter is critical.

At UCSF, we found it helpful to hold frequent meetings with organizational leaders such as academic affairs deans in the four UCSF professional schools, department heads and division chiefs, unit directors, and key education group leaders to assess organizational change, identify potential strategies and barriers, and to continually reinforce the importance of mentorship. Explicit support from leadership is critical to building a culture of mentoring.

3.3 Step 3: Identify Program Components and Expectations

A key early step in developing an organizational culture of mentoring is to define core program components. Leadership must choose a *mentoring model.* The literature describes many models, each with different benefits and deficits. The most common of these models is the traditional *dyadic model,* in which a senior, experienced mentor is paired with a junior mentee. Other models include *peer mentoring,* in which faculty at similar career stages meet for support and mutual career development, and *group mentoring,* in which a senior mentor meets with a group of junior mentees. The model you choose will have a profound influence on the ultimate culture of mentoring developed. Of course, multiple models will co-exist in the organizational micro-cultures around mentoring but identifying one model brings clarity to dissemination and support (De Janasz & Sullivan, 2004).

Since few, if any, other academic health centers had formal mentoring programs at the time UCSF began its own, we first conducted a comprehensive literature review. We drew almost exclusively on the business literature to identify mentoring best practices and key program components (Higgins & Kram, 2001; Kram, 1983). At UCSF, we chose the traditional dyadic model for the FMP and set this goal: *The primary goal of the UCSF faculty mentoring program is to promote the career of junior faculty members by facilitating and supporting their relationship with a career mentor who can help guide their professional development***.** We suggest that the career mentor be in the mentee's department and strongly recommend that the career mentor not be the mentee's direct supervisor (i.e. laboratory head/department chair/division chief etc.). The career mentor/mentee pairs are assigned (or approved) by the departmental mentoring facilitator affiliated with the FMP. The pairs should have at least 2–3 meetings per year, structured around review of an updated CV and a career or individual development plan. In contrast, research/scholarly mentors are responsible for the overall research and/or scholarly career guidance of their mentees.

3.4 Step 4: Create a Structure

The organization must institute an organizational structure to support and sustain the chosen program. This is also part of making the commitment to mentoring visible. The structure should have central leadership and extend to the departmental and division level.

At UCSF, the FMP is led by the AVP for Faculty Mentoring with the support of the FMP Coordinator and the UCSF Office of Faculty and Academic Affairs. Department chairs appoint faculty "mentoring facilitators" to help match and oversee the establishment of mentor/mentee pairs and to help disseminate mentoring best practices. The FMP aims to pair every junior faculty member (up to the Associate Professor rank) with a career mentor. Most recent data indicate that more than 90% of junior faculty report that they have a career mentor.

We encourage junior faculty members to assemble a mentoring team consisting of a career mentor, scholarly mentor, and other mentor(s) with clear roles and responsibilities. The junior faculty mentee is responsible for arranging 2–3 annual meetings to review career progress toward promotion. Additional meetings of the team are essential for faculty engaged in research.

To support pairing all junior faculty with a career mentor, the AVP for Faculty Mentoring sends a letter to all newly hired faculty welcoming them to UCSF and informing them of the institutional commitment to mentoring and the expectation that all junior faculty have a career mentor. The departmental mentoring facilitator is copied on the welcome letter and is tasked with ensuring that the new faculty member has a career mentor. Facilitators maintain a list of all mentor/mentee pairs, and the FMP annually requests this list to ensure that the mandate is met. Faculty with pre-existing mentoring relationships will generally be paired with that mentor; new faculty who come to UCSF from another institution are expected to work with the assigned mentor for at least the first year on the faculty. Pairings may change as mentees establish relationships with other mentors or as relationships shift. Facilitators are available to help resolve mentoring challenges as they arise, as well as to disseminate mentoring best practices.

3.5 Step 5: Knowledge and Skills Development

Identifying and disseminating mentoring knowledge and core competencies are key to support a culture of mentoring. We believe that well-trained, knowledgeable, and confident faculty mentors are essential to support a culture of mentoring that in turn supports the career development of their mentees.

At UCSF, most mentors receive no financial support; participating in the mentoring culture is an expectation as a member of the UCSF community. However, training can contribute to a robust culture of mentoring. Early in the development of a mentoring culture at UCSF, we defined the core competencies of effective mentors

and have taught them through various courses and events. A core course is the UCSF Mentor Training Program (MTP) (formerly known as the Mentor Development Program). The course consists of ten case-based seminars and on-line materials taught over a five-month period (Johnson et al., 2010). The MTP has trained almost 200 UCSF faculty since its inception. Evaluation of the program indicates that participants had improved confidence in their mentoring skills and knowledge up to 3 years after completing the program.

Other resources and training that support mentor and mentee training and contribute to the culture of mentoring include:

- **Faculty Mentoring Program Toolkit.**[1] The Faculty Mentoring Tool Kit provides an overview of the UCSF Faculty Mentoring Program, describes the concepts and benefits of mentoring, defines mentor and mentee roles, provides strategies for being an effective mentor and mentee, describes the phases of the mentoring relationship, and provides tools to help the FMP mentoring facilitator oversee mentoring in their department.
- **Mentoring Month.** January is national mentoring month and the FMP organizes various programming to underscore the key role that mentoring plays at UCSF. Mentoring Month activities include workshops on the Individual Development Plan and Mentoring, Mentoring Across Differences, Mentoring for Clinician Educators, Mentoring and the Advancement and Promotion Process, and Sponsorship and Mentorship, among many other highly-rated offerings. Mentoring Month is widely advertised and demonstrates to the campus the key role that mentoring plays in the overall culture.
- **"Meet the Mentor" Lunchtime Series.** These lunchtime sessions feature distinguished faculty mentors hosting mentees from across the university in informal sessions focused on mentorship and career development and advancement at UCSF.
- **Invited Lectures and Retreats.** The AVP for Faculty Mentoring delivers lectures and workshops across the campus and facilitates half-day sessions focused on mentoring during departmental retreats. These retreat sessions are often co-facilitated by the departmental mentoring facilitator in a "train the trainer" model. By devoting time to mentoring skill building, the department chair demonstrates her commitment to a culture of mentoring in the department. This is powerful message.

3.6 Step 6: Increase Recognition and Rewards of Mentoring

Some may perceive mentoring programs as an "unfunded mandate." Components of a program such as a mentoring facilitator are at the discretion of leadership. One way to have leadership embrace a culture of mentoring is to increase the recognition

[1] https://academicaffairs.ucsf.edu/ccfl/media/UCSF_Faculty_Mentoring_Program_Toolkit.pdf

of mentoring as a valued activity and to create ways to reward time devoted to mentoring and quality of mentoring. Looking at successful initiatives can help.

UCSF has a highly successful Academy of Medical Educators (Irby et al., 2004) that has made great strides in increasing the recognition for education on campus. The FMP built on this success and:

- *Created new campus-wide mentoring awards*: Most notable of these is the "Lifetime Achievement in Mentoring Award," (LAMA) which recognizes a senior faculty member for their commitment to outstanding mentoring. This award is one of the most coveted on campus. The recipient is honored at an event to which the entire campus is invited; the Chancellor, Deans, and other leaders attend, and the Executive Vice Chancellor and Provost make remarks underscoring UCSF leadership's commitment to mentoring.
- *Created inclusive wording*: Language matters and can help to support a culture of mentoring. Many official documents were modified so that wherever roles and requirements for "teaching" were discussed, these were edited to read "teaching and mentoring" when appropriate. Making mentoring a distinct skill and expectation for faculty is an important step towards support for a culture of mentoring. Nowhere was this more important than on the official UCSF CV. UCSF modified its official faculty CV and it now includes an entire section devoted to mentoring.
- *Recognition in advancement:* The CV mentoring section allows a summary of one's approach and activities in mentorship and documentation of current and past mentoring relationships. In this way, mentoring is taken into consideration, along with other educational accomplishments, in decisions around advancement and promotion for faculty. This was a very important step in cementing the recognition of mentoring and connecting it to tangible academic rewards.

3.7 Step 7: Evaluate

A mentoring culture must be supported with data including a formal program evaluation. This evaluation can rely on ongoing climate surveys as well as monitoring of the function of program components.

As noted earlier, a faculty climate survey uncovered significant dissatisfaction with the mentoring climate and led to the campus-wide faculty mentoring program. UCSF continues to include questions about mentoring in the faculty climate survey. These data have helped to identify successes and gaps in the FMP, as well as to consolidate support from leadership. It also communicates to faculty that mentoring is valued. In addition, the stewardship review process that department chairs and other key leaders undergo every 5 years incorporates feedback from the AVP for Faculty Mentoring on the leader's performance regarding support for mentoring in their department. It is also important to have a mechanism by which mentees can evaluate their mentors (Yukawa et al., 2020). In the most recent climate survey, mentoring was cited as one of the top three reasons for faculty satisfaction at UCSF.

4 Reflection

A successful culture of mentoring is optimized when four conditions are met: (1) There is institutional policy that makes participation in mentoring an expectation, not an optional activity; (2) A visible, institution-wide program is established; (3) Departments and divisions are given flexibility to tailor the mentoring program to meet their own needs; and (4) Mentoring is a rewarded activity. These conditions require an engaged and supportive leadership and incorporate the dual aspects of a culture of shared values and resources.

While mentoring is now woven into the cultural fabric of UCSF, we are wary of becoming complacent. We must continually support and reinforce this fabric as this cultural fabric is easily frayed if it is taken for granted. New patterns may need to be woven into it over time, but the basic values and norms remain in place.

We have accomplished this at UCSF, in part, with a research agenda exploring ways to measure mentoring relationships, investing in mentoring programs that specialize in meeting the needs of faculty members under-represented in the overall faculty, and designing sustainable programs. Our culture is established, and leadership attends to how it grows.

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Building Effective Mentoring Team Using Team Science Competencies

Darshana T. Shah and Stephen M. Fiore

1 Introduction

Mentoring in academic medicine is essential for faculty to achieve their professional and personal goals. Faculty in academic health centers are expected to be proficient in clinical, teaching, scholarship, and administrative duties while balancing the four-legged mission of the medical school: education, research, patient care, and community collaboration. Several different models and approaches have been employed by healthcare institutions of higher learning (medical schools, academic departments and divisions, and academic health centers) to mentor their faculty; yet, studies continually find that new faculty are not prepared for a career in academia, and that the transition can be challenging. This suggests a greater need for identifying effective methods for mentoring (Kashiwagi et al., 2013; Sambunjak et al., 2006; Geraci & Thigpen, 2017).

Mentoring is a multifaceted process and must address many different activities, including supporting, teaching, encouraging, challenging, counseling, affirming, coaching, advising, protecting, sponsoring, and providing feedback;(Geraci & Thigpen, 2017) however, these varied needs can often exceed the limits of a simple, dyadic relationship. Furthermore, a single person is highly unlikely to meet all the mentoring needs of a young protégé.

The mentoring literature emphasizes the need for different mentors for different academic needs, and at different times in a career (Straus et al., 2013;

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DeCastro et al., 2013). Multiple dyadic relationships employ simultaneously contributing mentors and support different areas of advancement and growth (DeCastro et al., 2013). Team or network mentoring approaches have formalized the multiple mentor concept into an organized body (a committee), with each member bringing different expertise and experiences to the process in order to mentor a faculty member (Behar-Horenstein & Prikhidko, 2017). This follows other developments where researchers, in almost all branches of science, have turned towards teams, or team science, as a unit of scientific knowledge production and a collaborative approach to address scientific challenges that utilize the strengths and expertise of professionals trained in different fields (Guise et al., 2017).

In summary, as faculty travel through increasingly complex and ever-changing career paths that necessitate a more diverse set of guiding perspectives, the need for an alternative conceptualization of an effective mentoring model in academic medicine becomes apparent. The purpose of this chapter is to propose team science competencies as a framework to improve team or network mentoring models described in academic medicine. Our goal is to integrate findings from research on teams to improve team mentoring and facilitate the career development of faculty members in academic medicine.

2 Evidence Based- Literature

2.1 Team Science and Teamwork in Medicine

The phrase "team science"sometimes means the application of the scientific method to study teams, and, at other times, means the study of teamwork "in" science, as in a team of scientists collaborating on some research project. In the former case, there has been decades of research on the study of teams done by social scientists working to understand group dynamics and improve the processes and outcomes associated with teamwork. In the latter case, we've seen the development of the "Science of Team Science," where a community of researchers are working to study scientific collaboration and improve scientific teamwork (Fiore, 2008; Hall et al., 2008).

This study of science teams has arisen because, across the scientific ecosystem, knowledge production has shifted from the single investigator model to one involving collaboration among and between scientific teams (Fiore, 2008; Hall et al., 2008). Teamwork in science requires both knowledge from multiple disciplines and collaboration across disciplines and professions. Those engaged in such work often have advanced degrees, creating collaborations among professionals with deep knowledge and experience. Thus, problem solving in such contexts requires, not just the application of knowledge from diverse areas, but the teamwork competencies necessary to learn from each other to successfully integrate this knowledge (Fiore, 2008; Hall et al., 2008; Salazar et al., 2012). We assert that utlizing these team competencies in the team mentoring setting results in highly effective outcomes for mentors and mentees.

2.2 Mentoring in Team Science

Team science and mentoring are intertwined; to perform well in a team, arguably one needs to have had a good mentor at some time (Guise et al., 2017). There is a set of complementary factors that make developing an understanding of team mentoring crucial for healthcare. First, the growth of scientific teamwork has vastly outpaced our understanding of the subject. Second, our understanding of how to develop competence in scientific teamwork is lacking. This is a significant issue for career-long learning, in that much of the learning will take place "on the job" when scientists, who continue to earn discipline-specific degrees, work in teams with members from other disciplines. Given these converging challenges, it is imperative for scientists to understand team science competencies and how they contribute to a mentoring team's overall success.

2.3 Representative Best Practices for Team Mentoring

The Building Interdisciplinary Research Careers in Women's Health (BIRCWH) program, developed by the National Institutes of Health (NIH) Office of Research on Women's Health (ORWH), is a mentored career-development program (Guise et al., 2017). The program was developed to improve training in areas advancing research in women's health, and was specifically designed to foster interdisciplinary collaborations across the many disciplines relevant to women's health.

The concept of interdisciplinary mentoring under the BIRCWH program necessitated the use of a team of mentors rather than a single mentor. Their research philosophy recognized that mentors from more than one area of expertise are better able to address complex health conditions that are relevant to women's health (e.g., diabetes, obesity, stroke, pain syndromes, HIV, and others). Studies across the BIRCWH program find success for individual scholars (as assessed by funding rates, publications rates, and other outcomes), and for increasing the emphasis on team mentoring at an institutional level. Since the program was created in 2000, 88 grants to 44 institutions supporting more than 700 junior faculty have been awarded by ORWH and its partners among the NIH institutes and centers. Because the BIRCWH program has over a decade of experience in interdisciplinary mentorship and career development, best practices and lessons learned from NIH, ORWH, and BIRCWH programs may provide helpful information to other institutions and organizations that are focusing on career development of junior faculty. Table 1, taken from Guise et al. (2017), provides concrete guidance on what does and does not work in team mentoring. Understanding the lessons learned in interdisciplinary mentoring has easily generalized implications in terms of potentially leading to changes in the paradigm of mentoring practices across different training programs, and ultimately for all disciplines of science.

Table 1 Guidance on when mentoring works and does not work (Guise et al., 2017)

Team mentoring works when:	Team mentoring does not work when:
• Mentors bring multiple perspectives/areas of expertise (strengthens study design, improves grants) • Mentors are committed to mentee (gives mentee confidence and credibility) • The mentee is proactive Mentors work together collaboratively • Mentors promote networking activities for scholar • Team members relay experience/expertise and assist with networking specifically focused on career development. • Best interests of the mentee are of primary importance to mentors. • Mentees can see different models or paths to achieve a successful career, and can prioritize successfully • Mentors gather together and listen to each other and the scholar • Career development advice is given from different perspectives	• Scholar has difficulty managing conflicting points of view/advice. • Mentors are not dedicated to mentee. • Scheduling is challenging. • Too many differing opinions/consensus is not reached by the group. • Mentee may get mixed messages and pulled in different directions, which detracts from main focus. • Individual mentors have alternative agendas for scholars. • Communication is lacking among mentees and mentors. • Bystander effect is present (no one feels entirely responsible). • Mentors don't interact or have much to do with areas outside their area of mentoring, causing confusion. • Conflicting points of view/advice are given

3 Recommendations for Improving Team Mentoring

In this final section, we focus on a subset of research on team effectiveness to address the challenges identified by those studying team mentoring (Guise et al., 2017). Specifically, in consideration of the interpersonal difficulties identified in team mentoring programs, we make recommendations for how to improve interactions during team mentoring. We draw on the evidence base of team effectiveness and describe a set of interpersonal skills identified as core competencies for successful collaboration. These were chosen given their general utility in team interaction and the large body of research showing how they support collaboration.

Our recommendations are based upon a distillation of studies on interpersonal skills (Hall et al., 2018). Generally, interpersonal skills consider a set of goal-directed behaviors, including communication and relationship-management competencies, employed during interaction episodes characterized by complex situations involving dynamic verbal and nonverbal exchanges among team members with diverse roles and knowledge (Hall et al., 2018; Wuchty et al., 2007). Below we define these competencies in the context of team mentoring. In Table 2 (Bedwell et al., 2014; Hall et al., 2018; Wuchty et al., 2007), we provide guidelines for mentors and mentees on how to enact these competencies in support of learning in mentoring teams.

Table 2 Competencies supporting team mentoring(Bedwell et al., 2014; Hall et al., 2018; Wuchty et al., 2007)

	Guidelines for mentors	Guidelines for mentees
Communication competencies		
Active listening	Mentors demonstrate active listening on their team by asking follow-up questions when discussing complicated issues.	Mentees practice active listening by engaging in research-related discussion with those from other disciplines.
Nonverbal communication	Mentors model nonverbal communication when interacting with mentees, as well as when in a team setting.	Mentees carefully observe and appropriately mimic non-verbal communication during team interactions.
Assertive communication	Mentors provide opportunities for assertive communication by creating a safe environment to argue around research topics.	Mentees readily address research disagreements in task-focused ways to ensure all ideas are being considered.
Relationship management competencies		
Coordination	Mentors create artifacts delineating roles and goals on the team, and expectations for reliance on different mentors.	Mentees provide feedback to mentors when they are unclear about roles and/or goals while also learning how to safely ask for assistance as needed.
Cultivating an appreciation of varied perspectives	Mentors model respect for theories and/or methods coming from different fields (e.g., during team meetings).	Mentees attend to, and maintain awareness of, any experience of positive or negative commentary about other disciplines (e.g., disdain for a particular field's research method), and be comfortable discussing why such attitudes are problematic.
Collaborative orientation	Mentors demonstrate help-giving and input-seeking behaviors during team meetings.	Mentees practice offering assistance to others, or input on ideas, and become familiar with the needs and goals of others in order to provide support.

4 Communication Competencies

4.1 Active Listening

This requires effective integration of communication skills, including carefully attending to what is said to ensure comprehension, and asking the speaker to explain precisely what is meant. Here, the listener is requesting that ambiguous ideas or statements are clarified. In this way, mentors and mentees are listening to learn, understand, and contribute to problem-solving and decision-making in service of their collaboration.

4.2 Nonverbal Communication

Spoken communication is reinforced or replaced through the use of body language, gestures, voice, or artifacts. This is critical for the expression of feelings, and for ensuring effective processes are attended to and transmitted (e.g., perceiving facial expressions). Through the expression of this skill, mentors and mentees are appropriately using or interpreting body language and gestures. When used in combination with active listening, senders and receivers are better able to ensure comprehension of messages.

4.3 Assertive Communication

Mentees must directly express their ideas and opinions. This can help mitigate conflict by addressing issues purposely and openly, rather than indirectly. Speakers can address any differences without intimidation. Through assertive communication, mentors and mentees are fostering idea exchange while defending their position (e.g., disciplinary perspectives), communicating to be directive, and appropriately asserting needs and views.

5 Relationship Management Competencies

5.1 Coordination

This includes more than just understanding how to work with others as a team; it requires understanding others' roles and their interdependencies so that one can pace their activities. It also includes the ability to offer assistance to others when needed. Through coordination, mentors and mentees are demonstrating awareness of their shared goals while monitoring what members are doing, and providing feedback as needed.

5.2 Cultivating an Appreciation of Varied Perspectives

In mentoring teams with members from different backgrounds, this includes appreciating different theories and concepts from outside one's professional home, and respecting different methods and approaches for pursuing research goals. Mentors should cultivate an acceptance of other ideas while showing sensitivity to differing disciplinary and professional perspectives.

5.3 Collaborative Orientation

Mentors should have a predisposition to provide help to their team (i.e., other mentors and their mentee). Furthermore, they should have a kind of dispositional curiosity and want to understand the views of others in order to better establish a rapport with their team. In this way, mentors and mentees show a willingness to elicit what team members know to increase understanding and to contribute ideas and solutions when making decisions or solving problems.

6 Conclusion

Because faculty in academic health centers face increasing expectations and breadth of needed expertise, innovations in education and professional development are required. We firmly believe in building effective mentoring teams using team science competencies as one method to improve learning in an interdisciplinary context. To overcome challenges identified in other mentoring programs, we recommend that an effective mentoring team focuses on developing a core set of interpersonal competencies to improve effectiveness. By ensuring competence in communication and in relationship management, mentoring teams are more likely to focus on learning the varied forms of knowledge and skills needed in today's academic health centers.

6.1 Case Study Example: Career Advice for Junior Faculty

The following case study provides an example of a junior faculty member who is transitioning into the role of the faculty from residency. Broad questions which he needs to consider include: How can the junior faculty member advocate for himself? What is the role of the department chair in this case?

Case: J.T. is an assistant professor of surgery in a large clinical department. He completed a postdoctoral research fellowship which allowed him to define his area of research interest. At the time of his appointment, J.T. was assured that the institution was supportive of his research. J. T met with the clinical research dean upon his arrival and was promised by the research dean that, once he was settled, he would be contacted about research. At new faculty on-boarding activities, J. T. was introduced to resources related to wellness, promotion, and tenure. J. T was assigned a peer mentor, John, from his department to help him navigate his new academic home. John is busy clinician also pursuing his MBA. He has no interest in research, and is very preoccupied with his own field of expertise, in pediatric plastic surgery. J. T. has been trying to reach John to set up a meeting and ask some questions, but their schedules have not allowed for the meeting to happen. In the few conversations

J.T. has been able to have with John, John has been dismissive about J. T.'s interests while self-promoting of his own.

After their monthly department meeting, J.T.'s chair casually and vaguely asked how his research was going and wished him well. l. Before J. T. could respond about his own research concerns, the chairperson asked J. T. if he could help out with residency program. J. T. felt like he could not say no, and the chair was delighted with J. T.'s "support" of the department. J. T. was left wondering if his chair even remembered what his research was about.

By the end of the year, J. T is given increasing clinical duties and is being asked to do even more clinical work while also helping out with residency education, with which he is not that comfortable. His time is divided between clinical service, medical students, and resident education. J. T.'s frustration is beginning to show through his interactions with his patients and students. He is often short with them and preoccupied by his own worries. J. T. feels pressed for time, and does not have time to devote to research. He is worried about his work–life balance, and wonders whether he is on the right track for a successful and enjoyable academic career.

1. What are some mentoring strategies that are clearly NOT working in this case?
2. How can J. T. better advocate for himself and his research interests?
3. How could a team mentoring approach be used to help J. T.?
4. What are some productive next steps for J. T.?
5. How could the department chair act as a better mentor and resource for J. T.? What is an appropriate way for J. T. to express his concerns to the chair?
6. What strategies can both John and J. T. use to improve their mentor/mentee relationship?
7. Which relationship and communication competencies can J. T. and his mentors practice to improve his experience?

7 Reflection

J.T. will likely need more than one mentor to help address his disparate needs. For example, one who is skilled at helping with medical education may not be able to help him deal with work-life balance and other professional demands. Whether a mentoring relationship develops organically or is preconceived by an institution, mentoring is an evolving relationship that requires time and attention. We believe mentoring is a collaborative, reciprocal relationship focused on a mentee's personal and professional development, and that mentees benefit from multiple mentors to gain exposure to a variety of styles, opinions, and experiences.

Before entering the mentoring relationship, faculty members should engage in reflection and self-assessment to determine if they have the attitude, personal qualities, knowledge, skills, and behaviors necessary to maximize a protégé's success. Mentors need to work collaboratively to develop objective quality metrics for mentoring applicable across professional roles, diverse organizations, and the wide

array of mentoring faculty. Team science competencies can improve communication and the experience of both mentor and mentee in a mentoring relationship.

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Sponsorship Is Not Mentorship (But Is Equally Important)

Manasa S. Ayyala, Rachel Levine, and Elizabeth Travis

1 Introduction

It is well accepted in science and medicine that mentorship is one of the critical elements determining career success in these fields (National Academies of Sciences, 2019). In fact, lack of mentoring is ranked as the first (42%) or second (56%) most important factor hindering career progress (Jackson et al., 2003) Junior faculty with mentors report higher self-efficacy and greater satisfaction with career advancement and work assignments than those without mentors. However, it is now clear that mentorship alone, although necessary, is not sufficient specifically in achieving leadership positions (Carter & Silva, 2010). That requires sponsorship.

Sponsorship is the active, public support of a talented person, usually junior, (a protégé) by a well-connected, influential senior person within an organization or institution. Sponsorship is focused on career advancement and rests on power and influence (Foust-Cummings, 2011). Mentorship is guidance by an experienced person in an institution who advises and focuses on the mentee's personal and professional development. Mentors can be at any level in the institution.

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Sponsorship comes from the corporate world, where it is has been honed to address the talent of high performers whose achievements may go unrecognized in their organizations (Abbott, 2014; Hewlett, 2013a, 2013b; Hewlett, 2014; Hewlett et al., 2010; Ibarra, 2019). Senior leadership positions in the corporate world were dominated by men by a factor of 4 to 1 despite the fact that 30% of the senior management positions were held by women (Hewlett et al., 2010). Studies indicated that the major difference was that men were the recipients of the backing of a powerful influential leader in the organization who was also a man, i.e., a sponsor (Hewlett et al., 2010; Ibarra, 2019). These same trends were true in academic medicine then and continue in both the corporate and academic world today. It was also clear that although mentoring was equally beneficial to both men and women, men were 46% more likely to be sponsored than women. In other words, women were over-mentored and under-sponsored, a pattern also found in academic medicine (Ibarra, 2019; Patton et al., 2017).

Faced with a similar dilemma in STEMM (Science, Technology, Engineering, Math and Medicine) in 2013 Travis et al. (2013) suggested sponsorship as a strategy to accelerate the promotion of women to leadership positions in academic medicine and science, as mentoring efforts had not been successful. Since that time, numerous papers have detailed the importance of sponsorship not only in advancing women's careers in a variety of medical specialties (Ayyala et al., 2019; Gottlieb & Travis, 2018; Hilsabeck & Martin, 2010; Levine et al., 2021; Magrane et al., 2018) but also in increasing diversity in general in science and medicine (Huston et al., 2019; Travis, 2014).

Sponsorship has been shown to have a clear impact on careers, including keeping working mothers on track, boosting a diverse workforce, and increasing the retention of all employees (Hewlett et al., 2010). Sponsorship also has an impact on the sponsors; those with protégés express a higher degree of work satisfaction than those without (Hewlett et al., 2010). Sponsorship has additional benefits to organizations. It can be used to advance an organizational mission, and as a strategy for leadership transition.

2 Sponsors and Protégés

Who is a sponsor? Sponsors are senior leaders with power and influence who use their leverage to advance the careers of individuals in an organization that they discern as nascent talent, adopting them as protégés. In this role, they promote, advocate for, and provide opportunities to a protégé that might otherwise be unavailable to them. Sponsors are active participants in a protégé's advancement. They publicly acknowledge the protégé's talents and achievements to other leaders in the organization and in settings where the more junior protégé is unlikely to be present. They may appoint the protégé to high level committees, providing the protégé with visibility and the opportunity to shine. If the opportunity arises, a sponsor may nominate his or her protégé for prestigious positions and send them in their stead to

give a presentation at important meetings. They introduce their protégé to senior leaders in the organization. Sponsors identify critical assignments that may require learning new skills, or introduce the protégé to a new part of the organization. Sponsors also focus on career opportunities for their protégés, expanding the protégé's vision beyond what they might feel comfortable with or for which they think they are unqualified. In all of these examples, sponsors are vouching for a protégé, going out on a limb for them, and potentially putting their reputation on the line. In sum, a sponsor has power and influence and will use it for the protégé, opening doors for them and expecting them to perform.

Mentors are different both in who they are and what they do. First, the terminology differs. Mentors have mentees, and sponsors have protégés. In addition, mentees are generally still learners, whereas protégés are proven performers whose talents are unrecognized. However, sponsors and mentors share some common themes: they both advise, guide, make introductions, and give feedback. Overall, there are 3 key differences between mentors and sponsors (Fig. 1).

- Sponsors have positions of power and influence: Dean, CEO, or President. Mentors are usually, but not always (in the case of peer mentoring or near peer mentoring), well-established senior faculty. They do not have to be leaders.
- Sponsors are public; they stick their neck out for their protegee. Mentors are behind the scenes.
- Sponsors open doors for a protégé's next move. Mentors help the mentee envision that move. For example, a mentor would suggest that the protégé join the editorial board of a professional journal, while a sponsor would introduce the protégé to the editor.

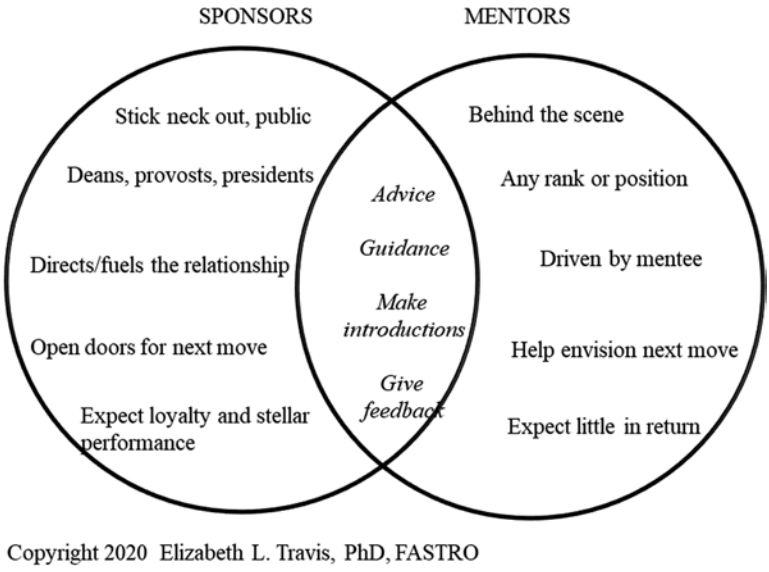

Fig. 1 Mentors and sponsor--differences and similarities

In sum, sponsors act. They enable a protégé to realize their dream. Mentors advise. They help a mentee define their dream.

Who is a protégé? Make no mistake, sponsorship is earned. A protégé must be a proven high performer in their field; however, sponsors are looking for more than this alone. A protégé must be a respected and collegial colleague, must be able to communicate effectively, must have shown that they can execute, and must deliver on projects and assignments.

As mentioned, sponsorship is not a one-way street. A protégé has responsibilities as well. First and foremost is a 100% commitment to the relationship and a willingness to take risks. Like any successful relationship, trust on both sides is critical. Resilience is key, as is learning from mistakes and adjusting accordingly, listening and acting on constructive criticism, and always asking for assistance when needed.

3 Developing Effective Sponsorship Relationships

Does a protégé find a sponsor or does a sponsor find a protégé? It is a little bit of both. To be found, a protégé must be visible. One effective way of doing this is for potential protégés to always have an updated "sponsorship ask" (think: elevator speech) ready for that chance interaction with a colleague who may ask "what are you working on," particularly if it is the department chair, dean, or other leader. Protégés should be ready to talk about that paper that was just submitted, exciting findings from their lab or clinical trial, or the invitation received to give a talk at another institution or national meeting. Another way to get noticed is to take on active roles on institutional or society committees. (This is sponsorship in action!) These roles provide visibility and access to potential sponsors. Protégés should always show up prepared and ready to actively participate, in anticipation of being asked to chair the committee. A potential protégé can ask a sponsor for a specific "stretch" assignment that they have identified as important for career advancement. A mistake that many potential protégés make is looking to a friendly colleague or a role model as a potential sponsor when what they need is a powerful advocate. Protégés should look beyond an immediate supervisor and identify an individual at least two levels up who has a larger network and greater influence. Finally, protégés may turn a mentor (when that mentor is also in a position of power and influence) into a sponsor by discussing career aspirations and asking the mentor to act on their behalf when possible. This request also sends a signal to the mentor that the protégé is interested in advancement beyond their current position. To do this, protégés must understand the necessary steps and roles for career advancement.

Sponsors too have a responsibility to identify talent. For them the challenge is to be aware of their own biases which can lead to choosing proteges who remind them of him- or herself. (Bickel, 2014) It is the role of sponsors to avoid the "mini-me syndrome" by looking for: (1) protegees with different talents and skills; (2) ability and (3) two levels down (Innovation, 2019).

A question frequently asked is whether women and underrepresented minorities should seek sponsors who may have had similar experiences as them. Unfortunately,

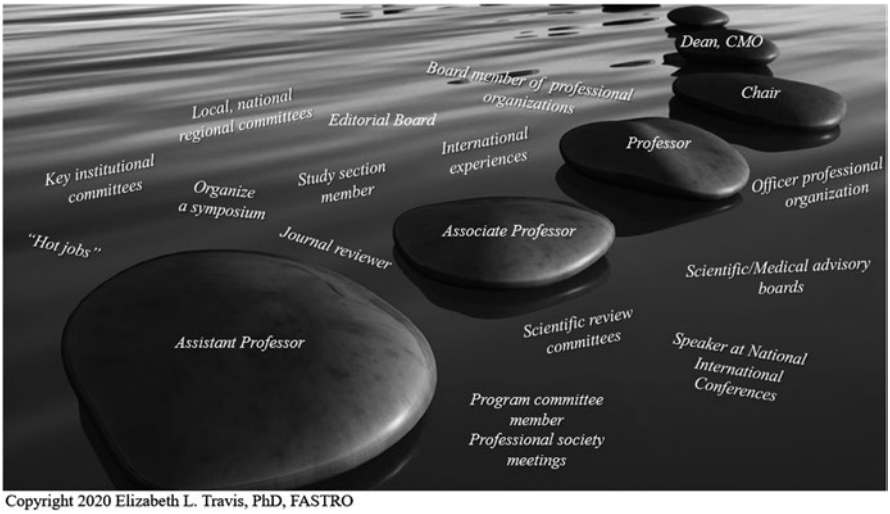

Fig. 2 Career stepping stones and activities that may assist in achieving the next position

the small number of women and minority sponsors, i.e., leaders, make this impractical and should not be a defining characteristic for choosing a sponsor. Rather, it is the responsibility of the sponsor to become knowledgeable and educated about the unique challenges that women and underrepresented minorities may face and "have their back" when necessary. The bigger and initial challenge, as discussed above, is to avoid the "mini-me" syndrome. Sponsorship is a powerful tool for advancing careers and is not specifically woman-centric.

Figure 2 shows stepping stones from assistant professor to a leadership position and some suggestions of what might assist a protégé in achieving the next position.

Most of these career stepping stones, particularly at the higher ranks, require sponsorship, but sponsorship also plays a role throughout career advancement. Underrepresented minority faculty especially will benefit from this approach to sponsorship as the pipeline is not robust in either academic science or medicine. Sponsoring these faculty early and continuing it throughout their careers could have an outsized impact on their advancement, positioning them for leadership, and resulting in a boost to diversifying the leadership of our profession.

4 Sponsorship Examples

Case 1:
Dr. X, a junior faculty member in his first 5 years at an academic medical center, is frustrated at not being considered for educational leadership opportunities, despite applying for several positions and expressing interest to his mentor. During regular mentoring meetings with his mentor (a recently promoted associate professor),

Dr. X receives feedback and advice on his goals and scholarly projects. His mentor periodically checks in about his career development plans and has recommended he seek out additional opportunities for visibility within the institution but does not provide specific suggestions.

A few months later, Dr. X gives a talk on his educational programs at a national meeting. In the audience is a senior faculty leader from his institution, whom Dr. X recognizes but whom he has never met prior to this meeting. The talk goes well and is met with great enthusiasm from the audience. The senior faculty member comes up to Dr. X afterwards and congratulates him. A few weeks later, Dr. X receives an email from the senior leader inviting him to be a part of one of the main education committees at the institution. He accepts the invitation, and after attending a few meetings, notices that he is one of the more junior faculty on the committee and that there are several key institutional stakeholders seated at the table. During meetings, the senior leader who invited Dr. X solicits his input and publicly agrees with his suggestions. Dr. X is passionate about his work and committed to seeing the institution succeed and is able to successfully implement several new initiatives through this committee over the following year. The same senior leader who invited him to the committee recognizes this success, and when an educational leadership position becomes available he strongly encourages Dr. X to apply for the position and provides a letter of support.

Discussion Questions:

1. Consider Dr. X's mentor. How does his mentor support him and what are the limitations of this relationship? How do sponsorship and mentorship differ?

   Sponsorship is focused on specific career advancement, versus mentorship, which is focused on career development. In this case, Dr. X would not have been invited to the committee without the support of the senior faculty member who had the organizational power to recommend and back Dr. X. His mentor, though supportive and helpful in advising him on next steps for his career development, did not have the influence to create these career-advancing opportunities.
2. What does it mean to be a good protégé? What can Dr. X do to demonstrate his ambition and potential? What are some risks in doing so?

   Proteges are loyal to the sponsor and committed to succeeding at the opportunity provided to them, knowing that the sponsor has put their reputation at stake. Though the sponsor opens the door to the opportunity, it is the responsibility of the protégé to follow through. Dr. X contributes high-quality work on the committee, and this is recognized and rewarded.

Reflective Questions and Exercises for Protégés

What are your professional goals? What roles or positions might help you to achieve your goals?

What is the organizational structure at your institution?

Where and with whom is the power and influence?

Where do you fit in?

Identify 2–3 faculty who are two levels "up" from you.

Where can you best contribute? What are your strengths and talents?

What is required to be successful and navigate power in your setting?

What is essential for a sponsorship relationship?

When in a career is sponsorship most important?

Identify 2–3 specific sponsorship activities that would help you to achieve your goals and that a sponsor could help make happen for you.

Are there "pitfalls" to avoid (certain positions that are all housekeeping and have no promotional value)?

The Sponsorship Ask

Create your own "sponsorship ask" using the template below, first by stating your current role and strengths/successes, then describing your goal (naming a specific position or activity). Practice your ask and be ready to use it.

Currently, I do …

My goal is to …

I need… to …

I would like you (the sponsor) to …

Example Sponsorship Ask:

Currently I oversee the resident's continuity clinic curriculum and I have been successful at solving problems such as maintaining continuity between residents and preceptors.

My goal is to be an associate program director in the next 2–3 years.

I need more opportunities to demonstrate my talents and drive to the current chair and program leadership.

I would like you to recommend me for chair of the departmental curriculum committee.

Case 2:

A senior faculty member is asked to give the keynote presentation at an international society conference. She is well known in the society, having served on many committees and also as the immediate past-president. She would be happy to give the presentation, but instead deliberately thinks about identifying a high-performing junior faculty member that could benefit for their career advancement from this highly-visible opportunity. She also hopes to ensure that faculty from her institution remain part of the leadership structure at this international society. She immediately thinks of a junior faculty member, Dr. Y, who impressed her at a recent institutional research retreat and who shows great promise in becoming an expert in her field. She talks about Dr. Y's incredible passion for the work and scientific excellence to the conference committee and makes sure to highly recommend her to be the invited keynote speaker. After such a strong recommendation from a renowned member of the society, this junior faculty member is approached by the conference committee

to deliver the keynote presentation at the conference. She continues to work with the senior faculty member who is clearly invested in her success and delivers an outstanding talk that is highly attended. Later, when the senior faculty is tasked with coordinating a merge of 2 research centers, she asks this junior faculty member to co-chair the effort.

Discussion Questions:

1. What does it mean to be an effective sponsor? What are the benefits for sponsors of supporting talented junior faculty and trainees?

   In this case, the senior faculty member deliberately thinks about a protégé whom she wishes to sponsor into a highly-visible opportunity. She is secure enough in her own position and fully supports the protégé, not only helping her with obtaining the opportunity, but also in succeeding in the opportunity. The sponsor also has her own goal of ensuring that faculty from her institution remain actively engaged in this international society. Sponsorship may be used to advance an important institutional mission and as a strategy for leadership transition.
2. What are the potential risks to sponsors? What attributes should a sponsor look for in a protégé?

   The protégé is representing the sponsor and if they fail, the sponsor's reputation and credibility may be at stake. Sponsors must trust that the protégé will follow through on the opportunity and demonstrate high-quality work.

Reflective Questions and Exercises for Sponsors

What is the organizational structure?

Where and with whom is the power and influence? Where do the you fit in?

What is required to be successful and navigate power in your setting?

What is essential for a sponsorship relationship?

When in a career is sponsorship most important?

What are the challenges associated with sponsorship?

How can the you expand your network so you can more effectively sponsor talented faculty?

How does publicly supporting a protégé impact their success?

How can the you actively support women and UIM faculty using sponsorship?

Networking Map

Sponsorship relies on networks and connections. Sponsors must be in positions of influence to connect protégés with career-advancing opportunities and follow through by providing support and credibility for their protégé.

This exercise allows protégés and sponsors to visualize existing and potential connections by mapping out their networks. For protégés, this can help to reveal where connections already exist and where they may need to seek out additional connections, such as at a national organization. Sponsors who complete this exercise can see their existing sphere of influence and thus be able to use these networks to proactively promote protégés.

On a blank sheet of paper, draw your institutional and national networks.

5 Conclusion

Sponsorship is a critical professional relationship in academic science and medicine and is especially important for achieving high-level advancement and leadership. Sponsorship differs from mentorship in multiple key ways, and it is important for protégés and sponsors to understand these differences (Fig. 3) (Ayyala et al., 2019). Mentors help the protégés identify goals. Sponsors ensure that the protégé achieves these goals by providing access to professional networks and career advancing opportunities. When they spot talent and potential in junior faculty or trainees, sponsors must be willing to publicly support their protégés. Well-connected sponsors in positions of power and with organizational influence are most effective. Protégés should be aware of when a mentor can serve as a sponsor and when they cannot. To get noticed, a protégé must demonstrate talent and hard work and recognize when in their career sponsorship is most useful and seek it out. For example, sponsorship may be critical later in one's career when there are fewer opportunities to advance to high-level positions, and when the support of a powerful sponsor can open doors to important opportunities and networks (Ayyala et al., 2019).

It is important to fully recognize the power of sponsorship in academic institutions. Just as there is a focus on how to create effective institutional cultures around mentorship, so too should there be consideration of how to develop a culture of sponsorship. First and foremost, senior leaders should be advocates of sponsorship and ensure that they model intentional and inclusive sponsorship by avoiding the "mini-me syndrome" and looking broadly for previously unrecognized talent. Sponsorship can be emphasized in leadership and career development programs focused on raising awareness among both protégés and sponsors. In addition, as is common in many institutions with regard to mentorship, visibly recognizing and rewarding leaders who are effective sponsors will encourage others to do the same.

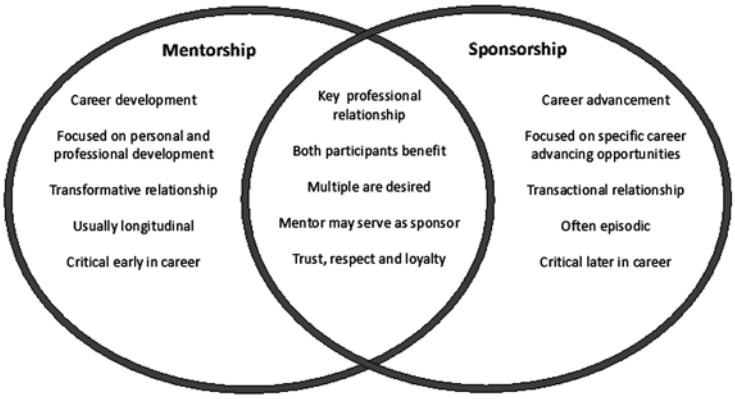

Fig. 3 Mentorship and sponsorship in academic medicine: similarities and differences

6 Reflection

6.1 Early Career Faculty

Sponsorship is a distinct relationship from mentorship and though there is overlap, there are also key differences that are important to be able to define. As an early career faculty member, it is important to identify (1) who can be a sponsor (2) how high-visibility opportunities impact career advancement and (3) how to be an effective protégé. The value of deliberately thinking of these elements of sponsorship cannot be understated in career advancement in academic science and medicine. This holds true especially for women and underrepresented in medicine and science faculty.

6.2 Risks and Challenges Associated with Sponsorship

Protégés and sponsors should be aware of both the benefits and risks when cultivating sponsorship relationships. As mentioned, the impact of sponsorship for a protégé depends on the sponsor's organizational clout and willingness to use that clout to support a protégé. Sponsors put their reputation on the line when supporting a protégé. Protégés are less likely to be successful if not fully supported by their sponsor. Thus, sponsors and protégés must be fully committed to the relationship. Sponsors must trust the protégé to get the job done and protégés must be confident their sponsor will provide the credibility and support they need to do so (Ayyala et al., 2019; Hewlett, 2013a).

Challenges in adapting sponsorship to academia exist, particularly the potential conflict with sponsorship concerning its' perceived favoritism and the core academic values of merit, fairness, and transparency. Academic faculty may be less comfortable engaging in relationships that are more transactional than traditional mentoring relationships (Ayyala et al., 2019). One way to address this potential disconnect would be to create greater transparency and access to sponsorship. Formal sponsorship programs that have explicit goals of increasing leadership potential and diversity, and which use transparent criteria for the selection of protégés and clear metrics for success may ensure that sponsorship is successful as a professional relationship for all faculty seeking advancement and leadership opportunities (Gottlieb & Travis, 2018; Huston et al., 2019; Roy & Gottlieb, 2017).

6.3 Sponsorship Is Succession Planning

One of the challenges in diversifying leadership positions is that most of these positions are held in perpetuity, significantly limiting opportunities for up and coming talent. Although there is considerable discussion of "term limits" for leadership

positions in academic science and medicine there are also considerable challenges including the need for succession planning. Sponsorship is a form of succession planning and would fulfill this need.

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URiM (Underrepresented in Medicine) Learner and Faculty Mentoring

Johanna Martinez, Jennifer H. Mieres, and Robert O. Roswell

In this book, the importance of mentorship, its best practices, and different facets of mentorship across medical education come into focus. This chapter offers a more nuanced perspective on the unique context of mentoring individuals from groups that are underrepresented in medicine (URiM), especially the skills and knowledge needed for successful cross-cultural mentorship. We use the AAMC definition, "**underrepresented in medicine means those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population."** Currently in the United States, that definition applies to individuals that identify as African American/Black, Hispanic/Latino, Native American (American Indians, Alaska Natives) and/or Native Hawaiian/Pacific Islander.

Mentorship of URiM learners and faculty should entail all of the general considerations about mentorship discussed throughout this book. However, effective mentorship of URiM individuals involves additional, context-specific considerations. This chapter highlights the importance of URiM mentorship programs as a means of achieving diversity and inclusion, reviews specific content and strategies for URiM mentorship cross-culturally, and provides some typical mentoring cases for URiM mentees.

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1 URiM Mentorship in Context: Persistent Challenges, Promising Results

A growing body of evidence supports the importance of physician workforce diversity and its role in reducing disparities in health and health care (Ibrahim, 2019; Pololi et al., 2013). As the AAMC has underscored, "when health care providers have life experiences that more closely match the experiences of their patients, patients tend to be more satisfied with their care and to adhere to medical advice" (Meeks & Jain, 2018). A physician workforce that accurately reflects the diversity of a multicultural nation may also be considered an indication of progress towards the goal of equity.

Currently in the U.S., Black/African Americans comprise 5%, Latinos hold only 3%, and Native Americans hold only 1% of full-time physician positions, respectively; underrepresentation is even more pronounced at the senior level (Meeks & Jain, 2018). Effective mentorship of those URiM is necessary to achieve a more diverse and socially representative community of physicians.

At the societal level, URiM individuals contend with the historical legacies of racism, discrimination, resource disadvantage, and stress as do other members of their groups. At the institutional level, cultural isolation, insufficient support, and excessive demands (e.g., the 'minority tax', including being unrealistically tasked by their institutions with resolving the outcomes of centuries of structural racism) remain commonplace (Rodriguez et al., 2015). Interpersonally, they may experience explicitly derogatory and discriminatory behaviors from patients and colleagues; they also bear the insidious burdens of others' implicit biases, which cast doubt on their competence and legitimacy (Rodriguez et al., 2015; Silver et al., 2019). And psychologically, URiM learners and faculty may be contending with the negative effects of self-doubt from imposter syndrome, while simultaneously attempting not to conform to a racial or ethnic behavioral stereotype (i.e., stereotype threat), and also dealing with the stress of microaggressions. Research confirms that the negative psychological, academic, and career impacts of these occurrences in the clinical environment are significant (Steele, 2010).

Promising data on the impact of mentorship programs for URiM learners and faculty indicate clear benefits of such programs at all stages of educational and career development (Viets et al., 2009). After completion of medical school, studies have shown that mentorship programs increase the number of URiM faculty in academic medicine (Johnson et al., 1998; Johnson et al., 1999; Kosoko-Lasaki et al., 2006; Rust et al., 2006), increase the retention of URiM faculty, and increase the proportion of URiM faculty on tenure track (Kosoko-Lasaki et al., 2006). They also increase the success of URiM faculty grant applications, scholarly publications, and professional presentations (Viets et al., 2009). Residents who were mentored were more likely to report excellent career preparation; unfortunately, URiM residents

were less likely to have had mentorship relationships than their non-URiM peers (Ramanan et al., 2006).

URiM learners and faculty look to mentors who are able to empathize with them, to whom they do not need to explain all aspects of their situations, nor convince of the reality and validity of their experiences. Perhaps unsurprisingly, several studies have revealed that those URiM tend to prefer race/ethnicity-concordant mentors, with whom they may more easily feel affinity and comfortably navigate challenges as they pursue and advance their medical careers (Yehia et al., 2014). This presents a further challenge: the demand for ethnically concordant URiM mentors exceeds the supply, given the dearth of URiM faculty—particularly at senior levels. That said, mentoring is a largely teachable skill, and non-URiM faculty can be excellent mentors to URiM learners and junior faculty (Rodriguez et al., 2015).

2 Strategies and Content for Successful URiM Mentorship Programs

Given the unique challenges to URiM mentorship, including the frequent preference for race-ethnicity concordant mentor-mentee relationships and the ongoing lack of URiM in senior faculty positions, there are three evidence-based approaches that should be considered when thinking about implementing a URiM mentoring program: (1) diversity recruitment and retention programs, (2) cross-cultural mentorship training, and (3) institutional support.

2.1 Diversity Recruitment & Retention Programs

Recruitment and retention of URiM faculty is of utmost importance. With improved faculty diversity, race-ethnicity concordant mentorship becomes easier. Increasing representation is also important, as it would lessen the tax on already-burdened underrepresented faculty. Recruitment is key, but retention may be more critical. URiM learners and faculty are keen observers of their academic environment. When URiM learners and early career faculty observe that more senior URiM faculty are not paid equitably, are overtasked with committee assignments, and are not promoted academically or to leadership positions, perceived inclusion in academic medicine begins to erode (Nivet, 2010). Academic climate is critically important to mentorship strategies in medicine; sincere academic medical mentorship programs and inhospitable academic environments can never co-exist. Academic medical centers and medical educators must rigorously evaluate institutional climate to appropriately advise and mentor URiM faculty and learners.

2.2 Cross-Cultural Mentorship Training

The literature suggests that cross-cultural mentoring can be very effective (Campbell & Rodriguez, 2018). In this strategy, it is critical that mentors be trained in tenets of diversity, equity, inclusion, and anti-racism as they relate to mentorship. The goal of this training is to make mentors aware of the unique issues that affect many URiM faculty and learners.

The goals of cross-cultural mentorship training include the recognition of issues unique to URiM individuals, and also to strategize solutions to these problems in academic medicine. Even if mentors are not comprehensively trained in cross-cultural mentoring, there are still opportunities to support URiM faculty and learners as a sponsor or a coach. (see Chap. 3) A cross-cultural mentor must evaluate their skills and trainings to be effective as a mentor.

Cross-cultural training should at least include the following:

- **Microaggressions**—statements, actions, or incidents regarded as instances of indirect, subtle, or unintentional discrimination against members of a marginalized group. Microaggressions can cause the recipient to experience intrusive and distracting thoughts in trying to understand the meaning of the microaggression, including whether the recipient is overreacting, and worrying if the microaggression should be interrupted. This is called *intrusive cognition.*
- **Equity**—understanding what each individual needs to attain their academic potential.
- **Stereotype threat**—concern with expressing emotions or behaviors that conform to stereotypes about the group (e.g., ethnic group) to which one belongs.
- **Imposter syndrome**—feelings of self-doubt, especially in situations when one is underrepresented, which can ultimately undermine true academic potential.
- **Tokenism**—recruiting persons from marginalized groups (to a position/committee) to make a purely symbolic gesture about equity.
- **Minority Tax**—the selection of URiM faculty to represent the underrepresented voice at meetings, committees, or mentorship panels, or to advance institutional diversity, without appropriate compensation.
- **Structural Racism**—normalization and legitimization of an array of dynamics (historical, cultural, institutional, political and interpersonal), that routinely disadvantages people of color. It involves the reinforcing effects of multiple institutions and cultural norms that continually reproduce old forms of racism and produce new ones.
- **Cultural Racism**—the belief that certain cultures and cultural norms are superior or more normative to others, which can impact styles of dressing, hairstyles, speech, etc.
- **Implicit Bias**—A preference or aversion toward a person or a category of people as opposed to being neutral.

2.3 Institutional Support for URiM Mentorship Programs

Several medical institutions have been awarded grants from the United States Department of Health and Human Services Center of Excellence program, whose goal is to enhance the recruitment and training of URiM faculty at medical schools across the country (Nivet, 2010). Creighton University School of Medicine received one of these grants, and has been able to launch a successful URiM faculty mentorship program matching mentees and mentors based on self-reported survey information (Kosoko-Lasaki et al., 2006). The participants signed an agreement and filled out a survey to ascertain academic and extracurricular interests. The mentor-mentee matches were made based on their overlapping and complementary interests. Mentees were invited to attend a faculty development session where the grant funds were used to buy time for them to attend these sessions. The proportion of URiM faculty on the tenure track increased from 25% to 44%, as did URiM faculty retention rates (Kosoko-Lasaki et al., 2006).

URiM faculty retention rates in academic medicine can prove problematic. To that end, some URiM faculty may seek mentorship outside of their institutions, which can be helpful, but site-specific mentoring is critical to success in academic medicine. The University of Arkansas School of Medicine developed a peer-onsite-distance multilevel mentoring program that addresses this very issue (Nivet, 2010). The faculty member is assigned site-specific senior faculty and school mentors, but is also assigned a mentor outside of the school of medicine who can provide information about changes in the field and opportunities.

A systematic review of mentorship programs published in *Academic Medicine* found that most of the mentorship programs that were impactful were funded programs. These programs were funded by the National Institute of Health, Health Resources Services Administration grants, the National Institute of Alcohol Abuse, and intramural and other extramural funding sources (Beech et al., 2013). Institutions must define metrics and outcome measures for success in their grant applications in order to be awarded funding from competitive sources, and the very process of thinking empirically about such programs may be one key to the success of such a program and its participants. (Having dedicated funds for mentorship program activities probably doesn't hurt, either.)

3 Case Studies

Case 1: Speaking up as an URiM student when you witness a racially/culturally driven biased behavior during your clerkship.

Mentee: Third year medical student (UME).

Themes: Microaggressions, bias, barriers to reporting discrimination, fear of repercussion, lack of allies.

Vignette 1: Your assigned mentee is meeting with you for their quarterly check-in. She recently started her third year clerkships in psychiatry and wants some advice about an experience she had that left her feeling bewildered. While on morning teaching rounds, the attending was reviewing the different criteria and tools to screen and diagnosis different mental health disorders. Before walking into the room of a Latina patient, the resident asked for further clarification on the clinical differences between depression, anxiety, somatization disorder, and hysteria. The attending went on to explain and teach on the topic, and during his teaching stated that in certain cultures it is even harder to make out the differences; for example, Latin women at baseline are more histrionic when giving their history of present illness. The other learners all stared at her. She was the only URiM learner on the team and only one of two females on a predominantly White male team. No one said anything and rounds continued on as usual. Your mentee had difficulty concentrating for the rest of the day and remains conflicted about whether she should do or should have done something to address the situation.

Mentee Questions: Do I speak-up? If so, when, where, and how? What are the possible repercussions? If I don't speak up, how do I deal with the guilt of not doing so? Why did no one else speak up?

Mentor Responses: Like in any other mentoring scenario, start building trust and respect by listening, affirming, and validating, and avoid defending or justifying what may have "really" happened. Allow the mentee to self-reflect. Ask specifically what this scenario meant for her as a Latina herself. Do not shy away from using the words discrimination, racism, and bias. Avoid telling her what to do, but instead mentor her through value clarification and weighing her internal wishes with the external institutional culture. Clearly state that there are possible repercussions to both speaking up and not speaking up. Support whatever decision she makes, and assist in next steps, irrespective of how she proceeds. Consider the procedures and different possible ways for her to address the situation. Review several options and possible resources with the mentee, including speaking with the attending directly, seeking the help of the clerkship director, and reporting it anonymously. Alternatively, if she decides to not address the situation, offer assistance in addressing the guilt and possible vicarious trauma she may be feeling.

Case 2: Choosing a fellowship, weighing the diversity climate of an institution versus its academics/prestige.

Mentee: Senior Resident (GME).

Themes: Feeling "othered", trade-offs, duality, code switching/authentic self.

Vignette: Your resident mentee of 3 years asks for mentorship in selecting his fellowship program. He was able to speak to many peers at several of the places he interviewed. After taking several days to reflect on and list the pros and cons of each program, he realized he would have to make a disheartened choice: choose between a program which, he heard from his peers, did not have a progressive diversity climate but had a strong academic reputation, and a program where the faculty were more diverse and were actually Black like himself but had little research funding. He clearly stated to you that he was exhausted from having to constantly code

switch between who he was with his Black peers and who he was with his White peers.

Mentee Questions: How do I prioritize between inclusion and academic research excellence? At what point do I have to stop trying to "fit in"?

Mentor Response: Start with the tenet that your role as a mentor is to provide guidance, not to make decisions for your mentee. Sharing your prior experiences and the way you made decisions is valuable, but it is just a tool to guide him to make his own. Assist the mentee in outlining fellowship goals and clarifying values. If and when possible, assist him in discovering areas of overlap between his goals and values. Do not dismiss that often those URiM have to code switch in order to be perceived as professional by others different from their own racial/ethnic group. Discuss what this has meant for his own professional identity formation. When possible, encourage him not to downplay his true identity. Introduce the idea, not of fitting in to a program, but more importantly of adding to a program. Create next steps for how he will make his final decision, and provide resources so he can make the most informed decision possible. Irrespective of his decision, brainstorm positive strategies for how he can address social isolation, build his coping mechanisms, and address the pressures of being asked to assimilate.

Case 3: Being asked to take on a promotion as a diversity and inclusion leader.

Mentee: Mid-career faculty.

Themes: Brown tax, race/ethnicity ambassador, seen as less than, stereotype threat/imposter syndrome.

Scenario: You have mentored this mentee since she was a junior faculty member. Your relationship started when she was your fellow. She is now at a different institution. She calls and tells you that she was asked to take on the role of Chief Diversity Officer. She is ambivalent, and asks for guidance on making this decision. If she takes the role, her mandate is to diversify the workforce, improve inclusion metrics, and enhance the reputation of institution in this area. She believes she is capable of doing the job, but second guesses her own success. Additionally, she is disappointed that she recently asked for a different promotion but did not get it, so she can't help but think she was offered this one as a token role. This new position aligns with some of her goals, but not all of them, and she is seeking advice on how this role will either contribute to or detract from her wish to integrate her professional and personal needs.

Mentee Questions: What are the risks and benefits of being named the "diversity" person? How does she take this opportunity to advance her goals? How does she negotiate for true decision-making power and resources?

Mentor Responses: Active listening is key. Assist in clarifying what her true concerns, wishes, and needs are. Reaffirm why she is capable, yet do not dismiss that she has been tokenized. As the mentor, be sure to maintain a dual perspective, seeing her as an individual as well as part of a larger societal group. In her reaffirmation, perhaps even have her complete a self-administered test on stereotype threat and/or imposter syndrome and review it together. Review with her the most recent individualized developmental plan she completed and discuss whether this role aligns or not. Be open to discussion that being URiM is a double-edged sword. If

she decides to proceed, mentor her on negotiation techniques and other leadership resources you are aware of. If she decides not to proceed, assist her in creating a plan for her next career steps.

4 Reflection

As URiM physicians who have faced many of the scenarios mentioned above and had the privilege of having effective mentors that both looked like us but more often did not, it is clear that cross-cultural mentoring is essential. It works when both parties are able to be kind, humble, honest, trusting, and respectful of each other. It works when you acknowledge that racism is real, are aware of the risks and barriers those URiM face, understand the dynamics of power and paternalism, and can openly speak about the double-edged sword of"otherness" in academia. Be prepared to share, learn, and be vulnerable.

*Mentoring for those URiM is an issue of equity; in order to level the playing field, URiM learners and faculty need to be given access to the same guidance and strategies as their colleagues (*Ibrahim, 2019*). Mentoring programs should be formalized and customized to meet the needs of diverse faculty. Mentorship with cultural humility can help build a solid networking infrastructure of URiM faculty, providing access to mentors and role models who are successful in academia (*Viets et al., 2009*).*

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ELAM as a Mentoring Model

Michele Kutzler, Barbara Overholser, and Nancy D. Spector

The Executive Leadership in Academic Medicine® (ELAM®) program at Drexel University College of Medicine is the only longitudinal, part-time fellowship that focuses on promoting women into senior leadership positions in academic medicine, dentistry, public health, and pharmacy. The program aims to ensure that there is gender equity at every level of leadership. In ELAM's 27 years, more than 1,200 women have graduated from the program and have gone on to lead in high-level positions including as provosts, presidents, deans, and chairs at 273 institutions and organizations around the country and the world.

1 Building a Network Through Mentorship and Sponsorship: A Key Component of ELAM

The importance of building a network during one's leadership journey is at the heart of the ELAM program's year-long curriculum. Ibarra and Hunter (2007), define networking as "creating a fabric of personal contacts who will provide support,

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feedback, insight, resources, and information." Mentors and mentorship are important pieces of this network; mentoring provides stability, grounding, and opportunities for professional growth. Leadership skills are built through mentorship, sponsorship and networking, and a successful leadership program will deliver these skills to its participants.

Women underinvest in social capital i.e., networking, mentorship, sponsorship, and coaching, which leaves them at a disadvantage (Eagly & Carli, 2007). ELAM uses this spectrum of strategies to build a strong network of senior-level women leaders who then are tasked with "paying it forward" at their home institutions and beyond by mentoring and sponsoring others. A strong network is a key to professional success and offers support and opportunities for collaboration both in positive environments and when leaders tread through turbulent times. ELAM invests heavily in helping its fellows strengthen their social capital and provides professional executive coaching through the program. Professional coaching helps to accelerate a leader's growth and productivity, which can then lead to greater organizational efficiency and productivity (Schidlow & Siders, 2014).

We know that women of color and women with other intersectionality (overlapping and interdependent categorizations of race, class and gender) face additional obstacles in their careers (Washington et al., 2019), which make mentorship and sponsorship (Melaku, 2019) especially important for them. By building and teaching allyship (building relationships based on empathy, trust, consistency and accountability with marginalized individuals to advance their interests) throughout the curriculum, ELAM aims to create a cadre of women allies who will help mentor and sponsor each other as their careers progress. One ELUM (ELAM's term for alumnae of the program) with intersectionality who is now a medical school dean reflected that having experienced barriers and negative interactions such as bullying that she believed were far in excess of those faced by male and white colleagues, she needed to develop greater resilience and lean on her mentors, sponsors and colleagues to be able to achieve her career success. As a mentor to others, she has seen that the intersectionality of race/skin tone and sex/gender are dual burdens for nearly every woman of color that she knows, thus the added importance of developing the skills to build a strong network of allies to lend support.

The ELAM program has been documented by Dannels et al. (2008) as a successful model of leadership learning that provides women with the skills to return to their institutions as change agents and with a newly expanded network of peer mentors and role models that will provide continued support to help sustain them in their leadership roles. Building and sustaining this network of women leaders is crucial to ensuring their success. The program draws heavily on its alumnae network, engaging them as faculty, mentors, and coaches. While the ELAM model can work for any group, it is particularly beneficial to women who are often the sole leader in a group of men and are in the traditional leadership hierarchy that marks academic medicine and health centers. It is especially important to build and sustain the network for women as we move through the Covid-19 pandemic, which is exacerbating the gender disparities in medicine and science (Spector & Overholser, 2020; Viglione, 2020). In addition, for women academics in the mid-career stage,

mentoring programs can be vital to their career progression. At this mid-career stage, they are at risk of losing ground and being made invisible (Lewiss et al., 2020).

2 ELAM Strategies for Incorporating Mentoring into the Curriculum

The ELAM curriculum addresses four fundamental competencies: personal/professional leadership effectiveness with a focus on leading in crisis, strategic career planning, building effective organizations, and strategic finance and resource management. The ELAM Learning Cycle (Fig. 1) is integrated across personal leadership and institutional work through implementation of plans developing out of 360-degree feedback, interviews of institutional leaders, and an institutional action project completed in collaboration with institution leadership. The fellows come

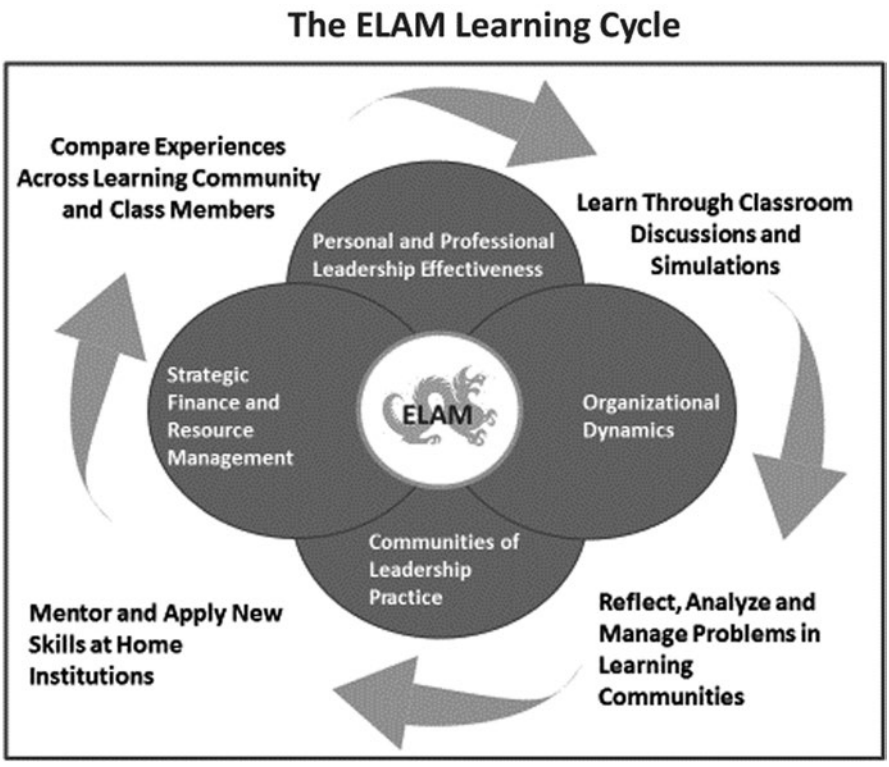

Fig. 1 ELAM Learning Cycle. Adapted from Magrane, D., & Morahan, P. (2016). Chapter 19—Fortifying the Pipeline to Leadership: The International Center for Executive Leadership in Academics at Drexel. In FORWARD to Professorship in STEM (pp. 319–336). Elsevier Inc. https://doi.org/10.1016/B978-0-12-800855-3.00019-2

together in the classroom (in person or on-line) and learn through simulations, didactic presentations, and in small and large group discussions. They then reflect on the important competencies of leadership and learn to analyze and manage problems in small groups called learning communities. Skills learned at ELAM are applied at work at their home institutions and then results are analyzed back in the circle. These activities aim to enhance knowledge of leadership, enhance skills through study and application, and increase institutional visibility to enhance potential for executive level contribution. The fellows return to their home institutions as agents for culture change and implement strategies for more effective mentorship and sponsorship of their own faculty.

3 Mentoring Models Used in ELAM

Using functional pairs and facilitated peer mentoring models in the general program's experiential learning process and also within small learning communities, ELAM program fellows receive rich opportunities to learn from one another, learn to understand themselves better, learn to appreciate the commonalities and differences among colleagues, and build a trust-based community (Ahmed et al., 2014).

Functional mentoring pairs a mentee with a mentor who has specific expertise for guidance on a defined project. The objectives of the mentoring relationship are clearly defined and lead to tangible results (Thorndyke et al., 2008), and the process is marked by timelines, deadlines, and touchpoints. In ELAM, this process centers around the Institutional Action Project (IAP), which is the capstone project of the fellowship year. During the ELAM fellowship, each fellow designs, implements, and initiates an IAP. The goal of the IAP is to expand the fellow's leadership skills and institutional visibility through an institutional initiative that aligns with the fellow's experience and expertise and that meets an organizational goal or need. The IAP integrates the curricular resources and peer support of the fellowship in a tangible leadership contribution to the fellow's institution. As part of the IAP process, the fellows are required to conduct senior leadership interviews. This is a very strategic piece of the curriculum: it builds their network as they gather information and hopefully garner resources, it leads to a deeper understanding of the political landscape, and it is a mechanism to increase visibility within their institution.

In facilitated peer group mentoring, the group members serve as peer mentors to each other, and the process is facilitated by a senior person. The mentees work collaboratively and have formal goals and objectives (Spector et al., 2010). Facilitated peer mentoring may be more successful than the traditional dyadic mentoring model (Pololi et al., 2002). In ELAM, small learning communities are established at the beginning of the fellowship and include six fellows and one senior person, known as a Learning Community Advisor (LCA), who is usually a graduate of the program. ELAM alumnae who have returned as faculty not only educate the fellows, but also educate other LCAs on the curricula that will be delivered and provide

continual feedback to ELAM program leadership to strengthen the curricular thread implementation. In addition, mentoring is available for new LCAs each year through ELUMs who act as Learning Community Partners (LCPs). LCPs help new LCAs implement best practices regarding communication with their Learning Community members, help LCAs to identify and resolve issues, and offer guidance to LCAs to help their fellows complete the program's assignments and projects.

On a macro level, the LCAs understand the overarching concepts of the program and help to drive the longitudinal experience for the fellows. On a micro level, they support the fellows as they develop their Institutional Action Projects. At the same time as they provide support to and share knowledge with the fellows, the LCAs are also beneficiaries of the learning community's journey. The fellows can help expand the LCAs' awareness of diversity and differences, and inspire them to challenge perspectives that may have become ingrained and inflexible (Choi et al., 2019). The LCA, acting in the mentor role, can find herself professionally stimulated and personally enriched (Pololi & Knight, 2005) and return to her home institution invigorated.

The six fellows who are in the Learning Community are a diverse group; they are clinicians and scientists, and are ethnically and racially diverse. Between 2010 and 2021, an average of 32% of the ELAM class has identified as racial or ethnic minorities. The fellows come from different institutions (private and public), different geographical locations, different specialties, and have different career trajectories. This diversity is crucial, as it broadens each fellow's perspective. What is also crucial is creating a community of trust, as throughout the program and in years beyond, confidential and sensitive professional and personal information may be shared. Trust is built first when the LCA has a one-to-one call with each of the fellows in her LC. Then, when the fellows meet as a class for the first time, each of the fellows shares their personal and professional "story" with their colleagues. The Learning Communities use the principles of learning circles including shared responsibility, speaking and listening with intention, and self-monitoring one's own impact and contribution. Agreements amongst the fellows are formed as they begin their journey within the circle. The circle is a practice in discernment, not judgment, and what is said in the circle remains in the circle. Many ELAM Learning Communities still meet regularly even a decade or more post-graduation.

4 Reflections on the Importance of Mentoring Through ELAM's Learning Communities

A graduate of ELAM still meets monthly with her Learning Community (LC) by phone and annually in person more than a decade after graduation. She cites the peer mentoring, networking, and personal support as being key elements that have helped to sustain her through professional and personal challenges over the years. The expansive network that is gained by developing relationships with a diverse

Learning Community leads to opportunities and insights that might not otherwise be available. Her LC is geographically diverse and spread across North America; it is also diverse in medical and dental specialties, and racially. This diversity creates greater access to a wider variety of resources, key for any leadership journey.

Another ELUM reflects on the importance of the informal circle of mentorship that still occurs in her Learning Community more than a decade after she graduated front the program. "During my ELAM fellowship year, I was exposed to the empowering concept of the leadership circles of trust," she says. "My group is my go-to network of wisdom, support, and sound advice. They have supported me through my career challenges, empowered me to go and seek new career milestones, and have been there to help me navigate unchartered paths. A third ELUM comments, "These women continue to professionally and personally enrich my life. Each brings a unique perspective to the relationship and are a source of wisdom and support."

The Learning Community becomes a sort of "kitchen cabinet" for helping to navigate crises, professional career challenges, and personal tragedies. The broader ELAM community also serves as an additional network to assist in career transitions and offer support in difficult times, as well as a community to celebrate success.

5 Lessons Applied in a Challenging Time: Application of the ELAM Mentorship Model During a Major Academic Institutional Disruption

ELAM as a mentoring model has been adapted for both men and women mid-career faculty (MCF) at Drexel University College of Medicine (COM), and many of the participants had intersectionality (a black woman faculty member, for example). Having both men and women in the program allowed engagement of allyship between the participants. Mid-career faculty have been described as highly-productive and the foundation of academic missions, but often face challenges that include nonexistent mentorship and sponsorship, feelings of isolation, lack of leadership development, absence of feedback, unclear paths to academic advancement, and limited opportunities for promotion into higher level leadership positions (Campion et al., 2016). Additional issues and challenges faced faculty at Drexel University COM due to the closure of its flagship hospital, Hahnemann University, in 2019. Modeled after ELAM, the Faculty Launch Leadership program (FLP) at Drexel University COM was developed in 2019 during this critical time of impending crisis. The goal was to create an innovative training program for MCF that provided much needed mentorship to faculty. The FLP adapted the ELAM mentorship model using both functional and facilitated peer mentoring to help establish a robust interdisciplinary faculty network. Using the functional mentoring model, participants were asked to work with a primary senior faculty mentor to implement

innovative organizational faculty leadership impact projects (FLIP) that aligned with institutional missions. This was an effective way to incorporate mentoring models into the curriculum of the program. The group of faculty were divided into small groups by mission (Research, Education, Clinical Leadership) so that faculty work together and lean on each other's strengths, providing cross expertise to each of the FLIP projects. Thus, faculty within the facilitated peer group mentoring "dragon learning circles" served as peer mentors to each other, and each group was facilitated by a senior Drexel faculty member aligned with the mission. In order to break down mission-specific silos, the FLP also adapted the ELAM model of longitudinal in person curricular learning activities that were designed to integrate faculty across missions working together through assignments. The overall impact of the program, bolstered by the peer mentoring model, was to provide a critical stabilizer during a tumultuous time for Drexel faculty with the close of Hahnemann University Hospital. Program evaluations by faculty participants listed the broadened faculty network, newly created functional and facilitated peer mentoring groups, self-reflection, understanding finances in academic health centers, personal professional development, and leadership skills learned as key outcomes that helped them to be more effective leaders during crisis. The FLP resulted in the retention of key productive, emerging faculty leaders with intersectionality in the mid-career phase, stabilizing the institutional pipeline during a critical time. Out of the 24 participants in the program, 17 were retained during the closure, thus creating a more resilient and highly-skilled leadership workforce.

The crisis created a major disruption to GME programs, patient care, and faculty practices, as well as a merger with a new clinical partner. The FLP participants became leaders in the new paradigm including as associate and assistant deans, faculty senators and leaders, and members on key strategic committees. Their peer networking with mentorship from senior leaders continues today across missions, sharing skills in crisis management and problem solving, nominating each other for awards, and working to create strategy for the next phase of prosperity at the College of Medicine at Drexel University.

6 Reflection

MK: Prior to ELAM, my network of mentors was limited to functional pair mentors specific to my research activities. ELAM provided me a platform to grow my network and I am now able to lean on mentors across this network to support all aspects of my academic career. Through strategic conversations with multiple peer and senior faculty mentors, I was able to navigate difficult conversations in my academic life, negotiate new resources for my lab during promotion in faculty rank, and land the opportunity to serve my passion area in an administrative leadership role in Faculty Affairs and Faculty Development while maintaining a robust research program.

NDS: I have been lucky to have always been surrounded by people who offered guidance and advice. But as I moved up the career ladder and became a faculty member, the guidance became less apparent, and I struggled. When I attended a conference on peer mentoring, I recognized that I needed more than just a didactic mentor -- I needed a constellation of mentors. I have brought this experience and viewpoint into the design of the ELAM curriculum.

7 Conclusion

A strong network of mentorship is key to professional success and using the ELAM mentoring model of peer and functional mentoring will provide a high level of support and opportunities for collaboration both in positive environments and when leaders tread through turbulent times. Faculty will gain the skills to serve their institutions as change agents, and with a network of peers and role models that will provide continued support to help sustain them in their leadership roles.

The ELAM program can be used a mentoring model for women and men in academic medicine, as well as outside of the world of healthcare. While the longitudinal experience is unique to the program and may be difficult to replicate, by deploying a purposeful and intentional model that includes the varied mentoring experiences and mentoring relationships found in ELAM, programs can help their participants to establish a strong and varied network that will increase the success of their leadership journey.

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Part II
Interpersonal (MICRO) Issues with Mentoring

The Humanistic Mentoring Model: A Holistic Approach

Christine Schirmer and Lars Osterberg

1 Introduction/Literature Review

Historically, Mentor was the friend of Odysseus whom he assigned as a trusted advisor to his son Telemachus in Homer's epic, *The Odyssey*. In current literature, the concept of mentor has taken on many forms beyond that of advisor, including protector, advocate and career guide, teacher, role model, and an exemplar of the standard of excellence in a given profession (Jacobi, 1991; Roberts, 1999). Healy & Welchert (1990) defines mentoring broadly as "a dynamic, reciprocal relationship in a work environment between a career incumbent and a beginner, aimed at promoting the development of both." At the core of each definition lies the relationship between mentor and mentee, whether viewed more as one-directional (Levinson, 1978), or reciprocal (Johnson, 2015).

Humanistic mentoring is a particular approach to mentorship that prioritizes an approach to mentees from the perspective of seeing them as a whole person. Defined by Varney (2009) as featuring "a commitment to a mentee's professional *and* personal growth, incorporating an understanding and appreciation of a mentee's life, culture, and goals, both inside and outside of the classroom" (p. 129), humanistic mentoring, in sum, is most clearly "characterized as genuine caring for the person within the developing profession" (Varney, 2009, p. 129). In addition to the

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transactional features of the mentoring relationship, in which the mentor shares knowledge, skills, guidance, and professional networks, humanistic mentoring also focuses on the shared human relationship of the mentoring interaction: connecting with the mentee as a whole person, and not only in relation to the work that the mentor and mentee do together. This definition has similar features to relationship-centered care (RCC), a framework for healthcare that focuses on how healthcare providers and patients relate to each other, in addition to the transactional features of a healthcare encounter.

2 Evidence Based Support for Humanistic Mentoring

Relationship-Centered Care (RCC) grew out of patient-centered care, a concept coined by Balint in 1969, and defined as "care in which all participants appreciate the importance of their relationships with one another" (Beach & Inui, 2006). Relationship-Centered Care is evidence based and centered on four principles: (1) Relationships in healthcare ought to include dimensions of personhood as well as roles; (2) Affect and emotion are important components of relationships in health care; (3) All healthcare relationships occur in the context of reciprocal influence; (4) RCC has a moral foundation. Below we propose four principles for approaching humanistic mentoring in parallel to the principles of RCC. We will then apply these principles to a case in order to provide an evidence-based framework for humanistic mentoring grounded on the principles of RCC (Beach & Inui, 2006).

3 Four Principles of Humanistic Mentoring

Principle 1: Mentoring relationships include all dimensions of the mentor's and mentee's identity and experience, in addition to focusing on roles. In RCC, the first principle emphasizes that clinicians monitor their own behavior using awareness of their own emotions, reactions, and biases. This principle is a key to effective mentoring relationships as well. In particular, we want to highlight that mentors and mentees are often interacting across differences of race, gender, sexual orientation, age, culture, and class, to name a few. It is important for mentors to acknowledge these differences, and to monitor the ways their own unconscious or conscious biases may impact how they are responding to their mentees. The literature shows us the negative consequences of people experiencing stereotype threat in academia (Burgess et al., 2012; McGee, 2018; Steele & Aronson, 1998). Awareness of the challenges a mentee may face due to their identity allows a mentor to consistently check their own biases, examine their actions, reactions, and expectations based on self-awareness, and identify and remove potential barriers to maximize the potential for mentee success, creating a safe space within the relationship for mentees to feel supported, heard, and seen.

Principle 2: Affect and emotion are important components of mentoring relationships. In RCC, the second principle stresses the importance of clinicians

engaging empathically with patients, rather than approaching encounters with "detached concern" (Beach & Inui, 2006). Similarly, mentors can build the relationship with their mentee through expressing empathy towards them, which requires the mentor to both pay attention to affect and recognize, understand, and share the emotions they sense in their mentee. Expressing empathy is a key component in allowing the mentor to relate to the mentee's struggles, even while needing to provide critical or difficult feedback. Johnson (2016) explains that empathy can be "most directly expressed through active and deliberate listening" (p. 66).

Principle 3: Mentoring relationships are sustained through the reciprocal influence of both the mentor and mentee; both participants have responsibility in the relationship. In the third principle of RCC, the clinician and patient develop each other, recognizing that while the clinician's impact on the patient's health and treatment are the primary concern in the encounter, the patient undoubtedly impacts the clinician as well. Both parties grow from each encounter and both parties are equally responsible (e.g., the physician cannot help the patient unless they are fully willing to disclose elements of their history). Likewise, in mentoring, both the mentor and the mentee are responsible for the mentoring relationship, both learning from each other and growing through the process of the mentoring; there is bidirectional personal growth and learning, even though there is a hierarchy of knowledge, credentialing, and institutional power. The mentor recognizes that the mentee brings their unique background, knowledge, and experiences that contribute to the mentor's development, just as the mentee also benefits from the mentor's knowledge and experience. Furthermore, the mentor must build trust with the mentee so they are willing to be open and forthcoming; this allows the mentor to fully understand their mentee, be aware of what they are going through, and to support them most effectively. The literature shows that both mentor and mentee can have transformational experiences in this kind of mentoring encounter (Beyene et al., 2002; Cruz et al., 2020; Gammel and Rutstein-Riley, 2016).

Principle 4: Humanistic mentoring recognizes the moral imperative of professionalism. The fourth principle of RCC emphasizes its moral foundation. In healthcare, instead of individual/organizational gain being paramount, "*genuine* relationships are morally desirable because it is through these relationships that clinicians are capable of generating the interest and investment that one must possess in order to serve others, and to be renewed from that serving" (Beach & Inui, 2006). Similarly, a mentor has the moral obligation to model professionalism, to nurture their mentee into the profession, and to reinforce that the mentee must act ethically and in line with the values of their profession, even if that choice comes with personal cost. Applying principle 4 in a mentoring relationship may therefore require challenging mentoring conversations when mentees violate professional norms. Humanistic mentors must keep in mind earlier principles, particularly principle 2, when holding these conversations, use expressions of empathy and show that they are committed to high standards for the professional development of the mentee. Similar to RCC, mentors generating interest and investment in serving mentees in their growth are also renewed from that serving. (Blatt et al., 2018).

4 Case Study Example- Applying Humanistic Principles of Mentoring

Imagine that you are a faculty medical educator and you have mentored a third-year medical student since they started medical school. This student has been diligent and hard-working, and has performed well during his first 2 years with no academic or professionalism issues. After immigrating to this country at a young age, he was the first person in his family to go to college. His goal is to become a plastic surgeon. He is an active runner and he loves sports, having played for his undergraduate university baseball team. At the end of his second year of medical school, he had a bike accident on campus that fractured his foot, but otherwise you are unaware of him having any significant medical or emotional problems during medical school. However, at the beginning of his third-year clinical rotations, his intern and resident note that he is repeatedly late for rounds, and on one occasion was found to copy and paste his intern's note from a patient, resulting in him being referred to the school's professionalism committee. Now you are set to meet with him as his primary mentor. Where do you start? Here we outline a humanistic approach to mentoring the student using the four humanistic principles of mentoring.

As a humanistic mentor, you would have built a relationship of trust through caring for this student in both his professional and personal growth over the past 2 years. You would have some understanding of his life outside the classroom, his background, culture, and his goals. You would have built this relationship with genuine care and empathy, and would have always stressed the importance of confidentiality, mutual respect, and honesty (principle 1).

The possible reasons for your student's professional lapses are numerous. During times of transition there are considerable stresses to trainees, and this student has the additional stress of having had a recent injury (further compounded by his interest in sports and being active). He is also pursuing a very competitive residency with the added pressure to perform. Other issues such as illness in the family, personal relationship problems, personal illness, substance use, and stereotype threat all need to be considered as well.

As a humanistic mentor, the reason for meeting should be made clear: the student's behavior is unacceptable. The *first step* in the meeting should be to check in with the student on how they are doing physically and emotionally (reiterating confidentiality in what they tell you, and that you care for their personal growth and wellbeing). The *second step* should be to allow them to describe their perspective. What happened? What were the reasons behind the student's behavior? Expressing empathy and caring to recognize, understand, and reflect back the feelings that you are picking up from your mentee essential as a humanistic mentor (principle 2). The *third step* as a humanistic mentor would be to emphasize the additional responsibility you have as a mentor to promote their growth as a medical professional, and that this professional lapse is not in line with their goal for becoming a competent physician (principle 4). You should continue to show support, and express ways you can partner with the student to help them through this; however, they will need to take an active role in their professional development to remediate (principle 3).

5 Scenario Follow-Up

The student discloses to you that he has been struggling with pain in his foot, and has been using increasing amounts of pain medications. After sharing this, the student becomes very quiet and tears begin to well up in his eyes. He describes becoming increasingly depressed after breaking his foot and not being able to use running as his usual method of stress reduction. You also know that over the past 2 years, this student has had additional stressors with feelings that he doesn't belong in medical school, since none of his classmates are immigrants, and as a first-generation student he feels he is constantly struggling to keep up and figure out aspects of medical school that his classmates seem to understand intuitively (principle 1). Being aware of the added stress that this student faces with the feelings of isolation he has disclosed, feelings of impostor syndrome, and limited support, you are more capable to express empathy knowing your student; you have a deeper understanding of the sadness he must be feeling, and you tell him how hard it must be on him with all of these pressures he has; you reassure him that you want to support him through this process. (principle 2).

You are concerned that the student has become dependent on the pain medications, and you express this to the student along with your recommendation that he get professional help for this; you also reinforce that you will be with him through this. You thank the student for their honesty with disclosing how his health problems and personal stressors are impacting his performance, and you provide the student with resources for pain management, including mental health and addiction services, through student health (principle 3: both you and the mentee have responsibility in the mentoring relationship). You also let him know that his unprofessional behavior needs to change, and that you will be monitoring his progress. You collaborate with the student on a strategy for him to reflect on their behavior, and provide assignments for him to help him remediate (principle 4). You both agree that the he will write a written reflection after reading the article by Maxine Papadakis on how unprofessional behavior by students in medical school is predictive of future reporting to medical boards (Papadakis et al., 2005). The student agrees to meet with you monthly to discuss other articles on professionalism, including effective ways of dealing with stress, effective self-care behaviors, and risks of substance use in medical professionals. He will also check in with you regarding his follow-through with mental health and addiction services.

6 Reflection

This case outlines some of the potential benefits of applying the principles of humanistic mentoring (note the principles are not necessarily applied in order). When the mentor knows the in-depth background of their mentee, the mentor is better able to recognize and understand their mentees' emotions and actions, and is therefore better positioned to express empathy. Empathy helps to build a more

trusting relationship, and the trust built through humanistic mentoring influences the mentee to be more honest and forthcoming. The benefit from the mentee's perspective is that they will feel supported in both their personal and professional growth by a mentor that knows them well and has their best interests at heart. The mentor has an obligation to the profession to "remediate" (re = "again" + Mederi (Latin) = "to heal") this medical student who had professionalism lapses (Frankel et al., 2015). Both mentor and mentee are responsible for this "healing" process. Through the mentee's healing both physically, emotionally, and professionally, comes a mutually satisfying mentoring relationship for the mentor as well. The mentee successfully achieves their goal of becoming the best they can be, both personally and professionally, through the guidance from someone who truly cares holistically about them. The mentor also receives the satisfaction in seeing their mentee grow both personally and professionally through holistic support and guidance.

Using the principles of humanistic mentoring, however, does not guarantee that a trusting mentoring relationship develops. Mentees may not fully disclose to their mentors the details about their background, certain identities they hold, their emotions, the challenges they are facing, or other important information that could help the mentor fully know the mentee. In these cases, the mentor will not truly understand their mentee (neither what they may be going through, nor what they are feeling) and therefore will be limited to fully express empathy towards them. As a result, the mentor will not be fully capable of providing their mentee with the support they need. Humanistic mentoring requires both mentor and mentee to be fully engaged in the relationship. Just as the physician and patient relationship is a prerequisite to the wellness, care, and healing of a patient in relationship-centered care, so too is the mentor-mentee relationship central to the mentee's wellness and development, both personally and professionally, with humanistic mentoring. Embracing the four principles of humanistic mentoring—knowing and valuing the mentee's identities, valuing affect, emotion and the expression of empathy, mentor and mentee sharing in the responsibility of the relationship, and both sharing in the moral imperative of professionalism—will result in a more holistic approach to mentoring, with both the mentee and mentor realizing the full benefits of the mentoring relationship.

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Faculty Longitudinal Career Mentoring

Kimberly A. Skarupski and Jennifer A. Haythornthwaite

1 Introduction

Mentorship is important at every career stage. Good mentors understand that longitudinal career mentoring is a commitment to an enduring and transformational relationship with a mentee. This chapter is about combining mentoring content knowledge and mentoring process skills as a framework for mentoring faculty both longitudinally or at various stages along the academic career continuum.

Good mentorship requires quality content and a sound process. An effective mentor builds a long-term relationship with their mentee based on respect and trust. A mentee's respect for the mentor develops via the mentoring *content*, including: advice, information, recommendations and sponsorship, strategy, and thought-provoking questions. Mentoring content is clearly important, and requires knowledge and experience in a particular academic field, career stage, and institution. However, a mentee's trust in the mentor also hinges on the *process*. The mentoring process is the vital conduit for content delivery and impact, and relies on communication skills. Active listening, just one of many communication skills, is a reliable mentoring process tool. Faculty members encounter myriad decision points throughout their careers, and rely on their mentors to help them navigate. Good mentors are experts in both content and process.

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This chapter provides strategies related to content mentoring and process mentoring that the mentor may use to nurture the mentee and the mentoring relationship in making a decision that is right for the mentee regardless of the mentee's age, gender, race/ethnicity, degree type, specialty, career stage, rank, or promotion pathway. *Content* mentoring clarifies the mentee's mission, explores the demands of a new opportunity against existing responsibilities, and facilitates decision-making. Additionally, content mentoring critically includes sponsorship—when one is recommended for leadership roles, speaking engagements, awards, and other high-profile opportunities (Ayyala et al., 2019). *Process* mentoring emphasizes an overarching strategy utilizing communication skills, particularly active listening, to express empathy, provide support, highlight personal strengths, and build the mentee's confidence about their knowledge, skills, decisions, and path.

2 Evidence-Based Literature

There is unequivocal support for the positive association between mentorship and career development and satisfaction in academic medicine (Sambunjak et al., 2006, 2010). The literature is replete with evidence documenting the effect of mentoring on trainees' and early-career faculty members' careers (DeCastro et al., 2014; Jeffe & Andriole, 2018; Libby et al., 2016; Palepu et al., 1998; Steiner et al., 2002), including women (Farkas et al., 2019) and under-represented minorities (Beech et al., 2013; Martinez et al., 2018). Trainees and early-career faculty members have many decisions to make, including: choosing a specialty area, selecting institutions, interviewing and negotiating appointments and resources, starting a laboratory or research program, building a clinical practice, developing educational curricula, teaching, applying for grants, producing scholarship, networking, presenting their work at professional societies, starting families, etc. Mentoring features heavily at these myriad decision points in a trainee or early-career faculty member's career.

We know that career transitions do not cease at the early-career faculty level. In fact, there are numerous decision points at the mid and late-career stages in academia. Faculty members who have been promoted to associate professor or professor have carved out a clear area of expertise, and have garnered a national and international reputation for their outstanding leadership and accomplishments as a clinician, educator, investigator, program builder, or various combinations of these "paths." As a result of these accomplishments, mid and late-career transitions are numerous and may include assuming new leadership roles, building new programs, being recruited to new institutions, or pivoting to new areas of investigation. Other challenges can include facing funding and budget cuts to grants and programs, and perhaps experiencing stress, anxiety about the future, or even periods of boredom with routine. Additionally, various health and life transitions in mid-to-late career may include empty nesting, caregiving for parents, grandchildren, or a partner, as well as moving into part-time employment and eventual retirement. Mentorship during these pivotal times is vital.

Nonetheless, despite a fair amount of literature addressing mid and late-career faculty members as "mentors," there is very little empirical evidence exploring the mentorship *of* mid and late-career faculty members (Baldwin et al., 2008; Beauboeuf-Lafontant et al., 2019; Bickel, 2016; Buch et al., 2011; Matthews, 2014; Skarupski, 2020; Wang et al., 2013). Indeed, faculty members at mid and late-career are often providing mentorship to numerous mentees; yet, they themselves still seek the counsel of their own mentors. Data from a recent survey of 2126 faculty members age 55+ at 14 U.S. medical schools (Skarupski et al., 2020) found that 81% of the respondents reported an average of five mentees, and one-third reported meeting with them weekly (*unpublished data*). More notable is that 45% reported having at least one mentor, and 22% reported meeting with their mentor at least monthly (*unpublished data*). The average age of the survey respondents was 62.3 years; thus, the fact that nearly half reported still having mentors speaks to the value of mentoring relationships at all academic stages.

3 A Framework for Mentoring a Mentee Over the Trajectory of a Career

3.1 Mentoring Content: Mission Fit

In planning or engaging in a conversation with a mentee about a decision they are struggling to make, a useful framework comes from Stephen Covey's metaphor for time management (Covey, 2004, 2018). In brief, this metaphor presents an empty vessel that represents the time available in a day. Alongside the empty vessel are various-sized rocks and sand. The rocks and sand represent (in our illustration) the individual mentee's myriad roles, projects, and activities. The bigger the rock, the more mission-specific and important to the mentee. These bigger rocks might be professional (e.g., grants, grant applications, grant progress reports, papers and chapters, talks and travel, or leadership opportunities) and personal (e.g., family, health, charitable work). Smaller rocks and sand represent tasks that are increasingly less mission-centric, though possibly urgent (e.g., electronic medical record notes, emails, phone calls, supervising staff, training, reviewing papers). The most efficient way to fill the vessel places the biggest rocks in first, followed by smaller rocks, and finally sand that filters in between the other rocks. Thus, the biggest and most important projects (rocks) are prioritized and scheduled first, and then the remaining part of the day is filled in by the less important projects and tasks (smaller rocks and sand). This time management strategy can be helpful in framing the mentor's discussions with a mentee regarding making a choice about a new opportunity/activity throughout an entire career.

In applying this framework to a discussion about a decision, the first content area a mentor can explore, using the active listening strategies outlined below, is how well this new opportunity fits with the mentee's mission/career trajectory. It may be

important to first spend time finding out more about the mentee's vision for their career and how they envision their career developing over the next few years. Once this is clear (or clearer), a productive area to explore is how this new opportunity fits with the mentee's mission/vision. Is this opportunity something completely new, an expansion of a less important activity, or an enlargement of an already important, mission-centric role? An activity that is currently less important (e.g., teaching) might become more important with a new opportunity (e.g., Residency Director). Or, an activity that is currently very important (e.g., clinical care) might become less important (e.g., becoming a member of the IRB). Alternatively, something that is not a current activity (e.g., chairing a national committee) might add a whole new and important "rock." If this new opportunity is consistent with the mentee's mission/vision, what value does it add? Sometimes a new opportunity will require modifying the mentee's trajectory, or even creating a new mission/vision. Obviously, these discussions and reflections can also reveal regrets about missed past opportunities or excitement about a novel opportunity never considered.

3.2 Mentoring Content: Demand and Complexity

A second content area to explore with a mentee is how big the new opportunity is. For example, how much time will it require? Is there preparation work that adds to the workload? Does the role require training, education, or skill development that will add to its size? Part of this discussion should also consider whether additional resources are required to do the work well. If so, a discussion about delegating to others, increasing the mentee's efficiency, or, as a last resort, expanding the workday need to occur. As the mentee considers these choices, it is likely that the mentee will become closer to and more confident about making their decision.

3.3 Mentoring Content: Project Prioritization

The third content area to include in the discussion about choices is to identify how making one choice versus another will affect other aspects of the mentee's work and personal life. Too often, people simply add onto their responsibilities without carefully planning for the change that new projects require in their daily routines. When this happens, failure, stress, burnout, or other consequences can ensue over time. A good decision for the mentee will include planning, and accepting, what activities/projects/responsibilities have to be altered (likely reduced) in order to accommodate the planned choice. In some cases, there may need to be a discussion about what current responsibilities should be off-loaded in order to manage a new role/responsibility well. This part of the discussion can be particularly helpful when a new opportunity is not mission-centric, and can clarify for the mentee that the best decision for them is to decline the invitation.

3.4 Mentoring Process: Active Listening

Effective mentoring across an academic career relies on the mentor's use of open-ended, curious questions to help the mentee think about their values, mission, and vision for their career and personal life, helping to place the current decision, opportunity, or problem in the context of these larger priorities. By using active listening, the mentor shifts the focus to one that is mentee-centric and collaborative, rather than mentor-centric and directive. The mentor talks less, listens more, asks insightful questions, and uses reflection to show acceptance and understanding. A useful attitude for the mentor is as a guide, helping the mentee discover the right choice for themself.

3.5 Active Listening Strategy #1: Guiding Questions

A good mentor uses active listening skills and guiding questions to encourage self-reflection in the mentee, modeling brainstorming and empowering the mentee to make her/his own decisions. For example, a mentee may say, "I'm not sure I have the skills that this new position requires." The mentor could respond using a reflection, followed by an open-ended, guiding question: "It sounds like you're worried you may not be able to lead the group. What's of greatest concern to you?" This sequence is a strategy used by the mentor to elicit further thoughts or feelings. It also gives permission to the mentee to delve deeper into concerns, as well as explore ambivalence. Through a discussion of ambivalence and motivation, the mentee can identify or re-orient to their larger priorities, and evaluate the advantages and disadvantages of options available. "On the one hand….and on the other hand…." is an example of reflective listening that a mentor can use to highlight ambivalence, which can be helpful to explore in making any decision. The reflection of a contrast (on the one hand/on the other hand) can stimulate the mentee to weigh the advantages and disadvantages from their own perspective. This type of conversation can also elicit reasons for action (or inaction), which may further facilitate problem-solving or decision-making.

3.6 Active Listening Strategy #2: Forward-Moving Reflections

Another active listening strategy that can be useful to employ is a "forward-moving" reflection that encourages your mentee to say more. Examples of these include: (a) continuing the paragraph with "and…?" or "tell me more…." in a gentle tone that encourages self-reflection, (b) using metaphors and similes ("on the fence"), and (c) using double-sided techniques, such as "on the one hand…on the other hand…" as noted above. If a mentee is ignoring an important issue or downplaying its

importance, the mentor can use a strategy called an amplified reflection (placing emphasis on the underlined text): “so you don’t have any concerns…” or, “so, there’s nothing to be concerned about with this new opportunity?” This last strategy needs to be used carefully and without sarcasm; sometimes a light tone with a smile and some humor can lighten a potential misinterpretation.

3.7 Case Examples

Clinicians at the early-career stage are often offered the position of fellowship director. In applying our framework, the mentor would begin by asking about the mentee’s mission and include (curious) questions about how the new responsibility aligns with the mentee’s mission or requires a revision of the mentee’s mission. Questions defining the new responsibility might also touch on resources available and the prestige of the position, both locally and nationally, and how that fits with the mentee’s academic trajectory and timing of promotion. For the researcher at a mid-career stage, a decision about accepting a nomination to become an editor of a journal might prompt the mentor to guide the mentee using in-depth discussions of the impact of the required workload on other activities, such as writing, applying for grants, and other opportunity costs. For the later-stage faculty, mentoring discussions about when and how to approach retirement will benefit from a discussion of legacy and values, missed opportunities and regrets, and family and health needs, as well as exploring activities and roles that provide purpose and meaning.

4 Reflection

We have incorporated active listening skills using this framework with many mentees making decisions across the academic life cycle. While it is rarely a step-by-step discussion of content as we have described above, this framework (content) and process (active listening) have consistently yielded productive, thought-provoking conversations that have strengthened the mentor-mentee relationship. One of the most challenging situations occurs when the mentee is considering leaving the institution for another career path or institution, especially when the mentee has become an integral part of the mentor’s team or a collaborator. It is critical that the mentor maintain a mentee-centric attitude, put aside their personal interests in the outcome, and maintain a focus on what is best for the mentee.

Mentoring is about developing a strong, trusting, respectful relationship with each mentee. Mentors empower the mentee using these skills to stimulate growth and self-reflection. This chapter does not prescribe a formulaic approach to mentoring, but provides a framework for developing an authentic, mentee-focused relationship that can be utilized throughout a mentee’s career.

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Functional Mentoring

Maryellen Gusic and Luanne Thorndyke

In this chapter, we focus on functional mentoring, a form of dyadic mentoring in which a mentee partners with a mentor with specific expertise in order to address a particular mentoring need (Thorndyke et al., 2008). The focus of a functional mentoring relationship is often working on a project that may provide the opportunity for collaboration (Gusic, Milner, et al., 2010). While functional mentoring typically occurs between one mentor and one mentee, this dyadic team can exist within a constellation of an individual's mentoring relationships (Aylor et al., 2016; Balmer et al., 2011; Christou et al., 2017; DeCastro et al., 2013). Functional mentoring is also a structure that aligns with the principles outlined by Kram and Higgins in their description of developmental networks in which personal and professional relationships evolve over time as the individual's needs for support change (Higgins, 2001).

Let's use a case to illustrate a mentor's role in functional mentoring: Setting the stage by clarifying goals for the relationship

As a senior faculty member whose career focus has been in education, you are recognized in your department and in the institution for your contributions as an educator, having been promoted to professor based on scholarly work in the domains of curriculum development and learner assessment.

A recently hired, early career faculty member in your department has asked to meet with you. They are interested in education and have just returned from a regional professional meeting with an idea to develop a virtual, asynchronous learning activity for health professions students to implement in the new clerkship year (4 months from now).

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1 Introduction to Functional Mentoring

While a variety of approaches can be used to create an effective mentoring relationship(Geraci & Thigpen, 2017), it is critical that the goals for the relationship be clear and that all participants have shared expectations about how they will work together to meet those goals (Aylor et al., 2016; Pauly et al., 2014).

Traditional dyadic mentoring relies on compatibility of the individuals involved. Mentor and mentee focus on getting to know each other and creating a connection so that they can work to define the goals and expectations for the relationship. Personal connection, sometimes referred to as "chemistry," is an essential foundation for future work together to meet the career goals of the mentee.(Jackson et al., 2003; Straus et al., 2013).

In functional mentoring, the pair is formed because the mentor can assist the mentee in achieving a determined objective or goal (Alford et al., 2018; Thorndyke et al., 2008). Meeting this need results in a tangible product or outcome that demonstrates the success of the relationship. A measurable outcome can contribute to the career success and advancement of both the mentee and the mentor, as it can be documented in curriculum vitae and academic dossiers (Berk et al., 2005; Gusic, Zenni, et al., 2010; Thorndyke et al., 2008).

Functional mentoring relationships can form informally or can be incorporated within the context of professional development or departmental/institutional mentoring programs.(Kashiwagi et al., 2013) Those who lead formal, structured mentoring programs can utilize the definitional elements of functional mentoring to identify, select, and match mentors with mentees given their knowledge about the specific content expertise and skills of available mentors. Creation of a database of available mentors that includes specified areas of expertise, and setting up structured activities within the program that allow mentees to define their goals and identify their needs will enable an effective match to be made.

Back to the case: What should you do in advance of meeting a prospective mentee?

Before you meet with the early career faculty member, you consider how you can assist this colleague in defining the help they need. You realize that you will need to ask your potential mentee to define clear goals for their project, and also articulate their "ask" (i.e. to define the guidance that they require to successfully implement this project). This information will help you decide if you will be able to help meet the needs of this potential mentee. You set up a time to meet with the potential mentee.

2 Defining a Mentee's Needs to Achieve their Specific Goal

In functional mentoring, a mentee must be able to identify what they need: the specific gap about which they are seeking guidance (Becker & Yager, 2013; Cruz et al., 2015; Manuel & Poorsattar, 2020; Zerzan et al., 2009). This necessary first step is

not an easy task, and junior faculty may need guidance in conducting a self-assessment, either from a mentor/potential mentor or within the context of a professional development or mentoring program session (Welch, 2016). Reflection on information from others and from previous experiences can inform a mentee's self-assessment about the knowledge and skills they already have to contribute to the success of the project (Eva & Regehr, 2008; Sargeant, 2008). Evaluation of their other mentoring relationships and exploration of the professional development resources available to them in the department, institution, or through a professional organization will allow a mentee to recognize other sources of support.

A mentor can use a coaching approach to increase a potential mentee's self-awareness and self-trust in using their existing strengths to meet their goals (Geraci & Thigpen, 2017; Marcdante & Simpson, 2018; Thorn & Raj, 2012). Through inquiry, a mentor can coach a mentee to find and use data to illuminate what they bring to the table, and to analyze what gaps exist that can be addressed through a functional mentoring relationship. Identification of one's gaps also allows the mentee to proactively request the help they need (Manuel & Poorsattar, 2020; Zerzan et al., 2009).

Returning to the case: Are you the "right" mentor to meet this mentee's needs?

After the first meeting, your potential mentee sends you a follow up email. They have reflected on the questions you asked during your first meeting. They have also done some additional work to define the project and to identify how they hope a mentor can help. They are looking for guidance in designing an effective online activity to promote interprofessional collaboration and team building that will allow students from different health professions to design a quality improvement project for the inpatient unit where students rotate during the clerkship.

You are pleased that the potential mentee has clearly defined the goal of the project. However, the specific *mentoring* need(s) of the mentee are not so clear. What need/gap is present that the mentor's expertise would best be suited to address? Is it the selection of an appropriate teaching strategy for the activity, engagement of learners from various health professions, use of a specific technology, assessment of learner outcomes, selection of content to be included in the session (quality improvement), evaluation of the learning activity, something else, or all of the above?

3 Specifying the Skills and Expertise of a Mentor

In functional mentoring, a "good fit" exists when a mentor's distinct expertise aligns with what the mentee needs (Thorndyke et al., 2008). Although mentors are often assigned or approached by potential mentees largely due to their broad mission area expertise or based on their reputation as a strong and supportive mentor (Cho et al., 2011; Sambunjak et al., 2010; Straus et al., 2013), in functional mentoring, a deeper dive is required. Even within the context of a structured program, mentors must be asked to do an introspective and honest self-evaluation to be able to state with

confidence their specific area of expertise within a particular mission area (Geraci & Thigpen, 2017; Leary et al., 2016; Metzger et al., 2013).

Probing, or asking a mentor to divulge where their strengths lie, may be a challenge. Mentors may judge their expertise to be restricted to a particular discipline, and yet have translatable skills that would be helpful to a mentee working in a different content area. Alternatively, more experienced faculty may feel they have general expertise that would be helpful within the larger context of the mentee's career journey. In this situation, a useful role of senior faculty mentors might be to serve as a connector, engaging in efforts to expand the database of potential mentors for consideration by the mentee, and helping them find the "right" person with the expertise needed for the particular challenge being faced at this time (Serwint et al., 2014).

Returning to the case*: Are your skills a "fit" to meet the mentee's needs on this project?*

You have always said "yes" when asked to mentor another faculty member. You seek to serve as a role model and potential sponsor for faculty interested in education, and look forward to being able to share your enthusiasm for education and to think about how you can help this potential mentee become involved and be recognized in education.

You have read a lot and are familiar with the literature related to interprofessional education and curricula in graduate medical education related to quality improvement. But, being honest with yourself, you have never developed online learning activities and do not have much experience with the platforms the early career faculty member is considering for use in this project. Although you are interested in the prospect of learning as you work with this mentee, you worry that your relative inexperience with the use of technology will slow down the project and perhaps delay implementation until the next academic year.

How should you address the mentee's request for help?

You decide to connect the early career faculty member with an associate professor in another department whom you met during an institutional educational symposium featuring educational works-in-progress. You recall that this colleague's presentation was about a virtual curriculum they created within a national professional development program for educators.

4 Measuring Success through Tangible Outcomes

Functional mentoring offers benefits for mentees and for mentors beyond the satisfaction of the relationship itself. This one-on-one relationship is focused on the mentee's needs related to a specific goal or project. Success of the relationship is measured by the achievement of tangible outcomes that align with the specified objectives for the relationship, and thus, functional mentoring, by definition, is time-limited (Thorndyke et al., 2008).

While training for mentors can be used to expand their skills in mentoring across differences (gender, ethnicity, race, age) or in communication and feedback (Sheri et al., 2019), the mentor's existing skills and expertise must align with the need they are being asked to address; as such, mentor training is not necessarily required. Given that functional mentoring is often associated with a specific project (creating a curriculum), aspect of a project (writing a manuscript), objective of a project (designing the evaluation plan), question or challenge related to a mentee's career (choosing or changing an area of scholarly pursuit), or advancement (negotiating elements of a new position), the time commitment for the relationship is defined based upon the timeframe and complexity of the goal or objective for the mentoring relationship. The specificity of the project or the objectives to be met, and the time-limited nature of functional mentoring thus allows busy senior faculty to say "yes" with a full understanding of what the "ask" entails (Straus et al., 2009; Zerzan et al., 2009).

A potential challenge to the use of this model of mentoring is the ability of each member to accurately assess and acknowledge their own gaps and limitations and to be able to engage in an honest discussion about the scope of this functional relationship (Leary et al., 2016; Metzger et al., 2013; Straus et al., 2013).

Case resolution: ***What were the outcomes of the functional mentoring relationship in this case?***

The early career faculty member and your colleague worked together on the project and implemented the learning activity in the clerkship. They presented the work at a national conference related to quality improvement and have published a manuscript on the outcomes of the project in an interprofessional education journal.

5 Reflection

Although you did not engage in a functional mentoring relationship with this mentee, you maintain a mentoring relationship with the early career faculty member serving as a career counselor to provide guidance related to participation in professional development opportunities and engagement in national organizations and academic meetings that focus on education. You meet bi-annually with this colleague and each spring, you review the mentee's educator portfolio and the materials related to their educational work that they have developed for their annual performance review and ultimately for their academic promotion. You have also served as a sponsor for this mentee by putting their name forward as a candidate for associate clerkship director in your department.

Key steps in developing an effective functional mentoring relationship

1. *Defining a mentee's needs to achieve their specific goal*
2. *Specifying the skills and expertise of the mentor*
3. *Measuring success through tangible outcomes*

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Challenges in Mentoring

Mia F. Williams, Radhika A. Ramanan, and Mitchell D. Feldman

1 Introduction

Challenges in mentoring relationships can originate from any part of the triad: mentor, mentee, or setting. Challenges can also develop at any stage of the relationship. Transitions in relationships are known to carry stress, and mentoring relationships are not immune to this. This chapter is organized around the four phases of the mentoring relationship: selection, alignment, cultivation, and closure. During the *selection phase*, each party should take an inventory of their own needs and values. As the relationship evolves, mentees learn to "manage up" and over time, the mentor and mentee need to work together to ensure that there is an *alignment* of goals as they *cultivate* a productive, long-term relationship. Finally, most mentoring relationships must confront the end of the relationship and navigate *closure*. In this chapter, we present mentoring challenges that may arise in each of the four phases of a mentoring relationship by following one case from *selection* to *closure*. In so doing, we hope to demonstrate some practical solutions to predicaments that often arise during an evolving and complex mentoring relationship.

2 Literature Review

Mentoring in academic medicine is a vital part of both professional development and the enhancement of a successful career trajectory for trainees, post-graduates, and faculty members (Kashiwagi et al., 2013; Sambunjak et al., 2006). However, there are few published studies that specifically describe challenges in mentoring

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relationships, and the majority of these are qualitative studies and/or based on data from a single site. Of the published studies we reviewed, challenges can originate from the structure of the mentoring relationship (or lack thereof) and misalignment of expectations, including a sense of a lack of support (absenteeism, lack of psychosocial or career support), an overstretched mentor or mentee, and generational differences (Limeri et al., 2019; Straus et al., 2013; Ragins & Scandura, 1997; Leary et al., 2016; Keller et al., 2014; Bickel & Brown, 2005). Other issues relate more to the relationship itself, such as lack of rapport and interpersonal mismatch, poor communication, the mentee or mentor failing to meet expectations, and crossing of boundaries (Limeri et al., 2019; Eby et al., 2008; Ragins & Scandura, 1997; Moseley & Davies, 2008; Jackson et al., 2003; Leary et al., 2016). In addition, some relationships are challenged by a professional conflict between mentee and mentor, including having competing interests, a changing relationship with development of an identity separate from the mentor, and resentment from the mentor not receiving credit felt due to them (Straus et al., 2013; Ragins & Scandura, 1997).

Regardless of the type of mentoring model, all longitudinal relationships are vulnerable to challenges. These challenges may be greater for Underrepresented in Medicine (URiM) faculty due, in part, to the added burden of negative stereotypes and inaccurate perceptions (Oliver et al., 2020). In addition, the importance of mentoring and preferences among women has been shown to vary by demographic characteristics (Carapinha et al., 2016; Farkas et al., 2019), leading to more challenges unless careful attention is paid to mentor/mentee matching. Differences in gender, race, ethnicity, and upbringing, among other distinguishing factors, can introduce unintended stress for the mentee, which can be mitigated by skill development programs for the mentor (Feldman et al., 2009; Feldman et al., 2012; Osman & Gottlieb, 2018) and "how-to" guides for mentees (Flores et al., 2019). Fortunately, with the development of mentor evaluation tools (Yukawa et al., 2020) and individual development plans (UCSF Mentoring Toolkit) mentees can develop skills to navigate the evolution of the relationship.

3 Case Study with Discussion Questions

3.1 Stage 1: Selection

Maria is a first-generation medical student who wants to work on a research project to strengthen her application for residency. She remembers working with Dr. Lee, an assistant professor in her field of interest, and sends him an email reintroducing herself and inquiring as to whether he is looking for help on any of his research projects. Dr. Lee is busy preparing for promotion but remembers Maria as punctual, knowledgeable, and prepared on her rotation. He wants to help her but wonders if he is the best mentor for her at this time.

1. When selecting a mentor, what questions should a mentee like Maria ask herself?

2. What should a mentor like Dr. Lee consider before agreeing to work with a mentee?

Mentorship starts with a mentee selecting the right mentor to help guide them professionally, and at times, personally. Mentor and mentee selection and matching often pose a challenge because the potential offerings of a mentor are broad and the mentee's needs may be many. As such, the first challenge for Maria is to reflect on her current goals and to develop a focused plan of what she needs from a mentorship relationship (Lieberman, 2016). Does she want to learn research methods, clarify if a research career is in her future, and/or receive guidance around work-life balance? A mentee may seek a mentor with whom they have common characteristics (e.g. gender, ethnicity, socioeconomic status) to provide input on how to navigate their own career. Given that most mentees have multiple needs, they should be open to selecting more than one mentor to achieve their goals.

A number of approaches and tools exist to guide mentees in the preparatory work to select a mentor. First steps include mapping out the mentee's broad needs (e.g. career direction, content expertise on a project, help with personal/professional balance, etc.) and specific goals, and reflecting on what conditions help them work effectively (e.g. amount of structure) (Mentoring toolkits: UCSF, UW). Mentees should also consider if their potential mentor has sufficient experience as a mentor and the requisite mentorship knowledge and skills. When reaching out to potential mentors, mentees should realize that the first meeting is simply an introduction where they come prepared with their specific goals and with questions to assess if there is a fit.

While the mentee needs to prepare before approaching a potential mentor, once approached, a mentor must reflect on their own preparedness to mentor this particular mentee. Questions a mentor should ask themselves include:

1. Do I have the time to mentor this individual? Do I have other mentees that could be impacted by me mentoring someone else?
2. Do I have the knowledge and skills needed to assist this mentee? Am I prepared to mentor a trainee of this level? What additional training do I need?
3. Have I received sufficient training on implicit bias and mentoring across differences to better enable me to mentor this individual?
4. What are my motivations for mentoring this individual? Do they align with the mentee's goals and expectations?

After meeting, it is appropriate for both parties to determine whether the mentoring relationship should or should not proceed (Moores et al., 2018). At the end of the selection phase, the mentee should have clarified their goals and identified a mentor(s) to help with achieving those goals. The mentee and mentor should treat the selection process as an opportunity for learning how to prepare for their partnership. This can ultimately help reduce challenges down the road.

3.2 Stage 2: Alignment

After evaluating his ability to mentor Maria, Dr. Lee decides that this would not be the best time to take on a new mentee. He thanks Maria for her interest and connects her with his colleague, Dr. Michelle Jones. Maria comes prepared to her meeting with Dr. Jones. They find that they have good rapport, and discover that Maria is interested in collaborating with an ongoing research project of Dr. Jones'. Maria also hopes that Dr. Jones may be able to provide her some career guidance, but she does not bring this up.

Dr. Jones has served as a research mentor to fellows with prior research experience but she has not acted as a research mentor to a medical student.

1. What are the challenges in ensuring alignment in a mentoring relationship? What are common sources of misalignment?
2. What tools exist to help Dr. Jones and Maria align their goals and expectations?
3. What skills should Dr. Jones develop in order to be a more inclusive mentor, and what steps can she take to develop these skills?

After Maria and Dr. Jones decide to work together, they need to develop ground rules and specific goals and expectations. Potential conflicts may arise during this time as the mentee and mentor align their goals, take the time to dedicate the needed time and resources, and clarify approaches to communicating, among other factors.

Lacking clear goals and direction is often cited as a barrier to a successful mentorship (Keller et al., 2014; Leary et al., 2016). Failing to align on this aspect of the relationship may lead to the mentee feeling lost and the mentor struggling to know how to best contribute to the mentee's growth. Alignment tools such as checklists, mentoring agreements, and Individual Development Plans (IDPs) tailored to the level of training and career track of the mentee (e.g. researcher, educator, MD vs. PhD) can be helpful in dealing with this challenge (UCSF Mentoring Toolkit). Broadly speaking, alignment tools help clarify long and short-term goals, what measurable outcomes will define success, what actions are needed to achieve these outcomes and goals, and expected timelines.

Mentoring agreements and IDPs provide a structure for discussing and aligning the mentoring relationship. After initial development, the dyad should agree to take time to reflect on the plan separately and then meet to discuss and agree on a finalized plan. This allows each party to reflect on whether challenges may be an opportunity for growth, and for mentees to consider how to say no if they feel an aspect of the plan is not beneficial (Moores et al., 2018). Likewise, while reflecting on the time available to the mentoring partnership or objective within the alignment tool, the mentor will have the opportunity to make recommendations (such as narrowing the scope of a project to something that is achievable) (Keller et al., 2014). Over time, through an iterative process, mentoring agreements and IDPs should be modified as the mentees' interests evolve, new opportunities arise, and so forth.

As highlighted in the vignette, Dr. Jones realizes she may need additional skills to mentor a trainee like Maria. Dr. Jones' institution may offer training for mentors,

have a mentoring toolkit she can review, or provide online modules that she could take to improve her skills. Dr. Jones may also want to inquire about aspects of Maria's identity that have shaped her goals and career (e.g. gender, race/ethnicity, or socio-economic status). When starting to mentor, we recommend that mentors investigate whether their institution has diversity, equity and inclusion, or implicit bias training (Carapinha et al., 2016; Oliver et al., 2020).

Establishing and aligning a mentoring relationship relies on revisiting and reevaluating work done in the selection of a mentor. Ultimately, this process, and tools like an IDP, provide the dyad with an initial plan for the mentoring relationship that can be referred to when challenges arise.

3.3 Stage 3: Cultivation

Dr. Jones pursued mentor training through her institution and helped Maria enroll in an online course in research methodology as stated in her IDP. Maria made valuable contributions to the research project and successfully applied to residency in Dr. Jones's field and institution. She is now an intern and working on the manuscript of a different project with Dr. Jones, but recently has emailed Dr. Jones several times asking to push back deadlines.

Dr. Jones feels disappointed in Maria's current work and wonders what changed. Maria feels increasingly stressed as she works to balance her personal life, clinical responsibilities, and career decisions with completing the manuscript. She finds herself questioning her writing ability, repeatedly rewriting drafts, and delaying sending her work to Dr. Jones.

1. How might Dr. Jones inquire to understand the change in Maria's work?
2. How might Maria present her concerns to Dr. Jones?

Once the mentoring relationship is aligned, the dyad is able to focus on the work the relationship was established to accomplish. However, both mentees and mentors may be challenged with how to respond when goals are not being met. These situations often lead to feelings of disappointment (Eby et al., 2008; Leary et al., 2016). As is highlighted in the case above, the failure the mentor perceives is not the whole story. What might actually be taking place is Maria realizing that her original goals are changing, dealing with imposter syndrome, trying to balance different aspects of her professional and personal life, sensing inadequacies in her skillset, and wanting to impress her mentor.

Maria may worry that she is letting her mentor down but be unable to clearly identify how to progress. As a start, the mentor can encourage the mentee to review the IDP and employ tools to identify where the challenge is arising (Moores et al., 2018, Sambunjak et al., 2006, UCSF Mentoring Toolkit, UW Mentoring Toolkit).

Mentors should remember that they are in a position of power and should employ an empathic rather than punitive approach by reflecting on the differential diagnosis of a struggling learner. Mentees do not want to appear vulnerable by admitting, for

example, that they feel overwhelmed. Therefore, it is critical for the mentor to be skilled in initiating a conversation about potentially sensitive issues when the mentee is not meeting expectations. Referring back to the chosen alignment tool and using the following framework for conversation may be helpful for the mentor:

Highlight that your role is to support the mentee.

1. Inquire as to whether the mentee realizes there is an issue. If the mentee is unable to identify an issue, be forthright about what you have observed.
2. Inquire into the barriers facing meeting goals and objectives.
3. Do not solve the problem but offer support to guide the mentee. (If the mentee is not prepared, provide examples of how to progress).

Of note, this process highlights many components of the role of mentor: assisting with professional and personal development while also providing emotional support and facilitating both technical and professionalism-based skill building (Cho et al., 2011; Gruber et al., 2020; Straus et al., 2013).

3.4 Stage 4: Closure—Ending the Mentorship Relationship

Maria and Dr. Jones submit their manuscript successfully! Maria is now applying to fellowship in a different field than Dr. Jones and is prioritizing acceptance to a fellowship at an institution closer to her family. Maria has enjoyed working with Dr. Jones and appreciates how she helped her build her research skills and improve her work-life balance. Now that she has chosen a different field than Dr. Jones, Maria is worried about disappointing her mentor and does not know what to do regarding next steps or ending their mentoring relationship.

1. What are indications that it may be time to reevaluate or end a mentorship relationship?
2. What should Maria and Dr. Jones consider when closing a mentorship relationship?
3. What best practices exist for closing a mentorship relationship?

All mentoring relationships eventually must end, or at least evolve from mentor/mentee to one that is more akin to colleagues. Planning for closure from the beginning may make it easier to manage this change (Alisic et al., 2016; Zerzan et al., 2009). Such planning should include regular check-ins regarding the relationship and progress with the use of an IDP, with set time intervals to evaluate the relationship and meeting of goals and expectations. Such an approach may help mitigate well-recognized discomfort in broaching the end of the relationship and possible negative consequences including stress, impact on career, and issues with collegiality if continuing to work together (Alisic et al., 2016; Moores et al., 2018).

With this in mind, throughout the mentoring relationship the mentor and mentee must actively reevaluate whether shared expectations are being met and if the mentee is progressing towards their goals. If not, each must ask why. Have the goals

been met? Are expectations being satisfied? Is there dissatisfaction with communication or the relationship? Are there changing circumstances such as location, personal or professional priorities, or availability of one of the parties? (Ragins & Scandura, 1997). Many institutions have toolkits to help the mentor or mentee assess the relationship; using these resources can help guide this evaluation (UCSF Mentoring Toolkit, UW Mentoring Toolkit).

If the primary reason for ending the relationship is a change in professional priorities (e.g. transitioning from education to quality improvement work) or distance (e.g. moving for fellowship) then it may make sense to continue the relationship but reassess specific goals. Perhaps working on a research project no longer makes sense, but the mentor could become an additional career mentor or sponsor. However, if the reasons behind re-evaluating the relationship are due to lack of rapport or alignment of expectations, ending the relationship may be best for both parties. This may be due to tangible reasons (e.g. expectations not being met) or intangible reasons (e.g. inability to maintain rapport). Some of these situations are sensitive and complicated as that they can include inappropriate behavior, bias, manipulation, or other interpersonal issues (Eby et al., 2008; Green & Jackson, 2014). All of these are factors recognized in the literature as ones that make ending a mentoring relationship potentially uncomfortable (Alisic et al., 2016; Gruber et al., 2020).

Regardless of the cause for ending the mentoring relationship, here are tips on how to proceed: (UCSF Mentoring Toolkit, UW Mentoring Toolkit, Straus et al., 2013)

1. Ideally, closure should be discussed when first developing the mentoring partnership to help adopt a no-fault end to the relationship.
2. Prompt and timely notice should be given of a need for reevaluation or dissolution of the mentoring relationship. This requires each party acknowledging change in perceptions or feelings about the relationship and discussing them openly.
3. Clear, honest, and respectful communication regarding the reasons for the change are imperative.
4. Reflection and feedback on goals and the relationship should take place. What worked and what was less than successful? Both the mentor and the mentee can reflect on progress and challenges that were overcome, and, if appropriate, celebrate successes.
5. A clear definition of when the mentoring relationship will change or end is needed. This allows for discussion of transitioning to future goals and planning, and possibly connecting the mentee to a new mentor.

While ending a mentoring relationship may be difficult, it is important to remember that it is ultimately positive because it opens the door for new, productive partnerships to be initiated and developed.

4 Reflection

*We have found that mentoring challenges present a unique opportunity for profound personal and professional growth. Rather than looking for ways to avoid or immediately resolve challenges that arise in the course of a mentoring relationship, we believe that mentors should reframe these challenges as opportunities through the application of emotional intelligence (EI). Goleman posits a framework of emotional intelligence such that an individual's ability to master the skills of self-awareness, self-management, social awareness, and relationship management is likely to translate into more success in the workplace (*Cherniss & Goleman, 2001*). Emotional intelligence, in brief, entails awareness of oneself, awareness of others, and applying these insights into more effective action on oneself and action on others. We apply EI in mentoring relationships by focusing on greater awareness of our own feelings and emotions, and how these impact our behavior; in so doing, we can sharpen our awareness of our own and our mentees' feelings and actions and more effectively navigate and deal with challenges in the mentoring relationship. When confronted with a challenging mentoring relationship, we often reflect on several questions, such as: Why is this challenge arising at this moment in time with this particular mentee? What is the emotion this brings up for me? Is this particular mentoring relationship more challenging than others, and if so, why? We will check in on any implicit assumptions, confirmation bias, or any other biases that we might be bringing to the relationship. In addition, we try to reflect on what feelings might be present for the mentee. For example, might they be feeling frustrated? Anxious? Perhaps frightened? Finally, we hope that we have been successful in creating an environment of trust and safety in the mentoring relationship so that we can begin to explore with the mentee what their experience has been and work on ways to move beyond the challenge so we can work more effectively together. Mentoring challenges provide both mentor and mentee the opportunity for personal and professional growth and the path forward to build a more productive and durable relationship.*

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Approaches to Designing Faculty Mentoring Programs in Medical Education

Maria Blanco and Kathryn Huggett

1 Introduction

The vital role of structured mentoring programs in a faculty member's life is unquestionable; different approaches to designing such programs have been proposed in the health sciences education literature. Traditionally, these approaches have portrayed a dyad model, in which pairs of mentors and mentees are assigned to work together. However, in the last decade, the academic field has been advocating for multiple mentoring models, in which mentoring networks are pursued and composed of a set of multiple mentors who can assist an academic both personally and professionally throughout their careers and in a variety of career competencies. Still, there is a dearth of literature in health sciences education on how to go about identifying the right program model and designing it. In this chapter, we review the main characteristics of these two distinct approaches to developing mentoring programs, the dyad model and the multiple mentoring model, while proposing using a published checklist to guide the program design and implementation. We will illustrate these concepts with a case study based on our own experiences as directors of mentoring programs for health sciences educators. We hope that this chapter will help inform the design, implementation, and evaluation of faculty mentoring programs in health sciences education.

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2 Evidence Based Literature Support Content

2.1 Mentoring Programs

In their seminal systematic review of the existing literature on formal mentoring programs for academic physicians, Kashiwagi et al. (2013) identified seven different mentoring models: dyad, peer, facilitated peer, speed, functional, group, and distance, with the dyad model being the most common. The authors also identified seven potential components of a formal mentoring program: mentor preparation, planning committees, mentor–mentee contracts, mentor–mentee pairing, mentoring activities, formal curricula, and program funding.

Yet, based on this existing literature, Pololi and Evans (2015) highlighted the pitfalls of dyad models that were reported in the literature, and described their innovative attempt at addressing them by implementing a group peer mentoring program in their large academic department. Among the difficulties that the dyad model could entail, Pololi and Evans (2015) mention lack of mentors, disagreements around relationship expectations, and generational/personality clashes. Moreover, in current complex academic environments, faculty need to draw upon different fields and thus multiple mentor's expertise to better fulfill their mentoring needs and career development (Mathews, 2003). In multiple mentoring, a mentoring network is composed of a set of multiple mentors who can assist an academic both personally and professionally throughout their career and in a variety of career competencies (de Janasz & Sullivan, 2004). Multiple mentoring can be established through a variety of structures, such as peer-to-peer mentoring, a mentoring network consisting of mentors from within and outside of an institution, group peer mentoring, or reverse mentoring, in which senior leaders learn from younger staff members (Disch, 2018). Recent reviews on mentoring programs within the health sciences and academic medicine, have also identified existing multiple mentoring models (Geraci & Thigpen, 2017; McRae & Zimmerman, 2019).

2.2 Mentoring Program Design

Most of the mentoring literature published in health sciences education provides descriptions of specific programs, but does not address how to go about designing a program. This issue drove Law et al. (2014) to propose a checklist for designing faculty mentorship programs that could be useful for both planning a new program or refining existing programs. These scholars clearly state that there is no prescriptive, one-size-fits-all approach to designing mentoring programs for faculty, and therefore a thoughtful planning framework will identify the best institutional

program fit. Law et al. suggest five steps for developing mentoring programs, which they synthesize under the acronyms PAIRS: process, assessment and evaluation, intent, resources, and structure. These scholars emphasize the need for offering mentoring across the academic lifespan of a faculty career and for addressing different areas of faculty academic portfolios. We will illustrate the use of this proposed checklist with our case study.

3 Case Study Example with Discussion Questions to Apply with Others

In this section, we offer a case study to illustrate two approaches to designing, implementing, and evaluating faculty mentoring programs in medical education. This case study begins with a request from the faculty affairs dean at Midstate University College of Medicine after receiving the results of a medical school faculty engagement survey. The survey results indicated that faculty (particularly those on the educator pathway) reported feeling isolated from other faculty and confused by the promotion expectations for their pathway. The survey results also indicated that faculty on the educator pathway wanted to find ways to increase their scholarly activity as an educator. The faculty affairs dean is familiar with the literature on mentoring and knows that there is evidence demonstrating that mentoring programs can increase engagement and promote scholarship. The question, however, is what type of mentoring program should be implemented at Midstate University College of Medicine?

The following checklist provides a comparison of two mentoring programs types that the faculty affairs dean at Midstate University College of Medicine could consider implementing. The programs are presented using the PAIRS framework (Law et al., 2014). At each stage of the mentor program planning and implementation process there are important questions, the answers to which will guide program developers in selecting a mentoring program type and then in implementing the program. For example, asking "What are the goals of the program?" will assist program developers in selecting the appropriate model. This question will also serve as the foundation for a future evaluation of the mentoring program so that the program's outcomes, and any barriers to achieving these outcomes, can be identified. The key questions that need to be answered to plan, implement, and evaluate a mentoring program are represented in the checklist as items.

PAIRS Checklist—Multiple mentoring and mentoring dyads program examples

Items	Items application multiple mentoring program example	Items application mentoring dyads program example
Intent		
1. Goals and purpose(s) of program	To develop a cohort of medical school faculty on the educator pathway who will provide mentoring to each other while also identifying mentors outside the cohort group to develop a mentoring network for career advancement on an area of the educator's choice	To provide medical school faculty with formal, one-on-one mentoring on their educator career, including guidance on the promotion process and scholarly work. The Mentoring Dyad relationship also offers a confidential space for discussion of topics that mentees may not feel comfortable discussing with their department chair or division chief
Structure		
2. Oversight of program	The program will recruit a cohort of up to 10 medical educators through a thoughtful application process that will allow to select a cohort that will be similar enough to meet most needs and diverse enough to enrich conversations. The program will be directed by a faculty developer and supported by one administrative coordinator. The program will last one year and will start with a kick-off session to introduce participants to the multiple mentoring model and allow them to map their career plans to determine the career goal/s they will pursue throughout the program. The cohort will meet monthly to check participants progress of their career goal/s while seeking peers' feedback. Participants will also be encouraged to look for outside mentors and keep a contact list of mentors they reach out to throughout the program	The program will identify a faculty mentor for medical school faculty members who seek mentoring for their educator career. The program will be coordinated by the Office of Faculty Development and its mentoring committee. The director of the Office of Faculty Development works with the office's program coordinator to facilitate the matching process; distribute orientation materials; distribute a mid-year evaluation; and collect end-of-year progress reports from the pairs

3. Policy and procedures	**Application procedure:** The application will request that applicants explain what they hope to get out of the program and what are some of the areas in their professional career that they believe mutual mentoring will be most beneficial (career areas can include Teaching, Research/Scholarship, Leadership, Service, Academic Promotion) **Selection procedure:** Participants will be chosen by the program director based on the following criteria: 1. Importance—persuasive arguments of the critical nature of the mentoring relationship for the applicant future goals and development at the institution 2. Goals—demonstration of areas in educational research, teaching, leadership or service, that mutual mentoring will assist participants in achieving **Program Process** The process and rationale will be laid out in a document that will be shared with the participants upon acceptance and review at the first cohort meeting; the document will list the following items: • Purpose of the program • Participants commitments: attendance to cohort meetings; completion of a Career Action Plan at the beginning of the program; maintenance of a list of outside contacts made throughout the program to be handed in at the end; completion of Action Plan Achievements at the end of the program The director of the program will facilitate the group meetings and hold individual consultations with participants upon request to provide individual mentoring; this individual mentoring should be added to the participant's contacts list The administrative assistant will schedule cohort meetings, order meetings catering, contact participants with logistics and reminders, and collect participant's documentation	**Application procedure:** The application will request that applicants indicate 1–2 areas of their educator work where they would most like mentoring. The areas are Teaching; Learner Assessment; Curriculum Development; Mentoring and Advising; Educational Leadership and Administration; Online Teaching and Learning; and Career Development/ Planning for Educators. Applicants may also request mentoring for a specific scholarly project or select "Other" and provide details **Selection procedure:** The Mentoring Committee will review the applications and list of faculty who have volunteered to serve as mentors. The Mentoring Committee may also contact faculty not listed on the volunteer list and recruit them to serve as a mentor if they believe there is a particular area of expertise or qualification **Program process:** Mentees will be notified via email of their Mentor and will have ten days to inform the program director if, for any reason, they prefer a different assignment Mentees are expected to arrange all meetings with their Mentor At the first meeting, Mentee-Mentor pairs must complete a Mentee/Mentor Agreement form; Annual Mentoring Plan; and a Statement of Expectations for the mentoring relationship. The pairs must meet at least 3 times between June and July in the initial year. Pairs are encouraged to review the Annual Mentoring Plan at each meeting

(continued)

Items	Items application multiple mentoring program example	Items application mentoring dyads program example
4. Mentors & Mentees pools	The mentees pool will be selected from an application call that will be disseminated throughout basic sciences and clinical departments while targeting faculty on the educator pathway The mentors pool will consist of the program participants, the program director and other professionals that participants will contact throughout the program. These mentors can be from within and outside the institution and include professionals from a different field, such as librarians	The mentees pool is generated after a post to the all-faculty listserv. The call is also sent via targeted listservs to faculty on educator pathways The mentor pool will consist of faculty who were identified by the Office of Faculty Development and agreed to serve as mentors. Mentors were identified from their participation in previous faculty development programs. Additional mentors may be recruited if needed to address a specific need identified by a prospective mentee
5. Mentors and Mentees incentives	Given the initial short-term nature of the relationship, there is no need to provide an incentive the mentors Mentees incentives could be optional; a small grant stipend for career development could be awarded upon acceptance for participants to spend the funds on items that would help them achieve their career goals, for example, academic writing consultations, statistical support, poster printing, meetings registrations, meals with outside-of-cohort mentors	Given the modest commitment of time (three meetings per year) there is no need to provide an incentive to mentors An initial needs assessment indicated that faculty were already interested in and seeking a dyad mentoring program so no incentives will be provided for mentees until the program has launched and feedback can be obtained
Process		
6. Mentor-Mentee matching	No pre-determined matching needed; mentoring relationships are informal	The Mentoring Committee will review the applications and list of faculty who have volunteered to serve as mentors. The Mentoring Committee may also contact faculty not listed on the volunteer list and recruit them to serve as a mentor if they believe there is a particular area of expertise or qualification
7. Formal mentorship assignment/ agreement	An optional formal agreement can be created with the program requirements for participants to sign in at the beginning of the program	Mentee-Mentor pairs must sign an agreement form and also the brief Statement of Expectations for the year
8. Mentor orientation and training	Not needed	Mentee-Mentor pairs receive the Mentee/Mentor Agreement Form; Annual Mentoring Plan, the Educational Scholarship Planning Guide; one article on dyad mentoring; and two articles on effective strategies for mentoring relationships

9. Mentee orientation	Program introduction at the first cohort meeting	Idem as Mentor's Orientation and Training
10. Expectations of the relationship	• Group commitment to attend meetings and communicate as needed in between group meetings • Group discussions must remain confidential • Participants will listen to each other and convey respect to each other while establishing a collegial environment • Participants will nurture each other's professional development as health science educators	• The Mentee and Mentor must complete the Mentee/Mentor Agreement Form • The Mentee is responsible for contacting the Mentor and arranging meeting dates/times • Discussions and communications between Mentees and Mentors are confidential and should not be shared without the consent of both parties • Mentoring may continue on an annual basis by agreement of both parties • Either party may terminate the Mentee-Mentor relationship at any time, without providing an explanation. Mentor-Mentee should contact the Office of Faculty Development, which will make arrangements to contact the other party and, if necessary, arrange for a new match
Resources		
11. Time, money, programmatic support, technology	**Time** Monthly cohort meetings are ideal to keep participants accountable and on track, but less and more scattered meetings with the group could be agreed upon as well **Money** Catering could be provided during the cohort meetings in-person, as well as a small grant for participants (none of these costs are essential) **Programmatic support** This support depends on where the program is hosted; it could be part of an institutional Faculty Development Program offerings or a departmental faculty development initiative. The program director and administrative assistant will be included in this support **Technology** A web-based conference platform will allow for virtual group meetings, which will be required in the midst of a pandemic	**Time** Mentee-Mentor pairs must meet at least 3 times during a one-year period Mentees must complete and then review at each meeting the Annual Mentoring Plan **Money** No money is required. Lunch or breakfast could be offered during in-person gatherings to thank the mentors **Programmatic support** The office of Faculty Development or equivalent administrative/departmental office could provide this support **Technology** A web-based conference platform could be offered for virtual meetings, which will be required in the midst of a pandemic

(continued)

Items	Items application multiple mentoring program example	Items application mentoring dyads program example
Assessment and evaluation		
12. Periodic assessments of mentoring relationship quality	Progress report of participants at cohort meetings	Formative check-in conducted by the program staff via email at the six-month mark
13. Annual assessment of mentoring relationship renewal	Completion of Action Plan Achievements at the end of the yearly program and submission of final list of contacts made throughout the program	Annual assessment of mentoring relationship renewal conducted confidentially by the program staff
14. Program evaluation	Short-term Outcomes: participant's career achievements as a result of participating in the program; participant's final list of type and number of contacts made; participant's reactions to the program Long-term Outcomes: follow-up with participants to check career status and achievements with potential to be associated with the program; institutional retention of faculty on educational academic tracks	Short-term Outcomes: Mentee's progress and achievements from the Annual Mentoring Plan; additional outcomes or contacts made as a result of the mentoring relationship Long-term Outcomes: follow-up with participants to determine if the mentoring relationship contributed to additional opportunities; scholarship; promotion/ reappointment; engagement; retention

4 Reflection

The intent of the program will depend on the institutional need(s) that the program aims to address. The subsequent program model and components will also depend on the institutional infrastructure and resources available to run the program. We believe that a dyad model could help target a specific career area, such as educational research or mentoring for promotion. One limitation, however, is that the dyad approach requires participation from faculty who have specialized knowledge to serve as mentors. In this example, the dyads would require experienced medical education researchers and faculty with knowledge of the promotion system to serve as mentors. This could turn out to be problematic, as Pololi and Evans (2015) *suggested, if there is not an adequate supply of participating mentors with experience in these areas. In contrast, a mutual mentoring model can tackle both similar and different career areas based on the participants' individualized plans while having participants grow from sharing each other's experiences and helping them create a mentoring network with mentors outside the group (*Blanco & Qualters, 2020*). A multiple mentoring program can also recruit participants at different ranks of the academic ladder. We believe that multiple mentoring is underutilized in medical education and could be a conduit for better supporting the career of medical school faculty in the educator's pathway, while opening the door for future long-term formal dyad relationships based on the contacts and relationships initiated during the multiple mentoring program. Therefore, these mentoring approaches are not mutually exclusive and could be implemented in a way so that they build upon one another.*

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The Mentor-Mentee Relationship

Douglas McHugh and Larry D. Gruppen

1 Introduction

The concept of *relationship* refers to how people connect with each other. Schein and Schein (2018) define a relationship as "a set of *mutual expectations* about each other's future behavior based on past interactions with one another. We have a relationship when we can anticipate each other's behavior to some degree." A mentoring relationship is one that may vary along a continuum from informal/short-term to formal/long-term, in which mentors with useful experience, knowledge, skills, and/or wisdom offer advice, information, guidance, support, or opportunity to mentees for those individuals' professional development (Berk et al., 2005). It is inescapably an interactive concept. Some mentoring relationships may be highly transactional and somewhat impersonal, meaning each party relates to the other on a partial or undifferentiated basis; they perceive and interact with their counterpart's "role" rather than the person. This form of mentoring interaction, organized around routine give-and-take exchanges, can be successful, but is vulnerable to asymmetry creeping into mutual expectations, which may undermine and degrade the relationship. Mentoring relationships that are, instead, developed and negotiated through many interactions in which the whole person is acknowledged, valued, listened and responded to, foster reciprocal cooperativity, adaptability, growth, and enrichment. In this chapter, we will discuss various aspects of this latter expression of a

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mentoring relationship between two (or more) people, using the literature and the experiences of ourselves and of colleagues.

2 Contextualizing "Whole Person" Mentoring Relationships

2.1 Parenting Lens

Mentoring is a very complex phenomenon that has been described in many ways, depending on what facet of it is under discussion (D'Abate et al., 2003; Feldman et al., 2012; Kirchmeyer, 2005; Mckimm & Sullivan, 2015). The field of psychology, in particular, has considered mentoring through the lenses of parenting, attachment, and goodness-of-fit (Drotar, 2003; Forehand, 2008; Knight, 2011; La Greca, 2004). This framework for understanding mentoring emphasizes warmth, structure, responsiveness, expectations, and consistency. This perspective and these attributes speak strongly to what it takes to cultivate effective and rewarding "whole person" mentoring relationships. Substandard mentoring, like poor parenting, is inattentive or neglectful. It lacks a consistent, predictable routine. It may manifest as authoritarian with the mentee being offered few or no choices. It may not be supportive of the mentee when they need most need help, or, at the other extreme, it may pamper the mentee and inhibit resilience and independence by having the mentor solve all the mentee's problems.

2.2 Power Differential

As in parenting, interactions between a mentor and mentee are likely to be influenced by an intrinsic power differential. If power is defined as "the capacity to produce change," mentors, as the more seasoned member in the dyad, usually bring more power to the relationship. In contrast, mentees have varying abilities to understand and use what power they do have. Traditional frameworks conceive of power as force (i.e., the extent to which control or influence can be exerted) (Keltner, 2017), and those in the mentee role are vulnerable to its misuse. They are more easily swayed, more invested in being accepted, respected, or liked, and more dependent on and concerned about maintaining good-standing with their mentor, which may cause them to hesitate over and/or struggle with asking for adequate help.

An alternative, emerging model conceives of power as applied social intelligence. Keltner (2017) articulates this as "modesty, empathy, engagement with the needs of others, and skill in negotiating conflicts, enforcing norms, and allocating resources." Adopting this outlook reframes the power differential into a means to cultivate mentoring relationships; power as social intelligence, when applied with good judgement, creates a supportive, well-boundaried, professional context for

growth and development. Given this, mentors should recognize the initiation and early stages of the mentoring relationship as an opportunity to be mindful of and pay attention to their personal power and leadership.

2.3 Mentoring Identity

Ideally, mentoring is more than just what a mentor does; it is part of their identity. Being a mentor may be a way to give back, or demonstrate gratitude for the investment others have made in oneself. It may be a way to have impact on the careers of others. It may be an expression of the intellectual stimulation that enriches academic discourse. Whatever aspect of professional identity (Foster & Roberts, 2016; Goldie, 2012; Lewin et al., 2019; Titus & Ballou, 2013) is represented by being a mentor, the key implication is that it is intrinsically motivated. Few mentors receive compensation for mentoring, and few become mentors for fame and fortune. So, part of the mentor-mentee relationship is a reflection of the mentor, both as a person and as a professional and scholar.

2.4 Mutual Trust and Respect

The benefits of the mentoring relationship must be considered for both the mentee and the mentor. The benefits for the mentee are numerous and well-documented (Balmer et al., 2011; Landsberger et al., 2013; Mayer et al., 2014), but in terms of the relationship, the mentee should be able to give and receive trust and respect. Although there may be other relevant facets, these two attributes seem to be essential to a good relationship. Indeed, much of what follows in this chapter can be viewed as practical and specific steps to establish and maintain trust and respect in the relationship.

3 Establishing the Relationship

Beginnings are delicate things. Mentoring relationships may start in many ways, some more hesitantly than others. “Natural” mentoring relationships often start with the two parties gradually getting to know each other, finding some shared interests, and recognizing the benefits of a more or less formal relationship. Although either party may initiate this, it often starts with a tentative request from the mentee for help of some kind that leads to a longer and more complete relationship.

Because the benefits of mentoring have been so well-documented, many institutions and programs seek to arrange the relationship by recruiting willing faculty and needy learners, and matching them to each other in some more or less systematic

way (Feldman et al., 2010). These arranged relationships have the advantage of shortening the "courtship" period, and of more efficiently aligning supply and demand. However, the more abrupt beginning of a relationship between two strangers requires more intentional effort and thought if it is to be effective.

Whether natural or arranged, the mentoring relationship should begin with sharing expectations about what the purpose of the relationship might be, and consideration of the limits to the relationship, frequency of communication, and similar ground rules. Particularly in arranged mentoring relationships, there may be more or less explicit expectations about the duration of the relationship. Some arranged mentoring relationships are for the duration of a given course, educational sequence, or program. The termination of these short to medium-term relationships should be explicit to avoid misunderstandings and mismatched expectations. More complex mentoring relationships, such as peer-mentoring (Mayer et al., 2014) or team-mentoring, also need to be explicit about the logistics of communication, any power differentials, and mutual accountability. The more complex the mentoring relationship, the more open and transparent must be the shared understanding of the process and goals.

3.1 Rough Spots in the Relationship

Regardless of the efforts to clarify expectations at the beginning of a mentoring relationship, there will often be surprises and unanticipated events along the way that preparation cannot foresee (Simon, 2003). These are typically awkward and uncomfortable because they strain the trust and respect in the relationship, and expose differences between mentor and mentee. Because these unexpected events happen in unique contexts of specific mentor and mentee relationships, they are difficult to predict, prevent, and remedy; however, some issues are common enough to address more generally.

One example is a mentee's request for a letter of reference for a job or award when the mentor cannot, with good conscience, provide full support for the mentee's performance or capabilities. Many mentees see the mentor as their advocate, and, if the mentor is not comfortable in providing such a letter, it is a violation of that expectation. Swallowing hard and writing a letter that is lukewarm or hedges one's support may be one option, but the honesty and openness of a good mentoring relationship would tend to interpret this situation as an opportunity for some "tough love." Sharing the mentor's reservations in a way that provides the mentee with direction and areas of improvement can address longer-term needs rather than provide a quick fix to short-term needs.

For situations in which a mentor has multiple mentees, there is a risk of making comparisons that can lead to differential treatment for one's favorites versus those who are "difficult." Although each mentee will have their own particular strengths and weaknesses, mentors need to be cognizant of the risk of differential treatment on the basis of personal preference. At the extreme of this is a personal friendship

between mentor and mentee that stretches the limits of propriety. Romantic relationships are obvious entanglements that need to be avoided, but mentors and mentees also need to be careful of the boundaries in the relationship. The power differential between mentor and mentee, and the potential of coercion is part of the risk for these relationships, but other psychosocial dynamics may play a role as well.

Because of the risk of misunderstandings, incompatible expectations, and intentional or unintentional abuses of power, many formal mentoring programs require a mentoring contract for both parties that specifies the expectations, rights, and recourse for a mentoring relationship. Large institutional mentoring programs may even have an ombudsperson or similar troubleshooter to attend to these relationships and to adjudicate disagreements.

4 Reflection

Up and Running

Have a system and a plan.

Mentors, like parents, need some type of routine to establish normalcy, a way to get things done, and to operationalize family expectations. Planning mentoring activities and systematizing responsibilities is the difference between having a reactive versus a proactive mentoring relationship.

Intentions and aspirations pertaining to the quality of the mentoring relationship are all well and good, but are of little value without an implementable plan for how to achieve them. A road map for a successful relationship can be created with mentees by reviewing and reflecting on relationship-specific goals, and then building a path to achieve them. The map breaks down these relational goals into actionable, time-referenced steps. It is important to establish a pattern and rhythm for the foundational elements (e.g., how and when you will routinely meet, communication preferences, progress checks and feedback exchanges…etc.). There should be consistency while making room for flexibility, because spontaneity and creativity are important to encourage, especially when unanticipated opportunities or challenges arise. Finally, the roadmap should be adjusted as needed; the plan is a living document.

A normal routine will bring consistency to the mentor and mentee's lives and reduce mentoring-related stress or anxiety by helping both stay on track and free up time for other things. Mentees will quickly begin to expect and complete activities without having issues. Mentors become a partner in the routine who nurture the mentee's growing independence and empowerment, rather than the person who is telling the mentee to "do this" and "not do this." In short, success in the mentoring relationship is the sum of the consistent, long-term habits both individuals create.

Feedback

Lefroy et al. *(2015) defined helpful feedback as "a supportive conversation that clarifies the trainee's awareness of their developing competencies, enhances their self-efficacy for making progress, challenges them to set objectives for improvement, and facilitates their development of strategies to enable that improvement to*

occur." Such feedback supports improvement in the mentoring relationship by providing formative commentary on the outcomes of mentor's and mentee's actions from a source external to themselves.

For the most part, mentorship relationships are formed around a dyadic structure: one mentor and one mentee working together as a pair. One of the functional consequences of this is that it is not possible for feedback to be given by either person in an anonymous or de-identified fashion. So, how is it best to proceed? We strongly encourage an upfront investment in discussing and coming to consensus on how to give and receive feedback. Some recommendations to consider:

1. *Acknowledge the importance of helpful feedback to both parties.*
2. *Participate together in a "TRIZ" exercise (see* Fig. 1*). TRIZ is a liberating structure activity (*Lipmanowicz & McCandless, 2020*) that helps make explicit and bring into the open things that limit or erode success.*
3. *Keep ongoing notes regarding mentoring activities, and intentionally build time for feedback into your mentoring plan. Feedback is most effective when it occurs in regular, on-time cycles.*
4. *Effective descriptive feedback has the following key characteristics. It: i) honors mentoring principles of relational trust and effective communication; ii) identifies progress toward goals and the successful practices that supported this progress; iii) includes keepers: actions the mentee should continue that support ongoing achievement ("keep doing…"); iv) includes polishers: a limited number (one or two) of next steps linked to improvement priorities ("two things to work on next are…").*
5. *Commit to bringing honesty with diplomacy whenever possible to foster the trust and respect that underlie the relationship.*

Practical Action—TRIZ Liberating Structure Exercise

Practical Action – TRIZ Liberating Structure Exercise

- The mentor and mentee should make an exhaustive list of all that a *hypothetical* mentor and mentee could do to make sure that they achieved the worst mentor-mentee relationship imaginable.
- Next, they should go down this list to mark items and ask themselves, "Which of these would be counter-productive to our own mentoring relationship or goals? And why?"
- Lastly, they should go through their marked items and decide, "What steps could be taken from the outset to prevent these undesirable results?" Airing speculative unprofessional, destructive attitudes and behaviors upfront allows them to be confronted from a non-threatening, third-party outsider perspective. It allows for the creation of a backstop relative to which one's own mentoring misdeeds can be triangulated and avoided.

Fig. 1 Practical steps for implementing a brief TRIZ exercise

- The mentor and mentee should make an exhaustive list of all that a *hypothetical* mentor and mentee could do to make sure that they achieved the worst mentor-mentee relationship imaginable.
- Next, they should go down this list to mark items and ask themselves, "Which of these would be counter-productive to our own mentoring relationship or goals? And why?"
- Lastly, they should go through their marked items and decide, "What steps could be taken from the outset to prevent these undesirable results?" Airing speculative unprofessional, destructive attitudes and behaviors upfront allows them to be confronted from a non-threatening, third-party outsider perspective. It allows for the creation of a backstop relative to which one's own mentoring misdeeds can be triangulated and avoided.

5 Closing the Relationship

All things come to an end, including mentoring relationships. Some arranged mentoring programs have a preset end date assigned to them (e.g., 12-month commitment). Otherwise, a choice will need to made at some point about when it is time to close the relationship. Consider setting an end date when starting the relationship; it can always be extended. Having a defined stopping point can make it easier to prepare for and handle well. There are three potential ways for a mentoring relationship to end: a positive, planned stop, closing early because of dysfunction, and ghosting as a dissolution strategy.

*Ghosting is when one relationship partner cuts off all communication with zero warning or notice beforehand, and the immediate impact is simply an ambiguous lack of further contact (*LeFebvre, 2017*). This form of relationship termination is tempting to mentees (or mentors) who are conflict-averse. Vaughn* et al. *(*2017*) discuss some practical solutions to prevent this and other mentoring missteps.*

A dysfunctional relationship may end earlier than anticipated for a variety of reasons:

- *Loss of interest*
- *Unfulfilled expectations*
- *Difficulty connecting (either in terms of rapport or in communication)*
- *Lack of support or follow through*
- *Behavior issues*
- *Changing life circumstances*

If the quality and integrity of the mentor-mentee interactions have irrecoverably deteriorated despite ardent attempts to resolve a situation when difficulties arise, mentors should communicate their desire to end the mentoring arrangement promptly to their mentee. Be clear and forthright about the reasons for the change, and give the mentee the opportunity to weigh in with their opinion and observations.

When things have gone well, mentors can conclude their responsibilities in a positive and productive manner by reviewing and celebrating successes with the mentee. Point out and acknowledge the mentees' growth and development, including barriers they have faced or obstacles overcome. Mentors should aim to be candid about how they foresee any continued informal contact. (There's quite a difference between offering an open door and expressing interest in receiving occasional email updates.) Express gratitude for how both people have been impacted and enriched by the relationship. Encourage the mentee to think about, plan, and set more goals for the future.

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Part III
Best Practices for Mentoring

Speed Mentoring: A One-Time Focused Meeting or a Prelude to a Long-Term Relationship

Subha Ramani, Harish Thampy, and Judy McKimm

1 Introduction

In medical and health professions education (HPE), mentoring has mostly been viewed as a longitudinal relationship between a senior professional (the mentor) and a junior trainee or faculty (the mentee). Mentors may be formally assigned by institutions or informally sought by mentees. Though studies have suggested that mentoring relationships that evolve spontaneously may be more impactful (Jackson et al., 2003), trainees and junior faculty may find it challenging to initiate mentoring relationships (Cook et al., 2010). Moreover, a single mentor cannot address all the mentoring needs and provide all the advice that their mentees require, given the range of professional options that exist in the healthcare professions and spectrum of skills and expertise required.

Over the last decade, mentoring formats have evolved to encompass a variety of short-term and long-term models, including team-based mentoring, one-time mentoring, peer mentoring, etc. Regardless of the format, the mentee's goals and agenda should be at the center of a mentoring interaction. This feature distinguishes mentoring from advising, sponsoring, or role-modeling.

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One of the newer formats of mentoring is speed mentoring. This is based on the concept of "speed dating", and provides opportunities for mentees to meet potential mentors in a short time (Cook et al., 2010). In speed mentoring, mentors are recruited based on expertise in their field, as well as interest in mentoring. Since the interactions are short, mentees are able to meet several mentors, pose quick, career development-related questions, and receive a variety of perspectives on these topics (Serwint et al., 2014). If the chemistry is right, some pairs may opt to schedule further exchanges. Speed mentoring can also be viewed as an "icebreaker" for mentees to meet a possible mentor with common interests and the skills to help the mentee in their area of interest, in a psychologically safe venue. At many institutions, these events have been used to initiate mentoring relationships (Cook et al., 2010; Kurré et al., 2014; Serwint et al., 2014). This format can be used for all individuals interested in academic professional roles and even a single session can cover a variety of levels and topics.

As many institutions and conferences are increasingly offering speed mentoring events, it is useful to understand their role within a larger mentoring initiative. Speed mentoring can serve as a dynamic meet-and-greet venue for mentees and mentors to mingle and determine the right fit for a longitudinal relationship. It can also serve as a one-time interaction, yet specific challenges can be discussed, questions can be answered, and mentees can be pointed in the right direction. At national and international conferences, these events provide trainees or junior faculty the opportunity to meet leaders in a given field beyond their own institutions, and engage in a conversation about career challenges and professional development. Such conversations can be inspiring and beneficial, even if they happen just once.

2 Delivery Format

Speed mentoring sessions can be delivered in a variety of formats, depending on session aims, contexts, and local resource factors. In-person speed mentoring sessions can be successfully delivered in local institutional settings through to international conferences (Ramani et al., 2020). However, while face-to-face interactions may enhance rapport building, they are limited by requiring physical presence at one location. As such, issues such as travel, funding, and time can all affect participants' ability to attend. With increasing transition to online learning and collaboration, virtual speed mentoring using online conferencing platforms offers an alternative delivery route that allows for mentors and mentees across geographic locations and resource settings to easily meet online, widening access for both mentors and mentees (Schichtel, 2010).

3 Session Design

In-person and virtual speed mentoring can be similarly designed to allow mentees to engage in multiple time-limited, focused mentoring discussions with a range of mentors. In advance of the session, it can be useful to provide mentees with brief

information on each of the mentors, outlining their area of expertise and career journey, to help mentees to identify potential shared interests and experiences. At the start of the speed mentoring session, introductions and ice-breakers provide further opportunities for participants to familiarize themselves with mentors, as well as encourage early mentee-to-mentee interactions.

The majority of the session should be structured in a rotational fashion, akin to the speed dating format, allowing mentees to rotate through the mentors either one-on-one or through groups of mentors and mentees. In the former, dyadic pairings can be scheduled to last just a few minutes, providing time for quick exchange of details, or for longer 10-min, focused mentoring conversations, relating to the mentees' agenda and goals (Cook et al., 2010; Serwint et al., 2014). Alternatively, the group rotational model introduces mentees to a number of mentors at any one time, offering a range of experiences, career stages, expertise, and perspectives (Ramani et al., 2020). The group model allows mentees to learn from peers as well as the collective wisdom of multiple mentors. In group speed mentoring, it is important to limit group sizes to under 10 participants to allow sufficient opportunity for both mentors and mentees to engage in effective time-limited conversations.

4 Content Structure

Regardless of delivery format, the content for speed mentoring discussions should ideally be mentee-led and focus on their agenda and goals. Discussion topics can include navigating professional challenges, career development, or particular HPE topic areas. Depending on the session aims, different structures can be used to explore the intended content focus. The three structures described below should not be seen as rigid frameworks that are mutually exclusive, but are helpful considerations that can be adapted to the session's aims.

1. Structured: these sessions utilize mentors who are topic experts or leaders in a particular career discipline. In either dyadic or group format sessions, mentees are informed of the intended discussion focus/topic for each mentor or mentor group. Mentees can therefore select which mentors/groups they interact with based on their personal goals, seeking advice on specific professional challenges or career-related issues.
2. Semi-structured: these sessions are designed around an agreed-upon common topic or theme, with dyadic or group rotations offering mentees multiple opportunities to interact with mentors to discuss issues relating to the topic. Initial trigger questions can help mentees reflect upon personal challenges and identify specific areas in which they wish to seek mentor input.
3. Freeform: this model is entirely mentee-led and avoids limiting the discussion to particular topic areas as in models above. Mentees have the freedom to discuss any particular issue or challenge they wish with their mentors.

5 Mentor and Mentee Considerations

Having established the session delivery format (in-person vs. online), design (dyadic vs. group rotations), and content structure (structured, semi-structured, or freeform), it is important to ensure that suitable mentors are recruited to match the session aims. Mentors should be recruited beyond just professional reputation, and also for geographic, cultural, and career diversity. This way, mentees are introduced to a wide-range of perspectives and expertise. Mentors should be skilled in helping mentees navigate personal and professional challenges, in identifying opportunities to meet suggested goals, and in demonstrating professional generosity (i.e., be willing to share their expertise and advice with others in an approachable, enthusiastic, and collegial fashion) (Disch, 2002).

Mentees should be encouraged to attend any speed mentoring session armed with questions to maximize the value gained from the time-limited mentoring discussions (Britt et al., 2017). In designing the session, it is important to consider how mentee-mentor dyad/mentee-mentor group interactions will be possible.

- Deliberate: this involves pre-determined pairing of mentors with mentees based on shared interests and expertise, as determined through pre-submitted biodatas for both parties. While this has been shown to enrich mentoring interactions, it is labor intensive to set up (Cellini et al., 2017; Serwint et al., 2014).
- Mentee-choice: allowing mentees the freedom to select which mentors/mentor groups they interact with, based on interests, expertise, and personal goals, this helps ensure that the session meets the needs of mentees with improved satisfaction (Caine et al., 2017).
- Random: the session set-up may not allow for either of the above pairings and instead, random allocation may be required; however, this can still produce rich, meaningful, and productive mentoring discussions (Thampy et al., 2020).

6 Post Session

Following each session, consider producing a handout for participants summarizing key advice and tips that arose from each dyad/group mentoring discussion that can serve as a useful reference guide for mentees. While the multiple, brief speed mentoring interactions may trigger an ongoing longitudinal mentoring relationship, this need not be the sole intended aim of the session. Indeed, participating in multiple speed-mentoring sessions may be equally valuable for mentees in comparison to traditional longer-term dyadic relationships. If the session is designed to trigger such ongoing mentoring arrangements, mentees should identify a mentor with whom they "click" and exchange details. Longitudinal mentoring is more likely to be successful when deliberate matching is used within the speed mentoring session (Kurré et al., 2014).

7 Case Examples

An international community of mentors from several countries (North America, Europe, United Kingdom, and Australia) came together to organize a 90-min speed mentoring workshop at the 2019 Association for Medical Education in Europe (AMEE). When the Covid-19 pandemic hit the world, we saw a steep increase in webinars, virtual courses, workshops, and conferences. Most were well-attended and highly-rated, with comments that indicated that educators around the world wanted to engage in more conversations about teaching and learning innovations, leadership, well-being, etc. Our community of speed mentors expanded to include educators from several Asian countries so that we could truly represent global perspectives. The group began organizing a series of virtual workshops (each session emphasizing a specific topic), mimicking the format of a live workshop with interactive large-group and small-group discussions, group reports, etc. We provide two case examples: (1) the live workshop at the AMEE conference, and (2) a virtual workshop for international medical students.

Case Examples

In-person speed mentoring Session	Virtual speed mentoring session
Case 1 As a group of educators with a passion for mentoring educators, we organized a 90-min speed mentoring workshop at the 2019 annual AMEE (Association for Medical Education in Europe) conference, one of the largest international organizations for medical educators. The mentor group, selected for their expertise in education as well as experience in mentoring, were geographically and professionally diverse. This session was intended to be a one-time focused mentoring session. Given the international audience at the AMEE conference, and anticipating a variety of career levels and needs, we used a group format of speed mentoring. Three mentors facilitated discussions on a specific topic at each table, and 6–8 mentees rotated through each table every 20 min. The three mentors rotated the roles of timekeeper, discussion leader, and facilitator of group interactions. Mentees posed questions and raised professional challenges related to the table topic and received potential solutions from the mentor panel as well as peers. The session concluded with each mentor summarizing 2–3 "hot tips," such that all participants could benefit from the tips even if they had not participated at a given table.	**Case 2** Engagement with the leaders of the International and European Medical Student Organizations led us to offer a speed mentoring workshop for student members of both organizations. This was a virtual, 90-min workshop that focused on the topic, "teaching and learning during the pandemic." About 45 students participated in this interactive event, where the majority of time was dedicated to small-group activity. The session started with introductions and session goals, followed by ground rules such as raising hands, chats, turning on video and audio, muting when not speaking, etc. Establishing psychological safety is critical for virtual workshops; our strategies included polls, icebreakers, assurance of confidentiality, emphasis that there were no right or wrong answers, asking people to share success stories, and adding a ground rule about having fun. We introduced a few teaching pearls and quickly opened the breakout groups. Here, trigger questions were posed for students to reflect on, and moderators/mentors empowered participants to offer solutions to each other's challenges and provide strategies to improve virtual teaching interventions. Enthusiastic participation by almost all students led us to conclude that we had succeeded in establishing a safe space.

Based on these case examples, we propose the following recommendations for educators who wish to organize speed mentoring events, whether live or virtual.

Tips for Effective Organization of Speed Mentoring Events

Before

- Select a mentor group based on professional expertise/skills and interest in mentoring
- Provide mentor training and orientation as appropriate
- Communicate with the mentor group to explain the session format, structure, and objectives
- Communicate with potential mentees about the structure and goals, advising them to come with specific questions or challenges
- If virtual, attend to technology needs

During

- Orient all participants clearly about the goals of the session, agenda, timing and tasks
- Establish psychological safety so that all participants can be motivated to engage in the discussions.
- Encourage mentors to stimulate participation and breakdown barriers, be it shyness, language fluency, cultural context, etc.
- Set aside ample time for small-group conversations and group reports
- Focus on solutions to challenges and success stories so that participants share strategies with each other and do not get bogged down in the negative mindset of barriers
- Anchor small-group discussions in thoughtful and reflective questions
- Flatten the hierarchy through mentors' explicit demonstration of willingness to learn from the mentee
- If virtual, establish ground rules very clearly
- If virtual, assign someone to manage the platform and someone to manage chats

After

- Debrief with the mentor group about what went well and what could be improved
- Get mentees to evaluate the session and provide suggestions for future sessions

8 Conclusions

Speed mentoring events can be a one-time focused event or a venue for potential mentors and mentees to meet to assess mutual interests, compatibility, and interest in starting a longitudinal relationship. Organizing events at conferences or virtually provides professionals opportunities to interact with a wide-range of experts unbounded by institutional or geographical limitations. Speed mentoring lends itself to a variety of formats such as: rotating stations similar to OSCEs, brief introductory conversations of 10 min, longer conversations that involve asking professional questions or posing challenges and receiving answers or solutions, dyadic conversations, group conversations with one or more mentors per table/station, general conversations about careers, and focused and topical conversations, etc. The quick, rotating format can be energizing to mentors and mentees, and can generate interest in ongoing mentoring relationships. Finally, this format focuses on mentee questions and agendas rather than on creating a professional stepping stone for mentors. This alone justifies speed mentoring as a legitimate mentoring initiative.

9 Reflection

In this chapter, we reflect on the experience of speed mentoring (whether face-to-face or virtually) from the mentors' perspective. Many educators enjoy mentoring other colleagues and students, although, as mentioned above, this has traditionally been either informal (people randomly make a connection), or as part of an organizational scheme. The idea of speed mentoring appears, at first glance, to go against both those approaches, as it involves connecting briefly with someone who you have probably never previously met. One of the main differences between mentoring and coaching, however, is that mentees' needs and agenda are central to mentoring, and many novice or less experienced educators say that they highly value meeting mentors who can share their experiences and provide advice, even if this is for a short time.

One of the key strengths of speed mentoring (particularly via, but not limited to, virtual meetings) is that it provides access to highly experienced and enthusiastic educators who are willing to give their time to more junior colleagues. Virtual speed mentoring has the capacity to open up these opportunities even wider, and enable access to a global community of educators from different regions, cultures, and backgrounds. Enabling such a diversity of perspectives, experiences, and ideas can provide a richness that is very difficult to replicate through other means. Another strength of speed mentoring is that it (if facilitated well, with good time management, and attention to all in the group) can flatten traditional hierarchies and reduce the potential impact of power imbalances. Mentors must take care to ensure the agenda stays mentee-led, and that they ask questions and listen rather than take over the conversations; this requires humility and a sense of curiosity. Many great

ideas and viewpoints can also come from other mentees, as they will have different experiences from their own contexts and cultures. Often, simply facilitating the sharing of experiences between learners or novice educators can lead to a lot of learning by everyone. Mentors (however senior they are) do not have all the answers to everything—how can they? The final strength of speed mentoring is that it is, by virtue of its process, time-limited, both in the overall session, and also the separate interactions. This can help people to want to become involved, as neither party has to commit to a long-term relationship or commitment.

There are, of course, some challenges for both mentors and mentees in engaging in speed mentoring. From the mentors' perspective, the diversity of unknown mentees can sometimes be difficult to manage in terms of trying to ensure that everyone has a voice and can engage in discussions. Additionally, there is the possibility for mentors of not having any experience of the cultural context or issue about which the mentee is seeking advice. In a global context, there may be issues regarding use of language or power dynamics, and some mentees might feel less willing to engage if they do not feel confident in the language in which the session is being held, they do not wish to show their faces on video, or they see the mentor as on a pedestal. Mentors, therefore, need to set the tone of the meeting very early on, perhaps by sharing a personal story from when they struggled or needed advice and facilitating input from all group members, while respecting that some people might just want to learn by listening. In virtual speed mentoring, there also may be issues around connectivity or access to the platform being used, so enabling people to log on without video might need to be accepted. Even though we might want to see everyone's face, this is not always possible or culturally acceptable. The time-limited nature of speed mentoring, while good for meeting lots of different people, can also feel somewhat superficial at times, and so mentors who are used to longer-term mentoring and building strong relationships need to make the mind-set shift to seeing speed mentoring as just another way of mentoring people who they would not come across in their day-to-day work.

*In concluding this reflective section, we have learned over the last few years that speed mentoring can be fun, and that it is very interesting to meet and learn from other mentees and mentors from around the world. Although it is "speed" mentoring, the group discussions can be rich, and, if enough time is given to them, can feel very fulfilling. It is vital to be a bit humble; you are not always the "expert" in the room, but a facilitator who needs to ensure everyone has the opportunity to ask questions and provide ideas. Moreover, it is clear that, given these ground rules, speed mentoring sessions do not have to be expert-led, as everyone can learn from one another. Finally, institutions have organized speed mentoring sessions to provide a venue for mentees to meet potential or assigned mentors briefly in preparation for a more long-term relationship (*Cook et al., 2010*;* Kurré et al., 2014*;* Serwint et al., 2014*).*

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Mentoring for Educational Research Skills and Scholarship

Janet P. Hafler and Uma Padhye Phatak

1 Introduction

Effective mentoring is indispensable to the success of medical education researchers. A successful mentor-mentee relationship has multiple beneficial effects, including identifying pathways for career development, helping to obtain funding, and guiding the mentee through the process of publishing their scholarship (Brown et al., 2009; Steiner et al., 2002). Effective mentors also provide a support system to help mentees navigate a complex research landscape. Finally, mentorship can be an important factor in encouraging research engagement amongst women and underrepresented minorities (Brown et al., 2009). An experienced and effective medical education mentor has published their research in their field of expertise and understands research design, notably, the complexity of medical education research.

Although effective mentorship is essential for any junior faculty performing clinical, translational, or educational research, the need for having a mentor experienced in medical education research is critical for educators (Blanchard et al., 2015). For example, the application of clinical research skills to conduct educational research is not straightforward and is typically nuanced (Blanchard et al., 2014). The focus on topics such as needs assessments, questionnaire and survey design, qualitative research methods, and innovation in curriculum development may not be fully understood by mentors who are not familiar with educational

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research (Ringsted et al., 2011). Crites and colleagues (AMEE guide No. 89) describe how medical education research focuses on scholarship of educational discovery and the scholarship of teaching. (Crites et al., 2014). The authors discuss the importance of integrating scholarship into personal and career development. It hence becomes important to have mentors who understand the pathway of moving an educational activity into scholarship and how this can be documented in a CV. The mentor can guide mentees on how educational research and scholarship can fit in their career development. The AMEE guide also offers some suggestions regarding "best practices" for mentors to keep in mind before embarking on a new mentoring relationship. For example, it stresses the importance of the mentor understanding and clarifying their role. It mentions specific skills, such as the capacity to effectively listen, to spend time with mentees, to set boundaries for the relationship, to provide expertise to help focus the scholarly direction of the project, to help establish support networks, and to have knowledge about promotion and tenure requirements for the mentee.

To better identify and understand the qualities of ideal medical education mentors, we interviewed three medical education researchers on a clinician-educator track whose research is focused on medical education. These interviews also provided insight into their career trajectories. We selected three successful faculty interviewees, one each in their early, middle, and late career. This enabled us to understand the similarities and differences in their journeys to become accomplished medical education researchers. Faculty were asked how they made the decision to become medical education researchers, how they decided to focus their scholarship on medical education, and lastly, what the key aspects were that helped in their career development.

Three central themes emerged from our interviews. One unique to medical education was that one mentor needs to have expertise in medical education research and scholarship. Although the themes were general to all mentor-mentee relationships, they were in agreement with the literature regarding essential components for success in medical education research: (1) a mentee should have multiple mentors with at least one who is knowledgeable in medical education; (2) a mentee should have formal advanced educational training; and, (3) a mentee needs institutional support (Baldwin et al., 2011; Chandran et al., 2009; Crites et al., 2014; Fincher et al., 2000; McGaghie, 2009; Simpson et al., 2007). Our interviews led to the introduction of two strategies that are important for medical education mentors to keep in mind for advancement of their mentees' careers: the apprenticeship model and the sponsorship model. A traditional apprenticeship model of a mentor-mentee relationship relies on the learning of complex tasks directly from experts. Building on the traditional apprenticeship model is a more complex cognitive apprenticeship model, which emphasizes the process of making expert thinking more visible to novices, and may be particularly important for effective mentorship (Lyons et al., 2017). The sponsorship model draws on the definition of sponsorship from business literature as active support by someone appropriately placed in the organization who has significant influence on decision-making processes or structures, and who

is advocating for, protecting, and fighting for the career advancement of an individual. This model has been shown to be important in the advancement of academic faculty, especially women (Ayyala et al., 2019).

In the following interviews, we will explore the perceptions of these three faculty members on what makes an effective mentor, specific to their medical education careers.

2 Early-Career Researcher

Alex Brown became interested in medical education during his residency. In part, this interest was altruistic, and developed from the joy that he experienced when teaching. His enthusiasm for teaching was fueled by a departmental medical education track for residents, in which residents were selected for participation and received a certificate of distinction once the requirements were completed. After this early exposure, Alex enrolled in a medical education fellowship and, subsequently, in a medical education master's degree program at his institution.

Alex described needing several mentors, all of whom added a unique dimension to his education, work, and research. Alex met three of his mentors in medical education on his residency interview day. These mentors guided and influenced him in different areas of medical education research during his residency. One mentored him in curriculum development, the other in research methodology, and the third was a model master educator. In addition, Alex received institutional support and backing through the institution's Teaching and Learning Center, where he identified mentors who were specifically medical education researchers. Alex met with numerous people before he identified excellent mentors. All of Alex's mentors were leaders in education at his institution, and they understood how to move an educational activity into scholarship. Each mentor created a platform for early career development, which as Alex stated, "was an important initial door to open."

Alex expressed that "a good mentor has ongoing projects in which the mentee can participate, rather than requiring the mentee to start from the beginning." All of his mentors were accessible, and he was able to set up timely meetings to help him move his projects forward. Alex considers himself to be an "idea person," and a critical role of his mentors was to help him translate his ideas into a viable research project. His primary mentor was a prolific medical education researcher who received a master's degree in research design and methods. She was able to guide him in statistics, research design, and methodology. She also helped him understand issues of sampling power. For example, power issues may arise when the investigator requesting learner participation may be in an evaluative role in relationship to the learner(s), such as a clerkship director. In these instances, the mentor is able to guide the mentee to ensure that appropriate institutional review (IRB) has been obtained, and that issues of power, consent, and anonymity are addressed.

Another mentor assigned him to complete a project that he reported he did not "like," but she encouraged him to "stick with it." This mentor helped him navigate

through the project with pre-planned, frequent meetings, which is referred to as the apprenticeship model. Alex noted that although it was a struggle, he learned from the activity. Another mentor guided him in converting his ideas into a curriculum, which he designed, studied, and ultimately developed into a published paper. His mentors encouraged Alex to disseminate his work by presenting locally, as well as nationally, and guided him through the process. The exposure and networking at these meetings allowed Alex to identify new mentors outside of his home institution, both locally and nationally.

In summary, Alex identified three factors that contributed to his success as a mentee: he knew what interested him, he chose projects related to his interests, and he advocated for his interests. As a mentee, he was very proactive. He reported that having time available to pursue his scholarly work and participate in a year-long medical education fellowship was essential to his early-career success. Upon graduation from residency, he had protected time for his educational interests, which was agreed upon with his division chief and his department chair. After graduating from fellowship, he enrolled in a master's degree program in medical education and completed a research project that advanced his success in his chosen area in medical education research. Thus, institutional support and a track for appointment and promotion were critical to maintaining long-term success.

3 Mid-Career Researcher

Aaron Johnson articulated a "lifelong interest" in education that began when he was a student. He clearly described important experiences that shaped his strong interest in medical education. As a medical student, Aaron enrolled in a month-long, inter-departmental, and inter-disciplinary medical education elective, which inspired his future in medical education. The rotation involved executing a research project in medical education. Aaron found the inter-departmental discussions invigorating, and reported that they laid the foundation for his interests in medical education. Another advantage of the rotation was that it allowed him to identify medical education mentors. Aaron gravitated toward the best teachers, and then met with them to explore whether they would be a good fit as his mentor. He was influenced by their passion and their love for medical education. Experiencing their enthusiasm allowed him to see himself as being happy, like them, many years into his career. Aaron was fortunate to have the medical student elective director as his primary mentor.

As a junior faculty member, Aaron was offered the opportunity to become involved in a leadership role at his institution's residency training program. Soon thereafter, he realized that he needed formal training in medical education, and he decided to pursue a master's degree in clinical education. Aaron felt that formal training provided him with the knowledge and skills to understand, as he stated, "the language and science" of medical education research, and provided him with

tools to move his field of interest forward. During the formal training, he read medical education literature and educational theories, and learned how to design, implement, and publish work in medical education research.

As Aaron developed skills in medical education research, he developed the confidence to create, develop, and complete his own research projects. Having his own ideas were crucial for the work to become meaningful to Aaron. He appreciated that his mentors understood the value of allowing him to fail while providing him with appropriate guidance and practical feedback, which led to his success.

Aaron described characteristics that he found to be very valuable when choosing his mentors. He found it preferable to have mentors outside of his clinical specialty. These mentors challenged him to build strong arguments for more robust ideas, and they provided excellent feedback. Aaron appreciated mentors who imposed deadlines and fostered mutual accountability, so that the research was taken seriously and not thought of as, he said, "a hobby." Aaron believed this was especially important in medical education, since the research was often unfunded (Asch & Weinstein, 2014) and could be perceived as a side project, especially if the project was not directly related to one's clinical role. He discussed the issue of mutual accountability between the mentor and mentee from the standpoint of setting timelines for the completion of scholarship. His institution has a track for clinician-educators, and his appointment and promotion depended on the success of his medical education projects. Aaron worked to present a body of significant medical education contributions to his department as evidence of his success as a medical education researcher.

4 Senior Researcher

Cindy Jones became interested in medical education during her residency. As an educator, she found personal joy in facilitating the acquisition of knowledge and skills to advance patient care. While Cindy spent the first 17 years of her career out of academic medicine, in private practice without any formal role in education, when she returned to an academic institution, she was offered an educational leadership role. Recognizing her need to learn and grow, she enrolled in the formal medical education training opportunities that her institution had to offer, including a medical education fellowship. This fellowship was Cindy's first exposure to medical education scholarship, which required her to design a new medical education research project. This fellowship also helped her learn different aspects of medical education research, such as survey design, curriculum development, and assessment. The experience helped her understand that there were many opportunities for medical education scholarship that could complement her designated leadership role in education. Cindy's superlative teaching skills continued to provide her with several formal training opportunities, which solidified her career as a medical education researcher and educator. With this gained skill and experience, she began to

be viewed as an expert in medical education. Residents, fellows, and junior faculty came to her seeking mentorship and guidance on their education projects. Cindy quickly realized that although she could guide her mentees in articulating a research question and identifying participants, she could not provide guidance in medical education research methodology, using either quantitative or qualitative research designs. This perceived gap in knowledge encouraged her to obtain a master's degree in medical education so that she could be a more effective mentor, and help her mentees in educational scholarship.

Cindy discussed the important role that timing played in her success. She described the changes in the appointment and promotion process at her institution with the creation of the new clinician-educator track. This track provided a pathway and framework for faculty to be rewarded for their educational contributions, which was absent earlier in her career. Cindy's mentor, a national expert in medical education, who was also recruited to the institution at that time, saw the tremendous need to expand and support educators. This mentor was instrumental in the creation of a center for the career development of clinician-educators and scholars. These institutional changes, occurring at opportune times, resulted in a network of educators and collaborators for Cindy, amongst whom she was able to thrive.

Cindy described how her mentors used the sponsorship model to support her through several educational leadership opportunities, which helped in the development of her career. These experiences also taught her necessary educational skills as she worked with her mentors using the apprenticeship model. A key aspect for her success was the institutional support and protected time that her department chair provided so that her educational work could develop into scholarship.

Cindy expressed that having multiple mentors is essential to navigating the medical education opportunities in organizations and institutions, and is critical to helping a mentee negotiate how to balance one's clinical and research responsibilities.

5 Conclusion

Three central ideas from our interviews added further evidence to previously described themes in the literature that are essential for medical education mentees: multiple mentors knowledgeable in medical education, formal advanced educational training, and institutional support. The interviewees stated that effective mentorship led to scholarly output, which, in turn, resulted in further acceptance of the work as legitimate, benefit to the faculty member's academic career, their department, their institution, and medicine as a profession (Table 1).

Table 1 Similarities and differences between interviewees

Similarities
• Interest in education was spurred by personal joy it brought interviewees • Early exposure to medical education role models • Institutional support • Having multiple mentors knowledgeable in medical education research • Formal advanced training
Differences
• Early-career mentee felt that a good mentor should have ongoing projects that mentee can pick, while mid-career mentee felt that a mentor who allows mentee's ideas and allows him/her to fail is better. (This point was not mentioned by late-career.) • Mid-career felt that mentors outside specialty and those who imposed deadlines were important. (not brought up by early or late-career.) • Late career experienced late exposure and training in medical education. (Early and mid-career received early training in medical education.) Discussed role of sponsorship. (Not brought up by early or mid.)

6 Reflection

The first theme that the faculty expressed was having multiple mentors as they *provided richness and breadth to the mentorship they received. Having local and national mentors was important for networking outside of their home institution. In addition to multiple mentors, having a mentor outside of their specialty was viewed as beneficial. A commonality that arose was having mentors who understood the intricacies and complexities of medical education research. The mentors were able to provide guidance in areas such as curriculum development, and were able to guide educational activity into scholarship. The importance of having such expert mentors has been previously discussed in the literature (*Blanchard et al., 2014*;* Blanchard et al., 2015*;* Crites et al., 2014*;* Glassick, 2000*). Effective mentors need insight about educational scholarship and opportunities for disseminating medical education research; if mentors do not possess this insight, this deficiency poses a significant barrier to scholarly output (*Smesny et al., 2007*). Mentors need to be able to impart skills to mentees using an apprenticeship model. Understanding the importance of choosing mentors with such skill sets is crucial for mentees to consider as they select their mentor. In addition, training opportunities and official guidelines for mentors are vital (*Muller & Irby, 2006*;* Phitayakorn et al., 2016*;* Sheri et al., 2019*).*

*A second theme that emerged from our interviews and the literature was that the mentee needs to receive formal training in medical education. Interviewees described medical education fellowships, master's degrees, workshops, and courses by national organizations to be foundational for their development. Early experiences in medical school and residency were noted to be valuable. Recently, opportunities for training in medical education are being offered by several institutions (*Tekian & Harris, 2012*). These programs can help the mentee develop leadership skills and evidence-based educational practices, while also gaining expertise in*

medical education scholarship. Faculty who teach in these programs are often found to be excellent medical education mentors who can lay the foundation for a career as a medical education researcher.

The third theme was the importance of institutional support, understanding that pathways for promotion are crucial for any researcher's success. This was echoed by all of our interviewees, who expressed that their institution's support was essential for their success in the promotion process, vital to their career satisfaction, and crucial to their continuing interest in medical education.

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Mentor, Advisor and Coach

Karen Marcdante and Deborah Simpson

1 Introduction

Coaching and mentoring are forms of guidance that can be applied in many situations to support and help individuals (and groups) grow and develop the skills, mindset, and identity needed to be successful in a career or in life. Both forms of guidance rely on establishing a trusting relationship, and then using questioning with dialogue to guide the coachee or protégé towards their goals. These similarities result in some confusion when discussing various guidance strategies and program initiatives, as terms are not always clearly defined and, at times, used interchangeably. This chapter will define these forms of guidance with a focus on the critical and nuanced differences between coaching and mentoring. We will examine these differences, specific to the intended outcomes of each, and the specific skills and mindset needed for each guidance partnership. To enhance this differentiation specifically, we will highlight the concept of how mattering (Flett, 2018) (how someone knows they count/makes a difference) varies between the forms of guidance.

Why differentiate between coaching and mentoring? In coaching and mentoring, as in medical education, we work to align methods with intended outcomes and the investment in the relationship (Marcdante & Simpson, 2018). Mentoring requires a greater degree of interpersonal investment and time from both partners. In contrast, coaching allows investment of energy into a specific focused activity, usually over a relatively short period of time. We begin by exploring the origins and evolution of

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coaching and mentoring, as it enriches our understanding of their similarities and differences. Comparing and contrasting these guidance strategies optimizes the alignment of the method chosen, with each partner's expectations, time, and energy invested relative to the intended outcome.

2 Evidence-Based Literature

Mentoring: Mentoring has been present since antiquity, when Odysseus entrusted his young son, Telemachus, to the care of Mentor, who then served as a wise adviser, intimate friend, and sage counselor. Mentor's focus was on the growth and development of the whole person, replacing the role of the father. It is believed by some that the concept of mentoring became more pervasive during the Middle Ages, when the apprenticeship model of training became common (McKimm et al., 2007). Mentoring has long been an accepted feature in the business and academic worlds. Through the years, the definition of mentoring has been refined, but the concept that mentoring is a developmental activity embedded in a career context has persisted. In the field of medicine, more experienced physicians are expected to share their expertise and serve as a resource to help their younger colleagues develop a successful career. The benefits of mentoring in the academic setting include faster development of the mentee, greater career satisfaction, and increased scholarly productivity (Geraci & Thigpen, 2017; Sambunjak et al., 2006). While much has been written about the key features of mentoring, there are no certifying institutions, nor are there codified standards of practice.

What makes the act of guidance "mentoring"? Consistent with the focus on the person (knowledge, values, performance), the "clearest defining characteristics of mentoring environments include trust, seniority, reciprocity, and longevity." (Robinson, 2015). The seniority component allows for experiential advice, built on the mentor's past experiences with success and failure. The act of mentoring involves a series of meetings and discussions, often including identification of goals that cross life components (home, work, and community). In time, the mentor often becomes a part of the protégé's success, sharing ideas and products such as papers and grants. This reciprocity of accomplishments is one of the distinguishing features of mentoring that may not be seen in other forms of guidance.

Coaching: In the 1400s, the Hungarian village of Kocs was known for building covered carriages to carry people between places. As vehicles were often named for the place of their first use, they were called *kocsi,* which means carriage of Kocs. In the 1830s, the term was broadened from a noun (the vehicle, coach) to a verb, becoming Oxford University slang for a private tutor who quickly and comfortably "carried" students through an exam or contest (Robinson, 2015). Coach, the verb, was next used as a term in sports in 1861, a concept that became synonymous with today's robust sports coaching industry (Online Etymology Dictionary, n.d.).

Its use in the business arena began in the 1970s, expanding more in earnest following the publication of the book *Coaching for Performance* in 1992 (Whitmore,

1992). The move to certification of coaches (especially executive coaches) occurred in the late 1990s, and resulted in organizations that codify standards of practice (European Mentoring and Coaching Council, n.d.; International Coaching Federation, n.d.). A certified executive coach is expected to focus on the coachee's goals, offering no real direction, but posing reflective questions to guide them to a solution (International Coaching Federation, n.d.). In the early 2000s, executive coaching became a feature of the business world, often focused on leadership and management. These short-term meetings (often 6 months or less) are focused on a specific skill, task, or accomplishment, identified by the coachee. The coach's expertise is in asking probing questions, not necessarily in being an expert in the field, as they guide the coachee to select a personal solution/plan of action.

Academic success coaching was introduced in higher education at the turn of the twenty-first century to aid in retaining students during a four-year college program. Academic coaching programs rapidly multiplied around 2010. The four major foci of these academic programs continue to be study skills, goal setting, academic recovery, and academic planning (Robinson, 2015). A similar application of academic coaching methodology has made its way into medical education, with more recent inclusion of helping the learner adapt to their new role and environment (Deiorio et al., 2016). Many medical schools have adapted their coaching program goals and roles to the needs of their specific environment, resulting in diversity of what a coach is/does. Who the coach is ranges from trained and certified coaches to interested but variably-trained faculty, staff, and peers. With no standards for academic coaching training, and the array of programs foci, it is difficult to compare or develop consistent measures of academic coaching programs and outcomes.

What is common across medical education programs is that the coach is focused on helping to "carry" the coachee through a process to achieve academic success. The duration of this form of coaching often lasts throughout a longer, pre-specified time frame (e.g., an academic year or for the full duration of the educational experience). The coach often has experience in the field, having taken the same path or being well-versed in the specific educational process. While questioning remains an important tool, the role of the academic coach is more directive, typically assessing the coachee using multiple tools, identifying needs, and then helping design and monitor a plan of action. This extended form of guidance is an emerging role in medical education (navigator), and is distinct from the shorter, focused coaching role and the longitudinal, scoping role of the mentor.

Navigator is one of the six medical educator roles identified as likely by 2025 (Simpson et al., 2018). A navigator, by definition, knows where on the path the vessel (or person) is at all times, and guides them through the challenges along a specific journey (like medical school). This type of guidance involves asking probing questions *and* being more directive, based on the navigator's experience and expertise. While the relationship may develop into mentoring, it often winds down as the pre-specified part of the journey is completed. The navigator may work on specific projects with some of their navigatees but, unlike in mentoring, this is more a by-product and not a major focus of the relationship.

3 Comparing & Contrasting Coaching, Navigating, and Mentoring

Coaching, navigating, and mentoring are forms of guidance, involve developing a relationship, agreeing to confidentiality, and focusing on development/growth through an honest appraisal of needs, skills, and opportunities. However, differences begin to emerge when considering the relationship's duration, scope, goals, and outcomes. Coaching is short-term (often less than 6 months), with time determined by how long it takes to "carry" the coachee towards his/her specific performance goal (e.g., study skills, exam preparation). Navigating occurs over a "leg of a journey," such as a year of school or a 4-year curriculum. Mentoring is a long-term (not infrequently, life-long) journey characterized by a deeper, more personal relationship to support addressing a broader scope of issues in the protégé's life.

The type of relationship and how each partner matters is another way to differentiate coaching, navigating, and mentoring. Mattering in a guidance relationship manifests in how each partner is aware that others care about them, are invested in them, and see their unique strengths and contributions. Mattering can occur in three spheres: interpersonal, organizational and societal (Jung, 2015). Interpersonal mattering is a key component of every relationship, and consists of how people know they are depended upon, attended to, missed, and seen as unique or special (Flett, 2018). Organizational and societal mattering are similar to interpersonal mattering, but in larger domains or contexts. Organizational mattering involves how someone perceives their meaning and value within a specific organization (e.g., school, business unit), where societal mattering expands to the whole of a person's community. Coaches, navigators, and mentors must build a trusting relationship, which requires that their partner feels that they matter on an interpersonal level. However, the level and scope of what and how coaches, navigators, and mentors approach mattering differ based on the three spheres (Table 1).

4 Case study Example with Discussion Questions to Apply with Others

Let's consider how the differences between coach, navigator, and mentor play out through some typical activities. Imagine that a younger colleague approaches you for guidance with their academic success. Your colleague has established a focus for scholarly work and even has some data for a possible paper. Table 2 identifies possible actions, scope, and responses along the continuum of guidance strategies.

Table 1 Mattering in coaching, navigator, and Mentoring relationships

Form of guidance → mattering at the:↓	Coach	Navigator	Mentor
Interpersonal: *Guide is interested in personal attributes and other relationships as they impact:*	Achievement of the targeted goal	Achievement of a series of goals over a specific time	Long-term career successes in multiple arenas
Organizational *guide helps:*	Align personal goals with organizational needs	Align a series of goals as the coachee traverses a portion of the career journey (e.g., transitions into school and through graduation), adapting for organizational standards and practices	Integrate protégé's skill development and achievements in ways that meet institutional needs and standards (e.g., guides toward promotion, prioritizes activities/service/committee membership, leadership opportunities)
Societal	(No real involvement with societal goals)	May/may not be discussed, unless advocacy/public health is a focus	Helps protégé understand how contributions add to field, integrating career and home/personal components

5 Reflection

1. *Serving as a coach, navigator, or mentor can be very rewarding for both partners in these guidance activities. We suggest that part of the initial discussion between the two members of the dyad occur early in the process (even prior to the first meeting) to address the needs and desires of each participant and agree on the form of guidance sought and to be provided.*
2. *Differentiating the three methods of guidance explicitly aligns expectations (e.g., time investments, level of mattering, activities).*

- *Coaches will help guide through questioning and identifying solutions that truly fit the coachee, focusing on interpersonal mattering to achieve results in a relatively short period of time.*
- *Navigators help the coachee navigate the expected challenges on a portion of their journey, incorporating interpersonal and organizational mattering over a limited but longer period of time. Some navigators who connect closely with their coachee transition to the role of mentor.*
- *Mentors use their wisdom, built on the trials and tribulations of their own and others' life journey, to optimize the path for their protégé, including ensuring that the protégé is well-connected with others in their field and collaborating on various products. They address interpersonal, organizational and societal mattering repeatedly through a long-term relationship.*

3. *Clearly, these forms of guidance are on a spectrum, all focused on helping others to develop to their greatest potential as we support the next generation of practitioners.*

Table 2 Guidance to junior colleague by guidance forms by possible actions/responses

Guidance → Activity ↓	Coach	Navigator	Mentor
The first discussion	• Probing questions to identify motivation and goals, including specific skill needed • Early discussion about plans	• *Coaching plus* suggestions for resources to assist in skill growth • If interested, may assist with paper	• *Coaching plus* identifying alignment with mentor goals • Help identify likely path to success by providing own examples • Plan to accomplish first paper
Expected time commitment	• 2–6 months • Likely meeting monthly	• 1–4 years • Meet regularly, based on activities • Check in regularly to make sure connections are made with resources	• If relationship works, may be life-long development • Initially helping them navigate and then co-create
Interpersonal mattering	• Help coachee identify their own goals and strengths • Validates capabilities	• Coaching plus discussion about impact of transition into current role	• Coaching plus queries and discussion about impact of transitions, values, other obligations (e.g., home, organization, society)
Organizational mattering	• Queries about how specific goal or task fits into organizational needs	• Coaching plus begins discussions of available resources	• Navigating plus discussion about possible roles in organization to advance career
Societal mattering	• No intentional discussion needed	• No discussion during initial meeting • May discuss trajectory of career into larger society as transitions occur	• Early introduction to others in field • Intentional choice of meetings and roles • Inclusion of discussions on home life and impact

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Mastering Menteeship: Steps to Optimize your Mentoring Experience

Valerie Vaughn and Valerie Press

1 Introduction

Mentorship is critical to a mentee's professional success. Whether acting as a mentor, sponsor, coach or some combination, mentors have a responsibility to provide expert guidance. Mentors often have expertise in content, methods, or processes related to your project(s) or career growth. However, mentorship is a two-way street that requires proactive menteeship. Mentee "best practices" are described below. As a mentee, learn to optimize your mentoring experience.

2 Evidence Based Literature

The following best practices can help you optimize your mentoring experience.

2.1 Selecting the Right Mentors

Selecting the right mentor(s) and members of your mentorship/advising team is crucial for success, but is often more difficult than it should be (Chopra et al., 2019). Benefits of effective mentorship are numerous (Clear, 2020; Sonune & Ahuja,

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2020). So how do you find these ideal "CAPE-able" mentors? Consider the "CAPE" mnemonic coined by Dr. Vineet Arora:(Tips for Hospitalists on Finding, n.d.)

C: Capable- What is their track record for mentoring others? What about others in a similar position as you? Do they publish, especially with their mentees? Do they have the necessary expertise you need (content, methods, etc.)?

A: Available- Are they committed to working with you and do they have the time to do so? Will they meet with you regularly? Will they provide meaningful feedback? (Just meeting is not enough; you need high yield meetings for impact.)

P: Project- Is this project aligned with both your interests and your mentor's interest? If the interest is one-sided, there is a high chance of failing to complete the project.

E: Easy to get along with- Research is a group effort. You all need to collaborate well. Teamwork extends beyond just you and your mentor. The entire mentorship team and your mentor's team (lab staff, etc.) all need to work collaboratively. Consider conducting a "background check." Ask others who have worked with them before to give you confidential insight into how that process went. Then consider whether that's a fit for you.

While searching, remember that mentorship is a team sport. Identify what needs you currently have. Then, try to make sure you have representation from each of the four mentorship archetypes:(Chopra et al., 2018) (1) traditional mentor, to provide one-on-one longitudinal career guidance, (2) coach who can help you with a particular skill (e.g., job talk or negotiation) or content area, (3) sponsor or senior leader who can nominate you and help advance your career, and (4) connector who can introduce you to others to broaden your network. In this process, don't forget the importance of peer mentors, or those close to you in professional development who can guide you in the nitty-gritty, how-to aspects of your work (e.g., sharing successful IRBs or grants), and provide support and suggestions on how to navigate tricky interpersonal relationships. Having a team can also help you combat "mentorship malpractice" if bad mentor behavior starts affecting your relationship (Chopra, Edelson, 2016).

To help your mentor help you, it's also critical to be respectful of your mentor's time, learn to communicate effectively, and be engaged and energized (Chopra, Woods, 2016b). These can often be accomplished by successfully learning to manage or mentor up.

2.2 Mentoring Up to Maximize Mentorship

Even with a well-seasoned, expert mentor, you will need to take ownership of your projects to optimize your mentorship experience. Many of these factors involve the concept of "managing up."(Volerman et al., 2015; Zerzan et al., 2009) This means working to facilitate communication, expectations, and task lists with and for your mentorship team. Some specific examples include:

1. *Setting clear expectations for yourself and your mentor(s).* Often the first step is setting up the mentoring relationship. Help your mentor know what you mean by "mentor" for their role, and who else is mentoring/advising you. Are you looking for a coach, a sponsor, a day-to-day project mentor, a career mentor, or several of these? What is needed from your mentor to meet these expectations in terms of meeting time (frequency/length), hours of work outside of meeting, resources, etc. The next step is setting clear expectations about the content of the work. Do you need help with a project, with developing your project/research portfolio, career/promotion, etc.?
2. *Set agendas.* This means literally setting and sending meeting agendas to your mentor ahead of any meeting. Setting meeting agendas allows you to clearly communicate your updates, needs, and asks from your mentor, thereby optimizing these interactions. These agendas can then be used to summarize the meetings that just occurred to serve as minutes and reminders for you and your mentor. Setting agendas also means setting project timelines and communicating these to your mentor. This will help your mentor understand if your goals for your project and career are reasonable or too ambitious.
3. *Identifying personal goals for your projects and your career.* To optimize your mentoring experience, it is important for you and your mentor to know what your research plans and hopes are. For instance, identifying specific projects, each with their own timeline, can not only help identify the time and resources needed to complete the specific project, but can also guide how multiple projects can feasibly fit together to develop a career. It is possible that separately the projects are feasible, but if too many are undertaken, you and/or your mentor may not have the time/resources to attend to all projects simultaneously. On the other hand, having more than one, but not too many, different projects at different stages and with different levels of risk, can maximize productivity. Having a running listhelps you and your mentor prioritize when new opportunities become available.
4. *Be accountable*. Your mentor will be best able to support your projects and career if you follow through. Keep your projects on task, move manuscripts along, and avoid needing last minute input for grant or abstract submissions. While mentors are often viewed as being "altruistic," their careers are enhanced by mentoring, both from the rewards of the experience, and through project dissemination. (Publish early and often!)

These tools and others can help prevent mentee missteps (Vaughn et al., 2017).

2.3 Mentee Missteps

When starting your career, it is easy to, common, and expected that you will make mistakes. This is part of the learning process and, if learned from, can help you improve. However, some missteps can jeopardize your advancement and your

relationship with your mentor if not headed off early. Two common causes for missteps are lacking confidence and conflict aversion.

Lacking confidence: As mentees start in their careers, there is often much they do not know. This can lead mentees to underestimate their abilities. Many mentees, especially women and underrepresented minorities, suffer from imposter syndrome, where they fear being found out as incapable and undeserving despite evidence to the contrary (Clance & Imes, 1978). This can lead mentees to either ask for too much help (and drain their mentor's time and cognitive reserves), or too little. Similarly, it can lead to deflection and defensiveness to feedback. Some skills to help overcome these issues include:

1. *Learn how and when to ask for advice*. Discuss with your mentor when and what you need feedback on. For example, do they need to look at the first draft or your abstract, or just your near-final draft? The answer should change over time as you grow.
2. *Learn to put your "nickel down"*. When presented with a problem or issue you want advice on, make sure you have an idea or proposed solution. This will help prepare you for when problem-solving on your own, and will infuse you with confidence when your mentor agrees. For example, "I have problem X. I was thinking of going with Y or Z, but am leaning toward Z for this reason. What do you think?" If your mentor disagrees, try to understand why so that you can learn for next time.
3. *Find peer mentors*. If you still feel nervous, try talking to peers about issues. This lowers the stakes and allows you to gain input before talking to your mentor.
4. *Realize feedback is a gift.* Take a day or two to let your emotions calm after getting feedback. Then reconsider what the feedback really meant. Was what you wrote actually wrong, or did you just explain it poorly? Try to identify what action you can take to improve in the future. And be thankful! Feedback means you have an invested mentor.
5. *Develop a growth-mindset.* Mentees are often highly successful. Highly successful people frequently have a "fixed-mindset," where they base their self-worth on static, intrinsic intelligence (Dweck, 2008). This can cause people to doubt their self-worth when mistakes occur. As a mentee, your job is to grow, and your major development comes from turning mistakes into learning opportunities. Work to develop a "growth mindset" by realizing that we often learn the most and become the best version of ourselves when we fail.

Conflict aversion: Perhaps harder for some mentees is learning how to have positive conflict. Many scientific fields are hierarchical. Hierarchy does not easily permit mentees to challenge mentors. However, conflict avoidance can lead to mentees over-committing, failing to get credit for accomplishments, or acting dishonestly about mistakes. These issues can be disastrous if not recognized and averted. Try the following:

1. *Be immediately honest when something goes wrong*. Though painful, you need to let your mentor know as soon as something goes wrong, especially if it

involves an ethical or scientific mistake. The sooner the mistake is corrected, the better. Often, your mentor can share their own experiences with mistakes and help you navigate the response to minimize damage. The longer you avoid the truth, the more likely the damage will increase, and you may lose your mentor's trust. Quick honesty puts you both on the same team to finding a solution.

2. *Learn how to give a "positive no.*"(Ury, 2007) Taking on a project or role you're not interested in or unable to complete can be a set-up for failure. A positive no involves saying yes to yourself and your continued relationship with the asker, but no to the actual request. If you've already been proactive about your goals and current projects, saying "no" can be easy. Ask your mentor whether and how they think this aligns with the work you're already doing. Perhaps their answer may surprise you. Otherwise, they may realize it isn't something you should take on. If you decide to pursue the project, look at your to-do list together and decide what project needs to be dropped given your finite amount of time. Working through this decision-making together can align expectations, reduce resentment, and prevent overcommitting.

3 Case Studies: Hard How-Tos

1. Giving a positive no.
   - Example situation: Your mentor has been looking for someone to help lead the development of a new project within your division. He turns to you and lets you know that he's been having difficulty finding someone, and thinks that you would be great. On the one hand, it is not something you're really interested in doing and you are already swamped with your other projects which you have to finish for promotion. On the other hand, your mentor really seems to need the help, and maybe it won't be too much work…
   - Approach to resolution:
     - First, think hard about whether this fits into your goals, how much time you have available, and whether you can truly successfully do this project (and enjoy it!).
     - Discuss the idea with your mentor. Ask how it can fit into your career goals, and what the resources will be. Bring up any obvious conflicts: e.g., as you've said before, my major goal this year has to be obtaining career development award funding. How do you see this project as fitting in with that?
     - If you end up deciding together to continue, review current list of roles, responsibilities, and projects and decide what needs to go. (Your time is limited, after all.)
     - If you and your mentor disagree on the importance, this is where gaining input from other mentors on your team and recruiting their help (perhaps in a joint mentorship meeting) can protect you from committing to some-

thing that will truly be harmful for your career. Sometimes, it's easier to have another mentor say "no" for you.
  - If you are concerned that saying "no" will now mean you won't be invited for future opportunities, be sure you address your goals with your mentor and make it clear what you would be able to say "yes" to in the future. This discussion should be ongoing.

2. Dealing with a "bottleneck":(Chopra, Edelson, 2016; Chopra, Woods, 2016)
   - Example situation: You and your mentor have worked together successfully for over a year. She was just promoted to a new position which requires much more time. Since then, it's been difficult to find time to meet one-on-one, and she has rescheduled multiple meetings at the last minute. You just missed the deadline for an important project submission because she didn't provide feedback or sign off on the project on time.
   - Approach to resolution:
     - First, identify any errors in communication that may have occurred on your end. Did you warn you mentor about the project? Did you provide a deadline and ample time to review? If not, do so next time. When giving deadlines, make these hard and firm, with consequences. "Thanks again for your help. Here is a near-final draft. I need your final feedback by XX, because it's due the week after. If I don't hear from you, I'll assume your approval and submit." Let your mentor know that this will be your solution to preventing future mistakes.
     - Identify any new issues that may be occurring with your mentor. The new position may mean that their availability has changed. Does this mean you need a new mentor? Or, perhaps you have progressed in your career and actually need less oversight. Discuss this openly and honestly with your mentor. "I notice it's been harder meeting with you since your new position. I was wondering if we could talk about some solutions to make sure I can still meet timelines."
     - If this is a repeated pattern, it may be time to start leaning more heavily on other mentors on your team, or seek out new mentors.
     - If you remain in a position that requires you to work with your mentor for projects that require meeting deadlines, consider building in additional time by moving up the deadline (i.e., creating "false deadlines"). You could tell them that though the official deadline is X, you need to turn it in early due to being unavailable on the date of the deadline. You, therefore, need their portion back earlier.
     - Finally, if you are down to the due date, one last minute tool is the "thank you" reminder. You can send/resend the item you need completed with a "thank you for agreeing to complete X by today. As a reminder, I need this back by/turned in by Xpm today."

3. Dealing with advice you don't agree with:

- Example Situation: You are preparing for a small one-year grant proposal and are working with your mentor on the specific aims and study design. The funding is limited to $10,000. Your mentor is suggesting you propose a randomized study (RCT) to increase the rigor of the study design. Though you agree that would increase the overall study design rigor, you think that the intervention requires preliminary data prior to conducting a large RCT. Furthermore, you are concerned that the time frame (1 year) is too short for conducting an RCT, and that $10,000 funding is insufficient to conduct the RCT.
- Approach to resolution:
  - First, ask clarifying questions: "It seems like this award provides only a small amount of time and money. How do you suggest we overcome these barriers to propose a feasible RCT study?" and/or "Since we do not have preliminary efficacy data for the intervention, would it be concerning to reviewers that an RCT would be too advanced for the state of the project?"
  - Another critical step is to prepare data to support your concerns. Do you have preliminary data on how long it would take to recruit subjects, or a sample size/power calculation that would demonstrate infeasibility? Is there information from the IRB that just obtaining approval alone would take up too much of the one-year timeline? Do other advisors/mentors that you work with share your concerns? All of this data could be helpful in discussing your concerns with your mentor.
  - After clarifying with your mentor and gathering more data, now consider if there is a way to agree to the RCT study design. Could you suggest the study as a pilot RCT? Is your mentor able to support the study with additional resources (e.g., research assistant time/money to hire staff)? Are you able to submit the IRB ahead of receiving the grant so that you can start enrolling immediately upon funding?
  - If you remain concerned after asking your clarifying questions and obtaining supporting data, try suggesting an alternative design, such as a quasi-experimental (pre/post) study. Provide to your mentor clear, concise, written rationale for this alternative approach, and determine if your mentor can agree to it. One way to gain their support is to use other members of your mentorship team (e.g., a statistician) to help advocate and support your decision based on their expertise. (Make sure to garner their support before a team meeting if using this approach.)

4 Reflection

Learning to be an effective mentee is a skill that must be developed over time through practice, conscious behavior, and growing from mistakes. Learn to be okay with asking for help. But, in the end, remember that no one will care about your

career as much as you do. Therefore, it is your responsibility to best position yourself and your mentors to help make your career a success. Menteeship is a journey, one that will slowly prepare you for the next stage: becoming a mentor yourself!

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Mentoring Basic Science Faculty Using the Novel CSW (Competence, Support, and Wise/Wisdom) Framework

John L. Szarek, Youngjin Cho, and Gabi N. Waite

1 Introduction

For many years, faculty members were either basic scientists or clinicians/clinical investigators who were expected to teach as part of their job responsibilities. More recently, the career track of medical educator has started to gain legitimacy (Greenberg, 2018; Irby & O'Sullivan, 2018). Faculty members can now choose to make a career as a medical educator either early in their career or as a new career path after a successful experience in research. They may also be driven to change by the times of funding insecurity. For these individuals, where do they turn to navigate a successful career trajectory in medical education? Faculty development programs provide technical skills but offer little on career advancement (Irby & O'Sullivan, 2018). Mastery can be achieved, however, through mentorship of the basic scientist educator. The purpose of this chapter is to summarize the elements of mentoring used to facilitate the socialization and career development of basic science faculty members in medical education. We propose the CSW framework which stands for ***Competence (C), Support (S), and Wisdom/Wise (W)***, and is directed to basic science faculty in medical education. After describing the CSW framework, we apply it in the analysis of a case study, which will be useful to others who are new to mentoring basic scientists in education. We conclude with some reflections on the framework with respect to successful outcomes.

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2 Evidence-Based Literature

Many papers have been published on mentoring clinician educators and faculty in research (e.g., Keyser et al., 2008; Sherbino et al., 2014; Thomas et al., 2020). We took the common elements of mentoring gleaned mostly from studies directed toward mentoring faculty and summarized them using the CSW framework focused on mentoring basic science faculty with respect to education. We expand on each of these elements in the text and tables below.

2.1 Competence (C)

Competence is the skills that mentors need to be effective in meeting their responsibilities to the mentee. It is a given that mentors be versed in direct teaching, curriculum development, assessment, advising and mentoring, and educational leadership/administration (Simpson et al., 2007). In order to mentor a basic science faculty member in education with respect to these areas, certain skills are needed to ensure a successful outcome for the mentee. These skills can be divided into their own skills as an educator, those needed to foster a mentor-mentee relationship, and the skills of diplomacy so that the mentor can tell the mentee what they need to hear. Table 1 lists elements under each heading which the mentor should be able to demonstrate.

2.2 Support (S)

Skills necessary to support the mentee are more diverse and encompassing than competence and wisdom. The skills which mentors should be able to demonstrate include being committed to the mentee and the relationship, being altruistic, encouraging them in development of their skills in education, and promoting their emergence in the field by providing opportunities. These skills are summarized in Table 2 under the headings of advocate, altruistic, well-being and psychosocial support, networking, and development of skills.

2.3 Wise/Wisdom (W)

Dictionary definitions of wisdom include having experience, knowledge, and good judgment, and using these qualities in making well-reasoned actions or decisions. Being wise is having and showing these qualities. Wisdom encompasses several elements of an effective mentor, which come only from years of experience, and

Table 1 Skills related to Competence the mentor should have to ensure a successful outcome for the mentee

C1: Educator skills
(a) Possesses a good, working knowledge of a repertoire of teaching methodologies in creating significant learning experiences that affect student achievement (Cho et al., 2011; Hesketh & Laidlaw, 2003; Koki, 1997).
(b) Is a role model as a teacher and educator and directs the mentee's work based on expertise and experience (Cho et al., 2011; Hesketh & Laidlaw, 2003).
C2: Relationship skills
(a) Possesses a range of interpersonal skills appropriate for diverse professional encounters and situations (Abedin et al., 2012; Koki, 1997; Sambunjak et al., 2009).
(b) Possesses effective communication skills that facilitate the growth of the mentee (Abedin et al., 2012; Koki, 1997).
(c) Understands and effectively uses adult learning principles in fostering self-regulation, and advances the relationship in phases such as initiation, cultivation, and separation (Hesketh & Laidlaw, 2003; Koki, 1997; Sambunjak et al., 2009).
(d) Builds a long-term relationship including availability, trust, respect, and confidentiality, and nurtures the non-linear professional identity formation of the mentee (Efstathiou et al., 2018).
C3: Diplomacy skills
(a) Provides and asks for clarity of expectations. Has a positive attitude, but leaves comfort zones when necessary (Berk et al., 2005).
(b) Provides timely and effective feedback on content and emotional intelligence in a reciprocal arrangement (Berk et al., 2005).
(c) Coaches with institutional goals in mind, considers the marketability of the mentee, and keeps the vision alive (Abedin et al., 2012).

continuous professional development not only in the mentor's own skill set but also in mentoring (Sambunjak et al., 2009). Importantly, mentors gain satisfaction in knowing that their mentorship activities will have a positive effect on their mentees and leave a legacy of mentoring when the mentee becomes the mentor (Cho et al., 2011). This element of the framework describes attributes of mentors related to their seniority and reputation, professional development, and cultivation of others as a legacy (Table 3).

3 Case Study with Discussion Questions

The following case study provides an example of a basic science faculty member who is transitioning into the role of the educator. Broad questions which her mentor needs to consider are provided with specific statements directed toward mentoring the basic scientist (Tables 4 and 5). Each of these is mapped to the specific CSW element from the tables above. The statements help translate the elements of the CSW framework into practical terms.

Case: Sybil is an associate professor of neuroscience, with her full-time equivalent distribution (FTE) being 85% research, 10% teaching, and 5% service. Sybil

Table 2 Skills related to Support the mentor should have to ensure a successful outcome for the mentee

S1: Advocate
(a) Promotes the mentee in the department and in the academic community at large, and provides guidance in dealing with difficult situations in the institution (Jackson et al., 2003; Straus et al., 2013; Thorndyke et al., 2008).
(b) Provides concrete assistance to the mentee in achieving participation in academic circles not generally open to all (Jackson et al., 2003; Thorndyke et al., 2008).
(c) Provides opportunities to observe successful navigations in various domains of medical education (teaching, committee, leadership) (Dominguez & Zumwalt, 2020; Ramani et al., 2006).
S2: Altruistic
(a) Prioritizes mentee's best interest, and is genuinely interested in the mentee's success (Yukawa et al., 2020).
(b) Works as a partner and always keeps the reflective dialogue going (Coombs & Goodwin, 2013; Fowle & O'Gorman, 2005).
S3: Well being and psychosocial support
(a) Promotes work-life balance, instills joy, and encourages reciprocity (Abedin et al., 2012; Cho et al., 2011; Yukawa et al., 2020).
(b) Provides a safe space to normalize uncertainties and uncomfortableness in the transition to educator (Abedin et al., 2012).
(c) Provides reassurance and shares their satisfaction as a medical educator (Choi et al., 2019; Chopra & Saint, 2017).
(d) Helps the mentee navigate conflicting demands on their time, and accommodates their emotional, social, and cognitive needs (Abedin et al., 2012; Dominguez & Zumwalt, 2020).
S4: Networking
(a) Promotes creation of mentor networks composed of PhD and MD educators, role models, resources, and ideas to address the mentee's needs as their career evolves (DeCastro et al., 2013; Efstathiou et al., 2018; Straus et al., 2013).
(b) Helps the mentee establish connections with potential collaborators and assimilate into the realm of medical educators (Dominguez & Zumwalt, 2020; Straus et al., 2013).
S5: Development of skills
(a) Promotes the continual acquisition of skills based on the mentee's needs (Dominguez & Zumwalt, 2020).
(b) Helps the mentee bring a scholarly approach to education and teaching, including education research (Sherbino et al., 2014).

was informed by Christine, her department chair, that 40% of her research FTE will be shifted to teaching for the next academic year. Christine would like Sybil to be the course director of a neuroscience elective for clerkship students, since the institute leadership wants to attract more students to enter the neurology residency, and her idea of an elective has been welcomed. Christine also suggests that Sybil use this opportunity for a career change toward medical education, considering the uncertain funding climates and the shifting institutional focus toward education. Mark, a full professor and established educator, is assigned as Sybil's mentor. Mark is told that Sybil was promoted to associate professor 18-months ago, that she had lost her research funding 12-months ago, and that she has a grant pending. Sybil has

taught in the pre-clerkship neuroscience course, and has obtained good student evaluations. She also had mentored two PhD students.

Mark's work with Sybil will help her assimilate into the field of medical education and assist in her development as an educator. Basic scientists are important to the medical curriculum to teach how conceptual understanding and scientific reasoning applies to clinical decision making, and they are important for medical schools and health institutions to maintain a scholarly approach to solving problems. Hence, appropriate mentoring needs to instill the confidence in basic scientists that they are relevant and indispensable to learner education and system advancement.

Table 3 Skills related to Wise/Wisdom the mentor should have to ensure a successful outcome for the mentee

W1: Senior and well-respected in field
(a) Possesses sufficient depth and variety of experiences and reputation in medical education (e.g., active engagement in educational organizations [IAMSE, others]) (Jackson et al., 2003).
(b) Possesses a reputation in medical education in their institution (Berk et al., 2005).
W2: Professional development
(a) Continually seeks professional development opportunities to meet the needs of mentees in dealing with twenty-first century learners (Ramani et al., 2006; Straus et al., 2009).
(b) Adapts to the circumstances (Ramani et al., 2006).
W3: Legacy
(a) Helps establish mentee's professional identity as a basic scientist educator, respecting core values (Dominguez & Zumwalt, 2020).
(b) Supports and encourages the mentee's transition from basic scientist to basic scientist educator (Dominguez & Zumwalt, 2020).
(c) Provides a structured approach to short and long-term career planning and growth as a mentor (Pololi et al., 2002).

Table 4 How does Mark turn the teaching assignment into an opportunity for Sybil?

Statement	CSW code
Identify Sybil's attitude toward research and teaching. It is important to ascertain if she sees teaching as a punishment, and what her plans are for research.	C2c, C3a, S2a, S3b, S3d
Discuss the difference between teacher and scholar. If Sybil plans to pursue research full-time, focus on good teaching. If Sybil considers a career change, direct the focus toward the scholarship of teaching, and plan for a long-term mentoring relationship.	C3c, S1c, S2a, S5b, W3b, C2d, S1b
Support Sybil in finding her professional identity. Mark should discuss how the year's accomplishments can be presented in Sybil's portfolio, based on research or teaching for future promotion.	W3a, W3c
Develop a plan for Sybil's marketability. It is essential to create realistic goals for institutional (department and leadership) and extra-institutional (meetings and professional networks) visibility.	C3c, S4b, W3c
Monitor Sybil's Well-being. Either a career change or teaching while expanding research productivity will require hard work.	C2a, C2b, S3a, S3b, S3c

Table 5 How does Mark best help Sybil to be successful as course director and teacher?

Statement	CSW code
Utilize the strength and expertise of Sybil as a scientist. Her training in evidence-based thinking and her process-oriented mindset, are skills helpful for course design and data-driven decisions.	C1a, C1b, C3c, S1a, S1c
Propose a systems-approach for developing the neuroscience elective. Help her design teaching materials with the curriculum in mind, and to integrate the new elective horizontally and longitudinally into the curriculum. Identify opportunities for her to observe successful courses.	C1a, C1b, W1a, W1b
Foster Sybil's collaboration with medical doctors. As a basic scientist, Sybil needs to create teaching activities appropriate for medical students, and to align the course objectives with the medical doctor program objectives. Explore collaboration with clinical educators as mentors, as needed.	S1c, S4a, S4b, W1b
Discuss a plan for iterative changes based on evidence. Expect the unexpected in a new course, a realistic plan with crucial, intermediate, and long-term goals is required.	C3b, W2b, W3c
Instill humility and an attitude toward life-long learning. Improving teaching and becoming an educator requires that Sybil continuously seek, accept, and act on student and peer feedback.	C1b, S2b, S5a, W2a,

4 Conclusion

The role of the basic science educator in clinically oriented and integrated curricula has substantially evolved during the past decade and is different from what basic scientists experienced in their training. Consequently, effective mentoring needs to include elements that support the mentee's professional identity transformation from researcher to medical educator, as well as elements that help better understand the clinically-dominated system better understand and support the professional identity of a scientist. We presented a novel framework directed toward mentoring basic science faculty, with respect to education. Recognizing the paucity of literature of mentoring for basic scientists to become a medical educator, we hope that this framework spurs more interest to make it an explicit priority to further research the field of basic science faculty mentoring.

5 Reflection

Becoming a medical educator and transitioning from biomedical research may be overwhelming or uneasy. It involves learning the entirely new field of medical education, which is distinct from the discipline where a basic scientist has developed content or research expertise. It changes how his or her productivity is viewed and measured, from obtaining grants or publishing research findings, to effectively advancing institutional missions and delivering curriculum as a team. Ultimately, it

requires the self-reflection on what one's core values are as a scholar, and the assessment of whether one's strengths as a research scientist can be transferred into education. Mentors following the CSW framework will support this transformation of a basic scientist's career from a researcher to a medical educator, while upholding one's identity as a scholar. Effective mentors are professional role models and provide resources that aid the assimilation into the field of medical education. They help to transfer the mentees' strength in hypothesis-driven research to curriculum design, course delivery, and assessment, while guiding the mentees on how best to present their accomplishments for promotion. Effective mentors challenge mentees to continuously learn the clinical context of scientific knowledge, and to contribute to the medical education community through education research. Effective mentors also provide basic scientist mentees a safe and supportive forum where one can make mistakes and share challenges, while honoring the indispensable role that basic scientists play in medical education. Such a forum, based on trust and respect, instills the joy of educating future physicians, and solidifies satisfaction toward a career as a medical educator. Ultimately, wise mentors guide their mentees' growth into becoming mentors themselves, as well as leaders in medical education, welcoming them into an equal relationship. Witnessing the transformation of a mentee into a mentor, and the flourishment of the mentee's career as medical educator is rewarding and affirming for a mentor.

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Correction to: The Humanistic Mentoring Model: A Holistic Approach

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This chapter was inadvertently published with the author's last name as Ostenberg. This has now been corrected to appear as Lars Osterberg.

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