

# Charting a Professional Course: A Review of Mentorship in Medicine

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Developing physicians require firm knowledge of the clinical science and technical procedures within their specialties, a knowledge base founded in residency and supplemented throughout training. However, the day-to-day practice of medicine demands the skillful balance of various leadership, administrative, educational, and research roles, and expertise that cannot be obtained from a textbook. This professional curriculum is increasingly being sought through mentorship, a relationship between a junior physician and an experienced advisor or mentor. The authors review the current literature for mentorship in medicine, including characteristics of successful mentors and their mentees, and the emerging role of formal institution-wide mentorship programs.

**Key Words:** Mentorship, radiology education, faculty development

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## INTRODUCTION

With the letter of acceptance to medical school comes the first vision of your life as a physician. At the onset of medical training, the path toward your chosen career seems concrete, a well-defined series of milestones to mark. Attend medical school and you will pass. Endure the call schedule and you will complete residency. Apply for a job at your hospital of choice, perhaps a position that allows you to engage in research or medical education. Enjoy the spoils of your labor with your family and friends. Cultivate a nonmedical interest with your abundant spare time (golf seems a popular option).

This dream is grounded in reality as you see examples of successful, balanced, and content physicians daily. Yet the path to your goal is not a concrete one. You quickly realize that you do not even know what your goal is as you explore different specialties and try to determine what balance of clinical work, research, education, or administration is right for you. You struggle through grant writing and preparing manuscripts and wonder when to optimally time your parental leave. And the challenges do not end with finding a job. Once we embark on careers, we constantly face issues around balancing clinical, administrative, educational, and research demands, as well

as the struggle for achieving an appropriate work-life balance.

If it takes a village to raise a child, why does it seem that you are alone in navigating your own growth and development as a physician?

## MENTORING 101

Mentorship in medicine has been identified as an important relationship between junior physicians, or “mentees,” and experienced individuals who nurture the development of both trainees and senior faculty members. Traditionally, mentorship in academic medicine is a dyadic model with the intent to further the careers and personal development of mentees through a deliberate series of meetings, reflection, and academic collaboration [1]. Successful mentorship has been linked to mentee career choices, faculty advancement, research productivity, and overall well-being and job satisfaction [2-5].

Mentorship can begin at any phase of academic training. The importance of mentorship in development of radiology trainees was highlighted by a recent survey of radiology program directors, 85% of whom agreed or strongly agreed that residents should have mentors [6]. Despite this belief, only 58.7% of program directors believed that their trainees had established mentor relationships [6]. Although many departments surveyed had formal mentorship programs in place, these were largely new initiatives launched within the past 5 years, and no data on their impact are available.

Lack of access to mentors has consistently been identified as a barrier to successful mentorships. At the trainee level, only 36% of clinical clerks reported access to men-

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**Table 1.** Characteristics of mentors and mentees

	Personal	Relational	Professional
Mentee	Honest	Proactive	Passion to succeed in career
	Reliable	Willing to learn	
	Courageous (to effect change based on mentor feedback)		
Mentor	Altruistic	Accessible	Well-respected in field
	Honest	Sincerely wanting to develop mentee's strengths and achieve goals	Knowledgeable
	Open		Senior
	Trustworthy		
	Active listener		
	Nonjudgmental		

Source: Adapted from Sambunjak et al [10].

tors in medical school [7], and 54% of junior faculty members from medical schools identified active mentor relationships [8]. In a qualitative study of mentorship among clinician investigators, inadequate time and lack of academic recognition for the commitment to mentorship were perceived as barriers to successful relationships [9].

### THE PERFECT PAIR: CHARACTERISTICS OF THE SUCCESSFUL MENTEE AND MENTOR

As in any partnership, both a mentee and a mentor must equally contribute to the success of their union. A recent systematic review evaluated the qualitative characteristics of mentees and mentors in academic settings [10]. Mentees must take initiative in driving their relationships, being proactive around scheduling meetings and identifying in advance topics for discussion [10]. The ability to critique oneself and make changes on the basis of advice and probing from a mentor is important to a mentee's development.

In this systematic review [10], the ideal mentor was described in terms of 3 dimensions: personal, relational, and professional (Table 1). On the personal front, mentors were best if they were honest, reliable, and active listeners. A mentor must act as an "academic coach" and must recognize the academic potential of the mentee [11]. The ability to relate to mentees, identify their strengths, and facilitate achieving goals was stressed. Mentors were described as senior and established in their fields [10].

Special attention has been paid in the literature to the mentorship needs of women and minorities. For instance, in contemporary radiology, in which women are underrepresented in subspecialties such as interventional radiology and neuroradiology, a call for female mentor-

ship in these fields has been made as a means of encouraging female trainees to pursue these fellowships [12,13]. The need for gender and ethnicity congruence between mentees and mentors is not substantiated by the literature, which stresses instead that mentors should be sensitive to these issues [10]. In one study of female and minority residents, however, women who were planning to have children felt that female mentors were important [14].

### THE RIGHT CHEMISTRY: CHARACTERISTICS OF THE MENTORING RELATIONSHIP

The chemistry between mentee and mentor is perceived as vital to their relationship. Harmony of common interests, both personal and professional, predicts mentorship success [11]. The dialogue between the two partners must be open and honest. A "boss-employee" dynamic must be avoided, as this is consistently found to be a barrier to open and honest dialogue [9].

The relationship should be oriented with early identification of goals, milestones, and expectations. The fundamental beneficiary of the relationship should be the mentee, and clear expectations regarding conflict resolution and intellectual property in the context of academic discussions must be initiated at the onset of the relationship [15]. Confidentiality of the content of mentorship discussions must be maintained to continue to promote trust and respect in the relationship.

Some research has suggested that mentorship could be provided by a team rather than a lone mentor [1]. Often, mentees might need advice about their research or their clinical, administrative, or educational concerns, and a single mentor may not be able to address all of these needs. Instead, a mentoring team could be used with some members participating from a distance if needed.

For instance, a mentor at one's own institution could be recruited to counsel on the politics of salary or contract negotiation and work-life balance. This guidance might be supplemented by scholarly meetings with a scientific mentor, who might share research interests with the mentee and therefore need not be employed at the same institution [9]. Given the many challenges to cultivating just one mentor, a multiple-mentor setup would require a highly motivated mentee. The mentoring team would need to liaise appropriately to avoid giving the mentee conflicting advice, an additional requirement that may make a team approach more difficult.

## THE SEARCH: HOW TO FIND A MENTOR

Few studies have commented on how successful mentorships are initiated. The importance of identifying a mentor early in one's career has been stressed in qualitative studies of mentorship [11]. For this reason, newly minted staff physicians should seek mentors actively and early, searching within their departments and centers.

In the academic setting, many institutions offer formal programs to establish partnerships between junior and senior faculty members. Additionally, there is a growing trend in residency programs toward establishing opportunities for mentorship between trainees and faculty members. The logistics of finding mentors for a large number of trainees or faculty members are challenging, and there is little evidence to support a formal mentorship program in which pairings are assigned [10]. Mentees who identify their own mentors may enable more comfortable and effective relationships to develop than when mentors are appointed [10]. Formal, assigned mentorship can lead to "artificial" relationships that lack the open communication that is needed in an effective mentoring relationship [9]. One strategy is for program directors or division directors to provide a few potential mentors whom mentees can then meet to see if there is appropriate "chemistry" and shared interests and goals.

## HOW TO FOSTER A MENTORSHIP PROGRAM AT YOUR INSTITUTION

Institutional buy-in is necessary for widespread mentorship in an academic setting. There are several reports from large academic centers of successful implementation of mentorship programs [2,16-19]. Programs designed to aid junior faculty members have shown benefit for networking, grant and scholarly writing, career planning, and promotions [16]. In academic radiology, a formal mentorship program initiated in 1995 at Stanford University was highly rated by mentees for its importance in advancing their research agendas and academic progress within the department of radiology [19].

Formal mentorship programs must provide a venue for forming partnerships between mentors and mentees. The ability to locate appropriate mentors in a new job may prove difficult, and institutional frameworks to support mentees in identifying faculty mentors should exist. Solutions include providing mentees with a list of potential mentors and facilitating informal "no-commitment" meetings between the parties. A two-stage mentoring program has been described, whereby new faculty members are initially paired with designated senior advisors. The role of the advisor was to orient the new staff members over a 1-year period but ultimately to help identify and engage the mentees with appropriate mentors thereafter [16]. There should also be a "check-in" period at which a mentee and mentor can decide if the relationship is working or if a change needs to be made.

Once the relationship is established, institutional strategies can help minimize barriers to successful mentorship. For example, formal conflict resolution mechanisms and clear written objectives for mentorship processes can help manage expectations and navigate problems should they arise [20]. Communication workshops for mentors and mentees could be offered to facilitate the development of the relationship.

Equipping mentors with the appropriate skills to lead and facilitate the development of colleagues is an important component of a mentorship program [2,9,18,21]. Potential mentors who were not exposed to effective mentoring in their own training may feel uncertain about how to structure meetings or how to function in this new role. Support in the form of mentorship workshops has been suggested [9]. Obviously, attention must be paid to the added time commitment of seminars and skill workshops so as not to hinder faculty participation. A formal curriculum for mentors in training has been developed at the University of California, San Francisco, addressing issues ranging from diversity to grant writing. Surveys of participants found that they felt better equipped and more confident in their mentorship knowledge and skills [18].

When developing mentorship programs, academic centers should explore appropriate recognition for mentorship. A frequently cited barrier to mentorship has been a lack of "academic credit" for the time and effort it demands [21]. Many interim faculty evaluations do not identify mentorship as a valuable or essential element of the academic job portfolio, and it is often not included in promotion dossiers. Recognizing the value of mentoring is paramount to promoting mentorship at your institution. The provision of protected time for meetings with mentees and academic recognition of excellence in mentorship through "mentorship awards" may enhance the appeal of mentoring.

## CONCLUSIONS

Many demands are placed on physicians daily, and mentorship offers a form of “academic facilitation” that can increase your satisfaction with your job. For prospective mentees, actively seeking mentors within your institutions and imploring your departments to aid you in this process can help you succeed in establishing mentorships.

The benefits of mentorship to medical students, residents, and junior faculty members in their career development, scholarly pursuits, and in striking that ideal work-life balance are many. Mentors too can benefit from the process, both from the more altruistic success of helping others reach their goals and from institutional recognition of their efforts through formal mentorship programs.

If you have successfully navigated the course from trainee to established clinician, researcher, or educator, you might consider a new rewarding role: mentor. Prospective mentors should identify themselves to their departments and advocate for formal faculty recognition and awareness of the benefits of mentorship at the institutional level. The experience of mentorship can be rewarding and even profound; although lectures and papers can be filed and forgotten, a mentor is one whose impact might resonate throughout an entire career.

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