

# Mentorship in Academic Medicine

Sharon E. Straus and David L. Sackett



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# Mentorship in Academic Medicine

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# Introduction

We reckon that few academics would argue against the importance of mentorship in academic medicine; after all, you're reading this introduction! As we hope to convince you in Chapter 1, effective mentorship is a major determinant of academic success and both job and life satisfaction. However, although most studies of academic faculty suggest that they want mentorship [1-3], there are lots of academic settings in which less than 20% of them get it. In recognition of this yawning gap, many academic health institutions are developing mentorship programs and, in doing so, have recognized the paucity of educational as well as administrative resources to educate and support both mentors and mentees. We wrote this book to help meet this need.

## **How did we get interested in mentorship?**

Sharon became interested in mentorship while completing a research fellowship at the University of Oxford under Dave's supervision. At their first meeting, Dave asked her to outline her career goals as well as those for her research training. Dave's response changed her life: he told her that his job was to make sure she achieved what she wanted in her fellowship and to support her in the development of her career path. This altruism was role modeled throughout the next few years and Dave's amazing mentorship skills and expertise directly influenced her career and her own attempts at mentorship. When preparing to leave Oxford and begin her first faculty position, Sharon asked Dave how

she could ever repay him for what he'd given to her and his immediate response was, "Do the same for others." Now, after mentoring more than 50 graduate students and new faculty, Sharon states that one of the most fulfilling parts of her job is to be able to interact with and learn from her mentees. It is these experiences, plus the scarcity of resources describing how to develop and support mentorship, that led to several research projects and, ultimately, to this book.

Dave, akin to Molière's Monsieur Jourdain<sup>1</sup>, was getting mentored for years before he knew it. Beginning in a US medical school in 1958 (back when man still had 48 chromosomes), and in his internship, first medical residency, and nephrology fellowship, he was "adopted" in turn by a bench scientist, a chair of medicine, and a nephrologist who didn't simply recruit him into their bailiwicks as an extra brain and pair of hands to be "supervised." Instead, and in turn, they took time each week or so to challenge his ways of thinking about what he "knew" and might be able to find out about human biology and clinical medicine, to open doors to the places ("restricted" labs and graduate courses) where he might learn how to find those things out, to critique and improve his plebeian writing and speaking skills, to explore his career interests and ambitions, and to help him think how he might pursue them through his next career moves. Twenty-five years later, after getting educated about mentoring and instituting it at a new Canadian medical and graduate school, his seventh mentor helped him think through and implement his second medicine residency. He's now on his tenth mentor and gazillionth mentee, and beginning to get the hang of it [4].



# Who are the potential readers of this book?

We have written this book for aspiring academic researchers and educators (whom we'll hereafter call *mentees*) and those experienced, empathic persons who guide them in the development and re-examination of their own ideas, learning, and personal and professional development (whom we'll call *mentors*). We are academic physicians (namely, we are subspecialists in internal medicine and geriatric medicine and don't presume to be experts in other clinical areas) who have largely worked in North America and the UK. Most of our mentees have been physicians, but we have mentored people from various disciplines including nursing, medicine, rehabilitation therapy, biostatistics, health informatics, education, and engineering amongst others and from different career paths including clinician educators, researchers, and administrators. While there is some material in this book that is relevant to anyone working in an academic institution, we don't pretend to be experts in mentorship for other types of clinicians and academics (such as those in other clinical disciplines or career paths) or for those working in low and middle income countries, and we encourage them to identify (or create) mentorship resources that outline issues unique to their mentorship needs. We invite these readers to share these resources with us via our website ([www.mentorshipacademicmedicine.com](http://www.mentorshipacademicmedicine.com)) and to lead discussions on the website about which contents from the book are useful to them and which ones aren't relevant. In the literature review that we conducted to inform this book, most of the articles focused on mentorship for clinician scientists. We found less research that targeted clinician educators and clinician administrators and thus our

discussion of mentorship for academics following these career paths is not exhaustive. Again, we encourage our readers to send any relevant research targeting these individuals to our website.

We have targeted our book primarily at mentoring in academic institutions. Accordingly, we have viewed our readers and their interests, goals, aspirations, opportunities, resources, challenges, and dilemmas through that lens, and at both the individual and institutional levels:

- At the individual mentor-mentee level, we've presented the best evidence we could find on what they should look for in each other, how they should find each other, how they should treat each other, how they should plan and run their mentoring sessions, and how they should identify and manage the opportunities, challenges, and problems mentees encounter as they launch their academic careers (including how to fix or sever mentorships that aren't working).
- At the institutional level, we've presented the best evidence we could find on how to assess an institution's need for and interest in mentoring, how to develop a mentoring program and train mentors, and how to evaluate it, correct its faults, and sustain it. While most of the literature focuses on clinician scientists, we have included information for other career paths whenever we have found it. Similarly, although most of the evidence focuses on mentoring trainees and junior faculty, we've addressed issues for senior faculty whenever possible.

# **Is this book about the theory or practice of mentorship?**

There are some brilliant people who are continuing to develop a theoretical basis for mentoring [5, 6]: we are not among them. This book is about the practice of mentoring.

# **How is this book organised?**

This book employs a case-stimulus learning approach:

- Each chapter begins with a scenario for the reader to ponder and solve.
- Next, comes the best evidence we could find about the issues raised in the scenario.
- Finally, we close with some evidence-based, actionable solutions to the challenges presented in the scenario.

# **Where did we get the evidence for the material in this book?**

We identified the evidence in each chapter from three sources:

- 1.** Our systematic reviews and updates of the mentorship literature. Updates since this book went to press can be found on our website.
- 2.** Our 2012 survey of international colleagues who have been recognized by their peers as being excellent mentors. We identified 271 colleagues from various academic settings around the world who have been active in various career pathways and have some expertise as a mentor. We invited them to complete a survey, either electronically or via phone interview, and to share their thoughts on targets for effective mentorship, tips for achieving these targets, potential mentorship problems, and strategies for overcoming

these problems. Forty-five colleagues responded to our request and we have incorporated their anonymized responses in this book. We have posted the survey on our website that accompanies this book ([www.mentorshipacademicmedicine.com](http://www.mentorshipacademicmedicine.com)) and we invite readers to take a few minutes to review it and share their answers to the survey with us.

### **3. Our own experiences as mentors, mentees and developers of institution-level mentorship programs.**

Because the GRADE system [7] doesn't yet have a scale for assessing qualitative literature, we used a modified version to describe the validity and “trustability” of the evidence we present in each chapter. In brief, we labelled evidence as *high quality* when we are highly confident that the true effect of the mentoring intervention lies close to that estimated in the publication. For example, evidence is judged as high quality if all of the following apply:

- there is a wide range of studies included in the analyses with no major limitations
- there is little variation between studies
- the summary estimate has a narrow confidence interval.

We judge evidence as *moderate quality* when we consider the true effect is likely to be close to the published estimate of the effect, but there is a possibility that it is substantially different. For example, evidence might be judged as moderate quality if any of the following applies:

- there are only a few studies and some have limitations but not major flaws
- there is some variation between studies
- the confidence interval of the summary estimate is wide.

Finally, we judge evidence to be *low quality* when the true effect may be substantially different from the published estimate of its effect. For example, evidence might be judged as low quality if any of the following apply:

- the studies have major methodological flaws
- there is important variation between study results
- the confidence interval of the summary estimate of the effect is very wide [7, 8].

## **What other mentorship resources are available to complement this book?**

We are supplementing and updating the contents of this book on our website at [www.mentorshipacademicmedicine.com](http://www.mentorshipacademicmedicine.com). As this book was being published, it included:

- a mentorship checklist
- an individual development plan
- interviews with various mentors
- some mentorship scenarios.

A major portion of this website will provide updates of new evidence for each chapter so that readers can see what's new or different since the book was published. We'll update this evidence-base by repeating our systematic reviews. Furthermore, we'll translate any new, valid evidence into new, effective strategies and tactics for mentees, mentors, and institutions.

We invite you, our readers, to take over<sup>2</sup> the website.

- When you come across moderate- or high-quality evidence on mentoring that we missed in preparing this book, please add it to the website. For example, we've worked mostly in academic centers in high-income countries, and we'd welcome contributions from colleagues who are mentoring in other settings such as those in low-income countries.

- When you have had a particularly positive or negative experience in mentoring or being mentored, please add it to the respective chapter, telling the rest of us what you think its “active” principle was so that we can duplicate or discard it accordingly.
- When you find important gaps that we simply failed to cover, let us know.
- And we always appreciate having this book's errors (including typos, misspellings, and other goofs) identified and corrected.

## References

1. Genuardi FJ, Zenni EA. Adolescent medicine faculty development needs. *J Adolesc Health* 2001; **29**: 46–49.
2. Wise MR, Shapiro H, Bodley J, *et al*. Factors affecting academic promotion in obstetrics and gynaecology in Canada. *J Obstet Gynaecol Can* 2004; **26**: 127–136.
3. Palepu A, Friedman RH, Barnett RC, *et al*. Junior faculty members' mentoring relationships and their professional development in U.S. medical schools. *Acad Med* 1998; **73**: 318–323.
4. Sackett DL. On the determinants of academic success as a clinician-scientist. *Clin Invest Med* 2001; **24**: 94–100.
5. Ragins BR, Kram KE. *The Handbook of Mentoring at Work: Theory, Research and Practice*. Thousand Oaks, CA: Sage Publications, 2007.
6. Bozeman B, Feeney MK. Towards a useful theory of mentoring. *Adm Soc* 2007; **39**: 719–30.
7. Guyatt GH, Oxman AD, Vist GE, *et al*. GRADE: An emerging consensus on rating quality of evidence and strength of recommendations. *BMJ* 2008; **336**: 924–6.

8. GRADE Working Group. Available from: <http://www.gradeworkinggroup.org/> Accessed Sept 20, 2012.

1 ...who exclaimed: “Well, what do you know about that! These forty years now I've been speaking in prose without knowing it!” Molière: *The Bourgeois Gentleman*, 1670.

2 The usual standards for website participation will be employed, and you are free to sign your contributions (and be acknowledged for them) or remain anonymous.



# **Chapter 1**

**What is the evidence for  
mentorship?**

## Scenario

At the end of your first year as an academic clinician-investigator in a big, busy clinical department, with some 200 faculty members, you've just finished discussing your annual review with your department chair. She tells you that you're doing extremely well for a new faculty member, which is a great relief to you. Although you think you've done pretty well—in the past year, you received a peer-reviewed development grant, first-authored two papers and co-authored four others, have a systematic review in press, have an abstract accepted for a national meeting, are enjoying your time on the clinical service, and the medical students and residents submitted glowing assessments of your bedside teaching—you feel pressed for time, worry about your work-life balance, and wonder whether you're “on the right track” for a successful and enjoyable academic career. Although you've received encouragement from several senior members of the department, you've been conscious of how busy they are and don't want to impose on their jam-packed schedules to ask for advice. But now, stimulated by a recent session on mentoring which you attended at an academic meeting and emboldened by your chair's praise, you tell her that you and some of your colleagues are concerned about the lack of a formal mentorship program in the department. She says that to be able to “sell” this idea to the department, she wants to see the evidence that such a program does more than waste time, money, and energy, and she challenges you to lead a working group to track down, appraise, and summarize the evidence that a formal mentoring program benefits the career development and life-satisfaction of academic

clinicians. With the promise of some staff support for your working group, you accept her challenge.

## **Your first step in this task is to gather the evidence; specifically, what's the case for mentorship?**

In this chapter, we'll set the stage for our mentorship discussion providing the definitions and terminology that we'll use throughout this book. In particular, we'll outline the scope for our discussion, including what mentorship is and isn't, and help you to provide the “case for mentorship” based on the relevant evidence. We invite you to join us in this dialogue via the website ([www.mentorshipacademicmedicine.com](http://www.mentorshipacademicmedicine.com)) that accompanies this book; we'd love to hear about how you define mentorship and how you would meet the challenge we posed in the above scenario!<sup>1</sup>

## **What is mentorship?**

The concept of mentorship can be traced to Greek methodology. Odysseus placed his much older friend Mentor in charge of his palace and of his son Telemachus when he left for the Trojan War. Interestingly, Athena disguised herself as Mentor on several occasions to provide guidance to Telemachus. It was from this story that the term “mentor” was taken and began being used to mean a trusted, senior advisor who provides guidance to a more junior person.