MENTORING
Selected Annotated Bibliography

Evidence supporting the benefits of mentoring:

   
   This meta-analysis from the psychology literature included 43 studies and summarized the existing data concerning the relationship between mentoring and both objective (ie. compensation) and subjective (ie. career satisfaction) career outcomes. The findings were generally supportive of the benefits of mentoring. Of interest, the effect size for objective outcomes was smaller than for subjective outcomes. The outcomes with the most robust relationship to mentoring were job satisfaction, career satisfaction, career commitment, and expectations for advancement. The analysis was limited by the small number of studies for certain variables and the studies did not appear to include careers in medicine.

   
   UCSD developed a 7 month structured mentoring program for junior faculty that included professional development workshops, strategic career planning, a formal junior-senior mentoring relationship, and community network building. Sixty-seven faculty completed the program and were surveyed at the beginning, end, and one to four years after completion. After completing the program, confidence in skills needed for academic success increased 53% for personal leadership, 19% for research, 33% for teaching, and 76% for administration. Among the 67 participants, 85% remained at UCSD, and 93% in academic medicine. There was no control group, but when compared to AAMC expected attrition rates, they found that if only an additional 4 faculty were retained by the program, the ROI would be 49% after four years.


   The authors surveyed 1800 faculty at 24 medical schools, representing a 60% response rate. They found that faculty with mentors reported more time spent on research, and rated their research preparation and skills higher than those without mentors. Mentored junior faculty were more likely to report grant funding and they had higher ratings for overall career satisfaction than non-mentored faculty. Most of the women faculty (80%) and minority faculty (86%) who had mentors reported that it was not important to have a mentor of the same gender or minority group.

In this qualitative study, the authors conducted telephone interviews with 16 faculty members about their experiences with mentoring and major themes were identified. They found 98% of participants identified lack of mentoring as the first (42%) or second (56%) most important factor hindering career success. Common themes that were expressed included: finding a mentor requires effort and persistence; a certain “chemistry” is needed for an effective match; prized mentors have “clout”, knowledge and interest in the mentee. Same-gender or same-race matches were not reported to be essential, but with only 16 in the study group, the results may not be generalizable.

Articles related to mentoring “best practices" or descriptions of innovative mentoring programs:


This review discusses mentoring of academic clinician-educators in emergency medicine. Four steps are outlined for how a junior faculty member might approach finding a mentor and emphasizes the responsibilities of the potential protégé. A proposal is suggested for a national, web-based mentoring network. The network would consist of 3 components: a virtual-mentor question network, a clinician-educator chat room, and regular education-related didactic sessions at national and regional emergency medicine meetings.


Although this review focuses on mentoring medical students, most of the concepts apply to mentoring in general. With 43 references, this article is a nice review of the benefits of mentoring, the process of mentoring, the qualities and responsibilities of a good mentor, and the pitfalls of mentoring. The article finishes with a discussion of the challenges involved in writing letters of recommendation for students interested in emergency medicine.


The authors implemented and evaluated an innovative, collaborative mentoring program for junior faculty at the Brody School of Medicine at East Carolina University. Based on Rogerian and adult learning principles, the 80 hour program consisted of an initial 3-day session followed by a full-day program once a month for six months. Sessions were devoted to each of the following skill areas: team building, value clarification, career planning, collaboration, negotiation, conflict resolution, oral and written presentation and gender and power issues. Two cycles of the program were conducted and a total of 18 faculty members participated. Program attendance was 89% and 27 manuscripts were submitted. Given that faculty volunteered to be part of this program, selection bias is a limitation to the study. Participants gave the writing project a mean rating of 2.11 (SD=0.92) on a 5-point scale where 1=excellent and 5=poor. All participants completed written plans for their academic careers and discussed them with their supervisors. This part of the program was rated 1.86 (SD=0.83). Qualitative evaluations revealed that participants rated an improved satisfaction with work, a new sense of community and collegiality, and a consequent desire to remain at the institution.

A junior faculty mentoring program was established in the OBGYN department of Mass General. After filling out a survey, a committee matched mentors with mentees. One-to-one mentoring was done over a year for 18 mentees, however, no structured format was required and there was no description of the actual mentoring process. Although 56% of the mentors reported meeting with their mentee monthly, 71% of the mentees said they met less often. Most mentees noted the following aspects of the program to be beneficial: having a role model (82%), having increased visibility (82%), more support in general (94%), having someone to turn to (94%), and having increased access to departmental information (88%). The authors mention that lack of protected time for the participants to meet may have been a negative aspect of the program. 41% of the participants felt that the mentor’s lack of time was detrimental to a “large degree”.


An ad-hoc Faculty Mentoring Committee at the Johns Hopkins University School of Nursing developed 2 tools to evaluate the effectiveness of the mentoring relationship: the Mentorship profile Questionnaire, which describes the characteristics and outcome measures of the mentoring relationship from the perspective of the mentee, and the Mentorship Effectiveness Scale, a rating scale which evaluates 12 behavioral characteristics of the mentor. The authors review the reasons why validity and reliability coefficients cannot be estimated for most scales of mentor’s effectiveness. Despite this, the 2 tools are provided and they appear to be a good place to start when trying to develop an evaluation tool.


Excellent piece on the seven roles of mentoring with insightful, if not slightly arrogant, recommendations for being an ideal mentor of a physician-scientist. Too many quotes are included, but most are interesting and have an important message. The author includes frank opinions on ambition, bad mentors and the “steps to success.”


This article is not just about mentoring medical students, but is an excellent general discussion of the “do’s and don’ts” for both mentors and protégés. It emphasizes the importance of experience and flexibility in working with mentees of different learning styles, genders, and races.

Websites of interest:
- [http://www.rackham.umich.edu/StudentInfo/Publications/FacultyMentoring/Fmentor.pdf](http://www.rackham.umich.edu/StudentInfo/Publications/FacultyMentoring/Fmentor.pdf)
- [http://cte.umdnj.edu/career_development/career_mentoring.cfm](http://cte.umdnj.edu/career_development/career_mentoring.cfm)
- [http://www.medschool.vcu.edu/ofid/facdev/facultymentoringguide/](http://www.medschool.vcu.edu/ofid/facdev/facultymentoringguide/)