



Why Faculty Mentoring Matters: A Review of Literature on the Impact of Faculty Mentoring in Academic Medicine and Research-based Recommendations for Developing Effective Mentoring Programs

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Introduction

In past decades, mentoring—a long-established method of faculty development—has received growing attention, especially within academic medicine. In this poster we:

- Review the extant literature on the **impact of mentoring** in academic medicine and other professions (and highlight positive relationships between mentoring and key outcomes for faculty, institutions, and the field),
- Provide **practical, evidence-based guidelines** to help institutions design or enhance mentoring and faculty development programs components that are most likely to result in these positive outcomes, and
- Present **key definitional and methodological opportunity areas** that may strengthen the rigor and utility of research findings in this area.

Methods

Relevant studies were identified within the academic medicine and other literatures that defined mentoring, described successful practices for mentoring programs, and measured both short term and long term effects of participating in a mentoring program. We conducted a search of articles on mentoring in academic medicine through database searches (e.g., PubMed, PsycINFO) by using keywords in various combinations, including “effects of mentoring,” “impact of mentoring,” “mentoring in academic medicine”. Additionally, we reviewed the reference sections of relevant articles for additional articles of interest, as well as articles from within psychology and management literature. In total, we reviewed over 65 publications.

Current State of Mentoring in Academic Medicine

Definition:

Mentoring as a method of faculty development varies greatly between institutions and thus is operationally defined differently in different studies. Berk et al.¹ attempted to broadly define mentoring as: “...faculty with useful experience, knowledge, skills, and/or wisdom offers advice, information, guidance, support, or opportunity to another faculty member for that individual’s professional development.”

Faculty mentoring can exist:

- in a formal or informal setting
- on a short-term or long-term basis
- and in a one-to-one or group dynamic.

Some of the goals of mentoring and other development opportunities include:^{ii,iii}

- Providing advice on career development and how to handle bureaucratic issues
- Enhancing research or clinical skills and opportunities
- Developing a professional network
- Improving faculty members’ sense of “fit” within a medical school

Access and Availability:

While there are a number of notable mentoring programs in the community, the overall prevalence of mentoring across U.S. is relatively unknown, especially with respect to how often different types of mentoring occur. In their 2006 JAMA review of research on mentoring in academic medicine, *Sambunjak, et al. report that in some specialty departments fewer than 20% of faculty receive mentoring.*^{iv} Data from the 2009 Faculty Forward job satisfaction survey of 23 U.S. medical schools also show that only one quarter of faculty respondents reported receiving formal mentoring, despite the fact that nearly two-thirds of respondents who reported that having a formal mentor is important.^v Differences in the definition and scope of mentoring raise the question of whether mentoring in general affects faculty performance or retention.

Impact of Faculty Mentoring

Mentoring in academic medicine is a critically important development process with positive implications for individual faculty members, institutions, and the field as a whole. Our review of the mentoring literature suggests some clear relationships between faculty mentoring opportunities and several important outcomes within academic medicine and other professions.

Improved Job Satisfaction

A review of studies on the effects of mentoring in academic medicine indicates:

- Mentees’ perceived importance of mentoring is associated with their career satisfaction^{iv}
- Mentoring is significantly related to job satisfaction among faculty members^{vi}
- Satisfaction with mentoring is positively correlated to job satisfaction^{vii, v}

Qualitative data reveal that:

- Participation in mentoring enhances faculty job satisfaction and sense of “fit” within one’s institution^{iii, viii}
- Faculty who receive mentoring are more likely than those who do not receive mentoring to be satisfied with their sense of “fit” within their department^v
- Relationships formed as a consequence of participating in mentoring lead to a sense of community, collegiality, and belonging, and a consequent desire to remain at one’s institution^{iii, iii}

Past research has demonstrated that:

- Faculty have identified a relationship with a mentor as strongly important for success in research^{ix}
- Mentoring enhances mentee self-confidence & increases research productivity in terms of number of peer-reviewed publications, likelihood of receiving a grant, & time allocated toward research^{ii, iv, vi, x}
- Mentoring contributes to increased faculty productivity in teaching and patient care^{vi, xi, xii}

Evaluations of existing programs and research studies describe that:

- Longitudinally, retention rates increase for faculty participating in the mentoring programs compared to peers who do not^{xiii, xiv}
- Mentoring can improve job satisfaction, which is directly linked with the decision to remain in academic medicine and the resolve to remain at one’s current institution^{iii, v}

Enhanced Sense of “Fit”

Greater Faculty Productivity

Higher Retention Rates

Recommendations for Practices

In practice, providing faculty with well-designed, formal development opportunities may systematically improve outcomes. Below are evidence-based guidelines that were developed through the literature review for establishing or refining a structured faculty mentoring program most likely to result in positive outcomes for faculty and for their institutions.^{viii, viii, xv, xvii, xviii, xix, xx}

Setting up the program for success

- Set up a task force to oversee the program implementation
- Articulate goals for the program related to institutional & individual performance
- Explore best practices in mentoring and consult with other institutions
- Garner senior leadership sponsorship and align with institutional priorities

Establish ground rules for participation

- Being a mentor or a mentee should be a voluntary commitment
- Participants should commit a pre-determined amount of time to the program
- Provide an explicit set of behavioral expectations for mentees and mentors

Train and incent mentors

- Considering incentives for mentor participation
- Provide mentors with structured guidelines or training on how to build and maintain an effective mentoring process at the onset of the program

Conduct a careful matching process

- Participants should provide a description of their goals for participation, career interests, strengths and needs for the matching process
- Match pairs based on their skills, interests, & goals with each party providing input

Hold a mentor-mentee orientation session

- Hold an orientation to facilitate introductions and early discussions between pairs
- Encourage pairs to jointly develop goals and expectations for their relationship

Clarify the program’s process steps and outcomes

- Offer check-in meetings with a program director to assess satisfaction and progress
- Evaluate the program to assess whether goals were met

Incorporate program into existing human capital systems

- Assign positive value to program participation within existing institutional processes

Recommendations for Research

Opportunities for continued research on the role and impact of mentoring exist, and we offer several suggestions to guide future research on mentoring in both academic medicine and other health professions:

1. Clearly delineate types of mentoring and consistently define content to distinguish better the **differential impacts of various types** of mentoring
2. Create consistent and rigorous evaluation metrics to further assess faculty members’ **perceived quality of mentoring**, as participation does not ensure value or engagement in the process
3. Continue to explore **outcomes for specific faculty subgroups** that participate in mentoring programs and the role of selection bias in the impact of mentoring

The extant literature clearly points to positive relationships between mentoring and key outcomes for faculty, institutions, and the field, including faculty satisfaction, productivity, and retention. Given that relatively few faculty receive mentoring, organizations that invest in and enhance faculty mentoring programs using evidence-based guidelines will be better positioned to achieve these positive individual and organizational outcomes in the future.

Supplemental Information for:

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