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# Mentoring for Clinician-Educators

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## Abstract

Mentorship has been shown to have a positive impact on academic faculty members in terms of career advancement. The guidance of a mentor has been shown to increase academic outcome measures such as peer-reviewed publications and grant support for junior academic faculty. In addition, career satisfaction of mentored faculty is greater than those with no mentorship. There is little research on the effects of mentorship on the careers of clinician-educators. This group has also been reported to have

a lower scholarly productivity rate than the typical research-based faculty. This article addresses the current state of mentorship as it applies specifically to clinician-educators, offers advice on how a potential protégé might seek out a potential mentor, and finally, suggests a possible mentoring system for academic emergency physicians who are focusing on careers in medical education. **Key words:** mentorship; clinician-educator; medical education. *ACADEMIC EMERGENCY MEDICINE* 2004; 11:1346-1350.

*Mentor:* 1. a wise, loyal advisor 2. a teacher or coach.<sup>1</sup> According to Greek mythology, when Odysseus left for the siege of Troy, Athena, the goddess of wisdom, appeared as Mentor, a trusted friend who became responsible for raising Odysseus' son, Telemachus, during his absence. Mentor was not just a teacher, but also a transitional figure, who assisted in his growth and development from child to young adult. Mentor guided Telemachus on his own journey to independence.

## IMPORTANCE OF MENTORSHIP

Mentoring is a well-recognized ingredient to a successful academic medical career. In 1986, Bland and Schmitz<sup>2</sup> published the characteristics of successful researchers in academic family medicine. In addition to having the prerequisite knowledge and skills to perform their research, successful researchers had had mentors before, during, and after their training, and maintained ongoing relationships with advisors throughout their careers. In a survey of full-time female faculty in departments of medicine in the United States, women with mentors reported authoring a greater number of publications and they spent

more time in research than those with no mentors.<sup>3</sup> In addition, female faculty who reported having a current successful role model also reported greater overall career satisfaction than those who do not.

In one of the largest studies of mentorship in academic medicine, Palepu et al.<sup>4,5</sup> surveyed 4,000 faculty at 24 U.S. medical schools. Those 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 have been awarded grant funding. They rated their adequacy of support for teaching, research, and administrative activities higher, and had overall greater career satisfaction.<sup>4,5</sup> In a survey of female academic surgeons, those who had mentors worked more hours per week and had more articles published.<sup>6</sup>

Until recently, studies of mentored academic faculty have not focused on the clinician-educator. In 1999, graduates of a faculty-development program for medical educators identified "having a mentor" to be the most positive influence on their career development in medical education. Yet, of these program graduates, only 32% identified a mentor in medical education, and the lack of a mentor was felt to be the factor of greatest negative impact on their careers.<sup>7</sup> In a 2003 study of the prevalence of mentorship at one medical school, clinician-scientists were more likely to consider themselves mentored (odds ratio = 5.8) than clinician-educators.<sup>8</sup> This finding persisted when responses were adjusted for age, fellowship training, and number of years as faculty. In fact, even clinician-educators who felt they had exposure to senior faculty were not more likely to consider themselves mentored. To the best of our knowledge, broader surveys of the prevalence and satisfaction with mentorship for clinician-educators have not been published.

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Why is it that clinician-educators are at increased risk of inadequate mentorship? Many factors contribute to this problem. Mentoring has historically been associated with researchers and clinician-scientists. This group has fairly objective means for measurement of academic productivity, and, therefore, promotions committees can use numeric guidelines as an indication of academic success. In contrast, clinician-educators may have been ill prepared to define their academic roles in preparation for promotion. Objective criteria for success as an educator have not been universally defined and outlined for promotions committees, and the promotions process at many universities may have been late to recognize the scholarly achievements of clinician-educators.<sup>7,9</sup> In addition, mentors in medical education may have been few or difficult to identify. All of these factors negatively impact both the protégé's and potential mentor's abilities to direct and effectively document the protégé's academic endeavors.

Yet, promotion criteria for clinician-educators have recently been assessed at several U.S. and Canadian medical schools,<sup>10</sup> and clinician-educators' roles are valued by these institutions. These encouraging findings, in conjunction with the fact that the lack of a mentor is one of the most important negative factors hindering career progress in academic medicine,<sup>11</sup> mean that the time is now for junior faculty who wish to succeed and be promoted as clinician-educators to actively seek out mentorship.

## HOW TO EMBARK ON A MENTORING RELATIONSHIP

There are several skills that a potential protégé must develop and use when seeking a mentor.<sup>11-17</sup> These include skills assessment, awareness of current relevant research and literature, effective time management, and networking. A protégé should also be active and persistent in his or her goals. One's facility with these skills, and the direction of current career goals, will likely correlate with the stage of their career. Wilkerson and Irby<sup>18</sup> define four stages of faculty involvement in educational careers: 1) entry-level teachers who are refining basic teaching skills and orienting to academic values, responsibilities, and expectations; 2) teachers with greater pedagogical skill and content knowledge; 3) educational leaders who direct clerkships and programs, and 4) teacher-scholars who approach educational questions of process and outcomes of teaching interventions and curriculum reforms. Each career level has different learning needs related to continued faculty development, yet each level can benefit from appropriate mentorship.

Rogers et al.<sup>17</sup> published six chronological guidelines for junior faculty who embark on an academic career and need mentoring. His guidelines were

intended to assist academic family medicine physicians. They are general, and have not been validated in emergency medicine. However, these guidelines apply many of the above skills in directing junior faculty in their mentor search. What follows is an expanded discussion of these guidelines as they apply to medical educators. Specific examples of what clinician-educators should consider and do as they seek out mentoring relationships are outlined in Table 1.

1. Potential protégés must be self-reflective and perform a critical self-assessment. They should reflect on their educational skills, define their career goals, and understand their current relationship to them. They must understand the values, norms, expectations, and promotion requirements that apply to clinician-educators, and be aware of the criteria that determine a successful clinician-educator.<sup>10</sup> This self-assessment knowledge may be enhanced by direct observation or assessment of their skills by honest and critical peers. Such structured reflection allows them to identify specific learning needs, short- and long-term career goals, and future directions, in relation to their career level. The initial and final responsibility in ensuring an effective mentoring relationship rests with the protégé's activity.<sup>19</sup>

2. Once potential protégés have reflected on their current standing and competencies, they must identify which academic role needs developing and select a content area on which to focus. These decisions may be influenced by how their institution assesses the educational scholarship of clinician-educators,<sup>10</sup> and may include teaching skills, curriculum innovation or assessment, or educational research.<sup>13,18</sup> Time management, negotiation skills, grantsmanship, scholarly writing, and presentation may also be areas of potential focus. Again, the academic role to be developed will depend on their career level. Once this role has been identified, protégés should have specific questions on how to focus and develop content areas of interest, based on their ability to perform a project.<sup>13</sup>

3. Once potential protégés have determined the academic role and content area of focus, they must identify role models and potential mentors. Bhagia and Tensley<sup>14</sup> listed the characteristics of a good mentor as being self-confident, inspirational, supportive, generous with time and energy, competent, and respectful of the protégé's goals. Skills that good mentors should have include being tolerant of learners, motivational, accessible, asking thought-provoking questions, assisting in networking, promoting professional growth, and being facile in providing constructive feedback. Schapira et al.<sup>13</sup> wrote that a mentor should help in the realization of a protégé's dream through teaching, professional and personal guidance, sponsorship, role modeling, and assistance in socialization into the academic profession. In academic medicine, these activities translate into

**TABLE 1. How to Find Your Mentor: Actions for a Potential Protégé****Step 1**

- Assess your competence as a teacher, educational administrator, or researcher.
- Determine what prior educational actions/projects have been successful, and why.
- Assess/define career goals and your current relationship to them. For example:
  - To be a successful clerkship director, educational administrator or researcher,
  - To obtain funding for educational research,
  - To achieve national recognition as an innovative educator.

**Step 2**

- Determine which career aspects need refining.
- Determine how to document your educational achievements.
- Identify specific questions pertaining to the kinds of help you think you need.

**Step 3**

- Determine the personal and professional qualities you would desire or value in a mentor.
- Look for someone who has existing focuses and interests that match your own.
- Immerse yourself in the education network of your institution and national organization.
- Ask peers, chairpersons, and the faculty development office at your institution for recommendations on those who have established success in education.

**Step 4**

- Explain why you are approaching someone as a potential mentor.
- Explain your career goals and your current relationship to those goals.
- Explain your current academic role and what you think you might need in terms of advice and guidance.
- Recognize and appreciate a potential mentor's time and energy.

concrete work in helping a protégé define short- and long-term career goals, make appropriate job choices, and negotiate for time and support. Time management, research focus, and guidance in achieving the requirements for successful promotion at each career level may also be topics that are addressed by mentors. Potential mentors for clinician-educators understand the career choices, as well as the resources available to a protégé on this career track. A potential mentor may also have access to data for collaboration, may be willing to collaborate with future protégés, or have valuable administrative and methodological expertise to impart.<sup>11,13</sup> Finally, potential mentors in medical education should be recognized teachers and motivators who have an established commitment to mentoring-type activities. Finding the right mentor may involve active networking within and outside of one's department, institution, and region.

4. When potential protégés have identified potential mentors, they must approach and engage them with respect, demonstrating seriousness about their career aspirations. When inquiring for advice, protégés should start with concrete, practical tasks and questions. They should be specific, based on their self-reflection.

Today, a modern definition of the mentoring relationship is "a dynamic, reciprocal relationship in a work environment between an advanced career incumbent (mentor) and a beginner (protégé) aimed at promoting the career development of both."<sup>20</sup> At its best, mentorship is both a personal and professional interaction based on mutual respect, trust, understanding, and empathy. A rich mentoring relationship benefits both protégés and mentors, and also their departments, institutions, the organization, and the specialty.<sup>21</sup>

## **FUTURE DIRECTIONS: A MENTORING NETWORK IN EMERGENCY MEDICINE**

Having emphasized the importance of mentoring, and outlined strategies for finding a mentor, we now discuss a proposal for a potential mentoring network for clinician-educators in emergency medicine. Based on the literature describing current successful mentoring programs, a national, web-based mentoring network is suggested.

According to Ragins and Cotton,<sup>22</sup> there are several key points to consider when instituting a formal mentoring system. One must define who will be mentored, then construct a matching method that ensures the voluntary participation of potential mentors. The rules of the mentoring relationship should be minimized, but explicit, in order to maximize the personal freedom within the relationship.

A mentoring network should have a defined set of career level-specific goals for both the protégé and the mentor. As previously noted, the goals and directions of the protégé are of utmost importance, and deserve critical reflection and self-assessment. An initial goal for a potential mentor is to establish a commitment to the relationship. A mentor must also have insight into his or her own focused content areas sufficient to be a successful mentor in these areas. Finally, the mentor must also help determine what the ultimate goals of the mentoring experience will be.

"The Emergency Medicine Clinician-Educator (EMCE)" network is a suggestion for such a mentoring network, which could address a need for educational mentors. Classically, mentoring has been described as the dyad of a protégé who receives teaching and counsel from an older, experienced master. The Uncommon Individual Foundation<sup>23</sup> compares this

traditional "closed model" of mentoring to a modern "open model" of mentoring, which is triggered by career-aspiring protégés who seek out mentoring from a variety of potential sources.

This web-based mentoring network would also be an "open model" patterned after the Society for Academic Emergency Medicine's web site-hosted medical student virtual advisor program<sup>24,25</sup> and the Association of Professors of Gynecology and Obstetrics / Solvay Educational Scholars Program,<sup>26</sup> a mentoring project for clinician-educators. The EMCE would consist of a virtual-mentor question network, a clinician-educator peer chat room, and regular education-related didactic sessions at national and regional emergency medicine meetings. The goals of the EMCE would be to encourage a mentor-protégé relationship through a web-based network, peer networking and collaboration, and formal gatherings designed to help emergency medicine educators at various career levels teach effectively and develop education-related research projects.

The virtual-mentor question network would link clinician-educators to potential mentors through a question-answer network that would field and direct questions related to medical education to volunteer senior faculty mentors. Faculty mentors, who had previously indicated experience, expertise, and willingness, would receive questions from potential protégés pertaining to such topics as teaching methods, curriculum design and implementation, evaluation, educational research, and professional development. Potential topic questions might include the following:

- What is the best method to develop and promote formal bedside teaching in emergency medicine?
- What is the best method for introducing simulation teaching into emergency medicine education?
- How should one design a balanced curriculum in emergency medicine for medical students and residents?
- How should one implement a valid and reliable evaluation process to assess clinical skills?
- How should one design a research project to assess changes or improvements in educational projects?
- How does a clinician-educator approach their own professional development as a teacher, administrator, or researcher?

A protégé might be directed to one, or several, best suitable potential mentors, depending on his or her career focus and questions. In this way, protégé-mentor relationships would be fostered between junior, midlevel, and senior educators from around the country. In addition to the formal question-answer network, the EMCE would also host a peer networking chat room in which protégés could discuss ideas and problems related to effective medical education and formulate potential research questions and collaborations among themselves. The EMCE would sponsor

gatherings at national and regional emergency medicine meetings, which would consist of formal lectures on medical education and teaching workshops given by distinguished mentors. Workshop topics could expand on the web-based topics previously mentioned. Social events would allow mentors and protégés to meet with each other in an informal setting.

Many organizations have established formal mentoring programs, which are seen as an immediately beneficial approach to providing valuable career enhancement to the greatest numbers of junior faculty.<sup>27</sup> These programs have been shown to have more benefit than those promoted by informal mentoring programs. Similarly, collaborative, peer group mentoring programs have produced meaningful outcomes for the participants, including "an improved satisfaction linked to a participant's decision to remain in academic medicine."<sup>28</sup>

The effectiveness of the EMCE could be measured through several means. The professional development of protégés could be measured through their institutional educational initiatives, their greater activity in medical education on a national scale, and their educational research productivity and publication.

## CONCLUSIONS

Clinician-educators in emergency medicine have the daunting but rewarding task of teaching, organizing, evaluating, and, most importantly, mentoring hundreds of students throughout their careers. A strong mentoring network for these educators is therefore essential, but has been lacking. Junior faculty who desire a career in medical education must be proactive in their search for mentorship. Midlevel faculty also require mentoring in order to continue their own educational contributions. A successful mentoring exchange for emergency medicine clinician-educators that ensures the success of future educational curriculums and research and guidance in the areas of academics, professional growth, and administration, will subsequently ensure the growth of the field of emergency medicine.

## References

1. Neufeldt V, Guralnik DP (eds). Webster's New World Dictionary of American English. 3rd College Edition. New York NY: Simon & Schuster, 1988.
2. Bland CJ, Schmitz CC. Characteristics of the successful researcher and implication for faculty development. *J Med Ed.* 1986; 61:22-31.
3. Levinson W, Kaufman K, Clark B, Tolle SW. Mentors and role models for women in academic medicine. *West J Med.* 1991; 154:423-6.
4. Palepu A, Friedman RH, Barnett RC, et al. Medical faculty with mentors are more satisfied [abstract]. *J Gen Int Med.* 1996; 11: 107.
5. 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; 73:318-23.

6. Neumayer L, Levinson W, Putnam C. Mentors for women in surgery and their effect on career advancement. *Curr Surg*. 1995; 52:163-6.
7. Marks MB. Academic careers in medical education: perceptions of the effects of a faculty development program. *Acad Med*. 1999; 74(suppl):S72-4.
8. Chew LD, Watanabe JM, Buchwald D, Lessler DS. Junior faculty's perspectives on mentoring. *Acad Med*. 2003; 78:652.
9. Branch WT, Kroenke K, Levinson W. The clinician-educator—present and future roles. *J Gen Int Med*. 1997; 12(suppl 2):S1-4.
10. Beasley BW, Wright SM, Cofrancesco J, Babbott SF, Thomas PA, Bass EB. Promotion criteria for clinician-educators in the United States and Canada. *JAMA*. 1997; 278:723-8.
11. Jackson VA, Palepu A, Szalacha L, Caswell C, Carr PL, Inui T. "Having the right chemistry": a qualitative study of mentoring in academic medicine. *Acad Med*. 2003; 78:328-34.
12. Saha S, Christakis DA, Saint S, Whooley MA, Simon SR. A survival guide for generalist physicians in academic fellowships; part 1: getting started. *J Gen Int Med*. 1999; 14:745-9.
13. Schapira MM, Kalet A, Schwartz MD, Gerrity MS. Mentorship in general internal medicine: investment in our future. *J Gen Int Med*. 1992; 7:248-51.
14. Bhagia J, Tensley JA. The mentoring partnership. *Mayo Clin Proc*. 2000; 75:535-7.
15. Morzinski JA, Diehr S, Bower DJ, Simpson DE. A descriptive, cross-sectional study of formal mentoring for faculty. *Fam Med*. 1996; 28:434-8.
16. Advisor, Teacher, Role Model, Friend; On Being a Mentor to Students in Science and Engineering. Washington, DC: National Academy Press, 1997. Available at: <http://nap.edu/readingroom/books/mentor>. Accessed May 7, 2003.
17. Rogers JC, Holloway RL, Miller SM. Academic mentoring and family medicine's research productivity. *Fam Med*. 1990; 22:186-90.
18. Wilkerson L, Irby DM. Strategies for improving teaching practices: a comprehensive approach to faculty development. *Acad Med*. 1998; 73:387-96.
19. Hazzard WR. Mentoring across the professional lifespan in academic geriatrics. *J Am Geriatr Soc*. 1999; 47:1466-70.
20. Healy CC, Welchert AJ. Mentoring relations: a definition to enhance research and practice. *Educ Res*. 1990; 19:17-21.
21. Jouriles NJ, Kuhn GJ, Moorhead JC, Ray VG, Rund DA. Faculty development in emergency medicine. *Acad Emerg Med*. 1997; 4:1078-86.
22. Ragins BR, Cotton JL. Mentor functions and outcomes: a comparison of men and women in formal and informal mentoring relationships. *J Applied Psychol*. 1999; 84:529-50.
23. The Uncommon Individual Foundation. <http://www.mentoringfoundation.org>. Accessed July 15, 2003.
24. Medical Student Advisor Program. [www.saem.org](http://www.saem.org). Accessed July 23, 2003.
25. Coates WC, Ankel F, Birnbaum A, et al. The virtual advisor program: linking student to mentors via the world wide web. *Acad Emerg Med*. 2004; 11:253-5.
26. APGO/Solvay Scholars Program Task Force. [www.apgo.org](http://www.apgo.org). Accessed July 10, 2003.
27. Walker WO, Kelly COL, Hume RF. Mentoring for the new millennium. *Med Educ Online* 2002; 7:15. Available from [www.med-ed-online.org](http://www.med-ed-online.org). Accessed May 27, 2003.
28. Pololi LH, Knight SM, Dennis K, Frankel RM. Helping medical school faculty realize their dreams: an innovative collaborative mentoring program. *Acad Med*. 2002; 77:377-84.