

The POD: A New Model for Mentoring Underrepresented Minority Faculty

Charlotte Lewellen-Williams, MPH, Virginia A. Johnson, EdD, Linda A. Deloney, EdD, Billy R. Thomas, MD, MPH, Apollos Goyol, PhD, and Ronda Henry-Tillman, MD

Abstract

Mentoring, long recognized as a catalyst for successful careers, is particularly important to the career development of underrepresented minority (URM) faculty. In academic medicine, mentor–protégé relationships are seriously threatened by increased clinical, research, and administrative demands and an emphasis on scholarship over citizenship. New mentoring models are needed, and they should be adaptable to a medical school's unique structure and mission.

The Peer-Onsite-Distance (POD) model, developed in 2002 by the authors and introduced at the College of Medicine at

the University of Arkansas for Medical Sciences, is a targeted, multilevel mentoring prototype that is built on a solid research foundation and tailored to the unique needs of URM medical school faculty. The mentee's individual needs for guidance related to career goals, resources, and the content and interaction skills that are known to be critical to successful academic careers are targeted for development. The multilevel approach provides a unique network of peer and faculty mentors who provide site-specific career guidance. Also in the network are leaders in their fields who can provide access to accurate

information, cautions, predictions, and announcements of future resources or potential restrictions in academic medicine. Mentor commitments are clearly defined and time contributions are maximized. The POD model aims to promote retention and advance the careers of URM faculty by wrapping them in a protective cushion of interpersonal and intrapersonal support. The flexibility of the design allows for adaptation to any institution's unique structure and mission.

Acad Med. 2006; 81:275–279.

The importance of mentoring, long recognized as a catalyst for successful careers, is receiving renewed attention in academic medicine. Benefits of the mentor–protégé relationship are well documented, and a positive correlation between mentoring and academic success

Ms. Lewellen-Williams is director of faculty diversity for the University of Arkansas for Medical Sciences College of Medicine, Little Rock, Arkansas.

Dr. Johnson is an educational evaluator, the Academic Affairs Office of Educational Development, University of Arkansas for Medical Sciences, Little Rock, Arkansas.

Dr. Deloney is the graduate medical educator for the Department of Radiology, University of Arkansas for Medical Sciences College of Medicine, Little Rock, Arkansas.

Dr. Thomas is the associate dean of diversity affairs in the College of Medicine, University of Arkansas for Medical Sciences, Little Rock, Arkansas.

At the time of the study, **Dr. Goyol** was a program evaluator, Academic Affairs Office of Educational Development, University of Arkansas for Medical Sciences, Little Rock, Arkansas.

Dr. Henry-Tillman is director of cancer control for the Arkansas Cancer Research Center, University of Arkansas for Medical Sciences, Little Rock, Arkansas.

Correspondence should be addressed to Ms. Lewellen-Williams, UAMS College of Medicine, Center for Diversity Affairs, 4301 West Markham, #820, Little Rock, AR 72205; telephone (501) 526-6630; fax (501) 526-6620; e-mail: (lewellencharlottef@uams.edu).

and productivity has been frequently reported.^{1–10} Faculty who have been successful in their careers are known to have benefited from the counsel of one or more mentors¹¹ across their professional lifespan, especially during periods of transition.^{3,4,12} In particular, junior faculty who have research mentors have reported greater productivity and career satisfaction.^{7,10}

Although having a faculty mentor and being part of an active network of peers are known to be essential elements of successful careers in academic medicine, the lack of mentoring is a pervasive problem.^{5,13} Mentor–protégé relationships are seriously threatened by increased clinical, research, and administrative demands, while traditional support structures (e.g., the faculty club, the doctors' "mess") have been eroded or lost.¹² As a professional activity, the time that is needed to build mentoring relationships is typically uncompensated, difficult to fit into busy schedules, and undervalued by the medical school.^{8,11,14} Promotion and tenure criteria in most academic health centers emphasize scholarship, not citizenship.¹¹

The need for mentoring may be even greater for faculty from minorities underrepresented in medicine.

Underrepresented minority (URM) groups—African Americans, Hispanics, American Indians, and Pacific Islanders—are severely underrepresented on medical school faculties^{5,13,15–18} and at the doctoral level in the sciences.¹⁹ Compared to white faculty, URM medical school faculty are promoted at lower rates^{15,17,20,21} and report lower career satisfaction.^{16,18} URM faculty, who traditionally choose primary care specialties and frequently have greater debt burdens than do other faculty, have been reported to spend more time in patient care and less time in research than their white counterparts.^{16,20} Most medical schools have few URM faculty to mentor medical students.^{9,17,22}

One key way that physicians are socialized to medical faculty roles is mentoring. As stated above, this may be particularly important to the career development of URM faculty^{3,13,15} because URM physicians are less likely to have mentors.^{5,23} Research in corporate America has shown that people of color who have a strong network of mentors to cultivate their professional development advance the furthest.²⁴ Mentoring must be encouraged and rewarded if URM faculty are to achieve and maintain positions of influence and leadership in academia.⁵

In the institutional climate, structured, visible systems make connections between potential mentors and mentees easier.¹⁴ Although available research on mentoring in medical environments is limited, the variety and intensity of reported mentoring activities at U.S. medical schools suggest the difficulty of implementing successful formal mentoring programs.^{5,7} Tested mentoring models are lacking, as is expertise in mentoring newer categories of faculty such as clinician educators.⁵ New models are needed, and it has been suggested that each medical school should design a mentoring program that is appropriate for its unique structure and mission.^{5,15} In this article, we describe the development of a unique targeted, multilevel mentoring model, the Peer-Onsite-Distance (POD) model, now being used at our medical school. This model is designed to promote retention and career development among our URM medical school faculty, but the flexibility of our design allows for adaptation to any institution's unique structure and mission.

Gathering Information

Literature review

We conducted an online Medline search to identify research from a 25-year period (1978 to 2002) on the impact of mentoring on faculty in medical professions. The reported studies were analyzed to identify critical variables associated with mentoring success in environments where time and work

demands on potential mentors preclude the use of a traditional mentor-protégé relationship. Alternative approaches were examined to compare benefits of using traditional "definite mentoring" by only one mentor with "diffuse mentoring" by several mentors.^{25,28} We also examined success strategies, problems, and solutions for implementing and maintaining mentor programs and mentor training. Review findings were summarized and used to develop a structured interview that was intended to identify current practices at other medical schools (as described below) as well as to structure the new URM mentoring program.

Structured interviews

During a doctoral mentoring institute at Arizona State University, we conducted structured interviews with administrators representing the 11 higher education institutions that comprised the Minority Graduate Education at Mountain States Alliance. The institute, sponsored (among others) by the White House Office of Science and Technology Policy and the National Science Foundation Alliance for Graduate Education and Professoriate Programs, was designed to enhance knowledge and best practices of mentoring for URM faculty.²⁶ It provided a natural environment for us to collect detailed input from 30% of the attendees regarding success strategies, problems, and solutions related to initiating and maintaining a mentoring program.

Structured interviews provided a unique opportunity to investigate current practices not yet published in the literature. The interview format focused on critical ingredients and the benefits of mentoring in each respondent's medical setting. Specifically, the interview focused on barriers to mentoring at the respondent's institution, as well as outcomes and success strategies used with junior faculty.

Inventory development

Based on findings from the literature review and the structured interviews described above, we designed two inventories, the Mentee Need Inventory and Mentor Readiness Inventory, as tools for matching mentees' needs with mentors' expertise. The inventories comprised nine professional interaction skills and 12 content skills (see Table 1). The inventory was pilot-tested with a focus group, and then parallel versions of the needs assessment (one for peer mentors, one for potential mentees) were finalized as self-administered paper-and-pencil questionnaires taking only ten to 20 minutes to complete. Permission to conduct human subjects research was granted by the institutional review board at the University of Arkansas for Medical Sciences (UAMS). University rules required that all information remain confidential.

We compiled a list of URM faculty, housestaff, graduate students, and medical students in the UAMS College of Medicine as of Fall 2002 and invited all of them to participate in the mentoring project on a voluntary basis. Information packets were distributed to a total of 31 interested participants—nine potential peer mentors and 22 potential mentees—during the Spring 2003 semester. The packet consisted of a cover letter and a copy of the appropriate needs assessment inventory. The cover letter introduced the investigators, the reason for the project, the benefit of the study to the participant, and the time frame for return of the questionnaire (within two weeks). All participants returned their completed inventories (100% response rate).

What We Learned

Findings from the literature and interviews

Our review of the literature confirmed that faculty mentors and peer networks

Table 1
Content and Skills Critical to Academic Career Success*

Content areas	Interaction skills
Career goals	Coaching
Clinical skills	Decision making
Conducting research	Goal setting
Confidence building	Guiding
Curriculum vitae development	Listening
Grant writing	Problem solving
Negotiating	Providing feedback
Organization and committee participation	Reinforcing
Professional networking	Role modeling
Promotion/tenure	
Publishing your work	

* Based on findings from the literature, two inventories were designed as tools for matching mentees' needs with peer mentors' expertise. The inventories, shown in the table, comprise 12 content skills and nine professional interaction skills.

were critical ingredients of a successful academic medicine career.^{5,9,15,20,27} Importantly a positive relationship was found to exist between having a mentor and professional development (conference participation, research, teaching, grantsmanship, and publishing).^{1–10,28} Studies suggested that successful mentoring programs should be unique and developed according to the setting and environment.⁵ An understanding of the cultural parameters and unique needs and issues of different minority groups was found to be important. Essential characteristics of successful mentor–mentee relationships that were identified in the literature were *interpersonal* (i.e., common research interests and life experiences, trust, honesty, and mutual respect) and *intrapersonal* (i.e., similar values, ability to motivate/inspire, recognition of personal strengths and limitations, and ability to give constructive criticism).^{1,4,8,10,13}

Previous research and outcomes from the structured interviews helped define specific content areas to address during mentoring such as professional networking, publishing, committee participation, teaching skills, grant writing, promotion, and tenure. Specific interaction skills critical to professional performance, such as problem solving, decision making, goal setting, and feedback were also identified. This information was consistent across different medical school settings.

Findings from the inventories

When we had received the 31 completed inventories, we used descriptive statistics to quantify (1) mentee needs in the content areas, (2) the interaction skills of members of both groups, and (3) mentor readiness. In addition, we developed an evaluation plan and data collection process to assess program outcomes in these targeted areas.

The content skills for which the 22 potential mentees reported the most need were networking (21; 95%), clinical skills (19; 86%), curriculum vitae (CV) development (18; 82%), establishing career goals (17; 77%), and confidence building (16; 73%). Although the nine potential mentors (faculty and community physicians) reported readiness to mentor in all of these content areas, mentor readiness was strongest for clinical skills (7; 78%), career goals (7; 78%), and confidence building (7; 78%). A majority of potential mentors (5; 55%) also agreed they could assist with both developing a CV and in networking.

Interaction skills for which the 22 potential mentees reported the most need were problem solving (19; 86%), career guidance (19; 86%), role modeling (18; 82%), providing feedback (18; 82%), and coaching (15; 68%). Again, the nine potential mentors reported readiness to mentor in all of these areas. Mentor readiness was strongest for problem solving (8; 89%). Most potential mentors

(7; 78%) also agreed they could give feedback and role model, as well as guide (6; 67%) and coach (5; 55%).

Formal mentor preparation is known to increase the frequency and effectiveness of mentoring activities,⁸ and outcomes of the needs assessment verified a need for some mentor training. Of the potential mentors, one-third requested basic “how to mentor” training. While two-thirds indicated readiness to mentor, they requested brief refresher sessions in specific skills: CV preparation, publishing, and negotiating. Interestingly, four members (44%) of the group requested a refresher session in how to mentor teaching skills.

Both potential mentees and mentors perceived the primary benefit of being mentored as a means to develop a professional network (mentees 11; 58%; mentors 4, 44%). Secondarily, both believe mentoring facilitates decision making about career goals (mentees 6; 32%; mentors 3; 33%).

A New Mentoring Model

Overview

We developed the POD model in 2002 after the research described above. The POD is a targeted, multilevel mentoring model (illustrated in Figure 1) built on a solid research foundation and tailored to the unique needs of minority medical school faculty. Furthermore, the POD model is based on the belief that people have value as individuals and as members of groups. The model provides a protective structure to orient new faculty to the culture of academic medicine and offers interpersonal and intrapersonal support to nurture the mentee’s professional development. It targets the individual’s needs for guidance related to career goals, resources, and content and interaction skills (see Table 1). Channels of support and communication are developed within and between a network of mentors to convey general success strategies as well as site-specific guidance. We believe the POD acronym connotes a protective environment that nurtures the junior faculty member, just as a family or social group cares for its members or the fruit of a plant protects its new seeds.

The model’s components

The model has five parts:

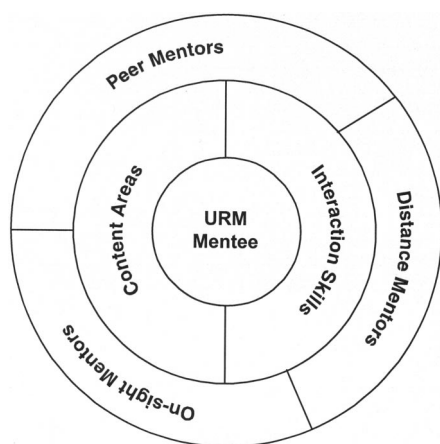


Figure 1 The Peer-Onsite-Distance (POD) model used to mentor underrepresented medical school faculty at the University of Arkansas College of Medicine. The figure illustrates how individual mentees’ needs can be met, either simultaneously or in sequence, by three different types of mentors. Typically, peer mentors are junior faculty, onsite mentors are senior faculty, and distance mentors are private-practice physicians, state and national legislators, and other health care professionals.

Mentee. A mentee is a junior URM faculty member who is the recipient of teaching and relationship-building activities that are critical to career advancement in the academic medicine environment.

Content and interaction skills. Content and interaction skills are themes that have been identified in the literature as critical for successful academic careers across medical environments. The model integrates specific content areas and interaction skills that can be applied to the mentoring relationship (see Table 1).

Peer mentors. Faculty who are advancing in the academic environment and are close to the mentee in rank are peer mentors. They are prepared to offer advice from their own experiences that is appropriate for and effective in the particular site. These mentors socialize mentees to the medical faculty role and provide collegial support that includes empathy, warmth, and genuineness.

Onsite mentors. Onsite mentors are senior faculty, including researchers, full professors, and department chairs, who provide information in targeted content areas. They serve as the mentee's advocates, liaisons, or coaches and provide support, guidance, authentic feedback, "real world" examples, and alternatives. They serve a number of mentees in a timely and efficient manner that is congruent with their busy schedules.

Distance mentors. Distance participants are leaders who emerge from health care, business, academia, or governmental and political settings and accept a clearly defined responsibility to make a once-a-year contribution in their area of expertise, frequently conducted as part of their ongoing public information activities. These mentors share accurate information, cautions, predictions, and announcements of future resources or restrictions in academic medicine.

Application of the model

The application process is self-directed and initiated when a URM faculty member completes a Mentee Need Inventory (described earlier). Peer and onsite mentors who indicated readiness to give support and instruction in the needed content and interaction skills areas are identified and asked to provide

targeted mentoring. These mentors are offered training in coaching and guidance strategies, feedback and reinforcement techniques, and evidence-based instructional methods that enable mentees to learn quickly and efficiently in the environment in which they will have to respond.

Contact is initiated when mentoring strategies, selected by the mentor to meet the mentee's targeted needs, are applied individually or as a set of sequential and cumulative steps. For example, the mentee may need instruction in one or more targeted content areas (e.g., CV development) and interaction skills (e.g., providing feedback to residents). The instruction may be enriched by shared examples of successful career experiences, and/or extended by recommended materials for further study. The mentee may arrange opportunities to observe persons who are proficient in specific information or skills in the academic environment. The mentee may also shadow the mentor to observe the skill being modeled in practice or view examples on video or other media.

Having learned a skill and seen it applied (e.g., networking), the mentee should practice in a variety of increasingly complex environments under the guidance of the mentor. For example, the mentor might first have the mentee network at a departmental meeting, next at a college-wide event, and then at a national professional meeting. After each practice activity, the mentor reinforces the elements of successful performance and provides specific guidance as to how performance might be improved in the next practice activity. Upon successful acquisition of the skill, the mentee should reflect on the learning experience and discuss the experience with the mentor.

On a continuous basis, mentors will share emerging success strategies with each other for the benefit of future mentees. This process, facilitated by the POD program administrator, enables mentors to expand their menu of places to practice, models to observe, and media and materials to review, as well as to endorse or reaffirm that certain activities are more effective in generating rapid performance of new skills. In addition, mentors will discuss any obstacles and barriers encountered by mentees and work together to formulate solutions.

A Program Based on the Model

A URM mentoring program based on the newly developed POD model was introduced to faculty at the UAMS College of Medicine in 2002 using a grand rounds session in conjunction with individual departmental presentations. The POD model was immediately accepted by all stakeholders—university administration, potential peer and onsite mentors, and potential mentees—and supported by College of Medicine faculty. Ten senior and nine junior URM faculty immediately decided to participate. These mentors represented a wide variety of departments in the college.

Basic or refresher training assures mentors have effective advising, teaching, and leadership skills appropriate for the medical environment. Mentor training on guidance and coaching strategies was offered to peer and onsite mentors at the onset of the project.

The program was initiated with 22 mentees, nine peer, and ten onsite mentors. Distance mentors were alumni in private practice, a state senator, a U.S. Congressman, and a former U.S. Surgeon General. They provide accurate information, cautions, predictions, and announcements of future resources or potential restrictions in academic medicine. Distance mentors are expected to present one "Lunch and Learn" on campus annually, designed specifically for program participants and targeting topics identified in the needs assessment. This will provide a unique opportunity for URM faculty to network and connect with distance mentors to facilitate career progression. Ongoing recruitment activities target individuals who have unique access to information and resources on a national level.

While the primary outcome of this project was the creation of the POD mentoring model, a second outcome was the transition of the URM mentoring program from a time-limited grant-funded activity to an ongoing activity supported by the College of Medicine. Traditionally, URM faculty mentoring in the UAMS College of Medicine had been facilitated by the Office of Minority Affairs. Introduction of the POD model contributed to a new Center of Diversity Affairs with a full-time director position.

Conclusion and Discussion

Targeted multilevel mentoring is an innovative approach to providing URM faculty with faculty mentors and an active network of peers, both known to be essential elements for successful academic medicine careers.^{1–10} As stated earlier, the literature suggests that successful mentoring programs be unique and appropriate to the medical school's setting and environment.⁵ Although successful faculty careers are known to benefit from the counsel of one or more mentors,¹¹ there is ample evidence that mentor–mentee relationships are seriously threatened by increased clinical, research, and administrative demands. The time required to build mentoring relationships is typically uncompensated, difficult to fit into busy schedules, and undervalued by the medical school.^{8,11,14} The POD model is designed to increase the likelihood that mentors with limited time will participate in mentoring activities. In the three-level POD model, peer mentors provide guidance and support while busy senior faculty focus on specific and generally more challenging tasks on a professional level. The mentees are further supported by a network of academic, corporate, and government and political leaders.

The POD's multilevel approach parallels findings of a recent study that identified three important domains of successful mentorship: the relationship between mentor and mentee (such as guidance and support), the professional attributes of the mentor (such as reputation), and the personal attributes of the mentor (such as availability and caring).¹⁰ While our informal evaluation activities to date have provided evidence of the efficacy of the POD model, future studies will assess the productivity and career satisfaction of mentees who are mentored by this new approach.

Acknowledgments

This work was supported in part by a grant from the National Cancer Institute to Reduce Cancer Health Disparities, 5U01 CA86081-04, Arkansas

Special Populations Access Network. Preliminary findings, "Needs and Resources for Developing a Targeted Approach to Mentoring for Minorities in Professional Medical Careers," were presented at the 2003 Annual Meeting of the Association of American Medical Colleges, Washington D.C.

References

- Berk RA, Berg J, Mortimer R, Walton-Moss B, Yeo TP. Measuring the effectiveness of faculty mentoring relationships. *Acad Med.* 2005;80:66–71.
- Chew LD, Watanabe JM, Buchwald D, Lessler DS. Junior faculty's perspectives on mentoring. *Acad Med.* 2003;78:652.
- Duda RB. Mentorship in academic medicine: a critical component for all faculty and academic advancement. *Curr Surg.* 2004;61:325–27.
- Hazzard WR. Mentoring across the professional lifespan in academic geriatrics. *J Am Geriatr Soc.* 1999;47:1466–70.
- Johnson JC, Williams B, Jayadevappa R. Mentoring program for minority faculty at the University of Pennsylvania School of Medicine. *Acad Med.* 1999;74:376–79.
- Morzinski JA, Diehr S, Bower DJ, Simpson DE. A descriptive, cross-sectional study of formal mentoring for faculty. *Fam Med.* 1996;28:434–38.
- Palepu A, Friedman R. Junior faculty members' mentoring relationships and their professional development in U.S. medical schools. *Acad Med.* 1998;73:318–23.
- Redmond SP. Mentoring and cultural diversity in academic settings. *Am Behav Sci.* 1990;34:188–200.
- Roche GR. Much ado about mentors. *Harv Bus Rev.* 1979;57(1):14–20.
- Steiner JF, Curtis P, Lanphear BP, Vu KO, Main DS. Assessing the role of influential mentors in the research development of primary care fellows. *Acad Med.* 2004;79:865–72.
- Levy BD, Katz JT, Wolf MA, Sillman JS, Handin RI, Dzau VJ. An initiative in mentoring to promote residents' and faculty members' careers. *Acad Med.* 2004;79:845–50.
- Bligh J. Mentoring: an invisible support network. *Med Educ.* 1999;33:2–3.
- Sims-Boykin SD, Zambrana RE, Williams KP, Salas-Lopez D, Sheppard V, Headley AJ. Mentoring underrepresented minority female medical school faculty: momentum to increase retention and promotion. *J Assoc Acad Minor Phys.* 2003;14(1):15–18.
- 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.
- Erwin DO, Henry-Tillman RS, Thomas BR. A qualitative study of the experiences of one group of African Americans in pursuit of a career in academic medicine. *J Nat Med Assoc.* 2002;94:802–12.
- Palepu A, Carr PL, Friedman RH, Ash AS, Moskowitz MA. Specialty choices, compensation, and career satisfaction of underrepresented minority faculty in academic medicine. *Acad Med.* 2000;75:157–60.
- Fang D, Moy E, Colburn L, Hurley R. Racial and ethnic disparities in faculty promotion in academic medicine. *JAMA.* 2000;284:1085–91.
- Peterson NB, Friedman RH, Ash AS, Franco S, Carr PL. Faculty self-reported experience with racial and ethnic discrimination in academic medicine. *J Gen Intern Med.* 2004;19:259–65.
- Crowley S, Fuller D, Law W, et al. Improving the climate in research and scientific training environments for members of underrepresented minorities. *Neuroscientist.* 2004;10:26–30.
- Palepu A, Carr PL, Friedman RH, Amos H, Ash AS, Moskowitz MA. Minority faculty and academic rank in medicine. *JAMA.* 1998;280:767–71.
- Petersdorf RG, Turner KS, Nickens HW, Ready T. Minorities in medicine: past, present, and future. *Acad Med.* 1990;65:663–70.
- Abernethy AD. A mentoring program for underrepresented minority students at the University of Rochester School of Medicine. *Acad Med.* 1999;74:356–5.
- Ramanan RA, Phillips RS, Davis RB, Silen W, Reede JY. Mentoring in medicine: keys to satisfaction. *Am J Med.* 2002;112:336–41.
- Thomas DA. The truth about mentoring minorities. *Race matters.* *Harv Bus Rev.* 2001;79:98–107, 168.
- Fagan M. The term "mentor": a review of the literature and a pragmatic suggestion. *Int J Mentoring.* 1988;2(2):5–8.
- Rodríguez AA. Doctoral Mentoring Institute: Increasing PhD Production and Shaping Tomorrow's Leaders. Phoenix: Minority Graduate Education at Mountain States Alliance, 2001.
- Wilson DE, Balotin J. Has the well run dry? Priming the diversity pump in PhD programs. *J Assoc Acad Minor Phys.* 1999;10(2):27–33.
- Smith EP, Davidson WS II. Mentoring and the development of African-American graduate students. *J Coll Student Dev.* 1992;33:531–39.