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Effective faculty preceptoring and mentoring during reorganization of an academic medical center

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SUMMARY *The experience and lessons learned in the design, implementation and initial evaluation of a demonstration faculty-to-faculty mentoring program, during a time of major institutional reorganization, are described. The question addressed was: Can a voluntary mentoring program be established with minimal resources and be effective in the context of major organizational change? Key design elements included two-tiered programs (one year preceptoring and multi-year mentoring), voluntary participation, and selection of senior faculty members by the junior faculty members. A total of 20% of junior faculty and 30% of senior faculty participated. Faculty indicated the program was worth the time invested, had a positive impact on their professional life and increased productivity. There was high satisfaction with the mentoring relationship, especially the psychosocial mentoring functions, and a trend toward increased retention of minority faculty. Within two years, the program was institutionalized into the Office for Faculty Affairs, and faculty approved a mentoring policy. It is concluded that voluntary mentoring programs can have a positive impact on junior and senior faculty satisfaction, reinvigorate the collegial culture, and improve productivity and retention even during a time of reorganization and minimal resources.*

Introduction

In 1994, MCP Hahnemann University began consolidation of faculty, services and educational programs of two medical schools—Medical College of Pennsylvania and Hahnemann University—that were merged with a larger parent organization, Allegheny Health System. Four years later, following bankruptcy, the MCP Hahnemann University was reorganized by court order into a new medical sciences university operated by Drexel University and a hospital system operated by Tenet Healthcare. Multiple reorganizations have continued as MCP Hahnemann University moves toward an anticipated merger with Drexel University. Similar organizational and governance changes have impacted other academic medical centers across the USA, although their magnitude may vary.

In 1998, the Office on Women's Health, US Department of Health and Human Services, awarded MCP Hahnemann University a National Center of Leadership (CoL) in Academic Medicine mentoring demonstration project (Mark *et al.*, 2001). The new medical school Dean envisioned the mentoring program would effectively complement the school's retention and recruitment priority, by providing an environment for faculty to

advance professionally, succeed in their goals, and build a collegial academic culture within the reorganized medical school. The challenge was to re-educate and re-enroll old and new academic leaders and faculty stakeholders to revitalize the medical school. However, no institutional funding was available to induce participation with benefits, such as training, networking meetings, job performance recognition or payment for time spent, and there was uncertainty about the ability to recruit senior faculty to volunteer as preceptors and mentors.

Prior studies of the impact of mentoring on organizations have shown that benefits include employee motivation, job performance, and retention rates, providing a 'structured system for strengthening and assuring the continuity of organizational culture that provides members with a common value base, and with an implicit knowledge of what is expected of them and what they in turn can expect from the organization' (Wilson & Elman, 1990). However, to our knowledge, there have been no studies on the impact of mentoring in the midst of major organizational changes, and some have concluded that a mentoring program may not be of much help with this issue (Wilson & Elman, 1990). This report summarizes the design of our mentoring program demonstration project, with its three key features (two-tiered preceptoring and mentoring programs, voluntary participation, and selection of senior faculty by junior faculty), our experience over the first 2 years, results of formative program evaluation, and lessons learned.

Program design

The MCP Hahnemann University National Center of Leadership in Academic Medicine mentoring demonstration project program design was based on three key elements.

Two tiered program

The design for two levels of mentoring was based on Sachdeva (1996) (Table 1). The Preceptoring Program was 1 year long and had the goal of orienting new faculty to the School of Medicine and MCP Hahnemann University. The second-tier Mentoring Program was offered to junior

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Table 1. Distinctions between the Preceptoring and Mentoring Programs.

	Preceptoring Program	Mentoring Program
Goals	<ul style="list-style-type: none"> • Reduce time required for new junior faculty to become 'part' of the School of Medicine • Ease traditional anxiety that accompanies learning a new job in a new institution, especially during major organizational transition • Increase productivity in less time • Increase potential for academic success 	<ul style="list-style-type: none"> • Increase potential for academic success, and thus increase number and diversity of successful senior faculty • Increase collaboration and networking opportunities • Provide a structured system for strengthening and assuring the continuity of organizational culture
Responsibilities	<ul style="list-style-type: none"> • Preceptee: discuss formal and informal rules with preceptor. Key traits of preceptees that contribute to success are: willingness to ask, listen, learn, and be coached • Preceptor: orient preceptee to school and academic world; provide information, counsel, advice and coaching; facilitate socialization process; introduce Preceptee to other faculty and staff resources; set initial goals for career development. • Both: complete Preceptee/Preceptor Agreement and send to CoL; participate in yearly evaluation 	<ul style="list-style-type: none"> • Mentee: ask for career, professional and personal advice on issues of teaching, research, promotion, tenure, and the collegial culture; be available for networking opportunities and introductions to key individuals by mentor • Mentor: guide Mentee in personal and professional issues; participate in open, honest goal setting and feedback for academic career advancement; introduce mentee to individuals who can facilitate career advancement • Both: complete Mentee/Mentor Agreement and send to CoL; participate in yearly evaluation
Time commitment	<ul style="list-style-type: none"> • One-year partnership between new junior and senior faculty member focused on 1st year of appointment • Contact: established by preceptee • Recommended: 1–2 hours per month for consultation 	<ul style="list-style-type: none"> • Multi-year partnership, usually beginning in 2nd–4th year of mentee's faculty appointment, continuing through promotion of mentee to Associate Professor • Contact: established by Mentee • Recommended: frequent contact for guidance, at agreed intervals

faculty who had been with the organization at least one year. It continued as long as the participants desired and had the goal of career development and progression through the promotion process to Associate Professor. This design is consistent with the Association of American Colleges' recommendation (Hall & Sandler, 1983) for a two-stage mentoring program in which 'newcomers are initially paired with a senior person and then helped by that person to find mentor(s) with different strengths throughout the organization'.

Voluntary participation

We invited all junior and all senior faculty to participate on a completely voluntary basis. This decision was based on pragmatism; we did not want to exclude any potential participants, and recognized that requiring faculty to participate in anything 'extra' was difficult during the major reorganization stress. Also, on a theoretical basis, a number of studies have indicated that voluntary participation is preferable in formal mentoring programs (Klauss, 1981; Kram, 1985; Noe, 1988).

Selection of the senior faculty member preceptor or mentor by the junior faculty member

This design element reversed the traditional mentoring process of the senior member selecting the junior member,

as well as the common method used by many formal programs of a third party matching senior and junior participants. Our thesis was that selection initiated by junior faculty would (a) motivate junior faculty members to take charge of their professional growth and development, (b) increase access of minorities and women to senior faculty, and (c) expand junior faculty's networking with senior faculty because the former would be involved in considering several senior faculty to select a preceptor/mentor. This program design element provided junior faculty with the option to choose their role models (inside or outside their department) and match their needs with expertise of the preceptors and mentors.

Program implementation and evaluation

Phased implementation

The first group invited to volunteer were senior faculty, to be preceptors and mentors. This was followed with invitations to new junior faculty to participate as preceptees and 6 months later to junior faculty to participate as Mentees. Each preceptee and Mentee was invited to join the program through a personalized letter from the Dean and CoL directors. The invitation package included a list of all senior faculty who had volunteered for the role of preceptor and/or mentor, a clearly defined pathway for locating a preceptor or mentor, a list of recommended activities, a worksheet of questions to be used in developing a partnership agreement

Table 2. Participation numbers and percentages.

	Invited cohort	Applied	Formed partnerships	Interviewed
Preceptees	144	33 (23%)	20 (61%)	12 (60%)
Mentees	139	18 (13%)	9 (50%)	5 (56%)
Senior faculty	298	88 (30%)	29 (33%)	17 (59%) or 20 (68%)*

Note: The 17 Senior Faculty actually represent 20 partnerships, as some faculty had multiple preceptees/mentees.

and a Partnership Agreement form. The Agreement was to be completed by both parties, copied and sent to the CoL office. Telephone and email consultation by the CoL staff provided additional guidance for junior faculty in selecting a preceptor or mentor.

Evaluation design

The model for evaluation followed Kirkpatrick's and Phillips's levels for evaluation of education effectiveness:

- (1) *Participant assessment*: do participants think they learned anything?
- (2) *Knowledge/skill acquisition or attitude change*: has learning taken place?
- (3) *Behavior change*: have participants transferred learning to their jobs?
- (4) *Outcomes*: has the educational intervention made a difference
- (5) *Return on investment* (of time or other resources) (Kirkpatrick, 1994; Phillips, 1997).

Several evaluation methods (self-reported survey data, focus groups, individual interviews, database of participation statistics) were used to provide formative evaluation for adjusting the program as needed. Database tracking was established for summative evaluation of outcomes in terms of promotion and retention rates. The specific longitudinal within-group evaluation methods included:

- (1) *Pre-program questionnaire*. This was used initially during the invitation process for the first cohort of junior faculty preceptees to identify any problems with the invitational process.
- (2) *Faculty participation*. Demographic data were collected on an ongoing basis from the faculty database including rank, campus location, department, gender, minority status, length of faculty appointment, retention during the program.
- (3) *Thematic goal analysis*. Data were collected on an ongoing basis from the Partnership Agreements and analyzed regarding goals that preceptees and Mentees established for themselves. Themes were established by independent analysis of two of the authors.
- (4) *Mid-year Preceptoring Program evaluation*. In order to improve the process of selecting a preceptor and the structure and content of the Preceptoring Partnership, we conducted interviews (interview guide available upon request to the authors). A structured (20 minute) telephone interview methodology was selected as a cost-effective means of obtaining the highest response rate and most information, given the small numbers of participants and busy schedules of medical school faculty. The staff interviewer also encouraged preceptees to speak freely about their experiences. Interviews

were completed with 12 of the 20 preceptees who had formed partnerships (Table 2).

- (5) *Focus groups*. Small-group meetings were conducted 18 months after initiating the demonstration program to gain additional information about participation and the partnerships.
- (6) *Final Preceptoring Program and interim Mentoring Program evaluation* (Table 2). At completion of the year-long Preceptoring Program, the telephone interviewing was again conducted. The interviews added questions on the career and psychosocial functions of mentoring identified by Kram (1983, 1985), Ragins & Cotton (1999), and Ragins & McFarlin (1990) to determine areas of possible training needs. The interim Mentoring Program evaluation was conducted at 3–9 months after the initiation of Mentoring Partnerships.

Statistical analysis

The Final one-year Preceptoring Program and interim Mentoring Program data were analyzed using chi-square overall and within subgroups to examine associations between having a preceptor and remaining at the university. Similar analyses were performed to test gender impact on locating a preceptor.

To compare preceptees and Mentees on psychosocial and career function ratings of their preceptors or mentors, a repeated measures two-way ANOVA was performed (grouped by function). To confirm and follow up the results, the Mann Whitney U and Wilcoxon non-parametric tests were used because the data were not normally distributed.

Results

Participation outcomes

Senior Faculty—preceptors and mentors. All Associate and full Professors formed the cohort of senior faculty (298) invited to join the Preceptoring and/or Mentoring Programs. Eighty-eight (30%) volunteered to be preceptors, mentors, or both, providing junior faculty participants with a wide selection of preceptors and mentors from 20 of the 23 departments. The proportion of senior women faculty who volunteered to be preceptors or mentors was slightly greater (30%), but not significantly different, than their representation among senior faculty (23%).

Preceptoring Program—preceptees. New junior faculty (144) were invited to join the Preceptoring Program. Thirty-three initially responded and were accepted as preceptees (23% of the invited cohort). Eligible new junior faculty included those who joined the medical school as

Instructors or Assistant Professors in any faculty track between July 1997 and March 1999, and thus were in either their first or second year as faculty. We theorized that the new faculty, hired in the midst of the reorganization, wanted additional assistance in acclimating to the multiple changes.

At the end of the year-long Preceptoring Program, 25/33 (76%) of the total participants were in the program (new junior faculty continued to enter the program during the year). Twenty had formed Preceptoring Partnerships, while five moved into the mentoring Program without locating a preceptor. Of the remaining preceptees, three left the university before forming partnerships, and five withdrew from the program before locating preceptors. Although the membership numbers are small there did not seem to be any relationship to gender, ethnicity or campus location. Reasons given for non-participation included lack of time, no preceptor who was perceived as suitable being available (especially in very small clinical departments), and geographic distance among multiple campuses.

The racial composition of participants in the Preceptoring Program showed a slightly higher (but not significantly different owing to the small numbers) participation by Asians, Blacks and Hispanics than their distribution within the new faculty cohort: Asian (15% as compared with 8% representation in the new junior faculty cohort); African-Americans (9% as compared with 5% representation in the cohort); and Hispanic (3% as compared with 1% representation in the cohort). The gender breakdown of the preceptees was similar to the gender distribution within the new junior faculty cohort (39% were women, similar to the 40% proportion in the cohort). Preceptees came from 18 of the 23 basic and clinical science academic departments.

Mentoring Program—mentees. Six months following invitations to new junior faculty, a cohort (139) of junior faculty who were one year or beyond in their Assistant Professorship were invited to join the program. The 18/139 (13%) who applied came from nine of 19 basic and clinical science departments (restructuring reduced departments from 23 to 19). The gender breakdown of mentees was similar to the gender distribution within the invited cohort (39% and 30%). As with the preceptees, the racial composition of participants in the Mentoring Program showed a higher participation by minorities: Asian (22% compared with 10% in the invited cohort), African-American (6% compared with 3% in the cohort), and Hispanic (6% compared with 3% in the cohort).

Mentoring Partnerships have been formed by nine (50%) of the 18 mentees.

Partnership selection process, partnership goals and functions

Most preceptees (67%) perceived the process of selecting a preceptor as easy; however, junior faculty who had just joined the institution perceived the process to be difficult, and recommended facilitated assistance. The great majority of participants (83%) stated that participation should be voluntary by invitation rather than be required, and that the preceptee continue to have the responsibility for selecting the preceptor. Two-thirds of the preceptors stated they liked the fact that the preceptee selected them and noted the fact that they were chosen by people they may not have known, because they were in different departments. Typical comments included: 'Increased my sense of responsibility for the success of the program.'

The majority (67%) of the preceptoring partners met monthly. Evaluation data emphasized the importance of the written Partnership Agreement as a valuable tool to guide the partnership. One preceptor stated, 'Initially we thought the idea of written goals and objectives was silly, but it has proved to be very valuable.' Goals of preceptees focused on daily activities in the organization: networking, developing scholarly projects, setting priorities and balancing commitments while mentees showed an increased focus on research and preparation for promotion and tenure and less need for prioritization (Table 3).

The combined psychosocial functions (acceptance, counseling, friendship, and role modeling) of mentoring relationships were rated higher by preceptees and mentees than were the career functions (coaching, exposure, sponsoring, and giving challenging assignments) ($p < 0.0001$, Table 4). One junior faculty preceptee summed this up as: 'Surprised, really didn't seem to be a major investment or event, but psychologically yielded a lot of benefits—having someone who understands, is non-judgmental, interested in your goals and reassuring and reconfirming those goals.' There were no significant differences between the preceptees and mentees in their views about the mentoring functions of their partners.

Perceived impact and cost and benefits of participation

Rating the impact of the program on their professional life, 75% of junior and 89% of senior faculty participants in the Preceptoring Program rated it as positive or very positive (Table 5). Rating the value of the time invested in the

Table 3. Differences between preceptees and mentees in their focus for the written goals for the preceptoring and mentoring partnerships.

Theme	Preceptoring pairs (12)	Mentoring pairs (6)
Networking—within university and externally	10 (83%)	5 (83%)
Research and scholarship projects and writing	10 (83%)	6 (100%)
Setting priorities and balancing commitments	9 (75%)	2 (33%)
General career planning	8 (67%)	4 (67%)
Review curriculum vitae	4 (33%)	1 (17%)
Information on promotion and tenure by-laws	3 (25%)	4 (67%)
New skills	4 (33%)	2 (33%)

Table 4. Ratings of mentoring psychosocial and career functions by preceptees and mentees.*

Function	Preceptee average	Mentee average
Psychosocial functions:		
Acceptance: accepts me as a competent professional; conveys respect for me as an individual; sees me as being competent	4.9	4.3
Counsel: conveys empathy for my concerns and feelings; demonstrates good listening skills; guides my personal development; serves as a sounding board for me to develop and understand myself	4.1	3.2
Friendship: is someone I can confide in and trust; provides support and encouragement	4.7	3.6
Role model: is someone I respect and admire; serves as a role model for me	4.8	4.1
Career functions:		
Coach: gives me advice on how to attain recognition in the organization; guides my professional development; suggests specific strategies for achieving career goals	3.9	2.9
Exposure: brings my accomplishments to the attention of important people in the organization; creates opportunities for me to increase my contact and visibility with other university faculty and administrators	3.2	3.2
Sponsor: gives me assignments or tasks that prepare me for higher positions; uses his/her influence to support my advancement in the organization	3.0	2.6
Challenging assignments: gives me assignments to learn new skills; suggests tasks that push me into developing new skills	3.7	2.7

Notes: *Relationship rating: 1 = never; 2 = infrequently; 3 = sometimes; 4 = frequently; 5 = always.

Table 5. Positive effects of the Preceptoring and Mentoring Programs as reported by junior and senior faculty participants.*

	Preceptees (<i>n</i> = 12)%		Preceptors (<i>n</i> = 9)%		Mentees (<i>n</i> = 5) %		Mentors (<i>n</i> = 8) %	
Impact on professional life	9	75%	8	89%	3	60%	6	50%
Value of time invested in the program—worth the effort	10	83%	8	89%	3	60%	6	75%
Effect of the program—increasing individual productivity	8	67%	5	56%	4	80%	2	25%
Quality of the relationship	10	83%	10	83%	3	60%	5	72%

Note: *The number and percentage of respondents who rated the item as very positive/positive (impact), worth the effort (value of the time invested), more (productivity), and excellent/very good (quality of relationship).

program, 83% of junior and 89% of senior faculty rated the Preceptoring Program as being worth the effort. Furthermore, 67% of junior faculty preceptees and 56% of preceptors felt the programs helped them to be more productive. Most preceptees (70%) stated they were more knowledgeable about what was required for success at the medical school, with typical comments about their preceptors such as: 'Focused me on the most important things'; 'Helped me to organize my workload, understand priorities, and make better decisions'; and 'Increased my commitment and goal completion'.

Some 60% of mentees rated the impact on professional life as positive or very positive (Table 5); 60% of mentees and 75% of mentors viewed the time invested as worth the effort; 80% of mentees rated the program as helping them to be more productive. Additional evidence of increased productivity came in response to the question, 'What grants, research efforts, awards and/or honors have you achieved as a result of your Preceptoring/Mentoring relationship?' In all, 58% of preceptees and 80% of mentees listed specific scholarly efforts begun as a result of the programs.

There were a substantial number of responses from senior faculty regarding their own increased productivity

through participating as preceptors or mentors. Typical comments were: 'More [productive]—found myself looking for projects for them to do' and 'Allowed me to take the time to rethink what I actually do, in helping another [I was] able to reevaluate the historical way of doing things, the methods' and 'Brings you information about yourself—as working the Mentee's issues with her you relive your own issues and gain insights for yourself—as [I] refer Mentee to other resources I utilize them also and increase myself professionally.'

Retention results

Our retention data show a trend towards greater retention of participating junior faculty: 38% of junior faculty who did not form preceptoring partnerships left the organization, as compared with 15% of those who formed partnerships ($p = 0.12$). This potentially positive outcome was found particularly with minority faculty; 100% (6/6) with preceptors remained, while 33% (1/3) without preceptors remained (statistical trend, $p = 0.023$ by uncorrected chi-square, and $p = 0.083$ by Fisher's Exact Test).

Comments from the interviews also showed the programs contributed to faculty retention. One junior

faculty member commented 'Without my Preceptor I would be lost, and he kept my morale up, I was going to leave but he kept me here', and another commented 'Knowing that there are faculty who are willing and interested in assisting and encouraging new faculty has been important. Especially important in a school that has had as many changes as we have.'

Lessons learned

Importance of design

The Preceptoring and Mentoring Programs demonstration project evaluation data revealed the effectiveness of the program design in its success in increasing academic collegiality, productivity and retention, even in times of major reorganization. While there is no one 'right' mentoring program design, it is clearly important to consider critical elements in developing an institutional program (Morahan, 2001). Multi-institutional studies using a similar evaluation design will be required to sort out which criteria are universally applicable for medical school mentoring programs. The critical factors for the program developed in the context of institutional change at MCP Hahnemann University included the following:

(1) *Two-tiered program.* The Preceptoring Program offered senior faculty, who were spread very thinly in the reorganized university, an opportunity to volunteer for a program with clear goals, limited time commitment and less intensity than a traditional mentoring program (Sachdeva, 1996). The number of participants exceeded our expectations: almost a third of the senior faculty volunteered to be preceptors, mentors, or both, after receiving only one invitation to volunteer. This occurred despite no release time, compensation, or specific recognition. Our results contrast with those of some other mentoring programs in medical schools, where release time for faculty and compensation for time have been required in order for faculty to participate (Mark *et al.*, 2001; Morahan *et al.*, 2001). The different results may reflect the unique context—a medical school being totally reorganized—so that faculty did not expect any release time or compensation. The results also may reflect faculty desiring to regain the specific collegial culture of the former schools.

The preceptoring relationship established a solid foundation for the longer-term mentoring relationship. Of those who completed a year in a Preceptoring Partnership (and remained at our school), 11/14 (78%) entered into the Mentoring Program with their preceptors as their mentors. Ragins & Cotton (1993) and Ragins & Scandura (1999) have noted that faculty who have participated in mentoring as either mentees or mentors are more likely to participate in the future as mentors than were individuals lacking prior mentoring experience. These results provide a strong rationale that organizations can benefit by providing resources to assure that new faculty select a preceptor within the first month of faculty appointment, and facilitating monthly contact during the first year to foster a successful relationship.

(2) *Voluntary participation.* A total of 20% of the junior faculty and 30% of senior faculty volunteered. This is a very encouraging rate of participation, especially given the modest infrastructure available to identify, invite and support participants. Evaluation revealed that both junior and senior faculty strongly preferred voluntary to mandatory participation. While the results are encouraging, obviously not all junior faculty who could have benefited from the program volunteered. Moreover, even if they volunteered they may not have independently located partners. This limits interpretation of the retention data; those faculty who both volunteered and located partners may be more focused on their careers.

In some medical school contexts, required participation may be necessary, or incentives such as release time provided for voluntary participation (Garman *et al.*, 2001; Mark *et al.*, 2001). From conversations with junior faculty, it is apparent that some junior faculty feel so overwhelmed that all they have energy to focus on is the logistical and tactical problems of the immediate, leaving strategic career planning to later (when it may be too late). Additional strategies to reach new junior faculty are needed. The new school mentoring policy strongly recommends that chairs facilitate selection of preceptors within 2 months after faculty appointment. Additional facilitation can be provided with limited staff support by telephone contact, email reminders (including friendly and informative email cards), and notices in internal publications. Schools also can increase recognition through mentoring awards and receptions for participants (Morahan *et al.*, 2001).

(3) *Selection of senior preceptor/mentor(s) by junior member and without formal assignment by a third party.* Data in the current demonstration project indicate initial success in designing a formal program that mimics an informal program. Unlike many programs in academic medicine (Mark *et al.*, 2001; Morahan *et al.*, 2001), the current program did not formally assign partners; junior faculty selected their own preceptor. Previous studies have reported that informal mentoring relationships are more effective and satisfying than those in formal programs. Klaus (1981), Kram (1985) and Noe (1988) concluded that assigned mentoring relationships may not be as effective as mentoring relationships that develop informally, owing to the potential for personality conflicts and lack of true personal commitment of either mentor or mentee to the relationship because it was not formed on their initiatives. Studies have also demonstrated less frequent communications between formally assigned mentors than with informally initiated pairs (Fagenson-Eland *et al.*, 1997).

Junior faculty preceptees and mentees in the current program rated the mentoring functions very highly, especially the psychosocial mentoring functions. This is consistent with the data of Ragins & Cotton (1999), who found that mentees with informal mentors reported more psychosocial functions (friendship, social support, role modeling and acceptance) and career development functions (sponsoring, coaching, protection, challenging assignments and exposure) than those with formal appointed mentors. The perceived lesser role of career functions is not surprising. The Preceptoring Program

goals were focused on psychosocial functions (Table 1) and the Mentoring Program was still in its first year.

The importance of selection by the junior mentee has also been reported. Mentors may tend to select protégés who are viewed as younger versions of themselves. This is particularly problematic when women and faculty of color need mentors, since most mentors at present are white men (Murrell & Ely, 1998; Thomas, 2001). Mentors also tend to select high-performing, rising stars. In contrast, junior participants select mentors with the desired expertise (Ragins & Cotton, 1999). Also, junior participants select role models—partners with whom they enjoy working—and often report a mutual attraction or chemistry that sparks the development of the relationship (Kram, 1983, 1985).

Finally, the importance for career success of selecting multiple mentors across a broad range, beyond department and even school, has been noted in numerous studies (Hitchcock *et al.*, 1995; Morahan, 2000; Higgins & Kram, 2001). The current design allowed junior faculty to select as many preceptors or mentors as they felt they needed, from within and beyond their academic departments.

Organizational goal and benefits

The faculty participants in our programs perceived they were more productive, had initiated more projects, and were more focused in their work. These results are consistent with numerous studies in business and in academic medicine which have shown that mentees receive more promotions, have higher salaries, exert greater influence, have more opportunities, and are more satisfied with their jobs and careers than non-mentees (Fagenson, 1988, 1989; Scandura, 1992; Fagenson-Eland *et al.*, 1997; Palepu *et al.*, 1998; Coyle *et al.*, 1999). While the overall results of the program are positive, several barriers were identified in the interviews. The finding of time limitations and physical distance among multiple campuses is consistent with data from other studies. Time limitations, incompatible work schedules and physical distance have been the most frequently cited reasons for lack of mentoring interaction (Noe, 1988). The perceptions of junior faculty that there is a lack of institutional support for their career development is consistent with a study by Koebert *et al.* (1994).

Faculty retention also may be an outcome of preceptor and mentoring programs. In the current study, there was a trend towards increased retention for minority faculty. Other studies have demonstrated that mentees are highly committed to their organizations, less likely to leave, and provide their organizations with leadership talent (Burke *et al.*, 1991; Viator & Scandura, 1991; Fagenson-Eland *et al.*, 1997; Murrell & Ely, 1998). Further evidence of increased productivity, satisfaction and retention will require long-term follow up of the junior faculty cohort through their promotion to Associate Professor.

There have been few studies of the perceived cost-benefit of participation in mentoring programs. In the current program, both junior and senior faculty believed the time spent was valuable and had a positive effect on their professional life. They perceived the Preceptor and Mentoring Programs to be worth the effort, creating a

positive effect and increasing their productivity. These data are very encouraging, since participants were not given any release time, compensation or recognition. Reported benefits of mentoring for mentors include a sense of satisfaction, fulfillment and self-rejuvenation from fostering the development of another, as well as valuable work-related information from their mentees (Ragins & Scandura, 1997).

Final evidence of the success of demonstration projects comes from institutionalization. In the current project, three important steps toward institutionalization have been made. A Mentoring Policy (available at www.mcphu.edu/COL) was approved in July 2000; it strongly encourages chairs to facilitate selection of preceptors by their new faculty, and institutionalizes the two-tiered program design, its voluntary nature, and the selection of the preceptor/mentor by the junior faculty member. The Associate Provost for Faculty Affairs has assumed Directorship of the CoL, and directs the invitation process and database maintenance within the Office for Faculty Affairs. Mentoring has been added explicitly into criteria for promotion of faculty in a new faculty-approved addendum to the promotion guidelines. Additional plans for institutionalization of mentoring involve including the programs in orientation for new chairs and new faculty, centralization of all information for faculty into one site on the school's intranet, ongoing faculty career development programs, and initiation of a mentoring award.

Practice points

- Faculty mentoring programs with minimum structure can be effective in increasing productivity and retention and building a collegial academic culture, even during major institutional reorganization.
- A two-tiered program design increases mentoring potential: (1) Preceptor for new faculty, lasting one year with goal of orientation to organization and profession, and (2) Mentoring for faculty after one year, lasting indefinitely with goal of promotion.
- Voluntary participation was preferable.
- Selection of senior Preceptor/Mentor(s) by junior faculty is successful.

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References

- BURKE, R., MCKENNA, C. & MCKEEN, C. (1991) How do mentorships differ from typical supervisory relationships, *Psychological Reports*, 68, pp. 459–466.
- COYLE, Y.M., ADAY, L.A., BATTLES, J.B. & HYNAN, L.S. (1999) Measuring and predicting academic generalists work satisfaction: implications for retaining faculty, *Academic Medicine*, 74, pp. 1021–1027.
- FAGENSON, E.A. (1988) The power of a mentor: protégés and non-protégés perceptions of their own power in organizations, *Group and Organization Studies*, 13, pp. 182–194.
- FAGENSON, E.A. (1989) The mentor advantaged: perceived career/job experiences of protégés vs. non-protégés, *Journal of Organizational Behavior*, 10, pp. 309–320.
- FAGENSON-ELAND, E.A., MARKS, M.A. & AMENDOLA, K.L. (1997) Perceptions of mentoring relationships, *Journal of Vocational Behavior*, 51, pp. 29–42.
- GARMAN, K.A., WINGARD, D.L. & REZNIK, V. (2001) Faculty development: why bother? Development of junior faculty's self-efficacy: outcomes of a National Center of Leadership in Academic Medicine, *Academic Medicine*, 76, pp. S74–S76.
- HALL, R.M. & SANDLER, B.R. (1983) Academic mentoring for women students and faculty: a new look at an old way to get ahead, *Project on the Status and Education of Women* (Washington, DC, Association of American Colleges).
- HIGGINS, M.C. & KRAM, K.E. (2001) Reconceptualizing mentoring at work: a developmental network perspective, *Academy of Management Review*, 26, pp. 264–288.
- HITCHCOCK, M.A., BLAND, C.J., HEKELMAN, F.P. & BLUMENTHAL, M.G. (1995) Professional networks: the influence of colleagues on the academic success of faculty, *Academic Medicine*, 70, pp. 1108–1116.
- KIRKPATRICK, D.L. (1994) *Evaluating Training Programs* (San Francisco, Berrett-Koehler).
- KLAUSS, R. (1981) Formalized mentor relationships for management and development programs in federal government, *Public Administration Review*, July–August, pp. 489–496.
- KOBERG, C.S., BOSS, R.W., CHAPPELL, D. & RINGER, R.C. (1994) Correlates and consequences of protégé mentoring in a large hospital, *Group and Organization Management*, 19, pp. 219–230.
- KRAM, K.E. (1983) Phases of the mentor relationship, *Academy of Management Journal*, 26, pp. 608–625.
- KRAM, K.E. (1985) *Mentoring at Work: Developmental Relationships in Organizational Life* (Glenview, IL, Scott Foresman).
- MARK, S., LINK, H., MORAHAN, P.S., POLOLI, L., REZNIK, V. & TROPEZ-SIMS, S. (2001) Innovative mentoring programs to promote gender equity in academic medicine, *Academic Medicine*, 76, pp. 39–42.
- MORAHAN, P.S., VOYTKO, M.L., ABBUHL, S., MEANS, L.J., WARA, D.W., THORSON, J. & COTSONAS, C.E. (2001) Ensuring the success of women faculty at AMCs: lessons learned from the National Centers of Excellence in Women's Health, *Academic Medicine*, 76, pp. 19–31.
- MORAHAN, P.S. (2000) How to find and be your own best mentor, *Academic Physician & Scientist*, November/December, p. 8.
- MORAHAN, P.S. (2001) How to establish and support formal mentoring programs, *Academic Physician & Scientist*, January/February, p. 8.
- MURRELL, A. & ELY, R. (1998) *Mentoring Dilemmas: Developmental Relationships in Multicultural Organizations* (London, Lawrence Erlbaum).
- NOE, R.A. (1988) An investigation of the determinants of successful assigned mentoring relationships, *Personnel Psychology*, 41, pp. 457–479.
- PALEPU, A., FRIEDMAN, R.H., BARNETT, R.C., CARR, P.L., ASH, A.S., SZALACHA, L. & MOSKOWITZ, M.A. (1998) Junior faculty members' mentoring relationship and their professional development in U.S. medical schools, *Academic Medicine*, 73, pp. 318–323.
- PHILLIPS, J.J. (1997) *Handbook of Training Evaluation* (Houston, TX, Gulf Publishing).
- RAGINS, B.R. & COTTON, J. (1993) Gender and willingness to mentor in organizations, *Journal of Management*, 19, pp. 97–111.
- RAGINS, B.R. & COTTON, J.L. (1999) Mentoring functions and outcomes: a comparison of men and women in formal and informal mentoring relationships, *Journal of Applied Psychology*, 84, pp. 529–550.
- RAGINS, B.R. & MCFARLIN, D.B. (1990) Perception of mentoring roles in cross-gender mentoring relationships, *Journal of Vocational Behavior*, 37, pp. 321–339.
- RAGINS, B.R. & SCANDURA, T.A. (1997) The way we were: gender and the termination of mentoring relationships, *Journal of Applied Psychology*, 82, pp. 945–953.
- RAGINS, B.R. & SCANDURA, T.A. (1999) Burden or blessing? Expected costs and benefits of being a mentor, *Journal of Organizational Behavior*, 20, pp. 493–509.
- SACHDEVA, A.K. (1996) Preceptorship, mentorship, and the adult learner in medical and health sciences educations, *Journal of Cancer Education*, 11(3), pp. 131–135.
- SCANDURA, T.A. (1992) Mentorship and career mobility: an empirical investigation, *Journal of Organizational Behavior*, 13, pp. 169–174.
- THOMAS, D.A. (2001) The truth about mentoring minorities—race matters, *Harvard Business Review*, April, pp. 99–106.
- VIATOR, R.E. & SCANDURA, T.A. (1991) A study of mentor-protégé relationships in large public accounting firms, *Accounting Horizons*, September, pp. 20–30.
- WILSON, J. & ELMAN, N. (1990) Organizational benefits of mentoring, *Academy of Management Executives*, 4, pp. 88–94.