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EDITORS' CHOICE

## Outcomes of a pilot faculty mentoring program

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### KEY WORDS

Mentoring  
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**Objective:** The purpose of this study was to determine whether a junior faculty mentoring program is beneficial to participants and to identify particular positive and negative aspects of such a program to enable others to institute similar programs.

**Study design:** In 2001 a pilot program was instituted in our obstetrics and gynecology department for interested faculty members. There were 3 focus groups and a written survey that assessed the project. A combination of qualitative and quantitative methods were used for data analysis; Fisher's exact test was used.

**Results:** Two recurring themes emerged from the focus group sessions: participants felt better supported by the department and appreciated a greater sense of camaraderie. Most mentees noted the program's success in the following areas of having a role model (83.3%), having increased visibility (82.3%), and having to whom someone to turn (93.8%).

**Conclusion:** The faculty mentoring program had significant benefits for everyone who participated.

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The benefits of mentoring medical students and residents in academic training environments are well known.<sup>1</sup> Less well studied are the potential benefits young obstetrics and gynecology faculty members may reap from similar programs for the junior faculty. The Office for Women's Careers and the Vincent Department of Obstetrics and Gynecology at the Massachusetts General Hospital embarked on such a mentoring program for faculty members in 2001. The Massachusetts General Hospital is approximately 3 miles away from Harvard Medical School; therefore, many physicians have limited opportunities to interface with many components of the

academic health care system. There are a significant number of young faculty members who potentially could benefit from a formal mentoring process.

This pilot program included focus group meetings to explore the experiences of program participants and a survey to assess the satisfaction of both mentees and mentors. The results of the analysis of the results of the group meetings and survey are presented, with practical suggestions for other institutions to use when considering the implementation of a similar program.

### Material and methods

All faculty members in obstetrics and gynecology department were invited to participate. In August 2001, each faculty member received an invitation that included

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a method to identify whether the individual would prefer to be a mentee or mentor or both. Each participant filled out a survey about goals and preferences with respect to his or her participation in this program. A committee was convened to match the mentees with mentors, which took into consideration the known and perceived goals of the interested parties. Each mentee received Norman Cohen's *Mentees Guide to Mentoring*; the mentors received Cohen's *Manager's Pocket Guide to Effective Mentoring* and the *Principles of Adult Mentoring Inventory*.<sup>2-4</sup>

A combination of qualitative and quantitative methods was used. First, 3 focus group meetings were held with participants. A number of core topic areas, which had been identified from a review of the mentoring literature, were covered in each session, but the exploratory nature of these groups allowed participants to guide the discussion.

All mentors and mentees were invited and encouraged to participate in the focus group sessions, which were attended extraordinarily well. Each session was attended by most of the participants.

Each of the 3 authors independently coded the qualitative data that were obtained from the focus group sessions for major and minor themes. A group coding session was then held to allow for discussion and arbitration of disputes between the coders, as is a common practice in rigorous qualitative studies.<sup>5,6</sup> The analysis of the qualitative data that was obtained in these focus groups was critical in the shaping of the content of the structured survey questionnaire that followed.

After 12 months of participation, all mentors and mentees were asked to complete separate surveys with parallel questions. The survey was reviewed by the Massachusetts General Hospital-Partners Institute for Health Policy to ensure face and content validity. The questionnaire included Likert-scaled questions about the participants' expectations in a number of areas and parallel questions regarding their satisfaction in these areas. The questionnaire also assessed attitudes about potential negative aspects of the program, suggestions for the design of future mentoring programs, and the value of various resources that had been provided. It also collected data regarding the frequency and method of communication between the mentors and mentees. Two open-ended questions enabled free responses regarding suggestions for improvement and other comments regarding the program. The survey was completely anonymous, with an independent reviewer collecting and collating the data.

The data from the questionnaires were tabulated, and frequency distributions were calculated with a standard computer program for statistical analysis (version 11.5; SPSS Inc, Chicago, Ill). The Fisher's exact test was used for the comparisons of mentors with mentees;

a probability value of .05 was considered significant for this analysis.

The outcomes measurements were identified from the preliminary statements of interest from the applicants. The faculty members delineated their goals for a mentoring program, and these factors subsequently served as the variables that were evaluated in the surveys as outcome measures.

## Results

Of the 42 eligible faculty members, 32 members elected to participate in the program, 14 as mentors and 18 as mentees. The ages of the participants ranged from 31 to 70 years. The mentors included 2 professors, 4 associate professors, 6 assistant professors, and 2 instructors. (The 2 instructors have been in practice for 16 years and 22 years.) There were an equal number of male and female mentors (7 each). The mentees included 1 associate professor, 3 assistant professors, and 14 instructors. There were 3 male and 15 female mentees.

The recurring themes that emerged from the focus groups included the benefit of the camaraderie and a feeling that individuals were better supported by other members of the department. Some mentors were surprised by how much they themselves benefited from the program, because they were participating for altruistic reasons. Many participants felt that the ability for mentees to have a role in the selection of their mentors was important.

Sixteen of the 18 mentee surveys were returned. Because 2 of the mentees had relocated to another geographic locale at the time of the survey, there were 16 remaining, which was a 100% response rate. Nine mentor surveys were completed (64% response rate). The overall response rate was 83%.

After a comparison of the expectations between the mentors and the mentees was conducted, assistance with the academic promotions process was deemed more important to the mentees ( $P = .043$ ); otherwise, the expectations for the 2 groups about the benefits of mentoring were similar. A clear majority of the mentees (76.5%) believed that the development of leadership skills would be an important benefit. On the other hand, neither mentors (88.9%) nor mentees (70.6%) viewed assistance with grant writing to be an important expectation of the mentoring process.

An analysis of the outcomes section of the survey revealed that mentees were more likely than the mentors to believe that the program was successful in assisting the mentees with academic promotion ( $P = .027$ ), grant writing ( $P = .019$ ), and scientific research ( $P = .001$ ). There were no other statistically significant differences between the 2 groups. A significant percentage of mentees viewed the following areas to have been "very

**Table I** Goals attained

Variable	Mentor (%)			Mentee (%)		
	Very much	Moderately	Not at all	Very much	Moderately	Not at all
Opportunities for self-reflection	50.0	50.0	0	37.5	56.3	6.3
Increase in self-confidence	37.5	12.5	50.0	23.5	64.7	11.8
Increase in job satisfaction	37.5	25.0	37.5	26.7	46.7	26.7
Feeling more connected	50	50	0	37.5	50.0	12.5

**Table II** Negative aspects

Variable	Mentor (%)			Mentee (%)		
	Large degree	Small degree	Not at all	Large degree	Small degree	Not at all
Mentor's lack of time	25.0	25.0	50.0	41.2	29.4	29.4
Mentee's lack of time	12.5	50.0	37.5	37.5	37.5	25.0
Lack of perceived confidentiality	0	0	100	6.3	6.3	87.5
Perception that mentor might have role evaluating mentee's job performance	0	0	100	0	6.7	93.3
Personality conflict	0	0	100	0	7.1	92.9

important" or "moderately important" benefits of the program: career planning (89.3%), balancing work and family (80%), knowledge about Harvard Medical School/ Massachusetts General Hospital organizational culture (75.1%), and leadership skills (80%). Whereas only 70.6% of mentees expected the program to be useful in attaining a balance between work and family at the program's onset, 80% of the mentees indicated that the program proved to be helpful in this regard.

The section entitled "goals attained" is summarized in Table I. Mentors were more likely than mentees to feel that mentoring allowed them to increase self-confidence ( $P = .037$ ), otherwise there was no significant difference between the 2 groups. It is notable that 100% of the mentors felt the opportunities of self-reflection were either "very much" or "moderately" achieved. All of the mentors and 87.5% of the mentees felt "more connected."

The survey included questions regarding potential negative aspects of the program (Table II). All of the mentors and most of the mentees believed that the following potential factors did not have an actual negative impact on the program: lack of perceived confidentiality, a perception of the mentor's role in doing job evaluations, or personality conflicts.

Respondents were asked questions about different factors in determining ideal mentor and mentee pairs. The results of this section of the survey are highlighted in Table III. Interestingly, 55.6% of mentors and 43.8% of mentees indicated that gender was not an important consideration. Almost all participants noted the potentially significant role that personalities play (88.8% of mentors and 93.4% of mentees). Marital status was deemed important by only 33.3% of mentors and 46.6% of the mentees; approximately one half of the mentees

and mentors considered parental status to be important. Most participants rated the ability to pick one's mentor as an important consideration (88.9% of mentors and 64.8% of mentees.)

The value of distributed literature and group meetings was not clear; approximately one half of both groups found them helpful. Although 55.6% of the mentors said that they met with their mentee colleagues monthly, 70.6% of the mentees said they met less often. Most mentees noted the following aspects of the program to be beneficial: having a role model (83.8%), having increased visibility (82.3%), feeling more supported in general (94.1%), having someone to turn to (93.8%), and having increased access to departmental information or resources (87.5%). Although 62.5% of mentors reported enhanced teaching skills, 37.5% of the mentors did not believe this to be a benefit of the program.

## Comment

Mentoring has been defined in a variety of ways. Ramanan et al<sup>7</sup> defined a mentor as "an active partner in an ongoing relationship who helps a mentee maximize potential and reach personal and professional goals." In 1997 a joint committee of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine identified a mentor as a faculty advisor, career advisor, skills consultant, and role model.<sup>8</sup> Previous authors have identified the importance of mentoring in academic career advancement and satisfaction.<sup>9-12</sup> A large national faculty survey revealed that 56% of respondents ranked a lack of mentoring as the first (42%) or second (56%) most important factor

**Table III** Importance of factors for matching mentors and mentees

Variable	Mentor (%)			Mentee (%)		
	Very important	Moderately important	Not important	Very important	Moderately important	Not important
Gender	0	44.4	55.6	12.5	43.8	43.8
Rank	33.3	44.4	22.2	33.3	53.3	13.3
Personality	44.4	44.4	11.1	46.7	46.7	6.7
Marital status	0	33.3	66.7	13.3	33.3	53.5
Parental status	11.1	33.3	55.6	26.7	26.7	46.7
Ability to pick	33.3	55.6	11.1	29.4	35.3	35.3
Research interests	22.2	66.7	11.1	13.3	60	26.7
Field	22.2	55.6	22.2	60	26.7	13.3

that impeded their progress in an academic medicine career.<sup>13</sup> Formal mentoring programs have been identified as having a positive impact on junior faculty members in other disciplines.<sup>14</sup> The Department of Health and Human Services' Office on Women's Health 1998 task force identified 2 factors as being essential for the success of a formal mentoring program: institutional commitment and institutional reward/recognition.<sup>15</sup>

Some of the results of the qualitative analysis of the group discussions and the quantitative analysis of the written surveys were very consistent in this study. Two aspects of the mentoring program were universally favorable from the mentors' perspective: opportunities for self-reflection and feeling more connected. All written comments from the mentors were positive.

This study differs from previous studies, in that there was little importance placed on assistance with grant writing and scientific research by the mentors or mentees.<sup>16</sup> This might be due to the young age of the faculty mentees and the number of mentees who were not yet board-certified. Specialty board certification by a recent residency graduate may sometimes temporarily take priority over later career aspirations, which includes research. Longer follow-up periods will be needed to determine whether the benefits of mentoring programs change over time as these junior faculty members' careers evolve.

Mentees clearly had high expectations for the program at the onset: 100% of the mentees thought that the program could be helpful regarding the academic promotions process; 94.1% of the mentees felt that the program was indeed helpful in the academic promotions process; 76.5% of the mentees believed that the program could assist them in attaining leadership skills, and 80% of the mentees indicated success in attaining leadership skills. In addition to the many benefits that the mentors received, the mentors benefited as well. All of the mentors indicated an increase in opportunities for self-reflection and the sense of feeling more connected.

The mentees ranked the following areas as being most important: academic promotions process, career planning, and leadership skills. Overall, the responses from the mentees regarding their satisfaction with all "psy-

chosocial" parameters that were measured were very positive. These parameters included having a role model, having increased visibility, feeling more supported, and having an increase in self-confidence. This is consistent with other studies.<sup>17</sup> One study in a general surgery department, which was done in the absence of a formal mentoring program, revealed that, although 32 men (71%) identified positive role models for themselves, only 2 women (14%) had role models.<sup>18</sup>

Our study is consistent with other reports that have noted the lack of significance of gender in determining mentor/mentee pairs.<sup>19</sup> Thus, departments with less gender diversity may still benefit from having a similar program. Some authors point out the strain on senior female faculty members when a few women in such a position are called to mentor a large number of junior female faculty members.<sup>20</sup> The ability to connect with one's mentor or mentee is more important than gender. Several authors describe the importance of "chemistry" in this relationship.<sup>11</sup> In this study, this was clearly important.

One of the potential negative aspects of this program was the lack of protected time for the participants to meet. A significant minority of participants (41.2%) felt the mentor's lack of time was detrimental to a "large degree," and an additional 29.4% of participants said this was true to a "small degree." As far as the mentee's lack of time, 37.5% of participants felt this was a negative factor to a "large degree," and the same percentage of participants thought that this was the case a "small degree." Institutional commitment manifested by protected time would be helpful in this regard. What was noteworthy regarding the potential negative aspects was how few individuals thought confidentiality concerns, mentors' roles in job evaluations, or personality conflicts played a role in the program.

This was a voluntary program. In 1 study, both mentors and mentees strongly preferred a voluntary program.<sup>21</sup> Unlike other programs, there was no written agreement between participants. Consequently, the frequency with which individual pairs met varied. There was also little consensus regarding the usefulness of

written materials about mentoring or group meetings. Except for the 3 group meetings that were mentioned earlier, there was no designated, protected time for the physicians to meet.

Although this was admittedly a very small study, because of the size of the participating faculty, the response rate was excellent. The favorable evaluations have prompted us to continue with the program and to continue to improve it. A new notice was sent out to solicit participation in the ongoing program; 35 of the 46 eligible faculty members have elected to participate. On the basis of the earlier assessment and literature review, mentees are encouraged to select their mentors, and a significant number have chosen to continue their present relationships.

Mentoring appears to be an extremely successful technique by which to ensure the success of young faculty members. Our experience confirms that such programs can be implemented readily in the field of obstetrics and gynecology with significant positive effects. Our hope in presenting our experience is that other departments of obstetrics and gynecology will establish similar programs to assist junior and senior faculty to navigate the complex world of academic medicine.

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