BRIEF REPORT

Program Directors' Views of the Importance and Prevalence of Mentoring in Internal Medicine Residencies

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Program directors establish priorities for residency programs. Their views of mentoring likely influence the tone about and availability of mentoring programs. This survey to all internal medicine program directors assessed attitudes toward mentoring, existence of formal mentoring programs, and features of the mentoring programs. The response was 60%. The majority (>60%) favored mentoring. Forty-nine percent of the residencies had structured mentoring programs. Programs differed in frequency of meetings, use of evaluations, and presence of curriculum. Overall, although program directors' attitudes are favorable and at least half have formal mentoring programs, the programs are largely unstructured, loosely monitored, and underevaluated.

KEY WORDS: mentoring; resident education; medicine program directors.

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Mentorship is one of the most important developmental tools for professional progression.¹ Mentoring has been closely linked to productivity, career advancement, and professional satisfaction of faculty.^{2–5} There is widespread consensus that mentoring is also important in residency.^{2,6} Mentoring studies in family medicine, general surgery, pediatrics, and physical medicine and rehabilitation residency programs show a variety of perspectives and approaches.^{6–9} As a group they suggest resident mentoring is important for personal growth, definition of career goals, research productivity, and pursuit of academics.^{6–9} Resident mentoring is also viewed as beneficial for stress reduction, feedback, and practical advice.^{6–9}

Mentoring has also been proposed as a means to teach and assess professional competence in residency training,¹⁰ as part of the new Accreditation Council on Graduate Medical Education (ACGME) regulations that require programs to monitor residents in several areas of professional

competence. Moreover, although there is no ACGME internal medicine program requirement for promoting career development, there is a requirement that program directors be responsible for monitoring resident stress, including mental and emotional conditions inhibiting performance or learning, and drug- or alcohol-related dysfunction.¹¹ This could be difficult to do in large programs and would be facilitated by structured mentoring programs.

Overall, there are several reasons to think that mentoring should be as important for internal medicine residents as it is for other residents and faculty. Characterizing the current state of mentoring in internal medicine residency programs would help define its prevalence as well as suggest the possible structures for mentoring programs. Recently there has been some interest in more formal, structured mentoring programs believed to facilitate mentoring by explicitly defining the mentor-mentee relationships, and sometimes assigning meeting times and purposes.^{12–15} Although the rationale for such programs can be convincing, results of studies comparing structured to free-choice models in medicine are mixed. One study concluded that formal faculty mentoring had an overall positive impact on satisfaction and academic development.¹⁵ But another study showed that resident satisfaction with mentorship was higher when mentorship relationships were formed by free choice compared to those assigned by the residency program.⁸

The objectives of this study were to 1) assess internal medicine program directors' attitudes toward mentoring in residency, 2) determine the percentage of residencies with formal mentoring programs, and 3) describe the formal mentoring programs that exist.

METHODS

Instrument Development

A 2-page questionnaire was developed, using an explicit content outline and extensive pilot testing.^{16,17} First, study investigators debated and came to a consensus regarding the 3 primary content domains: attitudes about mentoring, desired characteristics of hypothetical mentoring programs for residents, and structural descriptions of current programs. Primary content domains were chosen based on 1) a primary goal to describe current programs and 2) a secondary goal of knowing what program directors

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thought of mentoring regardless of what was offered in their programs. Items were drafted drawing content from existing literature on mentoring and by delineating dimensions along which one could characterize programs (e.g., duration, frequency of meetings). Multiple versions were iteratively pilot tested using think aloud exercises with fellows and junior faculty who were asked to think of mentoring in programs they had attended or with which they had been affiliated. The first page, answered by all respondents, included questions on program demographics (e.g., program size, self-described program affiliation), elements to include in a mentoring program when designing a new program, the existence of a formal faculty-mentoring program in their medicine department, and 6 attitude statements about mentoring answered on a 5-point scale from "strongly disagree" to "strongly agree." The internal consistency coefficient among the attitude items was 0.89. Program directors were asked whether they had a formal mentoring program for residents. In parentheses this item said "defined as a structured program to provide mentoring for residents." Mentoring was intentionally defined broadly, thus allowing us to gather data about the nature of existing programs. Our goal was to understand the definition and scope of formal mentoring programs based on what was provided to us. Program directors who reported they had a formal mentoring program for residents were prompted to continue to the second page, which focused on characteristics of the formal mentoring programs for residents, including longevity, models of mentoring, processes for matching mentors and mentees, frequency of meetings, the mentoring curriculum, formal evaluation processes, faculty development, financial support, teaching credit for mentoring activities, and level of satisfaction with the formal mentoring program.

Data Collection

A mail survey was sent to the 391 program directors of accredited U.S. internal medicine training programs, listed in the 1999 to 2000 Association of Program Directors

in Internal Medicine Directory. The first mailing was sent in March 2001. Second and third mailings were sent to nonrespondents in May and June of 2001.

Data Analysis

We used standard univariate statistics (frequency and percentages) to characterize the sample. Chi-square and ANOVA were used to test for differences between programs that did and did not respond, did or did not have a formal mentoring program, and to assess how attitudes and characteristics of the mentoring program were related to program demographics.

RESULTS

Of the 391 program directors surveyed, 15 (3.8%) were excluded because of address changes or the program no longer existed. A total of 227 (60.4%) program directors completed the questionnaire. Respondents and nonrespondents came from the same regions of the country ($P = .63$). Respondents' programs were slightly larger (mean, 58) than nonrespondents' programs (mean, 49; $P = .02$).

Sixty-seven percent of respondent programs self-defined as being university based or affiliated and 33% self-defined as being community based. The median program size was 40 residents (mean, 53; standard deviation [SD], 34; range, 6 to 160). The median percentage of female residents was 40% (mean, 42; SD, 12; range, 3% to 80%) and of underrepresented minority residents was 10% (mean, 18; SD, 21; range, 0% to 100%). The median percentage of residents going into fellowship training following residency was 50% (mean, 48; SD, 17; range, 5% to 95%). Only 28% of the respondent programs had a formal faculty-mentoring program in their medicine department.

Overall, program directors demonstrated favorable attitudes toward mentoring in residency (see Table 1), though fewer agreed with the last two statements that required more action on the part of the program director.

Table 1. Attitudes of Internal Medicine Program Directors Regarding Mentoring in Residency*

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	%				
a. Mentorship is an important tool for career/professional development	2	1	6	53	38
b. Program directors have a responsibility to encourage faculty to mentor residents	1	1	6	47	45
c. It is important for a resident to have a mentor during training	1	1	19	47	32
d. Program directors have a responsibility to encourage residents to identify a mentor	2	4	21	47	25
e. Program directors have a responsibility to identify mentors for residents	4	9	21	45	20
f. Residency programs should have structured mentoring programs for residents	3	11	25	40	21

* Responses were made on a 5-point scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

Table 2. Elements of an Ideal and Actual Formal Mentoring Program for Residents

	Ideal (N = 227) % (n)	Actual (N = 111) % (n)
Individual mentoring (one-on-one mentor/mentee)	90 (204)	96 (107)
Group mentoring (one mentor/group of residents)	23 (52)	18 (20)
Peer mentoring (mentor being an upper-level resident)	35 (80)	19 (21)
Regularly scheduled meetings	54 (123)	31 (34)
Evaluation of mentoring program by mentors*	36 (81)	52 (56)
Evaluation of mentoring program by mentees*	30 (68)	28 (30)
A structured curriculum	14 (31)	11 (12)

* In the "ideal" items, the wording was simply "evaluation by mentors" and "evaluation by mentees." In the "actual" items, evaluation "of formal mentoring program" was specified.

Combining responses over all statements, 60% of program directors had a mean higher than 4, with 5 indicating maximal support. Attitudes were not related to the type ($P = .23$) or the size of the residency program ($P = .28$). As shown in Table 2, if designing a formal mentoring program for residents, 90% of program directors would include individual mentoring and the majority (54%) would include regularly scheduled meetings. There was less interest in other models of mentoring.

Forty-nine percent of respondent programs have a formal mentoring program for residents. These programs have existed for a median of 5 years. Of these formal programs, 96% use individual mentoring and about 20% use group or peer mentoring (Table 2). With respect to designation of mentors, 50% of programs assign mentors, 18% have residents choose their mentors, and in 31% it is a combination of assignment and selection. Thirty-one percent of the formal programs have regularly scheduled mentor/mentee meetings (47% semiannually, 28% quarterly, 5% annually, and 19% variable). In 42% of the programs, meetings are logged by the program director. Features present in only a minority of programs included feedback from residents about the mentoring program (28%), teaching credit for faculty mentors (25%), faculty development for mentors (15%), and a curriculum (11%). Only 54% of program directors with mentoring programs are happy with them.

Residencies with formal resident mentoring programs are slightly more likely to be university based (73% vs 61%; $P = .05$) and to have a formal faculty-mentoring program in their department of medicine (47% vs 10%; $P < .001$). Program directors with formal programs reported more positive attitudes about mentoring than program directors without formal programs (mean, 4.2 vs 3.8; $P < .001$). In designing a program, more program directors with mentoring programs would include individual mentoring (96% vs 84%; $P = .006$) and have regularly scheduled meetings (63% vs 47%; $P = .009$).

DISCUSSION

Overall, internal medicine program directors have a positive attitude about mentoring during residency, though they are less likely to agree that programs should be structured or that it is their responsibility to identify mentors for residents. At best, only half of the programs offer a formal mentoring program. If none of the nonrespondents offer a program, the percentage is likely closer to 30%. The formal programs that do exist are extremely diverse, largely unstructured, loosely monitored, and underevaluated.

Our results are consistent with prior literature supporting mentoring during graduate medical education.⁷⁻¹⁰ Most of published studies have a focus on residents' perceptions and outcomes of mentoring, demonstrating a positive association. Despite our focus on program directors, the majority believed it was important for a resident to have a mentor and favored mentoring during residency, reflecting its known importance. However, internal medicine residencies have not caught up with the movement toward formalization.^{9,12-14,18} This might be attributable to the general youthfulness of mentoring programs, inadequate resources, or mentoring holding a lower priority than other program-related initiatives. Or, it may be that our focus on structure was misplaced. Clearly, a lot of mentoring is occurring even in residencies without formal programs.

This study has several limitations. First, the response rate was relatively low, although comparable to the response rates among published mail surveys for physicians.^{19,20} Second, we purposely chose a nonspecific definition of mentoring. We were interested in capturing the broad-based nature of mentoring. One could wonder what each respondent was thinking when they answered the survey. Third, we are able to create a composite picture of how mentoring is implemented among internal medicine residencies, but we did not collect parallel data on residents' or mentors' opinions and levels of satisfaction with mentoring. Fourth, we did not collect data on "informal mentoring" that is presumably quite pervasive. Fifth, because this study was focused on structural characteristics of programs, we did not collect data on other important features such as the processes, goals, or content of mentoring. Equally important, we did not collect data on why program directors were unhappy with their mentoring programs.

Future research is needed to better define the most helpful elements of formal mentoring programs for internal medicine residents. Studies will be most useful if they are aimed at systematically evaluating the effectiveness of mentoring from both the mentors' and residents' perspectives. Of course, before this is done careful consideration needs to be given to defining "effective mentoring" in terms of measurable short-term and long-term outcomes, for example, satisfaction and career advancement. Understanding barriers to mentoring in programs where directors say it is important but do not provide it, as well as learning about "successful" programs would be useful. The fact

that program directors are not very satisfied with their mentoring programs deserves more study. Examining implementation issues would yield useful insights. Nevertheless, to our knowledge, this is the first study to detail the presence of formal mentoring programs and to provide an overview of mentoring among internal medicine residencies across the country.

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