Involvement of Three Types of Preceptors With Residents in an Ambulatory Care Clinic

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The dramatic shift in medical care from inpatient to outpatient settings is expected to have a profound effect on medical education. The spectrum of patients formerly seen as inpatients will no longer be available, and physicians will require increased training in outpatient settings (1–3). While training on inpatient wards follows a well recognized structure, how best to accomplish training in ambulatory settings remains unresolved (4). Key issues include whether generalists or specialists should teach ambulatory care and how well the preceptor model of teaching with supervision works in the outpatient clinic.

In the study reported here, the authors compared three methods of resident supervision used in 1986 in the Medicine Polyclinic at the University of North Carolina. The preceptors, all of whom were faculty members of the university hospital, differed in their specialties and in the nature of their duties while working with the residents. The first preceptor group was medicine subspecialists who saw their own patients during the same period they were each paired with one resident. The residents saw their own patients simultaneously and were encouraged to discuss their patients with the preceptor. The second group of preceptors was in general medicine, and each was assigned to one or two residents. They, like the subspecialists, saw their own patients during the time spent with the residents and could discuss and see the residents’ patients. The third group of preceptors was also in general medicine, and they were assigned to three to five residents. However, unlike the other two groups, these preceptors did not see their own patients during the period they worked with the residents; instead, they spent their preceptor time exclusively discussing and seeing the residents’ patients.

Thus, the major distinction among the groups was that only one devoted the preceptor time exclusively to the residents.

Second- and third-year residents are required to work one-half day per week in the polyclinic. Each resident is given a panel of approximately 125 continuing-care patients, is assigned new patients regularly, and is provided with a faculty preceptor. Residents are encouraged to discuss all patients with their preceptor and are expected to discuss their new patients.

Method

All 49 medicine and medicine-pediatrics residents in the polyclinic in 1986 were given a 12-item survey questionnaire five months into the residency year. The items were multiple-choice or employed an interval scale to obtain the residents’ assessment of the preceptors’ involvement with the residents and the residents’ patients. They were asked about the content of their preceptor’s teaching. Descriptive statistics and analyses of variance were used to analyze results.

Results

Forty-six of the 49 residents completed the survey. Of these, 10 had individual subspecialist preceptors also seeing their own patients (10 different preceptors); 20 had as preceptors generalists also seeing their own patients (16 different preceptors); and 16 had one of the
two preceptors who were generalists who did not see their own patients while being preceptors. Table 1 shows the percentages of the residents' new and continuing-care patients discussed with or seen by the preceptors, as estimated by the residents.

These percentages showed that the subspecialists had the least involvement and that the generalists who were preceptors only had the most involvement with the residents and their patients. These differences occurred for both the second- and the third-year residents.

The residents reported that they spent approximately 10 minutes discussing a new patient with their preceptor across all preceptor types. Fourteen of the 16 with "precepting only" preceptors rated the usefulness of their preceptors as first or second relative to a variety of other clinical teaching resources (such as other faculty members, resident colleagues, lectures), while only two of the 10 residents with subspecialist preceptors and 11 of the 20 residents with generalist preceptors who saw their own patients rated their preceptors as first or second.

The residents' reports on the content of their preceptors' teaching were as follows: patient management (94 percent reported such teaching), differential diagnosis (87 percent), patient compliance (59 percent), cost effectiveness (57 percent), and pathophysiology (44 percent). All the preceptors taught similar content, with the exception that 20 percent of the residents paired with the subspecialists re-

<table>
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<th>Generalists Not Seeing Own Patients</th>
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<td>New patient discussed with preceptor</td>
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<tr>
<td>Continuing-care patients seen by preceptor</td>
<td>11</td>
<td>18</td>
<td>19</td>
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* See text for description of the residents and the preceptors.
† Differences between this percentage and the percentages for the other two types of preceptors were statistically significant at p < .01.
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ported frequently discussing behavioral aspects of disease, compared with 30 percent of those paired with generalists also seeing their own patients and 63 percent of those paired with "precepting only" preceptors. In written remarks, the residents emphasized the importance of the preceptor's being available to them when needed.

Discussion

The difficulties of structuring efficient, effective ambulatory teaching have taxed medical educators and administrators. Some medical educators, such as Perkoff (5), see the solution as improving the interaction between attending physicians and residents. In the clinic reported on here, the authors discovered that using subspecialists as preceptors resulted in limited teaching of residents. The generalists who saw patients while teaching provided somewhat more interaction, and the preceptors who saw none of their own patients had the most interaction.

The study was limited to a single institution, was constrained by unequal numbers of attending physicians in each category, and was based on residents' perceptions. Nevertheless, the findings are consistent with other studies. An observational study (6) in the same clinic one year earlier also demonstrated that accessibility of attending physicians was a significant problem. In a study (7) of 16 academic group practices, attending physicians examined residents' patients 2 percent of the time and acted as consultants 9 percent of the time. Anwar and colleagues (8) found that surgical interns and junior residents were most often influenced by immediate superiors, such as senior residents, and had little supervision or evaluation by attending physicians. The problem of supplying adequate supervision by attending physicians thus extends across institutions and specialties.

The present study, while limited, demonstrates that utilizing attending physicians assigned to the clinic exclusively for training purposes results in increased instructional interaction. Several reasons dictate increased supervision by attending physicians in ambulatory clinics. First, educational research shows that supervisors who are available to provide immediate instruction and stimulate reflection in natural settings are essential ingredients to quality teaching (9). Second, since an initial visit to a teaching institution is analogous to an inpatient admission, most medical centers would be remiss if the ward attending physician did not listen to house staff presentations, meet patients, and verify important history and physical findings. Why should the ambulatory sphere be any different from the inpatient sphere? Third, the current demand of the third-party payers for explicit documentation of involvement by attending physicians is likely to continue. Fourth, institutions and physicians may place themselves at risk if litigation should occur in cases of care given by a resident without involvement by an attending physician.

Intensified presence of attending physicians in medicine clinics will come at some cost. However, the hidden costs of lost income because of inadequate documentation, poor training of residents, and possible liability will, in the authors' opinion, outweigh the cost of good teaching and supervision.

References

7. KOSEKOFF, J., et al. General Medical Care and...
Evaluation of a Continuing Medical Education Program For Primary Care Physicians on the Management of Alcoholism

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Alcoholism and alcohol abuse are major public health problems that physicians often do not diagnose or treat effectively (1). Yet there have been no recent reports of continuing medical education (CME) programs directed at these deficiencies. The purpose of the study reported here was to determine whether a specific CME program would measurably improve the diagnosis and treatment of alcoholism by primary care physicians.

Methods
Letters to recruit study participants were mailed to 242 board-certified family physicians and general internists randomly selected from the mailing list of a medical society in Seattle, Washington. Physicians were excluded if they had subspecialty board certification, served at the University of Washington, were familiar with the study, or were not clinically active in King County, Washington. Physicians were offered two category I CME credits, $25, and educational feedback for participating.

Of the 242 invited to participate, 95 (39 percent) agreed. Starting in November 1985, each of these 95 physicians performed a diagnostic evaluation of the same simulated patient via a computer program (2) run on a portable microcomputer that was taken to each physician’s office. Four to six weeks later each physician completed a questionnaire on which he indicated his diagnoses and management plans for a similar patient for whom all clues to the diagnosis of alcoholism were clearly stated in a written case presentation. Each also reported on various demographic and practice attributes and on the frequency with which he had diagnosed and treated alcoholism prior to his involvement with this study.

In April 1986 the participants were mailed a 12-page pamphlet that reminded them of their responses to certain questions, summarized all the participants’ responses to the same items, instructed them on diagnosing and treating alcoholism, and provided a bibliography and aids for diagnosing alcoholism. Five weeks later the participants completed a questionnaire on their impressions of the CME program, their competence in managing alcohol problems, and the CME program’s impact on their clinical behaviors.

Results
Of the 91 percent of the participants who completed the study (n = 86), 57 percent were