

# Teacher-Learner Contact Time in a Family Practice Residency

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The goal of family practice residency programs is to train physicians to provide comprehensive and continuing health care for the family and its members. To help accomplish this goal, family practice residents rotate through a variety of inpatient and outpatient services staffed by physicians of other medical specialties.

This is a cause for concern for some family medicine educators, a concern that has been expressed best by Shahady<sup>1</sup>: "Do our residents belong to us or do we belong to our residents?" The trainees of all specialties except family practice are trained mostly by practitioners of the same specialty, with methods and in locations appropriate to the concerns of that specialty. Family practice residents, on the other hand, appear to be trained primarily by physicians of other specialties, with methods that may not emphasize certain unique aspects of family practice. This teaching often occurs in such locations as hospital wards, operating rooms, and emergency rooms, where a small fraction of the trainee's eventual practice will take place. While these concerns are shared anecdotally by many family medicine educators other than Shahady, no studies have examined the issues more objectively. This paper reports the results of a descriptive study that measured the educational experience of a group of university-based family practice residents through the use of a log or educational diary.

## Methods

A log\* was designed to record, at the time of occurrence, the day-to-day teacher-learner experience of a resident rather than studying rotations or retrospective recollections. The purpose of the

log was to document all educational activities in which a teacher and learner can be identified and time measured. The log was pretested with three residents who used the form for one week. Based on their feedback, the log was deemed usable.

At a resident business meeting, the log was introduced to all residents. They were told that the purpose of the project was to study educational activities in the residency. The investigators did not discuss their concern that family medicine residents "do not belong to us." The residents were asked to complete the logs during the third week of August 1982.

Twenty-eight out of 32 residents of the university-based Salt Lake City component of the University of Utah Affiliated Hospitals Family Practice Residency Program completed the logs. Residents were not coerced to complete the logs, but a follow-up telephone call was used to remind residents to use the form. Four residents did not complete the log: one resident was on a preceptorship away from the program, one resident was on vacation, and two residents on University Medical Center rotations felt that because of time demands they could not participate in the study.

The teacher-learner contact data were analyzed according to the type and location of educational interaction and the type of teacher involved. The investigators felt that the week studied was typical of the residency program: all regular rotations and usual electives were covered. Because one non-participating resident was on a private practice preceptorship, but two were on university medical center rotations, any bias would favor outpatient teaching.

## Results

The 28 residents experienced a total of 1,013 educational interactions during one week, for a

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\*Samples of the log are available from the authors upon request.

total time (as perceived by the residents) of 611.4 hours of teaching or education. Averaged over a full seven days, the education time per day per resident ranged from 2.8 hours (year 1) to 3.5 hours (year 3). Formal teaching (formal conferences and teaching rounds) decreased markedly over the three years, from 51.7 percent in year 1 to 9.5 percent in year 3. Self-learning time increased correspondingly, from 10.5 percent to 21.6 percent. Contact time (when a resident could identify a teacher and measure time) related to actual patient care showed a moderate increase from year 1 to years 2 and 3.

Educational time occurring in the hospital ranged from 88.7 percent (year 1) to 24.7 percent (year 3), with an average for the entire residency of 56.9 percent. A corresponding increase from year 1 (4.2 percent) to year 3 (25.3 percent) was seen in contact time occurring in the resident's family practice center. A dramatic increase was also noted from year 1 to year 3 in educational contact time occurring in the teacher's office.

Time spent learning from other residents (of all specialties) decreased with year of training (24.4 percent to 1.8 percent), as did teaching time with full-time family medicine faculty (12.7 percent to 5.5 percent). Teacher-learner contact time with practicing family physicians was uniformly low, with an average of 3.4 percent (range, 2.4 to 5.8 percent).

## Discussion

The results of this study appear to confirm to a large degree the concerns expressed by Shahady.<sup>1</sup> Family practice residents in this program appear to receive a majority of their education in the hospital (56.9 percent), although the amount is highest during year 1 (88.7 percent), decreasing dramatically to 24.1 percent in year 3. Between one third and one half of all educational time is provided by physicians of specialties other than family practice, and only one tenth of all interaction time is with full-time family medicine faculty. The residents in this study have nearly no contact with practicing physicians of family practice. Formal teaching activities, which predominate in year 1 (51.7 percent of total contact time), decrease dramatically in years 2 and 3 with a corresponding increase in educational time related to direct patient care. As the practice of family medicine is

characterized by a rigorous approach to solving patient problems of many types, it seems appropriate that an increasing percentage of resident training be related to direct patient care.

As is true for most studies of a preliminary nature, this study raises more provocative questions than it provides definitive answers. For example, the absolute amount of daily teacher-learner contact time increases from 2.8 to 3.5 hours (average, 3.1 hours). Is three hours of education enough, too much, or too little? Probably this question can be answered only by making correlations to educational outcome, such as board examination performance. An increasing amount of educational time devoted to self-learning activities was noted from year 1 to year 3. Self-directed learning is a skill that seems appropriate for a resident soon to be in practice, but at what point does "enough" become "too much"?

Overall, family practice residents have what appears to be inadequate role modeling time with either full-time family medicine faculty or practicing family physicians (14.1 percent total), particularly in year 3, when residents primarily have physicians of other specialties as teachers. The administration of a training program in which a large percentage of teaching is done by faculty of other departments, services, or specialties is remarkably time-consuming and burdensome, as any resident director will testify, and would seem to lead to a low level of faculty career satisfaction, particularly when the faculty have correspondingly lesser amounts of teaching interaction with their residents. Clearly, in Shahady's parlance, "We belong to our residents."

The provocative results of this study suggest at least two important avenues for further study. The first is to examine how community-based and university-based training programs compare in the distribution of teacher-learner contact time. The second, and more important, is to determine how graduates of programs shown to have different distribution patterns compare in their performance on board examinations or in practice. The results of either or both studies could have a significant impact on the style and quality of family practice residency education.

## Reference

1. Shahady EJ: Do our residents belong to us or do we belong to our residents? *Fam Med* 14(2):13, 1982