Using Private Practice Settings for Academically Intensive Family Practice Clerkships

John W. Beasley, MD
Madison, Wisconsin

The Department of Family Medicine and Practice at the University of Wisconsin has designed and conducted an academically intensive third-year three-month family practice clerkship based in private practice settings. This experience differs from more traditional preceptorships in the amount of academic structure and quality control applied to the student's learning experience.

This clerkship has demonstrated that extramural experiences can be as academically intensive and carefully monitored as traditional, referral-hospital-based clerkships in family practice or other basic medical disciplines. Increases in the level of continuity of care occur over the entire 12 weeks.

It has long been recognized that extramural learning experiences are a valuable part of a complete medical education. Hodgkin,[1] in his 1973 book, *Towards Earlier Diagnosis*, documented the significant clinical differences between hospital-based student and intern experience and his experiences in practice. One recent study of the processes of care occurring in family practice showed many elements that are important to the practice of that discipline as well as other primary medical disciplines that could not be taught in a tertiary care setting.[2]

Despite the rich clinical content and possibilities for teaching the "processes of care" when extramural (private primary care practice) teaching sites are used, these sites have seldom been seen as loci for serious, academically rigorous training. These extramural educational experiences, usually termed *preceptorships*, are generally seen as having less-specific goals, less-rigid structure, less-consistent content, and less-objective evaluation than *clerkships*, which are usually thought of as intramural experiences occurring in tertiary care institutions.[3,4]

To an extent this has been true of predoctoral experiences in primary care disciplines in general; the emphasis has been on romance and generalization rather than precision.[5] In a similar vein, the emphasis has been on the acquisition of attitudes and skills to a greater extent than upon the acquisition of cognitive knowledge. The incorporation of family practice or other primary care experiences into medical school curricula is often impeded (especially in those schools that lack a major institutional commitment to primary care and family practice) by the lack of definable academic content, educational structure, and quality control. Those (proposed) experiences taking

From the Department of Family Medicine and Practice, School of Medicine, University of Wisconsin, Madison, Wisconsin. Requests for reprints should be addressed to Dr. John W. Beasley, Department of Family Medicine and Practice, School of Medicine, University of Wisconsin, 777 South Mills Street, Madison, WI 53715.

place in private practice settings are especially vulnerable to these deficiencies.

To meet the academic needs of students for a major and intensive experience in family medicine, the University of Wisconsin Department of Family Medicine and Practice elected to design from scratch an academically intensive elective for medical students. In 1978 planning for a major clerkship experience in family medicine for medical students was begun, using in part the examples of the Minnesota Rural Physician Associate (RPAP) Program, the WAMI Program, and the Michigan Upper Peninsula Education Program.[6-8] The planning was based on a series of assumptions:

1. The academic quality and content of the clerkship must be no less than that of the clerkships in any of the other basic referral-hospital-based disciplines (eg, internal medicine, surgery).[9]

2. The best potential sites for students to learn family medicine (or any other primary care discipline) are private practice settings, since they have an untapped wealth of highly relevant clinical material and, more important, the excellent comprehensiveness, continuity, and family and community involvement found in the selected private practices of primary physicians who have long-term personal commitments to their patients. The experience of the Minnesota RPAP program provided some of the basis for this assumption.[10]

3. Payment to tutors may be necessary to achieve the required degree of academic control, even if only a token payment is possible. Previous studies have suggested that tutors, in terms of their time and lost patient revenue, expend about $11,000 on an annual basis[11] (Warburton S, personal communication, May 1978).

4. The experience must be available to students in the third year so that students have an opportunity to explore primary care as an academically credible discipline prior to making career choices. It is not practical to have all interested students take an elective such as this early in the fourth year, as this puts an intolerable strain on the available educational resources.

5. Students could, without particular difficulty, take family medicine as their first clinical rotation. This would be neither more nor less appropriate than taking other basic disciplines first.

6. If students are to understand both the interpersonal and technical aspects of continuity and comprehensiveness of care,[12] the experience must be long enough for these aspects to be significant issues for the student in his or her management of patients. Three months is a minimum.

7. The goals for an experience in family practice should derive from the basic definitions of family practice by the American Academy of Family Physicians and should not be specific to other clinical disciplines (eg, orthopedics or obstetrics). These general goals include the following*:

> The academic task of family medicine is the development of a particular way of approaching patient care which integrates the content derived from various biomedical and behavioral areas of study to form a unified discipline. The subject of this discipline is the methodology of the practical care of patients and families.
>
> Family physicians should help medical students gain the knowledge of the integrative processes needed to care for patients, the common biomedical and social problems facing patients, the skills to understand and manage the full range of problems, and the attitudes of personal commitment to patient, family, and community.

Structure and Operation of the Clerkship

The three-month clerkship may be taken as an elective at any time during the students' otherwise traditional third year. Make-up work for the required clerkship that has been deferred is then required during the student's fourth year.

The student is assigned to a group of family physicians, one of whom is assigned as the tutor (*tutor* is used rather than *preceptor* to imply a greater level of academic responsibility, since the term *preceptor* refers to an entirely different program at the University of Wisconsin). General criteria for selection as a teaching group include certification of the tutor by the American Board of Family Practice, at least one family physician group member with five or more years of practice in that community, and at least one group member with family practice residency training. Preference is given to groups in rural communities. Tutors attend an annual faculty development meeting and receive a token payment ($200 per student per 12 weeks) in return for an agreement to deliver speci-

*More specific goals and objectives were developed for each of the syllabus sections and are available from Robert Bartz, MD, Department of Family Medicine and Practice, 777 S. Mills St, Madison, WI 53715.

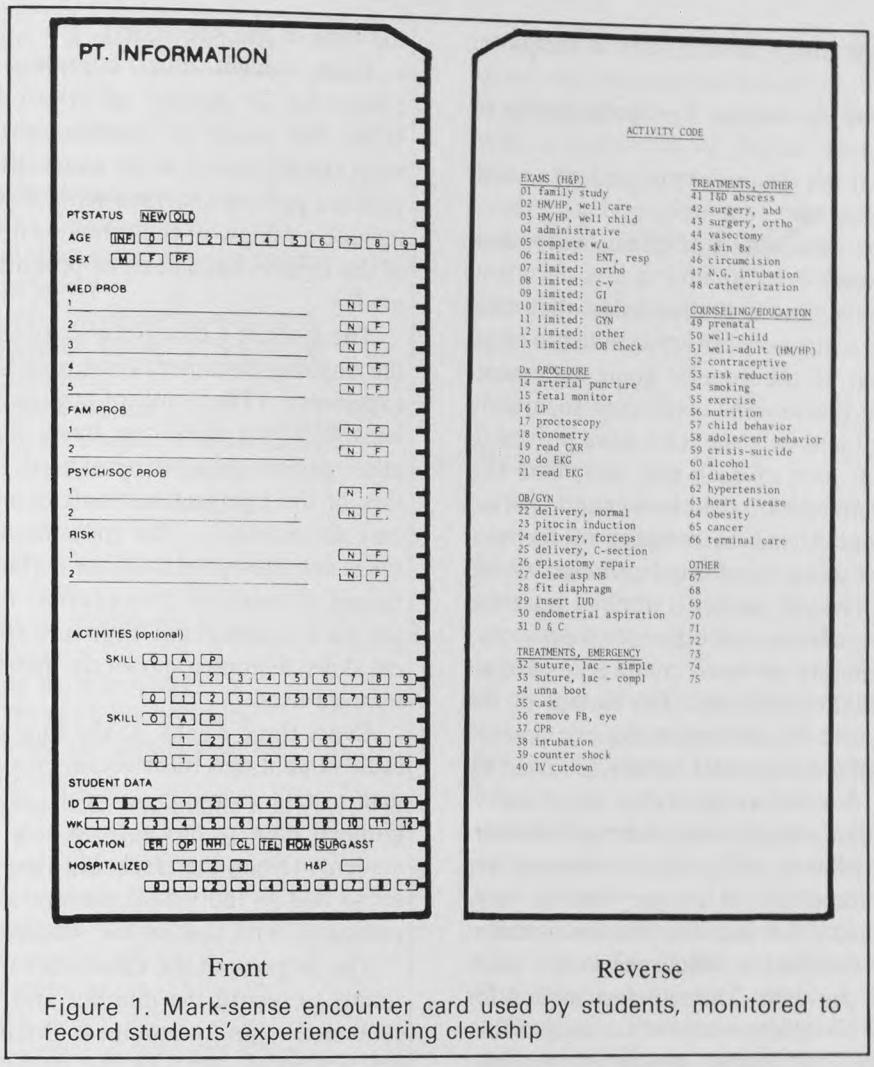

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Figure 1. Mark-sense encounter card used by students, monitored to record students' experience during clerkship

fied educational services. In some instances, tutors have been dropped from the roster of teaching groups either after the tutors have found the educational task too burdensome or because students had problems with the experience at particular sites. Urban sites have less intense clinical experience than rural sites. Most tutors elect to teach one or two quarters per year. To date, none have felt it possible to assume a teaching role in all four quarters.

There is a two-day formal orientation for students that includes seminars, laboratory sessions covering basic procedures (suturing, casting, insertion of intravenous catheters), training in problem list development based on a videotaped patient encounter, and a simulated patient encounter that includes a pelvic examination. (A "follow-up" visit with the same simulated patient three months later becomes part of the final examination.) An important part of the orientation session includes practice in filling out mark-sense encounter cards and an introduction to the contents of the loose-leaf syllabus. Several reference articles relating both to the family practice content and to specific medical problems are included under each topic heading of the syllabus (Table 1).

Site visits are conducted by full-time Department of Family Medicine and Practice faculty every three weeks after the student arrives at the practice site. The following activities take place during site visits:

1. Direct observation of the student with a patient
2. Instructor acting as simulated patient
3. Review of the student's progress notes

4. Discussion of computer printouts of encounter data
5. Discussion of the student's progress on his or her project
6. Discussion of the quality of the student's experience and problems
7. Tutorial-type discussions of clinical or patient management issues

Most of the review and discussion that take place at the site visits concerns the student's progress in the light of the general goals statement. Routine private discussions conducted separately with the student and with the tutor have proved to be an important part of each site visit. One site visit near the middle of the three-month period includes a standardized assessment of the student's progress using the formal protocol of the oral final examination, which is derived from the general goals statement and other sources.

Weekly telephone network conferences are an integral part of the clerkship. The format of the conferences is a 15- to 30-minute didactic presentation by full-time department faculty followed by a round-table discussion involving the faculty, tutors, and students for the remainder of the hour. Where specific clinical topics (eg, alcoholism) are discussed, the emphasis is on prevention, early detection, decision making, and the involvement of community and family resources in the management of the problem. The syllabus section for each telephone conference consists of two to four relevant reprints or reports, which are required reading for the students prior to the conference. The University of Wisconsin has a conference telephone system that permits long-distance calls at a rate of $0.07 per line used per minute.

Students and faculty are requested by a "letter of agreement" to sit down for a one-half-hour tutorial session four days a week to discuss clinical topics in depth. If desired, reference can be made to the tutorial-study session part of the syllabus, although many prefer to use other reference materials. There are problems in ensuring that these sessions are conducted regularly, although tutors attempt to meet this request.

At the end of each academic year, there is a one-day faculty development meeting at which the tutors and students meet jointly with Department of Family Medicine and Practice faculty to discuss the conduct of the clerkship and to suggest improvements. Faculty development also occurs at the time of the site visits.

Each student must complete a project that counts for 20 percent of his or her final grade. While the range of potential projects is broad, most students elect to do chart review research or practice pattern analyses with written reports that include a review of the relevant literature. Several of the reports have been of potentially publishable quality.

The student's encounter cards are the basis for the ongoing documentation and evaluation of the experience. (There are, of course, recording problems.[13,14]) Not only can basic demographic and other patient data be recovered, but also indicators of the comprehensiveness and continuity of care are available. The specific coding of diagnoses is not attempted; neither is there an attempt to record all possible procedures. A few indicators are used to document exposure to various technical skills. Figure 1 shows the mark-sense encounter card used.

Every three weeks, at the time of the site visits, each student and tutor receives a copy of the student's data printout as well as a copy of the grouped data printout from the whole group of students taking the clerkship that particular quarter so that an individual student's progress can be compared with that of the student's peers.

The purpose of the encounter monitoring is not simply to record the number and types of patient encounters, but to attempt to document the family practice components of the student's experience, that is, the degree of comprehensiveness and continuity of the student's care. (Attempts to document by computer the involvement of the family have not been successful to date, since the numbers of other family members involved in the patient's care depended more on the proportion of pediatric and emergency room patients seen than on any other aspect of the student's experience.) The following indicators of comprehensiveness are used: (1) the total number of problems encountered per visit, (2) the relative numbers of medical, psychosocial, family, and risk problems identified, and (3) noncomputerized evaluation of the student's written-in diagnoses. The following indicators of continuity were used: (1) percent of problems in each category that the student is managing as a follow-up rather than a new problem, and (2) percent of patients that are "old" (previously seen by the student) as opposed to "new."

Table 1. Syllabus Contents

I. Preface
II. Tips for Students
III. Tips for Faculty
IV. Orientation Materials
V. Telephone Conferences
    1. Strategies for achieving patient compliance
    2. Routine physical examinations
    3. Substance abuse: Office drugs and alcohol
    4. Febrile children
    5. Diagnostic tests: Use and abuse
    6. The medical care abuser
    7. Medical decision making
    8. Human aging
    9. Health promotion in the clinical encounter
    10. Obesity: Etiologies and treatments
    11. Other care providers
VI. Tutorial/Study Session Guide
    1. Elements of family practice
    2. Pregnancy
    3. The neonate and infant
    4. Early childhood
    5. Middle and late childhood
    6. Adolescence
    7. Young adulthood
    8. The mature adult
    9. The older adult
VII. Seminars
    1. The family in family practice
    2. The physician-patient relationship: Potentials and problems
    3. Success in family medicine: Defining quality
    4. The genogram and patient-family profile

Evaluation of Student Progress

The evaluation of the student's progress is made throughout the experience by the tutor and by Department of Family Medicine and Practice faculty at the time of the site visits using direct observation, discussion, and the computerized encounter data. At one site visit, between six and eight weeks into the experience, there is a formal review of two patients' charts using the final oral examination protocol. This procedure is repeated as the oral portion of the final examination.

The final examination for the students consists of an oral examination based on the quality of the longitudinal care of two of the student's patients with a discussion of patient management problems, the presentation of the required family study, an objective test on the content of the orientation telephone conferences and seminar material, and a videotaped follow-up visit of the same simulated patient the student saw during the orientation session.

Results

After two years of operation on a trial basis, the clerkship was approved as a third-year elective by overwhelming majorities of the Educational Policy Council and the Clinical Years Committee. Acceptance by the students has also been good. During the first three years of trial operation, a total of 28 students elected the clerkship. Twenty-two students enrolled for 1982-83 and 27 requested it for 1983-84. Initial fears that students would need "the basics" first have proved unfounded, although more intensive orientation (including some assertiveness training) is needed. In fact, more students now sign up for the first quarter than any other quarter in their third year. Likewise, the tutors have found that teaching students on their first clinical rotation is, although somewhat more difficult and time consuming (for the patient as well), certainly not impossible to do well.

The element of continuity in the student's care of patients increases in a linear fashion over the entire 12-week period, as shown by the results displayed in Figure 2.

The students demonstrated a reasonably comprehensive approach to patient care by identifying and caring for an average of 2.3 problems per visit, with a breakdown of general problems into broadly defined categories showing 75 percent of identified problems to be medical, 5 percent related to the family, 7 percent psychological, 10 percent risk problems, and 2 percent educational problems. (This latter category has been deleted because of low utilization.)

The annual faculty development meetings have resulted in a number of changes in the clerkship including the institution of the orientation sessions, with prerotation procedure and pelvic examination training, the development of specific sections of

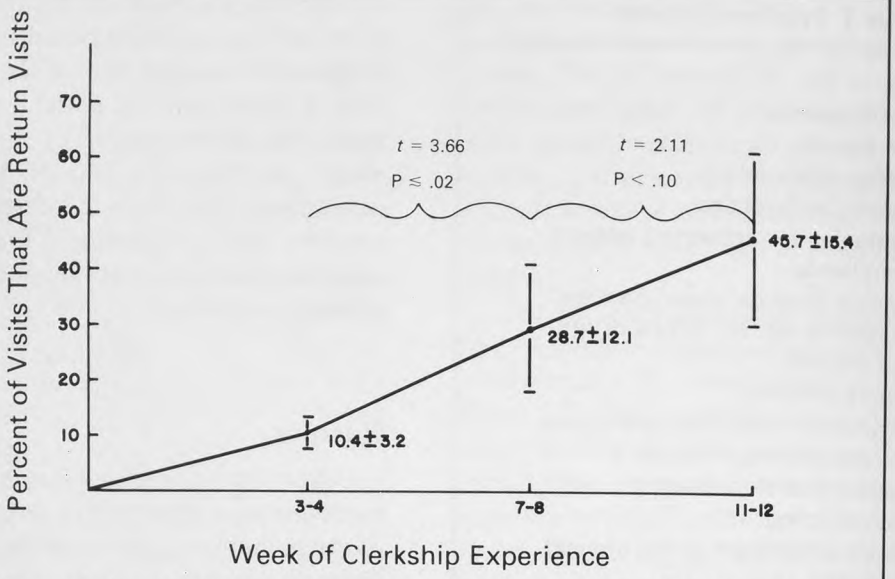

Figure 2. Continuity of care during clerkship. Data reflect the experience of nine students in the 1981-82 academic year. Ongoing development of the computer program did not permit the use of data from all 13 students in 1981-82

the syllabus with references for the telephone conferences, the institution of midquarter seminars, a reduction in the amount of encounter data recorded, and other minor changes. The 12-week length, the student project, the telephone conferences, and the site visits have been affirmed by department faculty and by most students and tutors as being important, although not always popular.

As in all clerkships, problem areas remain. In part because insufficient funding has precluded paying the tutors more than a token amount, there have been difficulties at some sites in protecting sufficient structured tutorial time. In addition, the lack of a standardized objective test for students taking a family medicine clerkship has made evaluation more difficult.

The successful development of this clerkship in private practice settings, however, shows that it is possible to have an academically intensive experience outside the academic institution and that effective curricular control, documentation, and evaluation are possible. Clinical departments can utilize the wealth of clinical material and the teaching energy and expertise available in private practices without significant loss of those elements of the experience that will make it academically intensive and credible.

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