Community Clinical Clerkships for Educating Family Medicine Students

Process of Development (A WAMI Progress Report)

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Institution of a six-week rural clerkship was an early step in the development of a Family Medicine curriculum for medical students at the University of Washington, and it formed the first part of an experiment in regionalized medical education in Washington, Alaska, Montana and Idaho (WAMI). Selection of faculty, transition of practitioners to teachers, and evaluation of course objectives are critical steps in the development of such a clerkship. Currently, five clerkship units are operating in Washington and Alaska. Two have completed four years with students. One hundred eleven students finished the course and graduated from the Medical School as of June, 1974. At least 84 percent (93) of them are pursuing primary care training or practice at this time, and 73 percent (81) are now pursuing Family Practice.

Training of family physicians became a major goal for the University of Washington School of Medicine in 1968. At that time the School changed its curriculum by requiring students to complete six quarters of basic courses. They could then choose either the Family Physician, the Clinical Specialist, the Behavioral Specialist or the Medical Scientist Pathway. Fifty percent of the 1966 entering class (42 of 84 undergraduates) selected the Family Physician Pathway. This compelled the Department of Family Medicine, just forming at the time, to develop a clerkship able to satisfy student requirements for family practice education.

Fortunately for the new department, the Medical School was then organizing an experiment in regional medical education embracing the states of Washington, Alaska, Montana and Idaho under the acronym WAMI.[1] According to the WAMI plan, teaching sites would be set up in communities throughout the region. Because family practice is a community-oriented specialty, WAMI's organizers decided to fund development of "Community Clinical Clerkships in Family Medicine" as the first clinical teaching sites in their experiment.

Among the questions facing the clerkship planners was whether they could find family physicians in rural areas who would be able and willing to make room for teaching duties in their practices. If found, would they stay with the job for at least a year? Would these physicians accept the responsibility for the course, rather than simply carry out a technical function? Finally, would students in their clinical years, when all their courses are elective, be attracted to such a clerkship? None of these questions could be answered in advance.

Initial Organizational Efforts

In the summer of 1970 the Department of Family Medicine sent a brochure describing the experience desired for students in the clerkship to 1,200 active general practitioners in Washington. We proposed that the clerkship be conducted in on-going, small-town practices. The Medical School would contract with qualified practitioners who could teach such a course in their own practice settings.

Interested physicians were asked to submit proposals describing the community, the physicians involved, the nature of the practice, plans for student teaching, anticipated cost and other relevant data. Initial proposals were to meet the following specifications:

1. Rural or small-town sites with populations of 25,000 or less were preferred. The population of the surrounding area should be 50,000 or less. The faculty chose these limitations

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partly because of the need to train physicians for the rural Northwest. We also thought that clerkship goals could best be met in a community small enough for the student to become acquainted with the patient's environment in a short time. According to a 1970 study by the Washington State Medical Education and Research Foundation, this limited eligibility to approximately 360 of Washington's general practitioners.[2]

2. The community hospital must be willing to have supervised medical students participate in patient care.
3. Key nonmedical community people must be willing to participate.
4. Specialist consultants must be available within one day's round trip travel.
5. Proposals must be developed by two or more physicians practicing together. They need not practice as partners nor share an office, but must provide backup for each other and exchange information freely.

By September, 1970, the department had received many letters and phone calls from interested physicians. These were followed by the submission of six written proposals representing the efforts of 21 physicians in six rural communities, or six percent of those estimated to be eligible. In early October the faculty invited all those submitting proposals to meet with the Department of Family Medicine chairman and the dean's representatives at the Medical School in Seattle. After discussing how to develop this clerkship, the participants agreed on two points:

1. The clerkship would last six weeks. The Medical School could easily fit a clerkship of this length into its curriculum. Those physicians with previous experience as medical student preceptors also recommended six weeks as the optimum length of rotation.
2. Two students should be assigned together to each unit.

After the October meeting the physician representing one community withdrew his proposal because he felt he would not be able to meet all the obligations now envisioned. The dean designated an eight-man committee to review the five remaining proposals. Four members were to be full-time Medical School faculty and four members full-time practicing family physicians from the state's four geographic areas. The president of the Washington Academy of General Practice submitted two nominations for each of the four areas and the dean appointed one from each to the committee.

Each committee member then reviewed the background material and the proposals. The committee met later in October, studied the potential of each application, and then divided into sub-committees for site visits. Although the same committee members were unable to visit every site, the chairman of the Department of Family Medicine, as an ex officio member, did inspect all of them. Factors explored on site visits included:

1. Teaching experience and demonstrated interest of the group's physicians.
2. The degree to which each physician had been involved in preparing the proposal.
3. The nature of the practice.
4. The adequacy of the clinic or office facilities.
5. The nature of the community.
6. Other community resources.

While these proposals were being reviewed, the student body was polled to determine how many students would register for the clerkship in the 1971-1972 academic year. Results indicated a need for two community clinical units. Each would accommodate 16 students a year by accepting two students per six-week term. With this information and the site visit reports, the selection committee met in November and determined that all five proposals had good potential. The committee ranked them and selected the two top proposals (The Yakima Valley Clinic in Grandview and the Family Medical Center in Omak) to begin the program in the spring quarter of 1971.

During the next two months the Department of Family Medicine chairman visited each unit several times to initiate curriculum planning, negotiate costs and arrange for student housing. In hopes of attracting students' spouses to settle in rural areas, the program planned to fund their travel and housing. The Department appointed the physicians in each unit to its clinical faculty at the rank of clinical instructor or clinical assistant professor, depending on training and experience. In March, 1971, two physicians from each group came to Seattle for a two-day workshop with members of the full-time Family Medicine faculty and representatives from the University's Office of Research in Medical Education. This meeting was devoted primarily to sharing ideas and concerns and working out administrative procedures concerning student travel, housing, introduction of students into the community, hospital relationships and so on. Each unit was then ready to receive its first students in late March, 1971.

Practitioners into Teachers

As noted earlier, about six percent of the general practitioners in Washington appeared willing to make the necessary adjustments in their lives and practices for combining the role of teacher and practitioner. The transition does demand considerable change. If the physician was a preceptor in the past, he had usually limited his teaching efforts to displaying with evangelical zeal his chosen way of life and practice to the student. To become a community-based faculty member in the new program, he now had to develop a sense of responsibility for the student's learning skills and knowledge in relation to specific objectives.

George Miller cautions in his book, *Teaching and Learning in Medical School*, "One of the most difficult tasks any man can undertake is to allow himself to be used by another person. Yet it is this that the teacher must be prepared to do if he is to fulfill his obligation to help a student learn, rather than force the student into his own mold."[3]

The new practitioner-turned-teacher also opens himself to certain stresses, such as scrutiny by colleagues in academic medicine and in practice who review his practice, his teaching methods, his goals and his philosophy of medicine. To set appropriate objectives for the students under his tutelage he is forced to make a more or less objective analysis of the future of his profession. The give-and-take in

curriculum planning sessions may challenge his previous conceptions of his role.

Adaptability is therefore an important quality for the physician who would teach. So is confidence. It is not enough that his peers recommend him as a reasonable role model for students, he himself must feel confident in the role of family physician — secure enough to admit students as third persons in the doctor/patient relationship and to submit his everyday work to observation by both students and other faculty members.[4]

For the first six months of the new clerkship, the community faculty spent most of their energy developing mechanics and procedures. During this period the questions they directed to the academic faculty indicated anxiety about their new task. Could they as practicing physicians teach in any manner other than as role models? How should they conduct a seminar? Would they need training in teaching techniques? Would supplies of teaching aids and materials be required? Would the student's level of preparation be known to them before his arrival? How much responsibility for patient care should the student be permitted? How should the physicians evaluate and grade the student? For how much of the student's total life would they be responsible during his presence in their community? The new faculty also asked about practical problems, such as the accounting of clerkship expenses and whether the University would honor its contractual obligations.

Six months later with the mechanics running more smoothly, two events occurred which accelerated the preceptors' overcoming of uncertainty. First, the community faculty found itself obliged as a group to fail one student. Second, another student requested permission to substitute a preceptorship served elsewhere for the required Family Medicine clerkship. At its end-of-quarter meeting, the assembled faculty examined him and decided he should be given credit. Both events aroused the community faculty's interest in specifying just what knowledge, skills, attitudes and understanding a student should gain in the course — what would signify his failure and what his success. At the next quarterly meeting in September, 1971, they attacked this question with enthusiasm and produced the course objectives as they exist today.

From this point on, the new instructors assumed a possessive responsibility for defining these objectives and no longer accepted without question definitions supplied by the academic faculty. On the clerkship's first anniversary the community faculty requested a meeting with the advisory committee which oversees the entire WAMI experiment. There they confidently defended the course objectives and achievements to date, clearly demonstrating that they had overcome initial anxieties and feelings of inadequacy. The community faculty have since gone on to make further developmental recommendations and to request the full-time faculty's assistance in developing teaching aids and learning new techniques to improve the clerkship.

The acquisition of authority and confidence by the first physicians appointed to the Family Medicine department's clinical faculty was gradual. This appears to be a pattern followed by each newly appointed group. However, more recent clinical appointees seem to progress through various transition stages more quickly than the original group which is due in part to the orientation offered by more senior clinical faculty at quarterly meetings.

TABLE I: Checklist* of Common Clinical Problems Reviewed by Students Before and After Family Medicine Community Clinical Clerkships

1. UPPER RESPIRATORY COMPLAINTS
   Including: Colds, Sore Throat, Earache
2. PREGNANCY
   Including: Obstetric Management, Family Planning
3. SHORTNESS OF BREATH DUE TO PULMONARY DISEASE
   Including: Asthma, Lower Respiratory Infections, Emphysema
4. MUSCULOSKELETAL PAIN
   Including: Injuries, Arthritis, Back Pain
5. CARDIOVASCULAR PROBLEMS
   Including: Hypertension, Coronary Artery Disease, Congestive Failure, Heart Murmurs
6. NERVOUS SYSTEM DISORDERS
   Including: Headache, Anxiety, Fatigue
7. ABDOMINAL PAIN
   Including: Acute Surgical Problems, Chronic Recurring Pain
8. MINOR OFFICE SURGERY
   Including: Lacerations, Removal of Skin Lesions
9. MENSTRUAL ABNORMALITIES
10. PELVIC AND GENITAL INFECTIONS
    Including: V.D., Prostatitis, Vaginitis
11. URINARY DIFFICULTY
    Including: Infections, Obstruction
12. DIABETES
    Primary mild forms

**Composite list made up from lists submitted by Family Medical Center, Yakima Valley Clinic, Dr. James Dahlen, Dr. Nola Moore (family physicians in Seattle) and then compared with Minnesota study of content of general practice.*

How Course Objectives Evolved

The course to be taught in the Community Clinical Unit was envisioned as the basic clinical course in the Family Physician Pathway. As such, the clinical emphasis would be on common medical problems. To identify these the faculty asked physicians from an urban (Seattle) family practice and from two rural communities to survey their practices for several weeks and list the problems most frequently encountered. This list was compared with a 1955 study documenting common problems seen by general practitioners in the state of Washington[5] and with a 1968-1970 survey of those observed in Minnesota (A. J. Malerich, personal communication). The resulting catalogue, shown in Table I, was

TABLE II: Course Objectives for Family Medicine Community Clinical Clerkship

I. CLINICAL GOAL
   A. Knowledge of common clinical problems; their natural course; diagnostic and therapeutic techniques for prevention and treatment; urgency and disruptiveness of problem to patient, family and community.
   B. Skill in solving common clinical problems demonstrated by students':
      1. Integration of medical disciplines; selection of historical, physical and laboratory data; decisions on hospitalization, referral and follow-up.
      2. Maintenance of clinical records which organize data clearly and helpfully for diagnostic and therapeutic planning (use of dictaphone and of telephone for recording clinical data must also be demonstrated).
      3. Patient interviewing, inviting patient to explore expressed or suspected problems in own vocabulary.
      4. Analysis of patient's prospective health, describing potential risks and reasonable measures to reduce them.

II. COMMUNITY GOAL
   Knowledge and skill in dealing with health-related community resources, shown by students':
   A. Identifying two major health hazards in the community describing the family doctor's role with respect to them and its appropriateness and effectiveness;
   B. Reporting of his experience with two or more persons in health-related community jobs based outside the hospital and clinic, and his identification of community's health professionals and supportive agencies.

III. ORGANIZATION AND MANAGEMENT GOAL
   Knowledge of business, staff and personal management of medical practice and need for setting priorities. At clerkship's end the student will:
   A. Outline plan alloting time for self, family and community involvement while providing continuing patient care.
   B. Describe personnel (physicians, staff and allied health workers) needed in a family practice setting.

given to students to use as a checklist with which to compare their experience both before and after the clerkship. The original broad list has since been made a more specific roster of common diseases, presenting complaints, and procedures.

The department placed additional emphasis on understanding the community, utilizing its resources, and becoming familiar with medical practice, organization and management.

Table II shows the course objectives developed by the community faculty during the clerkship's first year. These objectives are reviewed and revised at quarterly meetings during which the community faculty's enthusiasm indicates their wholehearted acceptance of the challenge of designing the clerkship. At a recent meeting, for example, community faculty agreed that more attention should be given to improving the student's skill at reserving time for spouse and children, who are encouraged to accompany him or her during the clerkship. Learning to budget time for self, for family, and for community involvement, as well as for patients, is one of the organization and management goals of the clerkship. However, students have become so interested in seeing patients that they have tended to neglect their families. Faculty from two clerkship units have thus examined the role of student families during the clerkship and have suggested changes for consideration by the faculty as a whole. Community faculty also concluded that the statement of community goals for clerkship students was not sufficiently complete and called for its revision as a major item for the next session.

The community faculty has also accepted responsibility for devising strategies to meet course objectives. Faculty at one unit were dissatisfied with the visitation and observation routine initially employed to acquaint students with community resources. The group designed a case study technique requiring the student to utilize several community services in caring for appropriate patients and their families. Another group dealt with the problem by assigning the student to teach a course in the local licensed practical nursing school. This not only helps students appreciate the role of LPN's and similar staff members but also teaches them how to discuss medical subjects with laymen. After reviewing these two innovations at quarterly meetings, the community faculty adopted them for use by all clerkship units (with suitable modifications to be applied by each unit).

Adding New Units

A surge of student interest followed the opening of the first two clerkship sites. One year later the next two proposals ranked by the original selection committee were re-evaluated and in July, 1972, the clerkship was instituted in the communities of Whidbey Island and Anacortes, Washington. (Physicians from the fifth community practice near Seattle were by this time participating in the department's program in a different way, consistent with their proximity to the Medical School.)

By this time student demand for the clerkship required an additional unit. Another request for proposals was sent out, this time to all physicians in Alaska. The department estimated that from 50 to 100 of these might be eligible according to previously established criteria. Many physicians did send inquiries and showed interest. The Family Medicine chairman visited seven communities early in 1972 to explain the program. Two groups, representing six family physicians, then submitted proposals. These constituted about six percent of those potentially eligible, which was the same percentage of family physicians submitting proposals from Washington State two years earlier.

The presidents of the Alaska State Medical Association and the Alaska Academy of Family Physicians nominated four family doctors for the clerkship selection committee.

TABLE III: Current Status of Students Completing Clerkship and Graduating by June, 1974

September, 1974

	Number	Percent
Family Practice Residency-Now Completing Internships and Applying to Family Practice Residencies	60	54
	13	12
In Family/General Practice	8	7
Total FP/GP	81	73%
Internal Medicine Internship or Residency	9	8
Pediatrics Internship or Residency	2	2
Student Health Service Practice	1	<1
Total "Other Primary Care"	12	11%
Orthopedics	3	3
Surgery	4	4
Obstetrics and Gynecology	1	<1
Rehabilitation Medicine	1	<1
Anesthesiology	1	<1
Total Other Specialties	10	9%
Unknown	8	7%
	111	100%

Year of graduation:
1971= 3
1972= 7
1973= 47
1974= 54
Total 111

The University of Washington's Dean of Medicine selected two of these and two University faculty members. One of the latter was a member of an existing clerkship unit. This committee reviewed the proposals, visited both communities, and made its recommendations to the dean in fall, 1972. The new clerkship was subsequently established in Kodiak, Alaska, where the first students arrived in March, 1973.

Results

At present all five units are operating. Two have completed their third year in the program. This shows that it is indeed possible to find family physicians in rural areas who will assume teaching responsibilities for a significant period. Although the percentage of active general practitioners willing to take on this assignment proved small, this percentage so far has been consistent in both states.

Community faculty members have also shown that they will accept responsibility for the course and will develop its objectives with enthusiasm and dedication. These preceptors are now asking for more critical feedback on their individual teaching performances, revealing none of the initial anxiety and hesitation they expressed in 1971. The cooperative effort of practitioners and academicians in selecting sites for the clerkship has proved workable and valuable. One hundred eleven University of Washington students had completed the clerkship and had been graduated by June, 1974, showing that such a clerkship, offered as an elective, can attract a good number of students. Initial follow-up data on these students indicates that the overwhelming majority are now continuing toward careers in primary care and particularly in Family Practice (see Table III). Seventy-three of the 111 students (66 percent) completing the course in the past four years are presently pursuing Family Practice graduate training. Eight are already in rural or small-town general practice (7 percent). A total of 98 (84 percent) are definitely pursuing "primary care" careers. Principles for conducting a family medicine community clinical clerkship learned from this experience have been the subject of a previous paper.[6]

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