Office-based preceptorship: A creative approach to a learning and growth experience

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Flexible 4-to-8-week medical student office rotations have both advantages and disadvantages, and they involve several different teaching issues. Among such issues are whether the medical student clerkship can be standardized, yet flexible; how students can gain a meaningful experience, and what this experience should include. Other considerations include the recruitment and retention of preceptors and the issues involved when a preceptor accepts a medical student. Benefits and disadvantages exist for the medical school, the preceptee, and the preceptor. The author outlines methods of evaluating the preceptorship and suggests appropriate recourse for situations in which the goals of preceptorship are not met. The questions raised warrant more research in this area.

(Key words: Preceptorship, medical education, internship)

When students progress from medical school to an internship, they leave an institution devoted primarily to education and enter one devoted primarily to medical care. Hospital experience is essential, but unless the internship is truly educational, it fails its principal purpose.[1] The turn of the century will see varied and creative development of preceptorship programs to fulfill student educational needs. In his outline distributed at the 25th annual spring conference, Carmichael[2] underscores the office experience and suggested a change to constituency-based, person-centered healthcare. This care is distinct and individualized to each patient's needs. A constituency of patients actually defines the content of the physician's practice and, therefore, what the physician does. This change emphasizes medical and daily living problems rather than diseases alone. The best place to find and expose medical students to this concept is in the private physician's office. Precepting in an office affords a real-life experience.

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Components of preceptorship

Preceptorship affords medical students their first encounters with the daily gamut of medical challenges at a critical point in their training cycle. These encounters must be positive, meaningful, and structured experiences. Of course, experiences will be as different as different practices are. There must be a system of feedback involving all parties. Students need to walk away from their experiences having achieved at least a basic education in the practice of primary medical care rather than that of a mini-residency. The preceptorship needs to be flexible and open so that the preceptor and preceptee may enjoy the period and may explore particular areas of interest or specialty. Wilkes and colleagues[3] reinforce this concept. They affirmed that, "The medical education community needs to search for innovative, creative approaches to help our students develop the knowledge, skills, and attitudes needed to practice medicine in the next century."

Mission and goals

An educational objective is a statement of what the trainee can do at the end of his/her course of training. Unless it is observable and measurable, one would be unable to tell if the objective had been achieved. *Figure 1* provides examples of what trainees should be able to do.

Benefits of office-based preceptorship for the student

A preceptorship in a primary care physician's office benefits students in various areas of their study. It gives them a basis for:

☐ practicing family medicine;
☐ formulating their approaches to solutions;
☐ analyzing and guiding patients through managed care;
☐ understanding family systems;
☐ performing medical procedures, such as sigmoidoscopy;
☐ using the genogram and understanding the family systems and family medicine concepts, including the family charting system, if available;
☐ writing prescriptions;
☐ exploring research options available through community service;
☐ problem solving in the context and constraint of cost;
☐ becoming aware of difficult situations, unusual circumstances, extreme patients, problems faced in sexuality (homosexuality, bisexuality, etcetera);
☐ understanding the concept of families and problems that occur during the family life cycle[4];
☐ learning to interact with consultants;
☐ the practical handling of polypharmacy;
☐ dealing with the business aspects of a medical practice including:
— the handling of pharmaceutical representatives;
— making judgment calls with daily ethical practice issues;
— observation of the physician and staff interactions and decision making; and

Checklist

- ☐ Ability to describe the normal dynamics of family interaction
- ☐ Ability to describe the common effects of illness on a family
- ☐ Ability to recognize disturbances to family relationships during illness
- ☐ Ability to exhibit skill in managing disturbed family relationships resulting from illness
- ☐ Ability to encourage and foster good physician and family relationships

Figure 1. *Examples of abilities trainees should achieve.*

— learning how Occupational and Safety Administration (OSHA) regulations and *The Americans with Disabilities Act* are applied in the office setting.

Comparison with traditional hospital-based programs

It has been demonstrated that a family medicine clerkship (preceptorship) can be as intensely monitored as a traditional, hospital-based clerkship in family practice or other basic medical disciplines. There are primary medical disciplines that cannot be taught in tertiary care settings.[5] Office management, office practice evaluation, and interactions with the family and the community are examples of medical skills that must be learned from first-hand experience.

Benefits of office-based preceptorship for the family physician

The demands of a busy office may discourage a physician from engaging in a preceptorship, but many benefits may result from the experience. The physician's involvement with the office-based preceptorship provides:

☐ a stimulus to improve skills;
☐ an exposure to current concepts being taught in medical school regarding family medicine and the basic sciences (the interaction with students serves as a form of continuing medical education and as a means of maintaining enthusiasm for the practice of medicine)[6];
☐ involvement with medical students from a university that can bring family physicians back into the fold of family medicine;
☐ consistency in methods of solving problems in current medical care;
☐ time to complete charts and obtain good histories from patients with complex problems;
☐ input in the design of future medical education; and
☐ stronger ties to the medical school affording an avenue to CME and associateship.

In addition, preceptors can help to generate the students' experience and guide outcomes. This function allows preceptors the opportunity to accommodate their schedules, follow special interests, and participate actively in creative teaching and learning. For example, at the discretion of the preceptors, preceptees can view cases, videotapes, topics, or articles during break times or at the end of the day.

Curriculum

A curriculum is a chronologically ordered listing of learning situations selected to achieve specified educational objectives. It represents the expansion of a syllabus into a full course of training. The term *curriculum* is perhaps the most ambiguous term in medical education today. Should minimum goals be met during a 4-to-8-week rotation? This is a fruitful area for discussion, debate, and research. The Philadelphia College of Osteopathic Medicine has attempted to define the minimum requirements of a structured 4-week experience.[7] On completion of the rotation in family medicine, the third-year medical student should possess an appropriate level or knowledge, attitudes, and skills needed to:

■ provide personal care for individuals and families as the physician of first contact and continue in care in health and in illness.

Checklist

- ☐ Interviewing
- ☐ Giving physical examinations
- ☐ Following protocols, procedures, and investigations
- ☐ Diagnostic problem solving
- ☐ Short-term management
- ☐ Providing continuing care

Figure 2. *Tasks in which competent physicians should demonstrate appropriate knowledge and skill.*

■ assess and manage acute and chronic medical problems.
■ provide anticipatory healthcare by using education, risk reduction, and health enhancement strategies.
■ provide continuous as well as episodic healthcare, not limited by a specific disease, patient characteristics, or setting of the patient encounter.
■ provide and coordinate comprehensive care of complex and severe problems by using biomedical, social, personal, economic, and community resources, including consultation and referral.
■ establish effective physician-patient relationships by using appropriate interpersonal communication skills to provide quality healthcare.

Methods of teaching and learning

In the medical practice setting, opportunities for employing a variety of teaching styles present themselves with each new situation. Educational literature is filled with many methods and theories. Although texts abound as resources, matching the style of the practitioner with the particular student in an actual practice setting requires a more flexible approach. The methods of teaching that use description, metaphor, and labeling seem to be the most effective, according to Rubenstein and Talbot.[8] "The teacher-preceptors must learn to communicate what they know in an effective

manner by responding to the learning needs of their students."[9]

It is generally agreed that family physicians need to have the ability to recall factual knowledge, as well as having higly developed interpretive and problem-solving skills. They need to approach their work with an attitude of awareness, receptivity, and nonjudgmental acceptance of each patient's personality. In addition, competent physicians demonstrate appropriate knowledge and skill in the tasks outlined in *Figure 2*. They have a predominantly preventive attitude, and they fulfill the responsibilities of a family physician.[10]

Teaching is the facilitation of learning. For example, learning is a shared process between teacher and learner and *not* just the responsibility of the teacher. Because the trainee may not always be aware of the issues to be learned, the teacher should try to highlight these issues for the student. The teacher's job is to recognize and use teachable ("window") moments. The learner thrives in a nonthreatening environment. The learner strives to contribute from his or her own reservoir of knowledge and skills to help others (discovery learning).

Theories of learning abound. Information must be relevant for learners to be motivated and to understand the information they receive. Practice cements the process. Several types of learning exist. In *content learning*, students are fed established facts and knowledge. *Process learning* is learning by doing.

Topics covered in ambulatory settings fit into one of the three domains of learning[8]:

☐ *Cognitive domain*—those objectives that deal with the recall or recognition of actual knowledge.

☐ *Affective domain*—those objects that describe verbal skills, language attitudes, and values such as interviewing skills, and interaction with dying patients.

☐ *Psychomotor domain*—those objects listing technical or procedural skills.

Benefits of office preceptorship to the university

The practice as a teaching unit and its link to the university can offer various advantages to the medical school. The continued exchange of ideas among physicians, students, and school enhances the communication with preceptors so they may identify on time those problems that students at risk may be having.[11] Physicians may also provide to the school a sense of what is occurring in primary care practice communities. This knowledge enables the school to encourage and help direct curricular reforms. Often, preceptors can influence students in choosing a family practice residency. By working with a rural family practice preceptorship, for instance, medical students' residency selection may be affected by their new awareness and experiences in that location.[12]

The effects of the preceptorship may reduce the attrition rate of students that occurs in a period of intense medical school education. David and associates[13] presented a general view of medical care interrelationships in a 1990 study in which they indicated that a great percentage of a physician's time is spent in giving health information to patients and counseling them, as well as in dealing with personnel management and the business side of the practice. They suggested that medical schools should provide students with more training in these areas so that they are not overwhelmed in learning all these necessary skills. The preceptorship provides that practical training.[13]

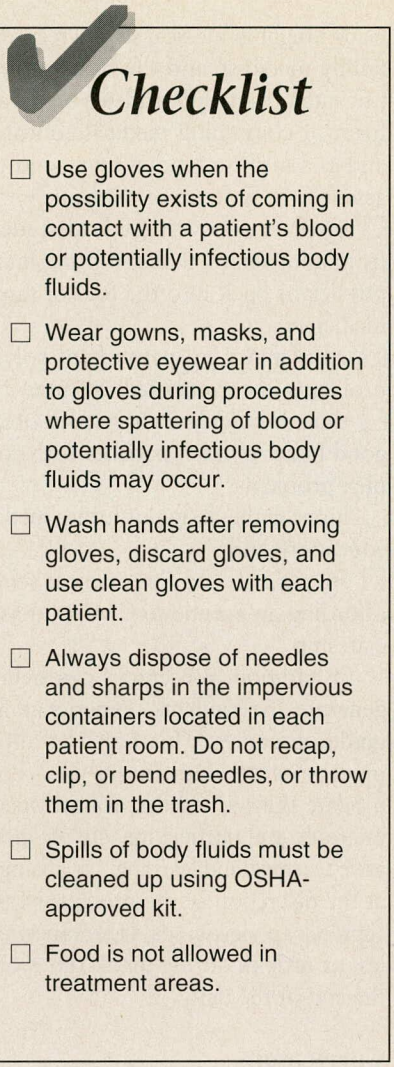

Figure 3. *Pertinent Occupational and Safety Administration (OSHA) rules governing office behavior when working with blood or potentially infectious fluids from all patients.*

Preparation of the office

Having a student in the physician's office affects the office workers and physician in predictable ways. The most apparent effect of the student's presence is on the physician's need to spend more time at the practice. Because the physician increases his or her hours at the office, the staff members often feel pressure to work longer hours also, and this may create stress for all cohorts.[14]

Preparing the office for the student's arrival may help to alleviate this stress. The preceptor must prepare the office, office personnel, the patients, and the student for the demands inherent in increasing the number of people who work together. Malpractice coverage for the student must be arranged with the sponsoring medical school in advance. Documentation must be kept on file at the preceptor's office.

Suggested preparation for the learning experience

Preceptors should establish communication with their students early by phone. They should provide directions to the office along with advice on parking and other "housekeeping" procedures. On the first day, preceptors give the students a tour of the office and introduce them to the staff as student physicians. As the students and staff become

acquainted, they work out how to address each other. Also on the first day, preceptors need to discuss office routines. These routines include objectives, following Occupational Safety and Health Administration (OSHA) rules, office resources, use of the copy machine, telephone use, and required texts. Persons of all ages and backgrounds may be carriers of bloodborne pathogens. It is important to take precautions when working with blood or potentially infectious fluids from all patients. *Figure 3* outlines pertinent OSHA rules.

When possible, preceptors should give their students an area of personal privacy. Also, preceptors can recommend a standard family medicine text as a reference, such as *Essentials of Family Medicine*,[15] to use for discussion during the preceptorship.

The first day interview should include discussion of the student's schedule, goals, and expectations. Learning lists serve as a valuable aid in organizing a student's priorities. These lists consist of short- and long-term learning objectives. The preceptors and their respective preceptees develop a list of key outcomes that they would like to accomplish during their association. They can review the lists periodically to see whether they are meeting the objectives.[8]

Preparation of the patients

Preparation of the patients begins with a sign in the waiting room informing them that a student physician is on the premises. Students must wear identification that they are medical students, and they must introduce themselves accordingly. It is essential to give patients the opportunity to decline interaction with a student.

Discussion

During lunch, preceptors provide students with the opportunity to leave the office or to watch a video on such educational topics as the family life cycle,[16] OSHA issues, medical education, the pharmaceutical industry, and introduction to the Papanicolaou smear.

Most of the teaching occurs as the students see patients. Students are treated as colleagues, although under the supervision of a consultant. Inclusion of patients is encouraged. Discussions may occur with or without the patient present, depending on the students' level of comfort and the preceptors' judgment of the estimated sensitivity of the patients. Early in the rotation, preceptors request that students watch a 20-minute standardized videotape of five short vignettes, portraying patients with psychosocial-somatic problems. This videotaped portrayal allows the preceptor to gauge the student's level of insight into these cases.

Comment

One of the potential problems in clerkships includes obtaining reliable long-term faculty who are willing to continue the students' education and who agree to meet the objectives of the medical school. Another problem is the monitoring of the students' clinical exposure and the effects of this decentralization on performance reviews (debriefing). The office can be a secure and supportive working environment for students. In family practice, teaching students particular technologic skills is secondary to teaching the delivery of integrated medical care. The emphasis in learning to practice family medicine is on the process, not solely on learning medical techniques. Physicians' offices provide an opportunity for medical students to experience this process.

The interactive and communicative dynamic of teaching and learning in physician's office between student and preceptor merits future study.

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