This pamphlet presents the thoughts of six physician mentors in family practice and their medical students, as they reflect on their practice and on the teaching or learning of clinical skills. An examination of the role of the family-practice physician as mentor may help teacher educators and cooperating teachers gain a valuable perspective on the common tasks and challenges that these two caring professions face in preparing the next generation of their members. The pamphlet analyzes the mentor’s role in terms of: (1) the mentor’s philosophy of care and how the mentor communicates his or her vision to students; (2) the nature of the physician’s teaching and mentoring, particularly in regard to how the physician gives "bad news" and deals with difficult patients; and (3) helping prepare the newcomer to tolerate uncertainty and to reflect more critically on the daily experiences of medical practice. Lessons for teacher education are discussed, emphasizing that competent cooperating teachers, like good medical mentors, are dedicated professionals who follow best practice and provide continual support and increasing autonomy to their students; cooperating teachers must make more explicit the model of problem solving and decision making they employ; and cooperating teachers need to develop ways to promote student teachers’ critical reflection. (JDD)
Doctors' Stories On Teaching And Mentoring

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Doctors' Stories on Teaching and Mentoring

by

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The chapter sponsors this fastback in honor of James V. Wigtil, professor and department chair, College of Education, Ohio State University. He has served the chapter in various capacities, including two terms as president.
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Looking into Medical Education

In this time of reassessment of teacher education, an analysis of how family physicians help train medical students for the real world of practice may be valuable in improving our substantive preparation of beginning teachers. The insights educators can gain from listening to "doctors' stories" about mentoring medical students in family practice is the focus of this fastback.

A mentor can help the young adult gain a vision of and foster the development of a professional identity. Robert Coles says of his mentor, physician and poet William Carlos Williams. "For me, to know Dr. Williams, to hear him talk about his writing and this life of medical work among the poor and working people of northern New Jersey was to change directions markedly. Once headed for teaching, I set my sights for medical school" (Coles 1984).

Daniel J. Levinson asserts in The Seasons of Man's Life (1978): "The mentor relationship is one of the most complex and developmentally important a man can have in early adulthood." Levinson believes a mentor is equally important for young women in the professions. He says, "The mentor welcomes the individual into the world of work and introduces the young adult into its values, customs, resources, and cast of characters." The mentor also serves as an exemplar that the beginner may admire and seek to emulate. He or she provides "counsel and moral support in times of stress."
Levinson also speaks to the value of mentoring to the mentor:

Being a mentor with young adults is one of the most significant relationships available to a [person] in middle age. There is a measure of altruism in mentoring — a sense of meeting an obligation of doing something for another being. But much more than altruism is involved: the mentor is doing something for himself. He is making productive use of his own knowledge and skill in middle age. He is learning in ways not otherwise possible. He is maintaining his connection with the forces of youthful energy in the world and in himself. He needs the recipient of mentoring as much as the recipient needs him. It is time that this simple truth becomes more widely known.

In medical education, third-year students undertake a number of four- to 12-week rotations at teaching hospitals or health clinics in such fields as emergency medicine, pediatrics, surgery, and family practice. In the family-practice rotations, the third-year students apprentice in the field with experienced physicians, who serve as mentors. Like cooperating teachers, these physicians tutor medical students, observe the neophytes in action, and evaluate their progress and competence.

This apprenticeship is the basis for teaching essential professional skills and for socializing newcomers to the “real world” of medicine. An examination of the role of the family-practice physician as mentor can help teacher educators and cooperating teachers gain a different and valuable perspective on the common tasks, problems, and challenges that these two caring professions face in preparing the next generation of their members.

The mentoring of third-year students by family physicians is unique in medical education. Only in the family-practice rotation do medical students have the opportunity to work so closely and continuously with a skilled medical specialist and to develop a personal relationship with a mentor. A key question for teacher educators is: How does such a mentorship program promote the professional growth of both the medical student and the mentor?
The focus in analyzing the physician's role as a mentor will be on: 1) the mentor's philosophy of care and how the mentor communicates his or her vision to students, 2) the nature of physician's teaching and mentoring, particularly in regard to how the physician provides help to the beginner in giving "bad news" and dealing with difficult patients, and 3) helping prepare the newcomer to tolerate uncertainty and to reflect more critically on the daily experiences of medical practice.

In 1989 six physicians (five males and one female) who served as mentors for a public university medical school in the Northeast were interviewed and observed at their office or clinic. Five of the six physicians maintained medical practices in predominantly white, working-class, or lower-middle-class small towns and cities. Several of these practices had Spanish-speaking and Southeast Asian immigrants as clients. One doctor's practice was in a moderate-size city near a major metropolitan center. His patients were mainly white, middle-class professionals.

All of the experienced physicians were observed interacting with patients in the examination room and with their third-year students in their offices and hallways. Third-year students also were observed performing the medical interview by themselves or in the presence of the mentor, depending on whether they were at the beginning or end of their family-practice rotation.

Throughout this fastback physicians and their medical students share their stories, reflecting on their practice and on their teaching or learning of clinical skills. As a practical method of inquiry, reflective storytelling helps unlock the richly complex but often messy world of the doctor's office, where the practicing physician is at work healing, teaching, and making a living. In retelling their stories, the central focus is on portraying the "insider's view of what is important" in medical practice (Lightfoot 1983). The doctors' stories also reveal what Schon terms "the complexity, uncertainty, instability, uniqueness, and value conflict central to the work of professional practice" (Schon 1983).
For many third-year medical students who are placed with a family-practice physician or at a health maintenance clinic, this field placement is their first sustained contact with a physician who will work with them daily on a one-to-one basis and whose practice serves a diverse clientele with a variety of physical and psychological needs. Initially, the cycle of the rotation involves observing the physician at work. Gradually, the third-year students undertake typical medical procedures, at first performing these tasks in the presence of the mentor and eventually completing the several steps of the medical interview on their own and reporting their findings to the physician.

Third-year medical students are required to follow a standard practice. Written records are kept, and the students are accountable for acting according to best practice in the field. They gain a technical understanding of best practice through methodology courses. They engage in best practice in the clinical site, where they are continually critiqued by the mentor. However, there is more to best practice than technical competence and following a standard procedure. What also counts is the "human face" of medicine — how the medical doctor views his or her role as a care-giver and attempts to structure the doctor-patient relationship in order to respond to patients' hopes and fears, as well as their physical needs.
Teaching on the Go

The six physicians in this study have an informal and authentic way of relating to patients, and also to their staffs. They have a philosophy that emphasizes empowering their patients, and this philosophy is salient in all aspects of their practice. It is communicated to the medical student principally through role-modeling and, to a lesser degree, through formal discussion and conversation. When asked how he conveys his philosophical perspective about shared decision making and empowerment to third-year students, one mentor, Dr. Arthur, responded:

I think I communicate it in a couple of ways. I think while they observe my interactions with patients, and, secondly, as I ask them to "present patients" to me, I try to involve them at the end of the session in making decisions. And whenever we get to the point of making a decision about patient care where there are some options, I always ask the students if they have discussed the preferences of the patient. If they've done it, I give them positive feedback for it; if they haven't done it, I would return with the student to complete the interview with the patient and that's where I would do the modeling of that kind of interaction.

How does the mentor go about teaching the medical student? According to a third-year student who is an apprentice to Dr. Hopkins, a physician in a small rural community:
There are different ways. We try to do it in between patients. We'll sit down and take 20 minutes for lunch, and we'll talk about certain patients we've seen that morning. We'll pick some patient who's interesting, and we'll talk about rheumatoid arthritis, how you treat this disease; and he challenges you to the point where you go back and say, "I don't know this." But he'll ask you to the point where you don't know; and then very non-abusively, he'll help you out. So we do that, and a lot of it is in the car while we drive up here. He's very much into basics. He'll break it down in a way that simplifies a very complex problem. He'll say, "Well, if you run into this problem, then you have to think about certain other problems." So it's kind of teaching on the go.

The teaching of a medical student also involves observing and critiquing the medical student in the examination room while performing the medical interview. A third-year medical student relates her experiences working with Dr. Donald, a woman physician. She says:

After the second day of the rotation, she let me go in by myself with patients. First, in her presence. I would do the interview and then "present the patient" to her. In her office, she'd give me suggestions on how to do it better; and then we'd go back in and she'd let me finish the interview with her watching. It made me nervous, but that's the way you learn. This is the time when I should be watched, because this is where I develop my skills for the future. If I do something wrong and I'm never taught how to do it right, I'm going to keep on doing it that way. So I think it's important that you're observed, and that you're given advice on what's good and what's bad about your practice. She does that!

Occasionally, a medical student gets "on-the-job" training performing a serious procedure Dr. Foster, a mentor who is known in his town as the "baby doctor," allowed a third-year student to deliver a baby. The student recalled:

One of the most memorable experiences with him was in obstetrics. I turned to the table and was getting my instruments ready when the
baby's head came out. He said, "Well, what do you do next?" And I said, "Feel for the cord." He responded, "Okay, feel for the cord." I didn't feel the cord; and I said, "I don't feel the cord." He reached in and grabbed the cord and pulled it out. I said, "How did you know there was a cord there?"

As it happened, while my back was turned, he stuck his finger in and felt for the cord and pushed it back while I wasn't looking. When I turned back and I tried feeling for it, I failed. He then taught me how to feel for a cord each and every time.

So during that kind of learning experience, he gave me a lot of feedback, right away. I think that kind of "planned" teaching exercise has helped along the way. He definitely orients it so that you learn something from every situation.

In brief, the family-practice rotation involves a great deal of on-the-spot problem solving and experimentation, as well as considerable application of theory to practice during the hectic workday. Learning occurs through role modeling, observation, coaching, and questioning, which sometimes is initiated by the physician and at other times is broached by the medical student.

As in teacher preparation, there are medical school checklists that spell out the organizational and clinical skills third-year students are expected to acquire during the rotation. Yet, just as in teacher education, what the practicing physicians feel is critical to success in their field is of equal importance and, of course, more likely to be transmitted to the student. Following are the key problem-solving skills listed by Dr. Donald, the female mentor, and Dr. Arthur, the mentor who directs the health clinic:

- Prioritizing, defining what is and what is not important.
- Organizing ideas in writing and, more important, in discussions with patients in order to ask productive questions.
- Making decisions, including taking responsibility for decisions.
- Management, particularly working efficiently in an office.
- Integrating knowledge, especially the biological and the psychosocial.
Much like the student teachers in the classroom, the third-year medical students must develop and employ complex problem-solving and decision-making skills under the pressure of time and the inevitable stresses of human interaction that are a part of the real world of practice. Initially, they must learn to focus their analysis. As Dr. Donald states: “They are just overwhelmed by the data. They need to pare down that information and focus it, see where they’re going in the interview.”

“Students usually need a lot of help being able to focus on one complaint when the patients have multiple complaints,” says Dr. Arthur. He explained that in medical school, students often are encouraged to have “the longest differential diagnosis list, because that proves you really know that stuff.” Therefore, like beginning teachers, they often have trouble distinguishing the unique from the commonplace. As Dr. Fiske states, using a traditional medical metaphor: “When you hear hooves, think horse and not zebras. When you can’t prove it’s horses, then you start looking for the zebras.”

In addition to gaining competence in focusing on the essentials and prioritizing one’s time and energy, the medical student must come to a practical as well as a deeper conceptual understanding that “illness is usually not an isolated event in a localized part of the body, but a change in a complex, integrated human being who lives and works in a particular social and family setting, and has a biological-psychological-social history” (Kirlane and Shelton 1985). Such a holistic approach to medical practice requires an interdisciplinary perspective on the continuity of care. By seeing some patients more than once in the family practice rotation, the third-year students begin to appreciate the importance of developing sustained relationships with patients. And they understand the practical value of filtering the patient’s complaints through different conceptual lenses, personal understandings, and “street knowledge” of the family and community context.
Ethical Questions: Giving Bad News and Dealing with Uncertainty

The ethical dimension of medical practice also is critical. For example, the duty to tell the truth is clear; yet to tell the absolute truth is often difficult, particularly when telling patients bad news. In 1972, the Royal College of General Practitioners suggested that physicians ask themselves these questions when holding a patient consultation:

- What must I tell this patient?
- How much of what I learned about him should he know?
- What words shall I use to convey this information?
- How much of what I propose to tell him will he understand?
- How will he react?
- How much of my advice will he take? What degree of pressure am I entitled to apply? (Royal College of General Practitioners Working Party 1972)

In giving bad news, mentors provided different answers to these questions. Their varying views on the issue reflect both their general orientation as physicians and the specific circumstances of the case. Dr. Donald relates that she gives bad news “very straightforwardly.” She explains, “I think it’s a disservice to the patient to not tell them everything. I say that across the board.”

Dr. Arthur, the director of a health clinic, has a different point of view. He explains:
I try to do it gradually. I've worked on myself very hard not to feel that I must tell the "whole truth and nothing but the truth" right now. What I try to do is tailor the bad news to what I feel that the patient can accept at any one time. Exceptions to that would be if there were some compelling reason that decisions by the patient needed to be made immediately. So I base how to tell patients bad news on 1) how much they can accept — how much they're willing to know — and 2) how much they need to know to comply with some treatment.

Other physicians held intermediate positions on relating bad news, such as Dr. Foster, the country doctor, who said: "I tell them straightforwardly. The only time I don't is sometimes the family will demand that I don't tell them if they have cancer. I'm not sure that's right or wrong. So I normally tell them; it usually works out well."

There is no consensus on best practice on this issue. The medical student eventually will have to choose between the various alternative positions.

Another substantive issue that faces all professionals is dealing with uncertainty: the problematic nature of knowledge and the equally problematic situation of practice. In medical practice, physicians daily confront the problematic and the provisional. How do the mentors cope? How do they help the third-year medical student deal with the unknown and with vague and inconclusive diagnostic data?

Even the best-prepared medical students initially will have problems dealing with the dynamics and complexity of patients' physical illness and emotional states of mind. However, as Dr. Diane Donald asserts, the time comes when third-year students have to be encouraged by the mentor:

To put your money where your mouth is. To say, "What do you think is the problem?" And to have them lay down a list of things they think it might be. I frankly don't care what their list is or whether it's right or wrong — simply the exercise of having to make a decision and set it out and say, "Okay, this is it."
Most of the mentors also believe that it is important to share their own uncertainty with the medical students and to admit to students that they have taken risks and made serious mistakes. Dr. Sherman, the urban physician, tells:

The first day my medical student was here, I had a woman with breast cancer, and it slipped through my screening. I hadn't done a mammogram. So I potentially missed the opportunity to diagnose a cancer. It might have resulted in a lawsuit, and have had a very sad thing happen to a person who loves me and knows that I've always taken care of her.

I told the medical student when he first walked in that I was worried sick about her. It turned out that she didn't have lymph nodes, and she had the same treatment that she would have had; but I didn't know that at the time. So I shared that with him right away.

He also relates to his students that “success and failure are part of being a busy doctor. You're making decisions that are important — some of those decisions are going to be wrong; and some of the ‘right’ decisions are going to turn out badly. It's a sad and horrible and tense and difficult part of our lives. But you just can't get the credit without the blame. I hate to acknowledge it, but I've made mistakes.”

As a group, the mentors also stress the professional need to recognize one's limits and not to try to do it all alone. Dr. Donald explains:

You can't do it alone; everybody has their limitations. Probably the most important thing in medicine is to realize where yours are, and then refer or suggest that patients go to somebody else, or say you don't know. I've told that to so many people who come through in medical school: No matter what specialty you go into, know where your limits are and don't cross them. You don't have to know what the disease is, but know that it's a zebra; and if it's a zebra, you probably need to refer that to somebody who specializes in that kind of zebra. But don't think you have to know it all, because you get trapped.
Working with Difficult Patients

Doctors must deal with patients they find troubling to serve, just as teachers must deal with troubling students. There are a variety of patients who are considered tough to deal with in the doctor's office: those who are always late and do not bring what they need, those who do not share what is happening to them, those who do not listen, and those who are angry or hostile.

A third-year student adds, "The most difficult patients I've seen are those I can't talk to because of a language barrier. Their cultures are so different. When somebody like that walks in with low back pain and that's all they can say, it's really hard to get a handle on the problem if you can't talk to them."

Strategies for dealing with difficult patients vary according to the specific problem and the personalities of the doctor and the patient. General approaches range from "toughing it out" by just following routine to more direct confrontation, including rejecting the patient. How do mentors handle these kinds of troublesome cases? In dealing with the hostile patient, Dr. Sherman says:

If I'm feeling hostility, I check it out with my colleagues — somebody else who's taken care of those patients, such as a medical assistant who has prepared the person or a secretary at the front desk — to see if it's a reaction shared by others. Then I try to wait for an opening to share that feeling with the patients — that I'm getting the sense from them that there's either some antagonism or unrealistic expectation that
I can cure them on my own without them giving me the information or letting me know how they feel. If I can foster a feeling of openness and trust, very often the barrier will melt away. I find that, in fact, this hostility is usually fear or very low expectations that the person developed with other doctors.

I have a belief that over time you can win somebody’s confidence and get them to see that you’re genuinely sincere and that you’re not going to go away. But, nevertheless, you are going to confront them and challenge them in order to get them out of their shell. One of my stocks in trade is how to foster and maintain a long-term relationship of trust. Without that, I think everything else we do is sabotaged and undermined. It really reinforces the healing capacity of the doctor and the patient.

The urban mentor also reports on how he confronts patients who refuse to take his medical advice:

I had a woman patient who didn’t want her kids immunized, never accepted a prescription for an antibiotic; and she disagreed with everything I said. She never wanted to take my advice. Three or four years into this, I said to her, “Look, I want to talk to you about something. You never take my advice. You don’t believe what I believe about health and illness. What’s going on? I feel really uncomfortable.” She said, “No, you shouldn’t. I really respect you. If something really serious happened to the kids, I want you to be their doctor. I do disagree with you about a lot of things, but you misinterpret it,” I said, “Fine.”

It got more interesting when she and her husband were divorced — a very messy and acrimonious divorce, kids in the middle of it. There was a court order that the kids be immunized and the mother brought the kids to me to be immunized. So I’ve come to understand that having people agree with me isn’t always necessary for me to be able to care for them.

The physicians’ stories illustrate the need for a repertoire of patient-management strategies. Medical practice is full of hard choices and the dilemma of both empowering the patient and following best practice. As much as these physicians want their patients to have control
and decision-making power in the doctor-patient relationship, they must strike a balance between that goal and the need to be guided by their professional judgment in planning and regulating treatment.

It is a matter of drawing the line. When the line is crossed by the patient and the relationship sours or is nonproductive, medical doctors must at times be challenging and confrontative and risk alienating those patients who refuse to comply or to negotiate in good faith. Prospective teachers, as well as medical students, need to reflect on this as they begin their professional practice.
Educating Patients

Educating patients is an ongoing process. Dr. Arthur explains: "Health education is probably the most important thing that I do with patients." His rationale is compelling:

There are relatively few patients who come with an acute problem for which there is a totally curative medical solution. They also need reassurance, which I believe is part of health education: "This is something that you don't need to worry about; this is something that is probably stress related; this is something that may get better if you take a vacation."

Dr. Donald feels that patient education must be ongoing, that it should not be done only occasionally:

If you are doing a physical exam and you see a lump or bump that's a nothing, say that it's nothing. If you're doing a breast exam, you teach the patient how to do a breast exam. If you're doing a pelvic exam, you tell them what you're doing and why. If a patient comes in with a cold, you talk about colds — what it means, that antibiotics won't make it better, how long it might take to run its course, what to expect. Everything you do you ought to explain to the patient: why you're doing it, what you find and what it means.

There are certain cases when patient education is the whole function of the visit. For instance, individuals come because their cholesterol is elevated. The purpose of the visit is not to tell them just that their cholesterol count is elevated but what to do about it. How it happened
in the first place, what part heredity plays and what the “good guy” and what the “bad guy” cholesterol is. The whole visit is spent in patient education. But to limit it to those times is really to limit golden opportunities. I just think that there is not an excuse to miss opportunities for education.

In many ways, patient education is another form of “teaching on the go.” For these doctors, it is an integral part of the formal and informal dialogue between doctor and patient that is observed and then practiced by medical students during their rotation.
Evaluation of Medical Students

Like student teachers, third-year students are evaluated informally during daily practice and formally at the end of the rotation, using assessment instruments provided by the medical school. In the informal assessment, the mentors attempt to provide continual feedback. Dr. Arthur explains:

I try to give them a message that there are going to be some things they know and some things they don't. If I disagree with them, we just go on. I tell medical students when I have bad things to say, just like patients. I'm telling them this because I want them to improve. It's in the interest of their education. In a mutual, collegial relationship, it's my job to give them feedback; and some of the feedback is going to be about some of the things that they don't yet do well.

For example, I'll tell them that in the next few weeks there are ways I want them to improve. They are: "I want you to be quicker; I want you to take notes; I want you to wrap up with patients so by the time they're finished with the visit, they know that they had a competent doctor-in-training today. Especially, that you know things and you want to let them know that you know: this is not small pox, it's the flu. Be more assertive about your capacity to do that, because you do know a lot; and you know a lot more than they do, believe me." I do believe it's wise to do it that way.

Dr. Donald reports that sometimes she gives feedback in the examination room with the patient.
It's not unusual for me to go in with the patient and say, "The medical student is going to tell me what she got from her interview with you, and you correct her if she's wrong." Then the patient doesn't feel like a guinea pig and uninvolved. That puts the medical student on the spot, but not in a bad way. I'll ask the student to give me the history, and then I'll ask her some questions in front of the patient. Sometimes the medical student won't know, but she'll realize that was an important thing to have known.

For example, I watched the medical student do an interview, and it was about diarrhea. The lady kept saying to her "a lot." But how much diarrhea is "a lot?" Generally, she did the interview very well. I said, "How many times a day is this lady having diarrhea?" The medical student said, "A lot." I said, "What does that mean to you, how many times a day?" Well, the medical student said that she was having bowel movements a couple of times every hour. "Well." I said, "That's 48 times. Is she having diarrhea 48 times during the day?" The medical student replied "Well, I don't know." I, in turn, said, "She kept saying 'a lot,' and that might mean that she had it twice an hour for the first couple of hours and then it trailed off and she didn't have it any more the rest of the day. For her that was 'a lot.'" So we had that interaction right in front of the patient.

Dr. Donald also will confer in her office about patients the medical student has seen. She notes, "It gives the medical student a chance to ask questions and gives me a chance to point out things that could have been better."

Dr. Arthur believes he works hard to give good feedback to medical students. The technique that he developed for the summative evaluation, which he provides at the end of the rotation, usually involves asking students to give themselves feedback. "First of all," he says, "what do they feel are their areas of strength, what are their areas of weakness? That's a good way to open up, especially areas of weakness. Then whatever I say does not come as a total surprise."

In providing ongoing formative feedback, he tries to be nontargeting. "I try to make them feel that when I give them feedback, I'm
not being judgmental," Dr. Arthur continues, "It's, of course, a very fine line to make an evaluation of somebody that's nonjudgmental. Basically, I try to take students from where they are and move them on to the next level without hurting them."

Finally, in giving criticism, Dr. Arthur lets the medical students know that evaluation is an inevitable part of the rotation. "Sometimes I may try to soft-pedal it by pointing out multiple strengths at the same time, but I think I do it in a way that I am clear about what needs to be improved as well."

The manner in which mentors provide positive and negative feedback to medical students is in certain significant ways similar to how cooperating teachers offer constructive criticism. Initially, they observe, critique, and model the behavior "on the spot," informally providing medical students with feedback during and immediately after the patient presentation to the mentor. However, after the student's competence and confidence levels are satisfactory, mentors usually do not observe the students with the patients but critique only their students' "presentation of the patient" in their offices, focusing more on the differential diagnoses and proposed treatment plan. If necessary, the mentor continues to model appropriate medical skills when the physician interviews the patient later in the examination room.

The following report from a third-year student illustrates how, during the presentation of the patient, the physician provides feedback and helps stimulate and encourage the medical student to reflect.

Usually, I'll see the patient first. He [the physician] may give me a little background on the patient. After I see the person, we'll sit and talk for a couple minutes. I'll present what I found and what I think is going on. We'll go over anything that I may have missed and discuss any questions that I may have. Then he'll ask what I think about the problem, and we'll talk about it a little bit. We then go back into the exam room. If there's anything I didn't do or something that he feels that he should repeat, he does. By watching him in that interaction, I can pick up not only on how he immediately addresses a problem,
but how he provides reassurance. Afterward we talk about it again. He's always very good about asking if there are any questions or if there is something I want to know.

Through such dialogue, there is active engagement in reflection on the part of both the medical student and the mentor. How much critical reflection occurs varies, depending on the complexity of the case, the immediate circumstances, and the goals and the motivations of both the physician and the student.

Other times during the rotation, the mentor and the beginner sit down and discuss in more depth the medical student's progress. However, such occasions generally are less frequent and tend to remain as informal conversations in which various matters of lesser and greater importance are discussed.

Finally, the medical student will be provided a summative evaluation near the end of the rotation. Depending on how this final assessment is handled, it may or may not foster substantive reflection. It can be the basis for further reflection and inquiry, or it can be just another hurdle to overcome.
Lessons for Teacher Education

Third-year students in the study value the family-practice mentorship. It provides real, practical experience in caring for generally healthy patients whose illness can usually be readily diagnosed and treated. It is a relatively safe learning environment that allows for taking moderate risks and making real decisions and for the development and refinement of medical skills.

Like apprenticeship programs in teacher preparation, the success of the family-practice rotation depends on the nature of the mentoring relationship between the physician and the third-year medical student. Like highly competent cooperating teachers, good medical mentors are dedicated, deeply caring professionals who follow best practice and provide continual support and increasing autonomy to their students. They let beginners “get their hands dirty” and “learn from their mistakes,” and they help them gain increasing medical competence. In their daily practice and interactions with students, mentors successfully nurture and enhance the students’ professional growth.

There are obvious parallels with the mentoring programs in teacher preparation, but there also are important differences. Mentors prepare medical students to work one-on-one with patients who generally come voluntarily to the doctor’s office to seek help. They usually spend 15 minutes or so with a patient and see them periodically during the year. By contrast, cooperating teachers in public schools prepare stu-
dent teachers to deal with groups of 20 or more students who are required to attend school five days a week, sometimes against their wishes.

The medical student is engaged in practice in a series of rotations over two years; the family-practice rotation is only one of many opportunities to develop clinical skills. Most student teachers undertake a full-time student-teaching practicum for the length of the academic semester, seldom exceeding 16 weeks. Student teachers have one or possibly two practicum experiences to develop and demonstrate beginning-level competence in the field of teaching, which is often as complex and formidable as medical practice.

These are clearly significant differences that must be considered when comparing the two models and discussing how key features of the family-practice mentorship may be useful to educators in improving the student-teaching experience of prospective teachers. Nonetheless, there are two substantive aspects of practice in the student-teacher mentorship that can be enhanced by the lessons of family-practice teaching and learning. These are the notion of "best practice" in the professional field and the built-in opportunities for critical reflection during the practicum.

Best Practice

While there are folkways and "sacred" traditions in any profession, best practice is a dynamic and heuristic concept, not formulaic and ritualistic. In medicine, best practice continually is informed by new theoretical knowledge and experimentation from the natural and behavioral sciences and from the ongoing conversations between the community of practicing family physicians and the medical research community. In medical practice, there also is a legal "duty to care" that requires physicians to follow standard procedures and to train and indoctrinate new physicians in those ways of medical inquiry and care.
For example, family-practice mentors are obligated to conduct the medical interview as part of their daily routine and to critique their medical students in performing this standard practice with patients. Presenting the patient — from relating the various medical histories to considering different diagnoses and treatment options — is how all doctors discuss a patient with each other; it is a methodology that medical students are expected to master. Even after hours, third-year medical students “present patients” to each other when talking informally at dinner or in their apartments. There are built-in incentives and daily reinforcements for them to become skilled at this method of medical inquiry and problem solving in all medical specialties.

In the preparation of teachers, the meaning of best practice is less clear; but it is evolving. At this point in the secondary schools, competent teachers are informed by theoretical perspectives in the disciplines they teach and in the social sciences related to cognitive growth and related issues of teaching and learning. They also engage in dialogue with colleagues in their schools and professional organizations. All of them have individual “standards of caring” that they have developed from their philosophy of teaching, their substantive study, and their daily practice in the classroom.

However, there is no standard procedure of inquiry and problem solving that has the strength and utility of the medical interview and the “presentation of the patient.” The closest that teachers have is the formulation of the lesson plan. But among most good teachers, the standard written lesson plan is neither greatly valued nor often employed in practice. Of course, competent practitioners have goals and objectives and teaching strategies for each class, and they may write down these instructional elements in individual ways. But few teachers demonstrate or pass on to beginners the importance of developing daily plans of action according to the standard lesson plan format. Rather, they often “carry in their heads” the substantive, long-term goals and questions of inquiry that will be pursued during the course and implemented over time in each class. Gaining such in-depth peda-
gogical knowledge takes some years to acquire; it usually is obtained by individual practice in the classroom.

Consequently, competent teachers’ plans of action in the classroom are highly individualized and at times more innovative and flexible than physicians’ standard procedures. Skillful teachers in the classroom often devise creative teaching strategies out of the immediate and particular needs of students in the changing dynamics of the classroom. Thus teachers come to value variety and innovation in teaching practice rather than a standard procedure. In a pragmatic sense, teachers have learned the value of adapting and tailoring their classroom teaching to capitalize on the “teachable moment” and the emerging goals that might be sparked by student discussion or interest. It helps motivate students to learn and provides more opportunities to meet both instructional goals and diverse learning needs.

There are some serious costs in not having a standard procedure for complex problem solving and decision making in the teaching profession. Without some common understandings and shared perspectives about how to develop effective plans of action for students, little progress can be made in improving general classroom practice. Innovations come and go, but the pedagogical knowledge base that teachers actually use expands slowly. Worse, beginners — student teachers and first-year teachers — learn the lesson that it is best to develop one’s own unique style of teaching and that there is little to be gained from following best practice as defined by the academic community, or even by the practicing teachers in the schools at which they learn to teach. Newcomers often adopt a social-relativist point of view — “my opinion is as good as yours” — when it comes to teaching.

Skillful teachers, particularly those who serve as cooperating teachers, must make more explicit the model of problem solving and decision making they employ in practice. Along with other cooperating teachers in their schools, they need to articulate a number of valid and workable ways that prospective teachers should go about plan-
ning effective instruction. They need to define alternative strategies, expose student teachers to their use, and provide critiques of the beginners' preparation and implementation of acceptable plans of action.

This process goes a step beyond the normal practice, in which cooperating teachers focus on critiquing actual classroom practice and only peripherally commenting on student teachers' curriculum units and lesson plans. It is a first step in developing a more encompassing and collegial standard of care and promoting more sustained, systematic dialogue about practice between the mentor and the beginner and among the mentors themselves.

It makes sense to develop for teacher preparation a practice that is equivalent to the "presentation of the patient" in medicine. There may be significant benefit in developing protocols for "presenting the student" or, in the case of large-group instruction, "presenting the class." What might such a practice look like in secondary-school teaching?

First, student teachers might take the history of a student as a learner — ascertaining how the individual has performed in the classroom by interviewing the student, the cooperating teacher, and other teachers in the school system who now have or previously had the youngster in class. Within the limits required to maintain privacy and confidentiality, the student teacher also might learn the family and social history of the student by interviewing teachers or guidance counselors and, if possible, the student's parents and members of the community who can shed light on cultural diversity issues.

In "presenting the student," the student teacher would focus on such qualities or attributes of the adolescent as the individual's learning style, proficiency in the basic skills, and degree of achievement and interest in the subject matter. If the student has a learning problem, the student teacher might interview specialists in the school to help provide an analysis of its causes and severity. Finally, the student teacher would be asked for a proposed plan for helping meet the needs of the student. After consulting with the cooperating teacher, other
appropriate school staff, and the parents, the final plan of action would be implemented and evaluated over time.

By mid-practicum, student teachers should be asked to “present the class” to the cooperating teacher and the college supervisor. At such a conference, the student teachers should discuss issues of learning and classroom management in one of the courses they are teaching. For example, how do students in the class handle reading and writing assignments, do they engage in large-group and small-group discussion, and how do they act toward each other and work with one another in the classroom? Student teachers also would be expected to discuss the teaching strategies they have employed, such as cooperative learning or classroom debates. What worked and what did not go so well? Finally, the beginners should outline their present strengths and weaknesses and provide a plan for improving their teaching, including experimenting with new teaching strategies during the remainder of the professional semester. Such a “presentation of the class” not only provides an opportunity for student teachers to reflect on their practice but also gives them a more active role in the assessment of their teaching and learning during the practicum.

**Opportunities for Critical Reflection**

The medical interview and “presenting the patient” are occasions for critical reflection by medical students. If adopted by educators, “presenting the student” and “presenting the class” would work in similar ways to promote critical reflection on the part of the student teacher. Currently, student teachers in secondary schools have opportunities for reflection in the classroom during instruction, between classes, in daily conferences with cooperating teachers, and during weekly or biweekly conferences with college supervisors. Yet these occasions often are not frequent enough, nor are they always focused on critical reflection. Even with well-qualified cooperating teachers, there may not be enough time in a hectic day to help student teachers reflect seriously on their teaching. This problem is endemic to all men-
torships in the professions. Medical mentors as well as cooperating teachers feel there is not enough time in the day to do everything.

There is a need for serious reflection by neophytes in a professional setting. The absence of such sustained reflection leads to inadequate professional growth. In addition to instituting the "presentation of the student" concept, three other alternatives merit consideration: 1) the use of daily journals, 2) the development of a multiple mentorship program, and 3) release time for cooperating teachers to perform their role more systematically.

The journal entry enables a newcomer to sort out the events of day and to place in greater perspective the interpersonal conflicts that might have occurred in interactions with students or professional staff. In a multiple mentorship program, there are other educators in the school, besides the cooperating teacher, who advise and critique the student teacher's performance. These other educators may be the department head, another experienced teacher, or the school principal. The advantage of multiple mentorship is that the student teachers have exposure to more role models.

Providing cooperating teachers with release time to perform their roles also helps to ensure that new teachers will have committed, skilled mentors with the time and energy each day to perform their responsibilities satisfactorily.

While there are insights to be gained about professional practice from an analysis of teaching and mentoring in medicine, it is important not to idealize the practicum experience for third-year medical students. Not all of the medical students are successful, and not all of the family physicians play their roles as well as the six mentors in this study. Sometimes medical students are socialized by medical specialists in certain ways that go against best practice.

The best cooperating teachers are as good as the best family-practice mentors. At their best, mentors serve as exemplars and both nurture and challenge their students in order to develop their competence and professional identity.
References


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The Phi Delta Kappa Educational Foundation was established on 13 October 1966 with the signing, by Dr. George H. Reavis, of the irrevocable trust agreement creating the Phi Delta Kappa Educational Foundation Trust.

George H. Reavis (1883-1970) entered the education profession after graduating from Warrensburg Missouri State Teachers College in 1906 and the University of Missouri in 1911. He went on to earn an M.A. and a Ph.D. at Columbia University. Dr. Reavis served as assistant superintendent of schools in Maryland and dean of the College of Arts and Sciences and the School of Education at the University of Pittsburgh. In 1929 he was appointed director of instruction for the Ohio State Department of Education. But it was as assistant superintendent for curriculum and instruction in the Cincinnati public schools (1939-48) that he rose to national prominence.

Dr. Reavis’ dream for the Educational Foundation was to make it possible for seasoned educators to write and publish the wisdom they had acquired over a lifetime of professional activity. He wanted educators and the general public to “better understand (1) the nature of the educative process and (2) the relation of education to human welfare.”

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