

Enhancing Teaching Effectiveness and Vitality in the Ambulatory Setting

KELLEY M. SKEFF, MD, PhD*

MEDICAL TEACHERS are facing a significant challenge. They are expected to educate future physicians in the knowledge, skills, and attitudes necessary to deliver quality health care to the public. Because of recent changes in the health-care delivery and reimbursement process, the need for skilled ambulatory care practitioners is increasing, and therefore faculty must be helped to improve their skills as teachers in ambulatory settings.

The increased attention to ambulatory care teaching is appropriate. Medical care in ambulatory settings is becoming a more prominent aspect of the health care delivery system. The increased costs of inpatient care, the availability of improved technology to make complex diagnoses in the outpatient clinic, and the convenience of outpatient care to the patient underscore the importance of ambulatory care.

Teaching in the outpatient setting is difficult. There are significant time pressures on faculty, students, and house staff. The need to see patients efficiently increases the burden on faculty to review cases rapidly while focusing on the patients' welfare. In addition, attempting to decrease patients' waiting time limits the opportunities for teaching about them. This focus on the patient may, by necessity, focus faculty members away from teaching.

The importance and unique difficulties of ambulatory care teaching mandate efforts to assist faculty in this role. The issues are varied and complex; many approaches will be needed. My purpose here is to offer possible approaches for individual faculty and institutions that can be used to assist faculty in enhancing 1) their teaching effectiveness and 2) their enthusiasm and vitality as faculty members.

First, I will propose a seven-component conceptual framework for analyzing the clinical teaching process and improving teaching effectiveness. Second, I will discuss issues that I believe must be addressed at the institutional level in order to enhance faculty vitality. In so doing, I hope that this article stimulates the development of mechanisms not only to assist faculty in being effective teachers, but also to improve their gratification in their role.

FACTORS INFLUENCING THE EFFECTIVENESS OF FACULTY AS AMBULATORY CARE TEACHERS

Overview

The educational framework for analyzing clinical teaching that I will present consists of seven interrelated components. It draws on principles of education and has evolved from our research over the last decade on the improvement of clinical teaching in both inpatient and outpatient settings.¹⁻⁴ We believe that a higher quality of teacher performance in these seven areas leads to enhanced learning. The components of the educational process include 1) learning climate, 2) control of the teaching session, 3) communication of goals, 4) understanding and retention, 5) evaluation, 6) feedback, and 7) self-directed learning. I hope that this conceptual framework will be useful to individual faculty members in analyzing and improving their own ambulatory care teaching. In addition, it may aid those involved in the development of teaching-improvement methods. In the following section, I will discuss how each component of the framework relates to effective teaching in the ambulatory setting.

The Seven-component Framework to Enhance Teaching Effectiveness

1. Establishing a Positive Learning Climate

Definition. "Learning climate" refers to the tone or atmosphere of the teaching environment. It reflects the degree of stimulation, enthusiasm, comfort, and excitement generated by the teaching process. The quality of the learning climate provides the answer to the question: Do students and house staff want to be in this environment as learners?

Relationship of the Learning Climate to Faculty Teaching Effectiveness. The learning climate can be influenced by the teachers, the learners, and the setting. First, a teacher can create a positive learning climate by demonstrating enthusiasm both for the content being taught and for teaching. That is, if a teacher's behaviors reflect interest in the content of ambulatory care medicine and enthusiasm for it, as well as interest in the learner, students and house staff may view learning in this setting as worthwhile. Even so, some aspects of ambulatory care teaching may diminish a teacher's enthusiasm for both the content and the learners. Because of the historical

*Associate Professor of Medicine, Stanford University School of Medicine, Stanford, California.

Presented at the Symposium on Medical Education in the Ambulatory Setting at Stanford University Medical Center, Stanford, California, June 1987.

emphasis in medical education on acute care medicine, faculty may view topics in ambulatory care as less exciting and less important than inpatient topics. Some ambulatory care teachers may see their role simply as putting in time as part of their institutional responsibility, and not as an important teaching opportunity. Conveying the importance of learning in this setting will be difficult if teachers do not believe in the importance of the topic area.

In addition to enthusiasm for the content, a teacher's enthusiasm for teaching students and house officers can also affect the learning climate. The ambulatory care setting poses challenges in this area as well. Increased faculty responsibilities, including financial pressure to see greater numbers of patients as their primary physician, may diminish enthusiasm for teaching. In addition, ambulatory care faculty frequently supervise several residents during a teaching session, so that contacts between the teacher and the learners are brief and limited. These time constraints compromise opportunities for interaction, thereby possibly decreasing faculty enthusiasm.

Learners as well as teachers influence the learning climate of ambulatory care teaching, through their attitudes toward the content of teaching, toward the teachers, and toward the integration of their ambulatory care training with the rest of their clinical training. Although learners' interest in the quality of their ambulatory care experience probably has increased, the literature suggests that they have not consistently viewed their experience as educationally useful.⁵ Studies of former house staff reveal their concerns for the quality of the ambulatory learning experience, including problems with carrying out ward responsibilities at the same time as attempting to practice and learn in the clinic setting.⁶ Student and house staff opinions regarding the quality of ambulatory care teaching, the educational usefulness and relevance of their ambulatory care experience, and the integration of that experience with the rest of their responsibilities could be sought to guide faculty to improve the learning environment.

The physical setting for ambulatory care teaching at many institutions also can be an impediment to faculty and learner enthusiasm. By addressing the following types of questions, faculty can improve this aspect of the learning climate. Is the ambulatory clinic arranged so that the role of the teacher can be efficiently and effectively carried out? For example, is there adequate room for teaching along with patient care? Is there a place for private consultation with the teaching faculty? Faculty examination of how the setting affects their teaching can provide insight into ways to control this influence on the learning climate.

2. Control of the Teaching Session

Definition. "Control of the teaching session" refers to the task-management approaches a teacher uses to focus and pace a teaching interaction. This component reflects the teacher's ability to address relevant teaching topics efficiently.

Relationship of Control of the Teaching Session to Faculty Teaching Effectiveness. This component is critical to teaching in the ambulatory setting. In most ambulatory care teaching, there is intense pressure for efficient use of time. Most clinics are busy and many are understaffed with faculty. Frequently, a faculty member must supervise and teach several students and house officers over the course of a teaching session. To teach at an effective pace, faculty physicians must make significant judgments about the needs of patients and of the learner. They then must organize an agenda that addresses both.

Teachers seldom have time to review all aspects of a patient's workup as well as to assist a learner to plan a course of action. Ambulatory care physician-faculty must focus on several issues related to patient care, including ongoing disease processes, cost of care, and health maintenance.⁷ In addition, faculty physicians are responsible for evaluation and supervision of house officers or students, while still respecting the time limitations of both patients and house officers. The pressures and responsibilities faced by house officers limit the time they have available for being taught. If faculty are either unavailable or unable to conduct outpatient teaching efficiently and effectively, house officers may postpone or even neglect important learning needs. Thus, managing the role of teacher in this setting is difficult.

To address these issues, ambulatory care faculty can examine both teaching and patient care tasks and consider the most efficient approaches to both. Attention to the following areas can improve the efficiency and effectiveness of teaching in ambulatory care: the availability of teachers to residents and students, the ability of faculty to set teaching agendas that emphasize key points of patient care and teaching, and the match between the learner's level and available teaching time (inexperienced students usually take more teaching time). I point out the issue of time availability for inexperienced students with some regret, because I believe that students early in their clinical experience can receive important and effective learning experiences in the ambulatory clinic. Nevertheless, they need time for adequate supervision and teaching. It may be necessary to assign students with different levels of experience to different clinics with different time constraints and different availability of faculty time. The use of different types of outpatient teaching settings

in a training program, including experiences in private offices, university clinics, etc., may allow appropriate matches for students with different previous experiences and needs.

3. *Communication of Goals*

Definition. This component of teaching concerns the process by which teachers establish and communicate the expectations for students and house officers. These expectations should include not only what educational experiences the learner should have, but also what attitudes, knowledge, and skills should be acquired in the learning process.

Relationship of Communication of Goals to Faculty Teaching Effectiveness. Education research has provided a useful approach to the communication of goals in varied teaching settings. It emphasizes the need for goals to be stated in behavioral terms.⁸ Too often teachers have not defined the specific, observable behaviors they would like to see in their learners in order to be certain that the educational experience has resulted in desired outcomes.

Teaching medicine in ambulatory settings, as in other teaching settings, can be improved by clear statements of goals regarding the desired knowledge, skills, and attitudes trainees need to master. Goal statements can guide faculty instruction and the evaluation of trainees to see if the institution is accomplishing its desired objectives. In medical education, there appears to be an assumption that learners somehow become aware of the key aspects of medical care to be mastered without any explicit definition of them. This assumption may cause problems in this era of change in American medicine. Goals for graduates appear to be changing, even expanding. Increased emphasis is being given to many areas, e.g., skills of interviewing,⁹ health maintenance and disease prevention, and medical decision making, including the cost-effective use of laboratory tests. The clear statement of educational goals can a) allow examination of the appropriateness of the goals for the training of future practitioners, b) guide the learners to achieve appropriate goals, and c) allow a program to assess its teaching effectiveness.

4. *Enhancing Understanding and Retention*

Definition. This category pertains to the teaching methods used in a learning experience, with specific emphasis on whether the methods used are likely to enhance the learners' understanding and retention of the educational goals.

Relationship of Understanding and Retention to Faculty Teaching Effectiveness. The primary goals of clinical teaching are to ensure that learners understand and retain important attitudes, knowl-

edge, and skills for the practice of medicine. Several teaching principles can assist in reaching these goals. To facilitate attitude acquisition, learning theories suggest, learners should have opportunities to a) consider and discuss their present attitudes, b) conceptualize their role, and c) discuss and set their own personal goals in a supportive atmosphere.¹⁰ To facilitate knowledge acquisition, teachers should present material in a clear and organized way, emphasize the key points to be remembered, and actively involve the learners in the learning process. To acquire skills, learners should practice desired behaviors with feedback and repeat exercises that teach important concepts and skills.

Although these principles may appear straightforward, they can be difficult to apply in clinical teaching. Clinical discussions often a) do not allow learners to express attitudes, b) do not explore adequately the relationships in the material being taught, c) do not have goals obvious to the learners, d) do not emphasize key points, and e) occur without adequate observation of the learners' performance. Because of the pace of teaching, the ambulatory care setting is particularly vulnerable to discussions that may not be understood or retained. Students or residents may come to a teacher seeking advice on patient management, and although the learner could benefit from an organized discussion, time constraints may lead the teacher simply to provide the advice without the discussion. This practice usually results in appropriate care for the patient, but it may not produce adequate understanding of the medical basis for that care. Organized discussions with emphasis on key points are necessary even in these brief interactions.

In many institutions, the interaction of trainees with patients and attending physicians is the predominant ambulatory teaching method. Teachers may be relying too much on this approach for learners to reach all learning goals, including the acquisition of appropriate attitudes, knowledge, and skills. In fact, some studies suggest that the traditional approach to outpatient teaching is ineffective for many educational goals.¹¹ In addition, our own research experience with attending physicians suggests that clinical teachers may overestimate the learner's capacity for mastering and assimilating information that is discussed during usual clinical teaching interactions.

A variety of teaching methods, including computer-assisted instruction, videotape review, interactive videodisk, and simulated patients, may provide important synergistic learning experiences in clinical rotations. We are currently analyzing the data from a pilot study testing the feasibility of using alternative teaching methods (computer-assisted instruction, interactive videodisk, and videotape review) as part of the Stanford clinical clerkships. Pre-

liminary results support incorporating these methods into the clinical experience. Some institutions are already beginning to implement alternative teaching methods as part of the clinical rotations.^{12, 13} Further research is needed to examine their effectiveness as well as optimal ways to incorporate them into the clinical experience.

5. Evaluation

Definition. In teaching, evaluation consists of the processes used to determine whether learners are achieving desired goals, e.g., knowledge, skills, and attitudes. Evaluation may include observation or questioning of a learner to examine his/her abilities. At least two types of evaluation are possible; in educational terminology, they are called formative and summative. Formative evaluation can be conducted throughout an educational experience. The information gained can guide the teacher in planning future educational experiences to help the learner master desired goals—i.e., this evaluation helps the learner. In contrast, summative evaluation is an assessment of the learner at the end of a teaching experience to judge the learner's final competence. Such evaluation is intended to ensure that the learner has achieved minimum standards.

Relationship of Evaluation to Faculty Teaching Effectiveness. In clinical teaching, both formative and summative evaluation are useful. Faculty need to obtain systematic and adequate information about the learners' competencies in order to assess the effectiveness of the education. But the process of evaluating learners is not easy. First, in spite of its critical importance, evaluation is often uncomfortable for teachers and learners alike. The discomfort is increased by the tendency to see evaluation as a final judgment (summative) and not as an ongoing process to help the learner (formative). Second, evaluation takes time. Regardless of the methods used, the process requires time whether one is assessing the learners' attitudes, knowledge, or skills.

Evaluation in the outpatient clinic is especially difficult. Because of the nature of ambulatory patients and the time constraints, students and house staff usually make brief and limited presentations of the patients to the faculty. Thus the opportunity to evaluate the learner is often limited. Time constraints may preclude a thorough evaluation of the learner. Questioning and observation take time. Evaluation methods such as tests, standardized patients, and videotape reviews of trainee-patient interactions also take time that can seldom be spared. In an institution where house staff and students were videotaped with patients, the recordings were never reviewed with faculty because time was unavailable. In spite of such impediments, the evaluation process by the individual teacher is so critical to the

educational process that it deserves significant attention.

6. Feedback

Definition. Feedback consists of the process by which the teacher provides information to the learners about their behavior for the purpose of improving their performance.

Relationship of Feedback to Faculty Teaching Effectiveness. Like evaluation, feedback is critical to learning ambulatory care. Also like evaluation, it takes time and skill. Using feedback, teachers inform the students and house staff of their observations of the learners' performance. Specifically, the process should inform, reinforce, or praise trainees when their performance is acceptable to excellent, and inform and constructively criticize learners when their performance needs improvement. The ability to provide feedback skillfully can enhance both faculty effectiveness and gratification. Seeing a learner improve in response to feedback is a highlight of the teaching role.

Feedback is facilitated by several of the previously discussed components of the teaching process. For example, a comfortable and respectful learning environment can facilitate giving both positive feedback and constructive criticism. An explicit statement of goals can provide the standards for feedback. Evaluation of trainees' performance provides the basis for determining appropriate feedback. Finally, and critically important for outpatient teaching, teachers must control the teaching session to ensure time for feedback.

Like the other components of teaching, providing adequate and effective feedback in the ambulatory care setting is difficult. Our own research and the literature^{14, 15} suggest that feedback to learners is often done poorly or infrequently. Not enough teachers are skilled in providing feedback. The skill to inform others about their strengths and problem areas does not come naturally. The process may make teachers uncomfortable, may lead to disagreement, and takes time. Therefore, it may be avoided altogether. The infrequent occurrence of feedback is also tied to the nature of the interrelationships among the various components of the educational framework. If other components of the teaching process are performed suboptimally, the feedback process can be impeded. In addition, because of financial pressures to see increased numbers of patients at a rapid rate and humanistic reasons to not keep patients waiting, faculty have limited time to discuss individual patients with trainees. Finally, they have inadequate time for observing students and residents in their interactions with patients; thus evaluation, a necessary precursor to feedback, may be limited to assessment of the trainees' discussions of their patients.

7. *Self-directed Learning*

Definition. Self-directed learning refers to an individual learner's initiative to identify and act on his/her needs, with or without the assistance of others. This component of the framework includes the processes by which a teacher encourages learners to use methods to continue learning throughout their career, e.g., encouraging further reading, encouraging learners to identify and respond to their own limitations, encouraging asking questions and getting consultation when appropriate, and so forth. Self-directed learning embodies the processes that keep a person excited about and current in his or her field.

Relationship of Self-directed Learning to Faculty Teaching Effectiveness. Modeling and teaching self-directed learning behaviors may be some of the most critical activities of effective teaching. These teaching approaches foster in learners the development of life-long learning habits, a critical aspect of professional behavior. In order to foster self-directed learning, teachers must be able to identify, by themselves and with their learners, topics that deserve further investigation because of either the needs of patients or the intrinsic interest of the topic. By capitalizing on topics that are controversial, not well understood, or simply exciting, teachers can motivate learners to conduct further investigation.

In addition to fostering self-directed learning in learners, ambulatory care teachers must themselves become strongly motivated as self-directed learners in order to keep up to date in their fields of medicine. As patient workups shift from the inpatient to the outpatient setting, outpatient medical care is increasingly complex; therefore, ambulatory care teachers must have learning habits that keep them current.

Ongoing acquisition of knowledge beyond one's particular medical field is essential for ambulatory care physicians (teachers and trainees alike). For example, the opportunity for physician intervention in preventable diseases is optimal in the outpatient setting. Thus preventive medicine must assume increased importance in the teaching by ambulatory care faculty. Medical decision making is another field with the potential for broadening the curriculum of ambulatory care through its impact on outpatient practice. Medical decision-making concepts are being used more frequently to evaluate the cost-effectiveness of tests used in the outpatient setting. These approaches may be useful for individual physicians in deciding on the use of medical technology in the care of their patients. In addition, since these concepts may affect policy changes in reimbursement for medical care, ambulatory care

teachers will need to become knowledgeable about this new area in the field of medicine.

Finally, because of the stresses on ambulatory teaching, ambulatory care teachers may need to acquire knowledge about new teaching approaches to complement the clinical experience. Becoming familiar with computer-assisted instruction, interactive videodisk, videotapes, videotape review of a learner's clinical behaviors, simulated patients, etc., may be important for many ambulatory care teachers.

Future Directions for Improving Teaching Effectiveness

A significant portion of the responsibility for the training of future physicians rests with clinical teachers. Therefore, efforts to improve their effectiveness must be supported. Videotape ratings of clinical teaching interactions¹⁴ and attending physicians' identification of aspects of teaching needing improvement¹⁶ indicate deficiencies in all components of the educational framework. Broad-scale assistance for faculty in their clinical teaching role is long overdue. The many reasons for this delay include: a) the lack of frameworks for analyzing the educational process, b) the lack of teaching improvement methods that have been proven effective and acceptable to teachers, and c) the lack of institutional support for teaching improvement efforts.

I hope that the seven-component educational framework presented here will provide direction for further evaluation and improvement of clinical teaching. Further research is needed to determine a) the educational impact of the teaching behaviors specific to each component and b) the interrelationships among the components. Although the specific nature of the interrelationships is not yet well understood, our research indicates that instructional effectiveness can be enhanced through improvement in each of the components.² We are currently studying this model further in order to understand better the process of clinical teaching.

In addition, further research should focus on the development of more effective and acceptable methods to improve individual teaching performance. Funded by the Department of Health and Human Services Grant and Contract Programs, a number of projects are currently addressing this need. Among these is the national faculty development program being created at Stanford. It is designed to disseminate training in clinical teaching skills, preventive medicine, and medical decision making across the country. Selected faculty members from other institutions come to Stanford to be trained to lead seminars in these important areas for colleagues at their home institutions. Preliminary evaluation of this program indicates that this dis-

semination model can significantly improve teaching in these areas. Continued research on this and other teaching improvement methods is critical to the ultimate goal of assisting clinical teachers to be more effective.

Finally, institutional support will likely be necessary for continued faculty interest in teaching improvement. In the following section, several institutional approaches are discussed.

IMPROVING THE VITALITY AND ENTHUSIASM OF TEACHERS IN THE AMBULATORY CARE SETTING

Making ambulatory care teaching exciting and gratifying is not a straightforward task. In the previous section, I discussed aspects of teaching that can make instruction more effective. Being skilled and effective as an instructor is useful; nevertheless, effective teaching is only one factor that can keep faculties excited and vital. In this section, I will discuss several institutional factors that can influence faculty vitality. These factors will be discussed as they relate to faculty attitudes, knowledge, and skills.

The Institution's Role in Improving Faculty Attitudes

An institution's emphases can affect its faculty's attitudes toward their role as teachers, and a teaching institution can improve these attitudes in several ways. First, institutions and departments should promulgate clear statements of institutional and departmental goals regarding ambulatory care teaching. Statements of goals are especially important to faculty at this time of change in medical education. That is, what does the institution feel is important: ambulatory care teaching? faculty seeing patients as their primary physicians? being inpatient attending physicians? conducting high-quality research? If an institution wants its faculty to emphasize ambulatory care teaching, these goals must be communicated clearly and effectively. In their review of the literature on faculty vitality, Bland and Schmitz¹⁷ noted that several authors emphasized the necessity of matching institutional goals with the personal goals of the faculty. The institution must create an environment conducive to its teachers' meeting these goals.

Many faculty members have an intrinsic desire and enthusiasm for teaching, but they are drawn in several directions with various responsibilities. Without a clear emphasis on the importance of clinical teaching in the ambulatory setting, they will understandably spend less time concentrating on this role. The literature in the fields of medicine¹⁸ and

higher education in general¹⁹ indicates discordance between faculties' and administrators' perceptions of institutional goals. The high emphasis on teaching perceived by administrators strikingly contrasts with the lower emphasis perceived by faculties, and as a result one finds less emphasis on teaching.

Second, in addition to making overt statements of goals, administrators should look for other institutional factors that may minimize the importance of ambulatory care teaching. For example, are there adequate support and personnel for ambulatory care teaching? As described in the preceding section, many aspects of teaching can improve teaching effectiveness. Administrators must realize that teacher efforts in these areas (e.g., the development of explicit educational goals and effective evaluation mechanisms) take time and personnel. Demonstration of institutional support for these activities is critical to reinforce faculty interest.

A study of medical graduates has documented the desire for greater numbers of attending physicians and increased teaching in ambulatory clinics.⁶ If clinics are inadequately staffed for teaching, the pressure on teachers and the anxiety of students and house staff may reduce the pleasure derived from this educational experience as well as its effectiveness. This problem may be compounded if clinics try to use innovative teaching techniques such as a review of videotapes of trainee-patient interactions. These techniques take teacher time and thereby increase staffing requirements.

Adding new responsibilities to the already busy faculty members compromises previously established responsibilities, such as teaching. For example, in many institutions faculty members are being asked to see more patients as primary care physicians, leaving them even less time for teaching. They may consequently perceive that their institution views teaching as less important than patient care and feel less enthusiastic about their teaching.

Institutions also affect teacher attitudes in a third way, through their reward systems. Dedication to teaching may be most dependent on a faculty member's intrinsic reward system, that is, his or her own personal gratification. In this era of heavy workloads and multiple responsibilities, however, faculty may also respond to the extrinsic reward system of the institution. Feedback on teaching efforts from the division, department, and institution can reinforce dedication to teaching and shape future teaching activity. This feedback can be based on learner ratings of teachers or on other evaluative mechanisms. Monetary rewards, such as pay raises, might be associated with the feedback. It is important to note, however, that wage increases and monetary rewards are not always the most important form of feedback. Studies of other faculties in

higher education reveal that teachers weigh highly other types of feedback that reflect their own self-worth and their contributions to the organization.²⁰ It is important for the institution to examine its system of rewards for teaching and see if it is adequate.

A fourth way for institutions to affect teacher attitudes is by increasing the salience of the area of ambulatory care teaching. If ambulatory care teaching is seldom discussed in an institution, the area is unlikely to be perceived as important. The frequency of presentations on ambulatory care training and the settings of those presentations reflect the institution's emphasis on the topic. Making the topic salient can positively influence the awareness and attitudes of faculty. The Stanford conference of which this paper is a part is in itself a good example of increasing the salience of the topic at both local and national levels. Giving ambulatory care topics high visibility within the medical school curriculum is appropriate. Students and house staff are heading into a new era of medical practice, with new challenges, problems, and opportunities in ambulatory care. It is incumbent on training institutions to prepare trainees for this new era by focusing on its importance.

Fifth, involving the faculty and house staff in institutional planning can improve attitudes. Allowing teachers and even house staff to reach a consensus on goals for ambulatory training may help faculty attitudes and morale. Faculties should play an important role in decisions regarding the emphasis that their institutions place on this area. They must be involved in the decisions regarding the curriculum to be taught, since they must take ownership and responsibility for its success.

Involving house staff in decisions regarding ambulatory care teaching can improve their attitudes toward that activity. A 1983 study²¹ indicates that there may be a high concordance between faculty and house staff views of teaching in ambulatory care. Collaborative efforts (including faculty, administration, and house staff) to examine the methods and effectiveness of ambulatory teaching can lead to improved attitudes.

Finally, the physical setting for ambulatory care teaching can affect faculty, student, and house staff attitudes. The pressure for time, the availability of faculty, the comfort of the setting, the tone of the medical care team toward the patients, etc., can all affect the attitudes of both teachers and learners. Several institutions have responded to this concern by using a variety of sites for ambulatory care teaching. Continued investigations are needed to develop more effective and enjoyable settings for ambulatory care teaching inside and outside major medical centers.

The Institution's Role in Improving Faculty Knowledge

In addition to improving faculty attitudes, institutional factors can play a part in assuring that faculty are knowledgeable teachers. If the teaching situation is uncomfortable for teachers because they lack adequate knowledge, they will be less effective and less enthusiastic. With the rapid growth of important topics in ambulatory care (e.g., new aspects of ambulatory treatment, the patient-physician interaction, issues of cost of care, etc.), ambulatory teachers are taking on an even larger role than before in medical education.

Two approaches may be necessary to address this expanding content area. First, faculty members may need new knowledge and skills. It may be necessary to provide continuing medical education for them in important aspects of ambulatory care, both general and subspecialty. In addition, all faculty members should probably have a better understanding of the changing political, financial, and social pressures on future physicians. We are training doctors who will face new issues in their practice of medicine, and the content of our teaching should reflect these issues. In addition to improving faculty knowledge through continuing medical education, it may be necessary to select particular teachers with special expertise in one or another of the expanded curriculum areas of ambulatory medicine.

The Institution's Role in Improving Faculty Skills

An important lesson drawn from our experience in assisting faculties as teachers is that acquiring teaching skills is not easy. Faculty members are being asked to perform multiple tasks, as teachers, administrators, physicians, and scientists. For many of these tasks, they are not trained. It has been assumed that skillful performance of these tasks is a natural consequence of taking on these roles. Frequently, this assumption is erroneous.

Methods are being developed to provide skills training for faculty. Our own research indicates that faculty can acquire teaching skills that make them more effective and enthusiastic, especially if faculty development programs are responsive to the time constraints on teachers. Participation in faculty skill improvement is often a low priority; more pressing daily tasks usually take precedence. Those of us working in faculty development must continue to create more effective methods. At the same time, however, institutions must acknowledge that faculty need to acquire important skills, and that they may need support and the opportunity to acquire them.

CONCLUSION

Ambulatory care faculty are taking on a role of unprecedented importance. Development of methods to assist them in this important role is essential. I have not attempted to include all possible approaches to improve faculty effectiveness and enthusiasm in this paper. Nevertheless, I hope that the framework used in this article will provide a basis for thinking about the roles of ambulatory care faculty and the support system they need to remain effective and enthusiastic. These teachers are important to the changing field of medicine and medical education. They now deserve our attention.

The author gratefully acknowledges the editing assistance provided by Dr. Georgette Stratos and thanks Drs. Frank Stritter, Carole Bland, and Peter Rudd for their reviews of drafts of the manuscript.

REFERENCES

1. Skeff KM. The evaluation of a method to improve the teaching performance of the attending physician. *Am J Med* 1983; 75:465-70
2. Skeff KM, Campbell M, Stratos G. Process and product in clinical teaching: a correlational study. *Proceedings: Research in Medical Education (RIME)*, 1985; 25-30
3. Skeff KM, Stratos G, Campbell M, Cooke M, Jones H. Evaluation of the seminar method for improving clinical teaching. *J Gen Intern Med* 1986; 1:315-22
4. Berman J, Weise-Slater SM, Bergen MR, Skeff KM. House officers' and independent observers' ratings of clinical teaching. *Clin Res* 1987; 35:730A
5. Kosecoff J, Fink A, Brook RH, et al. General medical care and the education of internists in university hospitals. *Ann Intern Med* 1985; 102:250-7
6. Kantor SM, Griner PF. Educational needs in general internal medicine as perceived by prior residents. *J Med Educ* 1981; 56:748-56
7. Kroenke K. Ambulatory care: practice imperfect. *Am J Med* 1986; 80:339-42
8. Mager RF. *Preparing instructional objectives*. Belmont, CA: Pitman Learning, Inc., 1984
9. Lipkin M, Quill TE, Napodano RJ. The medical interview: a core curriculum for residencies in internal medicine. *Ann Intern Med* 1984; 100:277-84
10. McClelland DC. Toward a theory of motive acquisition. *Am Psychologist* 1965; 20:321-33
11. Jones JG, Cason GJ, Cason C. The acquisition of cognitive knowledge through clinic experiences. *Med Educ* 1986; 20:10-2
12. Moore GT. HMO's and medical education: fashioning a marriage. *Health Affairs* 1986; 147-53
13. Ende J, Pozen JT, Levinsky NG. Enhancing learning during a clinical clerkship: the value of a structured curriculum. *J Gen Intern Med* 1986; 1:232-7
14. Skeff KM, Campbell M, Stratos G. Evaluation of attending physicians: three perspectives. *Proceedings: Research in Medical Education (RIME)*, 1984; 277-81
15. Ende J. Feedback in clinical medical education. *JAMA* 1983; 520:777-81
16. Skeff KM, Campbell M, Stratos G, Jones H, Cooke M. Attending physicians' assessment of the seminar method for improving clinical teaching. *J Med Educ* 1984; 59:944-50
17. Bland CJ, Schmitz CC. Faculty vitality on review: retrospect and prospect. Paper presented at the AERA Meeting, San Francisco, CA, 1986
18. Gjerde CL, Colombo SE. Promotion criteria: perceptions of faculty members and departmental chairmen. *J Med Educ* 1982; 57:157-62
19. Nelson WC. The AAC project on faculty development: content, process, and motivation in faculty renewal. *Liberal Educ* 1980; 66:208-9
20. Bland CJ, Schmitz CC. Characteristics of the successful researcher and implications for faculty development. *J Med Educ* 1986; 27:307-10
21. Stritter FT, Baker RM, McGaghie WC. Congruence between residents' and clinical instructors' perceptions of teaching in outpatient care centres. *Med Educ* 1983; 17:385-9