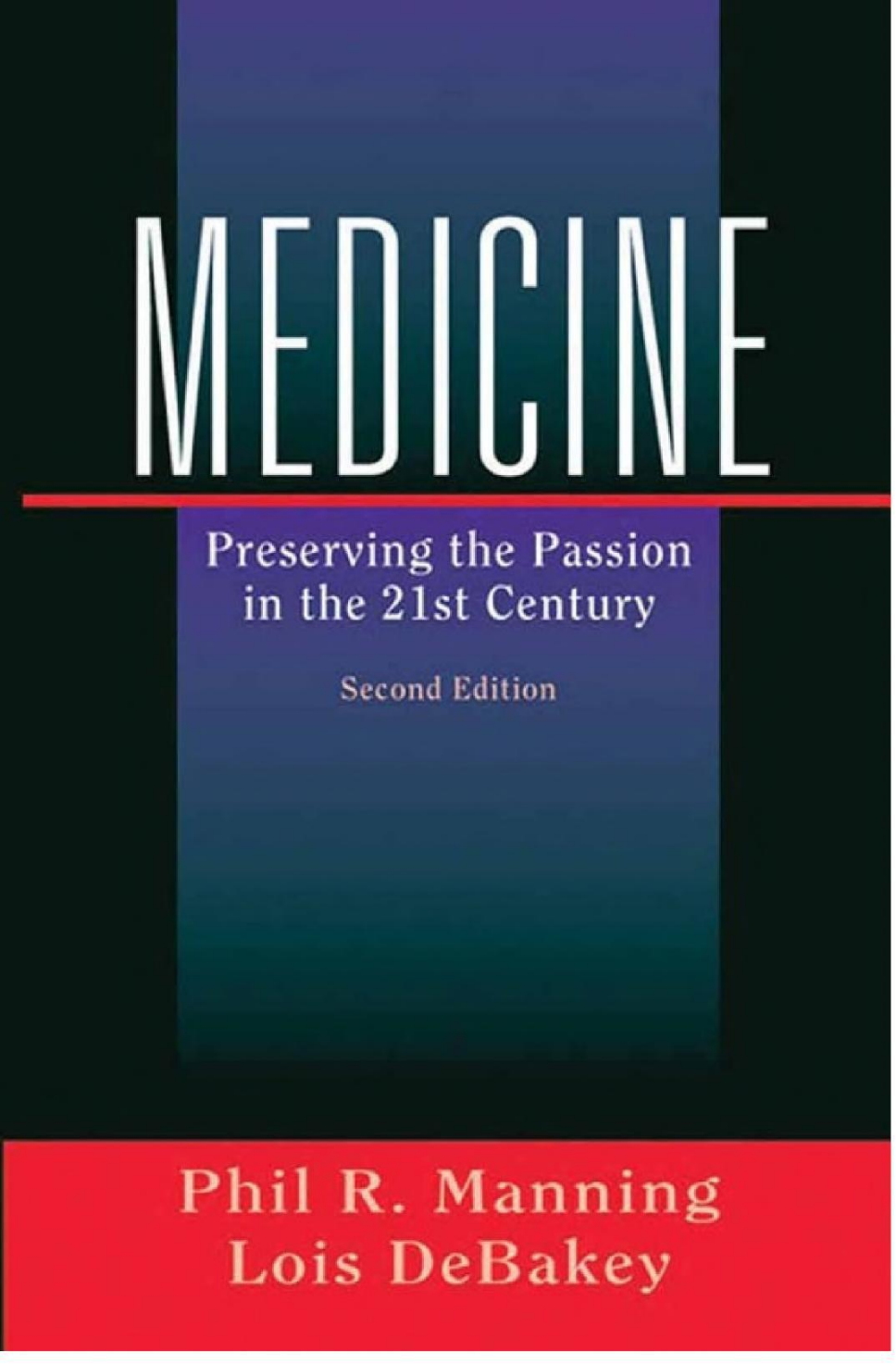

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Introduction

No one denies that physicians must be lifelong students. Self-directed and practice-linked learning are also well accepted in principle, but techniques that enhance their execution have not been emphasized in medical schools. By the time physicians enter residency training and practice, many have become too busy to develop their own methods. As a result, they lose the opportunity to profit maximally from their experience. Classroom instruction has therefore been called upon to perform functions that it is ill-equipped to do.

Since the turn of the century, the classroom has dominated continuing medical education in the United States. In 1906, the American Medical Association (AMA) sent J. N. McCormack to several states to stimulate interest in postgraduate education. Under this stimulus, several states began to organize courses. At the request of the AMA, John Blackburn, Director of the Bowling Green County Society in Kentucky, submitted a national plan and designed weekly programs on basic sciences and therapy for use by county medical societies.[1]

By 1909, about 350 county societies were sponsoring programs,[2] but because of a decline in attendance, these were ultimately discontinued. In 1916, W. S. Rankin, a North Carolina state health officer, developed circuit courses that took education to rural physicians. The instructors traveled to various communities delivering lectures and discussing the diagnosis and treatment of patients brought in by class attendees.[3]

In 1927, the University of Michigan established the first department of postgraduate medicine within a medical school.[1] Eight years later, John B. Youmans, under the aegis of the Commonwealth Fund, made surprise visits to 30 physicians in small towns and rural communities of Tennessee who had completed formal postgraduate courses at Vanderbilt University School of Medicine and graded them against a standard developed to assess improved quality of practice.[4] Although there was no precourse visit for comparison, Youmans decided that practical programs dealing

with patients and technical procedures were more beneficial than didactic lectures.

In 1932, the Commission on Medical Education of the Association of American Medical Colleges concluded that "Continued education of physicians is synonymous with good medical practice ..." and called for cooperation of medical associations, medical schools, and hospitals in conducting comprehensive programs of postgraduate education.[5] In 1936, the University of Minnesota constructed the first permanent center to house continuing medical education. Four years later, in accordance with a resolution adopted by the Advisory Board for Medical Specialties, the Commission on Graduate Medical Education was organized. The Commission, led by Willard C. Rappleye, concluded that undergraduate medical education did not strongly motivate busy practitioners to pursue continuing education.[6]

After World War II, the W. K. Kellogg Foundation awarded grants to 18 medical schools to broaden and innovate continuing medical education.[7] Since then, the growth of formal continuing medical education has been explosive, with hospitals, medical societies, and medical schools acting as the main sponsors. Mandatory continuing medical education and accreditation of organizations offering courses further stimulated the growth of postgraduate classroom instruction. Thus, the emphasis on formal classroom courses has overshadowed individual methods linking education more directly to the physician's own practice. The concept of lifelong learning, in fact, has seemed almost locked in the classroom.

Despite the continued emphasis on classroom education, various authorities, including Osler Peterson,[8] George Miller,[9] John Williamson,[10] and Clement Brown,[11] have demonstrated the limitations of formal continuing education. Miller and his followers have advocated that physicians analyze their practices to identify specific educational needs and thus direct their own education efficiently. In Miller's words, "... the practitioner-learner must progress steadily from listener to questioner to participant to contributor."[9]

Medicine: Preserving the Passion in the 21st Century calls attention to the systematic methods that physicians have used to continue their learning, hone their skills, and benefit maximally from

their experience. Although traditional classroom approaches will continue to be useful, we expect a major shift in emphasis, if not a revolution, away from the conventional classroom enterprise to individual techniques devised by physicians to address their own educational requirements. The major advances in information technology have converted self-directed, practice-linked continuing medical education from a desirable dream to a reality within our grasp. With the advent of “managed” care, lifelong learning is more important than ever, not only for optimal healthcare delivery but also to preserve the passion for medicine.

PHIL R. MANNING, M.D.
LOIS DEBAKEY, PH.D.

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1
Enjoying the Struggle

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In a highly regimented, regulated, or restrictive environment, medical practice can frustrate, oppress, and enslave—unless the physician holds his noble purpose uppermost in mind. In a humanitarian and intellectually stimulating environment, on the other hand, medicine can be intriguing, exhilarating, and engrossing. It is the continual search for ways to maintain or restore health and well-being to patients and the achievement of that goal that preserve the passion for medicine.

LOIS DEBAKEY, PH.D.

At once one of the most demanding and most rewarding of all professions, medicine can be tyrannizing or exhilarating. If the pressing responsibilities, sensitive interpersonal relationships, and strenuous time pressures in caring for patients are allowed to escalate to tedium or drudgery, the passion for medical practice will vanish. If patient care becomes overly demanding, onerous, or boring, enthusiasm and pleasure will fade, and both patient and physician will suffer. But that does not have to happen. The practice of medicine is admittedly a strict taskmaster, requiring daily decisions about puzzling, often life-threatening illnesses, as well as

constant awareness of the newest, most authentic information. But medicine also offers endless opportunities for enjoyment, satisfaction, and exhilaration through intellectual advancement and service to patients.

Can physicians organize their daily work to make the practice of medicine more gratifying? Our extensive communications indicate that those who immerse themselves most deeply in clinical work derive the greatest fulfillment. Such engagement includes daily reading and interacting with colleagues about medical problems, continually examining the nature and results of practice, and modifying performance accordingly. Physicians who practice such immersion base their continuing education largely on the puzzling problems that arise in their practice (individual patients as well as aggregate practice) and the defects they uncover in their performance. And they take prompt remedial steps. The result is improved patient care, gratification, and gusto.

We are not advocating that physicians limit their potential for fulfillment and satisfaction to medical practice, since family, friends, the arts, sports, and hobbies all offer additional rewards. Physicians cannot, however, escape spending inordinate time in practice, so it behooves them to find ways to make the long hours more pleasurable and gratifying. Patients of physicians who enjoy their work, moreover, receive the best care. This book shows how some outstanding physicians have kept the flame of professional fervor alive despite excessive demands on their time and energy.

THE NEED FOR LIFELONG LEARNING

All good physicians realize that they must perpetually revise their knowledge base; they must discard and add continually. Underlying lifelong study are the need to remain aware of the state of medicine, the need to find solutions to specific problems in practice, and the desire for intellectual stimulation, with its attendant personal and social pleasure. The patient is the ultimate beneficiary of all.[1, 2] In Garrett Lynch's words, "Lifelong learning is indispensable to maintaining zest for medical practice. One of the greatest joys of medicine is its dynamism, continuously building on, and adding to, previous knowledge—an exciting phenomenon to experience daily.

And to see a patient with a metastatic testicular malignancy, for example, finish college, establish a career, and have children makes all the diligent, time-consuming work worthwhile."

REWARDS FROM LEARNING FROM EXPERIENCE

Some of the benefits of lifelong learning are subtle, whereas others are more obvious.

Confidence, Self-respect, and Pride

A primary reward of an expanded intellect is greater self-confidence. As Osler wrote, "If you do not believe in yourself how can you expect other people to do so? If you have not an abiding faith in the profession you cannot be happy in it."[3] Paul Sanazaro agreed: "You need the motivation that stems from pride and security in your knowledge. You must know what you are doing and how it compares with the best you can do; any discrepancy should prompt you to do better." A driving force among the outstanding physicians whom we interviewed is their pride in performance—a desire never to be or seem professionally inadequate.

Enjoyment

Since people tend to invest more of themselves in what is enjoyable, patients benefit when physicians like their work. Emphasizing the salutary relationship of work and pleasure, George Bernard Shaw, in *John Bull's Other Island*, looked forward to a commonwealth where "work is play and play is life."[4] Osler was fond of quoting John Locke's definition of education as a relish for knowledge. "Get early this relish," Osler advised, "this clear, keen joyance in work, with which languor disappears and all shadows of annoyance flee away."[5]

Irvine Page described the engrossing quality of medicine thus: "Medicine makes life worthwhile. If you lose that attitude at any point in your life, you have essentially lost your life. You can combat that danger by remembering that medicine is a grand and rapidly possessive discipline that requires a lifelong interest in things

human. If you give that up at any time in your practice, you are lost."

"The method a physician selects for lifelong learning must give pleasure or other rewards," said Eugene Stead, "because human beings will not continue a program that does not have tangible dividends." To make lifelong learning enjoyable, physicians need to organize their time and practice to allow for regular, but not necessarily rigidly scheduled, study in a pleasant, relaxed atmosphere—one that is comfortable, uninterrupted, and unhurried.

The merging of personal and professional pleasure is not uncommon among eminent physicians. To some physicians, the greatest pleasure in medicine comes from seeing a patient improve, and that pleasure is dependent on steady learning. As Michael DeBakey put it, "In medicine, helping others while solving complex intellectual puzzles is our special reward."

ATTRIBUTES TO BE NURTURED

Curiosity

> Curiosity is, in great and generous minds, the first passion and the last....
>
> SAMUEL JOHNSON[6]

"In research," said Baruch Blumberg, "and probably also in practice, maintaining and fostering curiosity—the ability to ask questions each time a new phenomenon occurs—is indispensable." Most physicians we interviewed considered an insatiable curiosity to be innate or to be established in early childhood, but they also recognized the need to nourish it. The drama and complexity of medicine, by providing opportunities for the thrill of discovery, can arouse curiosity despite the inhibitory effect of time pressures. Not being satisfied with an immediate answer, but wanting to go beyond is the mark of the intellectually curious. As Lazar Greenfield said, "In the quest for lifelong learning, we are usually interested in the answer to a question, but that answer will often raise more questions. The result is the opportunity to discover new knowledge, upon which all advances are based. Curiosity will always be the mother of discovery."

He seemed to know everything about everything. I asked him how he became so smart, and he replied that he had gotten into the habit of reading every day. If you read ten pages a day, that is about 3,000 pages a year, the equivalent of a textbook."

The challenge of teaching stimulates physicians to study and to organize their thoughts. Having a target date encourages reserving time to review and master a topic. In fact, the most effective way to ensure self-discipline, according to Saul Farber, is to make teaching a part of your daily life.

Compassion and a Sense of Service

In dedicated physicians, an encounter with sick or troubled patients triggers empathy and stimulates the desire to serve. Truly compassionate physicians hone their skills continually to serve their patients better. Willis Hurst considers competence to be an important sign of the physician's compassion, for the compassionate physician cares enough about the patient to seek answers to the clinical questions posed by the patient's illness. The methods described in this book permit the physician to channel his compassion into action benefiting his patients.

The importance of compassion becomes evident when one considers the vulnerability of patients and the trust they place in their physicians. As Sir Berkeley Moynihan wrote: "A patient can offer you no higher tribute than to entrust you with his life and his health, and, by implication, with the happiness of all his family. To be worthy of this trust we must submit for a lifetime to the constant discipline of unwearied effort in the search of knowledge, and of most reverent devotion to every detail in every operation that we perform."[7]

When asked if he took his work home with him, Michael DeBakey responded: "Of course I take my work home with me. Any physician who doesn't should not be practicing medicine. There may be five or six open-heart operations scheduled the next day. All represent individual lives to me. I care about every patient; I worry about them. I think about all of them—their families and their hopes. I may be having dinner with you and talking about baseball, but my mind is with those patients. I wouldn't be a real physician if I didn't do that." We observed the same concern, compassion, and caring in all the outstanding physicians we interviewed, and we are convinced that,

because of these noble human qualities, they are able to perform above the average in ministering to their patients.

LEARNING FROM EXPERIENCE

> To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all.
>
> WILLIAM OSLER, M.D.[8]

All physicians have experiences from their own practices that reinforce Osler's views. Observations made under the pressure and excitement of patient care are usually remembered. Physicians can recall for decades lessons learned from specific patients and their problems. To be most reliable, the memory must, of course, be substantiated by a review of records and notes and must be integrated into current observations.

Robert Manning related an anecdote illustrating the value of such experience. "One of Dr. Richard Vilter's former residents mustered his courage, approached Dr. Vilter, and asked, 'Dr. Vilter, you are such a marvelous clinician. To what do you attribute your success?' Vilter replied, 'Good judgment.' The questioner thought for a moment and, not completely satisfied with the response, asked, 'But Dr. Vilter, to what do you attribute your good judgment?' Vilter replied: 'Experience.' Still not satisfied, the questioner pursued it one step further. 'But Dr. Vilter, how does one gain experience?' Vilter's response: 'Bad judgment.' "

In subsequent chapters, we describe conventional as well as idiosyncratic methods used by practicing physicians and academic clinicians to submerge themselves in their professional work and to gain maximal benefit from their experience. But, first, let us review the underlying philosophic principles. The methods used by our interviewees to gain the most from experience and from reading, conferences, and colleagues represent a blending of study and first-hand experience, as advocated by Osler.

First-hand Knowledge

> First-hand knowledge is the ultimate basis of intellectual life. To a large extent book-learning conveys second-hand information, and as such can never rise to the importance of immediate practice.
>
> Alfred North Whitehead[9]

Mortimer Adler underscored the importance of experience when he wrote: "[T]he difference between a man and a child is a difference wrought by experience, pain and suffering, by hard knocks. It cannot be produced by schooling."[10] William Osler echoed that idea when he admonished physicians: "Let not your conception of the manifestations of disease come from words heard in the lecture room or read from the book. See, and then reason and compare and control. But see first."[11] Oliver Wendell Holmes concurred: "The most essential part of a student's instruction is obtained ... not in the lecture-room, but at the bedside. Nothing seen there is lost; the rhythms of disease are learned by frequent repetition; its unforeseen occurrences stamp themselves indelibly in the memory."[12]

Wu Jieping, Honorary President of the Chinese Academy of Medical Sciences, stresses the importance of physicians summarizing and documenting their clinical experiences, as well as keeping up with medical progress through reading and attending conferences. These are complementary. Masterful physicians emphasize skills in the physician—patient relation and a high standard of ethics, both of which are integral to lifelong learning.

Somerset Maugham, who studied medicine, noted his vivid memories of clinical experiences. "Even now that forty years have passed I can remember certain people so exactly that I could draw a picture of them. Phrases that I heard then still linger on my ears. I saw how men died. I saw how they bore pain. I saw what hope looked like, fear and relief; I saw the dark lines that despair drew on a face; I saw courage and steadfastness. I saw faith shine in the eyes of those who trusted in what I could only think was an illusion and I saw the gallantry that made a man greet the prognosis of death with an ironic joke because he was too proud to let those about him see the terror of his soul."[13]

"Clearly at the heart of continuing medical education," said

James Young, “is the passion for learning about disease, patients, and healthcare. This is difficult in today’s harried patient-care environment, but it is the surest way to nurture the passion. One cannot help being awestruck in the clinic with the resilience of patients, as well as their occasional imprudence and intransigence. The human spirit is remarkable—undaunted and unparalleled. Even the most seemingly mundane patient can spark a question in the physician’s mind: Will I see benefit from a particular procedure or medication? What if I change the treatment protocol? Can the treatment plan be simplified? These questions can stimulate the physician to search for answers, and that search is what I enjoy most about my profession: the total unpredictability of what the day will bring, along with the certainty of learning something new from each patient. Often, it is searching out nuances of a patient’s personality, or that of a relative or friend, that can make a perverse interaction pleasant and rewarding. By turning difficult encounters into golden moments with smiles and questions, the stage is set to explore both scientific and personally introspective continuing medical education.”

Monitoring One’s Own Practice

The most fruitful education for a profession, Cyril Houle wrote, “occurs when its practitioners constantly monitor their own work, making judgments about success or failure and subsequently altering behavior as a consequence.”[2] Such monitoring requires techniques that permit analysis of what the physician actually does in the aggregate and the lessons learned from puzzling individual patients. When physicians know the types of problems seen, the drugs prescribed, and the procedures performed, they can direct their study for maximal benefit to their patients. Medical school faculties, despite lip service to the contrary, still emphasize the didactic transfer of information, and most physicians have therefore not been taught to organize their practices in a way to produce objective data that can direct their education. Fortunately, there are simple ways of organizing and analyzing everyday work, and we describe these throughout the book.

Self-directed Learning

Malcolm Knowles cited accumulating evidence that "Whatever people learn through their own initiative, they understand better, internalize more effectively, apply more generally, and retain longer than anything they are taught didactically." Since the most valuable continuing education is linked to practical experience and since each physician has individual experiences, physicians can direct their own learning best from an analysis of their practice.

George Miller wrote: "There is ample evidence to support the view that adult learning is not most efficiently achieved through systematic subject instruction; it is accomplished by involving learners in identifying problems and seeking ways to solve them. It does not come in categorical bundles but in a growing need to know."[14]

Harold Jeghers summarized the basic premises of lifelong learning in medicine thus: "The secret is to learn to educate oneself. One remembers best what one learns by personal effort. Strong initiative and motivation are important. Reading should be directed primarily toward solving a problem with a specific goal in mind. Since patient care is basic to the practice of medicine, reading and learning are most effective when they involve discussion and solution of clinical problems. Beyond formal education, a well-developed personal medical information center supports continued personal education."

On July 1, 2000, Jordan Cohen, President of the Association of American Medical Colleges (AAMC), distributed a document entitled "Association of American Medical Colleges Statement on Lifelong Professional Development and Maintenance of Competence," which was developed by the Council of Academic Societies Administrative Board in association with AAMC Division of Medical Edu-cation.[15] A relevant passage reads: "Recent evidence suggests that to be effective, CME [continuing medical education] should be highly self-directed with content, learning methods, and learning resources selected specifically for the purpose of maintaining or improving the knowledge, skills, and attitudes which physicians need on a regular basis in their practices. Individual CME activities should incorporate interactive learning formats, and include practice enabling and reinforcing strategies. To the degree possible, the learning experiences should be accessible within physicians' practice or work

wisely noted that “Knowledge does not keep any better than fish.”[17]

Lawrence Weed has long objected to our expectation that physicians remember the details in the numerous textbooks they were required to memorize in medical school to pass their examinations. He laments that we further expect them to keep abreast of the newest medical information published and presented at meetings and to apply all this knowledge effectively in their practices. Failure, he believes, is built into those expectations.[18]

Instead of describing methods that rely too heavily on memorizing and learning facts unrelated to current problems, we shall emphasize manual and electronic methods that help physicians access and use information sources efficiently at times when patient problems actually arise. Fortunately, with the explosion of information sources available on the computer, the need for physicians to memorize declines, but they must now concentrate more heavily on seeking and evaluating information and applying the new knowledge prudently.

FRAMING THE RIGHT QUESTIONS

“One learns by asking oneself questions, then finding the answers,” said Eugene Stead. The physician must decide what he knows and what he does not know. He must then formulate questions and consult the proper source to answer the questions. With emphasis on methods of organization, storing, and accessing pertinent information, the skill for formulating proper questions becomes essential. “I would be very happy if every student, every resident, and every cardiac fellow felt that it is more important to learn how to ask questions and pursue the answers, themselves, than it is for me to ask questions for them to answer,” said Willis Hurst. “I believe that asking questions is what they should do all their lives.”

Reading, conferences, and discussions with colleagues alert the physician to knowledge deficits. Associating with other physicians with similar interests helps in formulation of the right questions, and an exchange of information leads to recognition of what needs to be answered. Unanswered questions should stimulate the physician, but one must guard against frustration from failing to find all the answers alone.

KNOWLEDGE IS NOT ENOUGH

The purpose of knowledge and information is to apply them properly in patient care. Proper application of knowledge is not automatic; many advances in patient care are never applied. Physicians who immerse themselves in their practice are likely to learn current developments from their general reading, discussions with peers, attending courses, and browsing an electronic information service. By focused searches for evidence-based information to help them solve diagnostic and therapeutic problems on puzzling patients, they may continually strengthen their knowledge base. How can they assure themselves and their patients that they are applying evidence-based knowledge? (See p. 123)

The classic study by Fox, Mazmanian, and Putnam describes several factors that encourage change,[19] such as curiosity, sense of personal or financial well-being, the desire to be more competent, and stimuli in the clinical environment (opinion of peers, hospital regulations, and community needs).

Most studies have concluded that changes in a physician's delivery of care are due to several factors rather than a single intervention. General practitioners described an average of 3.2 reasons for change and consultants an average of 2.8 reasons. The three most common categories for change were (1) organizational changes, such as regulation by a hospital or health maintenance organization (HMO), (2) an educational activity, such as reading medical journals or attending an educational event, and (3) discussions with a physician or another health professional.[20]

Mazmanian and coauthors found that, after a conference on multiple risk factors in atherosclerotic vascular disease, physicians who indicated on a questionnaire that they planned to change were more likely than those with no commitment to state 45 days later that they made the change.[21]

Evidence indicates that strategies, such as providing feedback reports on practice[22] and the effect of influential peers,[23] are effective in fostering change. Interventions aimed at physicians preparing for change can target the office staff and even patients as well. Reminders and checklists are helpful.[24] Ornstein and

coauthors reported that an added benefit of combining patient and physician reminders was an increased adherence of patients receiving preventive services.[25] Patients are a major motivating force to encourage physicians to consider using new knowledge or altering manage-ment.[26]

In regularly scheduled meetings with office staff members, dicus-sions are often helpful to determine problems that are inhibiting delivery of the best care. Writing a plan to effect a change is useful as a commitment as well as a reminder to the physician and office staff. Physicians who systematically study their practice performance have an added advantage of determining what needs to be changed.

START NOW

> The supreme value is not the future but the present. The future is a deceitful time that always says to us, “Not yet,” and thus denies us.
>
> OCTAVIO PAZ[27]

To Roy Behnke, the complaint of some physicians that they are so far behind they can never catch up is merely an excuse. “Many of my colleagues say that the task is so overwhelming, what is the use of trying to catch up? But you must start somewhere. Those who try to make continuing education too formal never get it done: the system beats them. Medicine offers the advantage of informal education. You can pursue it at almost any hour of the day, and five minutes is time enough if you have arranged for the information to be easily accessible.” So resist the temptation to procrastinate or defer the task. Remember:

> The Bird of Time has but a little way
> To fly—and Lo! the Bird is on the Wing[28]

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PERSONAL ESSAY

For his pioneering achievements in cardiovascular surgery and his vast humanitarian endeavors, Dr. DeBakey has received more than 50 honorary degrees from prominent colleges and universities. His countless national and international honors and awards, many from heads-of-state throughout the world, include the Presidential Medal of Freedom with Distinction from President Johnson, the National Medal of Science from President Reagan, the prestigious Albert Lasker Award for Clinical Research, and the Living Legend Award from the Library of Congress. Author of more than 1600 articles and books, many considered landmark publications, he has been the president of various eminent medical organizations, Founding Editor of the *Journal of Vascular Surgery*, Editor of the *Year Book of General Surgery*, and Coeditor of *Christopher's Minor Surgery.*[1] He has also served as editor or editorial board member of many other distinguished surgical journals and as consultant to governmental agencies in the United States and throughout the world. *The New Living Heart*,[2] written for the lay public, was a *New York Times* bestseller. Dr. DeBakey was an early advocate of educating the public about health issues and has long been a frequent guest on network news for this purpose. He has also written widely about medicine and health in the major news media.

As a tribute to his selfless efforts to improve human health, a number of facilities, awards, and scholarships have been named in his honor, including the Michael E. DeBakey Center for Biomedical Education and Research at Baylor College of Medicine, the Metohodist DeBakey Heart Center in Houston; the Michael E. DeBakey High School for Health Professions in Houston; the Texas A&M University Michael E. DeBakey Institute for Cardiovascular Science and Biomedical Devices; the Michael E. DeBakey Heart Institutes in Hays, Kansas, and in Kenosha, Wisconsin; the Michael E. DeBakey International Military Surgery Award and The DeBakey USU Brigade of the Uniformed Services University of the Health Sciences; the Michael E. DeBakey International Surgical Society (formed by his students and residents); the Michael E. DeBakey Award in Journalism of the Foundation for Biomedical Research; and the Michael E. DeBakey Library Services Outreach Award of the Friends of the National Library of Medicine.

As a world-renowned surgeon, he has operated on princes and

paupers, providing all with the same dedicated humanitarian service. Known as the “King of Surgeons,” Dr. DeBakey has been first and foremost the patient’s advocate.

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> Dr. DeBakey’s total commitment to, and fascination with, medical science and its humanitarian aims have been an inspiration to patients, students, and associates alike. Mike does a tremendous amount of surgery. Many people look upon this as a highly impersonalized, mechanical venture. But you ought to make rounds with Mike about ten o’clock in the evening and watch him go through and touch his people. No one else can do such technical work in a highly personal way as Mike can.
>
> EUGENE A. STEAD, JR., M.D.

> Because of his warmth, compassion, and humanity that symbolize the finest ideals of his profession, he has been beloved by his students, colleagues, and many esteemed friends in every walk of life.
>
> DAVID C. SABISTON, JR., M.D.

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Medicine: Preparing for and Enjoying an Intellectually, Emotionally, and Morally Fulfilling Career

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EARLY INFLUENCES

Parents

I have often been asked what inspired me to take the path I have pursued in life. The answer lies in my boyhood. My parents, with their keen intellects, natural curiosity, and high standards, were superb models because they sought excellence in everything they did. Anything worth their time was worth doing well. By example, they inspired and encouraged me in that philosophy. They valued education and gave their children every opportunity to learn and to fulfill their potential, not only in school but in music, the arts, and athletics. All of us had music lessons as children; I learned to play several instruments and was a member of the school band. At home, we were surrounded by books, but we were also encouraged to read, in addition to our schoolwork, at least one book a week from the city library. We learned early that books were wonderful companions.

At a very early age, we were also given an opportunity to experience gratification from some special achievement—whether it was mastering a subject in our schoolwork, learning to play a musical composition well, or excelling in sports or gardening. Our parents helped us discover the *delight* of learning, and they often made our new knowledge more significant by relating it to some interesting story in their own lives or to some current or historical event. Although they did not prod or nag us about studying, they did

encourage, direct, and support our learning. Almost every family event was a learning experience—whether it was a picnic, where we learned about nature; a hunting trip, where we learned about sportsmanship; or a family meal, where conversations were always stimulating. When we asked questions, our parents satisfied our immediate curiosity with an explanation, but then encouraged us to delve further into the subject by reading about it. If the children had disagreements about certain issues—and children can be extremely opin-ionated—our parents suggested we could settle the matter by consulting a dictionary, encyclopedia, or other authoritative source. They explained that our opinions would be respected more if we could support them with some evidence, and so we were discouraged from formulating firm opinions without a valid basis or, to express it differently, from developing raw prejudices. Reason and common sense were highly respected in our home.

One incident illustrates how our parents nurtured our education. When I was a very young boy, my Father took me on a hunting trip, and when he set me down in the field, he said, “Now stay right here; I won’t be far away.” He would go a short distance, glancing back at me often and returning every little while to bring back the ducks that he had shot. On one such occasion, he noticed that I had my hands behind my back, and he said, “What’s wrong with your hands?” Eventually, I had to reveal my hands, which were bloody. He was immediately alarmed and asked, “What did you do? Did you cut yourself?” I confessed that I had taken a knife out of the pouch and had opened the ducks. “Why did you do that?” he asked. “I wanted to find out how they fly,” I explained. Shortly after that, my Father read me a book about birds flying. He noted my early curiosity, and he encouraged and stimulated it. Throughout my student years, he and my Mother supported my fascination with medicine and surgery.

We hear much today about the disintegration of the American family, and my heart goes out to those who have missed the joys of belonging to a close-knit, loving family. Our parents’ affection for us was evident in everything they did, but they also imposed discipline, often in subtle ways. We all had tasks assigned and were expected to exercise personal responsibility and self-reliance in performing them.

I feel fortunate in having received moral and spiritual guidance as

attention and effort in whatever you do, you will not need a course to tell you who you are. You will know.

Most physicians recognize the need for a good foundation in the sciences, but seem less aware of the importance of the humanities. Since, however, literature deals with all aspects of the human experience—the happy and the tragic, the base and the ennobling—it teaches much about human nature and human life that is useful to the physician. Continuing to read good literature, including history, throughout life is an asset. Our society no longer emphasizes a knowledge or a sense of history, and that is unfortunate. I would urge every young physician to read the major works on medical history. Not only are the lives of the great achievers inspiring, but history puts the present in perspective, and so helps us better understand what is going on now and what the most judicious course might be for the future. In medicine, history also prevents us from duplicating experiments for which the answers are already known.

Philosophy, including ethics and logic, is also an intriguing subject, and those who study it are likely to consider all aspects of an issue, including dissenting views, rather than form dogmatic opinions. Because mathematics enhances reasoning ability, it is useful for physicians. Intellectual and cultural development should go hand in hand with physical development, and all are definite assets for the physician. Athletics improve coordination and physical well-being, in addition to advancing socialization by teaching cooperation and a sense of fair play. A diversity of activities not only affords balance, but provides a stable base for pursuits in adulthood.

Language

And then there is language—the crucial instrument of communication. The whole thinking process is entwined with language—terms and their meanings. Yet I see young people coming out of college today with little understanding of the need for clarity and precision in their speech and writing. Deficiencies in such education can lead to sloppy thinking. Medical students, in presenting a case, will say that a patient had a tumor of the breast without identifying which breast, or pain in the leg without stating which leg. They know that the tumor was in the right breast, but they

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