13 Medical Student and Physician Well-Being

Margaret L. Stuber

> Let us emancipate the student, and give him time and opportunity for the cultivation of his mind, so that in his pupilage he shall not be a puppet in the hands of others, but rather a self-relying and reflecting being.
>
> SIR WILLIAM OSLER

> If you listen carefully to what patients say, they will often tell you not only what is wrong with them but also what is wrong with you.
>
> WALKER PERCY

Entrance into medical school is for many students the fulfillment of a long-held dream. The path to medical school always involves a great deal of effort. Often it also requires competition, and a drive to be the best. Once in medical school, however, students are expected to work and learn in teams and small groups. Personal best, rather than competition with peers, is encouraged—at least officially. The amount of information that must be mastered is overwhelming, as is the responsibility of making life or death decisions. It is often difficult for medical students, driven to care and to know, to cope with the significant pressures they encounter during medical school. Unfortunately, the result, too often, is depression or even suicide. *The chances of dying by suicide are higher for physicians than nonphysicians, particularly in women.* Male physicians have a rate of suicide 1.41 times that of male nonphysicians. Female physicians have a suicide rate 2.27 times that of female nonphysicians.

These increases in suicide are partly a result of the fact that doctors are more likely to actually die when making a suicide attempt; ironically, this results in part from their enhanced understanding of physiology and drugs. Few of the physicians who died by suicide were receiving psychiatric treatment just before their death. *These numbers also reflect a greater prevalence of depression in physicians.* A recent study of over 2,000 medical students and residents found that 12% reported symptoms of major depression, and 6% reported suicidal ideation. Both depression and suicidal thoughts were more common in medical students than in residents. Medical students and residents report "burnout", defined as emotional exhaustion, diminished sende of personal accomplishment, lack of empathy, and a feeling of depersonalization.

This chapter will examine what is needed to make the transition from college graduate to physician. It will also examine the factors that predict well-being as a physician, and the obstacles to achieving these goals. Unlike the other chapters in this book, which emphasize the context of clinical care or physician-patient interactions, this chapter will focus on you, and your own behavior.

> Nothing will sustain you more potently than the power to recognize in your humdrum routine… the true poetry of life—the poetry of the commonplace, of the ordinary man, of the toil worn woman, with their joys, their sorrows, and their griefs.
>
> SIR WILLIAM OSLER'S advice to medical students (circa 1905)

A NEW LANGUAGE AND A NEW ROLE

Even for students who have had in-depth training in some aspect of science, medical school requires learning a new and technical language. In the first 2 years this new learning involves learning numerous multisyllabic Latin terms for anatomy and various new uses of common words for pathology (e.g., "cheesy necrosis"). Clinical work brings an onslaught of abbreviations, many of which are used in different ways by different specialists (e.g., MS can refer to either multiple sclerosis or morphine sulfate).

Students are often amused or offended about having

Medical Students at Work on a Cadaver, 1890 From the collection of the Minnesota Historical Society, Minneapolis. *Human dissection is a unique learning experience that links every freshman medical student with previous generations of physicians.*

formal courses in which they are taught how to "interview" patients. Surely you know how to talk to people, be friendly, communicate information, and ask questions? Quickly however, it becomes apparent that *you are now expected to ask total strangers about intimate and often unpleasant topics in a way that would be considered totally inappropriate in any other context*. Conversations between doctor and patient commonly focus on topics such as diarrhea, vomit, blood, itching, bloating, and "discharge" from a variety of orifices. In many clinical situations, the physician must engage in a matter-of-fact conversation about whether someone has sexual interactions with men, women, or both, and about the details of those interactions. Obvious advice—often unwanted and unappreciated—has to be offered about the need to stop smoking, lose weight, or improve personal hygiene. These are precisely the things you have been taught *not* to talk about in polite society since early childhood, and so these interactions are naturally uncomfortable and often awkward.

Similarly, you are asked to notice and report details about people that genteel people would overlook. You need to consider not only the smell of alcohol on someone's breath, but also the earthy odor of upper GI bleeding or Candida, and the sweet smell of ketosis. A person's gait, posture, and facial expression are all potentially important data, to be noted, evaluated, and used. Slips of the tongue, restlessness, or confusion cannot be politely ignored, as one might socially. For many of you, this is a new, uncomfortable, and intrusive way of relating to others.

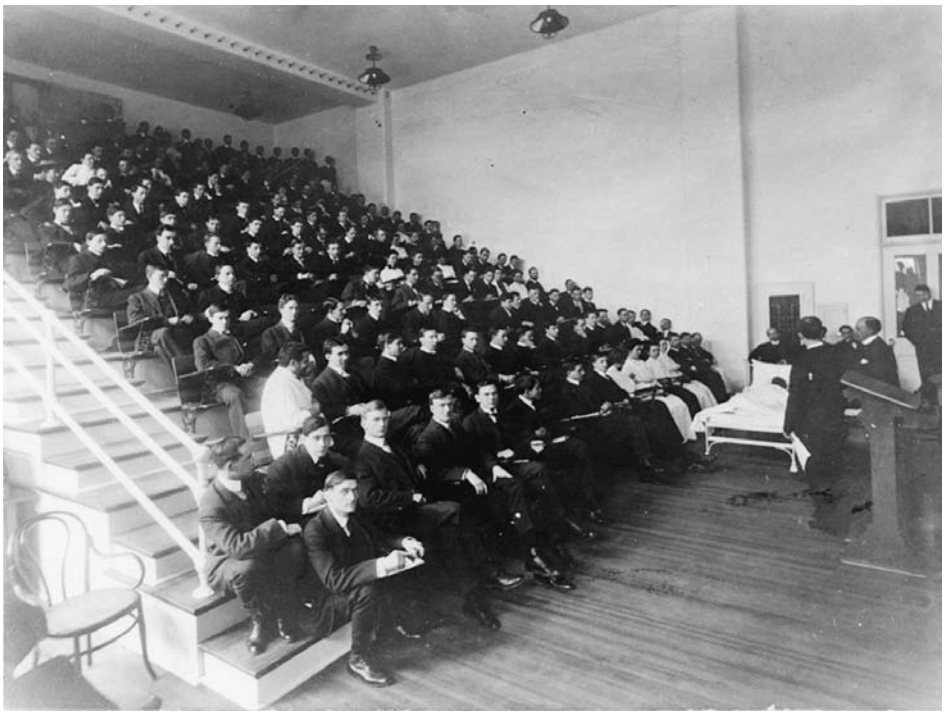
YOU CAN'T KNOW EVERYTHING

Medical school has been compared to drinking from a fire hose—the volume is high, the pressure intense, it is impossible to completely consume the product, and the experience is often less than completely satisfying. Although most medical schools have changed the ways they present material, genuinely trying to reduce the vast amount of minutia to memorize and the number of dense readings to plow through, *it is simply not possible to know, understand, and remember everything that is presented to you in medical school*.

The intense pressures of medical school are, to some extent, purposeful. You will never have the security of knowing all there is to know about your field. There will always be the need to look up some detail, or to seek new information, or seek out consultation. You will have to be able to say "I don't know, but I will find out" thousands of times throughout your career. *An important task in medical school and in your continuing medical education is to learn what you really do have to know, and figure out how to look up everything else*.

THE CULTURE OF MEDICINE

Professional schools, such as law and medicine, are action oriented. This is a very different orientation than other graduate schools in which contemplation and deliberation



Sir William Osler Lecturing to Medical Students at Johns Hopkins Courtesy of the National Library of Medicine. *Master teachers have always been appreciated by medical students. Note that almost all of the students appear to be male.*

are highly valued. Obviously, the actions that are necessary are radically different for different specialties. Physicians such as those in the Emergency Department or Anesthesia must make instant decisions in acute situations, and rarely spend more than a few hours with a patient. In contrast, Family Medicine physicians engage in long-term planning aimed at health maintenance and illness prevention. Nonetheless, physicians are evaluated primarily on what they do or do not do for their patients. Since time is almost always at a premium, this creates a situation in which efficiency is highly valued.

Most inpatient medical teams in academic medical centers operate in a very hierarchical system. Each member of the team has a specific job or area of expertise and contributes to patient care, but one person ultimately is responsible for final decision-making. Decisions by consensus are rarely used; the process simply takes too long to be useful in this setting. Some teams, however, operate with a blend of these two systems, having differentiated responsibility for team members, and regular means of communication for coordination.

In medical school, interns and residents report to attending physicians, and medical students report to the interns and residents. This means that as a medical student you are at or near the bottom of this hierarchy. This stands in stark contrast to the rest of your life, when you have very likely been one of the smartest of the members of every group, and a leader in many settings and situations. Indeed, you are in medical school training so that some day you can actually lead a medical team. This situation—the hierarchy, the time pressure, and your personal history—creates a perfect set up for misunderstandings, frustration, and power abuse.

> There is within medicine, somewhere beneath the pessimism and discouragement resulting from the disarray of the health-care system and its stupendous cost, an undercurrent of almost outrageous optimism about what may lie ahead for the treatment of human disease if we can only keep learning.
>
> LEWIS THOMAS (1979)

Other chapters in this book make the point that *you must understand the cultural and experiential world of a patient in order to effectively communicate and negotiate treatment.* This is also true in the culture of medicine. However, this does not mean that medical students should expect or accept that they will be abused by the attending physicians, residents, and nurses with whom they work. It is inevitable that your coworkers and teachers will occasionally be irritable, they may sometimes be rude, and some may make racial or sexual jokes that you believe to be in very bad taste. However, *you do not have to tolerate other physicians systematically degrading or insulting you, throwing things at you, or repeatedly making unwanted sexual advances.* All medical schools have systems in place to deal with such problems. So why do they still happen? It is a two-fold problem. First, medical students are very reluctant to say anything, to the perpetrators or to anyone else, knowing that students are vulnerable. The residents and attending physicians write student

BOX 13.1 Attitudes that influence the happiness of medical students and physicians*

Path 1 These coping attitudes will not be very useful to you in medicine, in the long run.	*Path 2* These coping attitudes will lead to more long-term satisfactions and enjoyment in medicine.
The strong silent approach. Don't tell others what you are thinking.	Learn to listen to the feelings of others, and to share your own.
Success means good grades and, later, wealth and material goods.	That's okay, but it doesn't compare to enjoying your work and people.
Your needs must take a second place to more important things in life.	You must fill your own needs at the same time you are accomplishing your other goals.
Your worth depends on what you accomplish. When you don't accomplish as much as others or as much as you can, you are basically inadequate.	There is a source of self-worth that cannot be measured by your accomplishments, that is non-negotiable and fundamental.
Mistakes are the result of ignorance, apathy, carelessness, and general basic worthlessness.	Mistakes aren't exactly okay, but they are a fact of life, even in medicine. Mistakes are your chief source of wisdom. Learn from them and don't make them twice. Perfectionism leads to burnout.
Criticism is a demonstration to the world of your inadequacy. Defend, justify, explain, and attack!	Criticism isn't exactly pleasant, but get used to the idea that it doesn't imply inadequacy. Learn to use it.
You are helpless in a world that controls your behavior.	You are in charge of what you do; it's no use blaming anyone else. What you do is up to you.
When you are feeling overwhelmed, lonely, anxious, depressed, and can't study, it is up to you to "snap out of it." Be strong, work hard, and keep a stiff upper lip. It's just a matter of willpower.	There is nothing wrong with you; everyone has trouble coping and could use some help. It may be embarrassing to find that you don't know everything yet. A sense of self-worth that keeps you from getting help may lead to real trouble.
Results are more important than people. (Type A behavior is goal oriented.)	People are more important than results. (Type B behavior is "process" oriented.)
Thinking is the highest function.	There is more to you than thinking. Don't let your feelings and intuition atrophy; don't become an intellectual nerd.

* From *Coping in Medical School* by Bernhard Virshup. Copyright © 1985, 1981 by Berhard B. Virshup. Used by permission of W.W. Norton & Company, Inc.

evaluations, and can make life very difficult. However, the administration can only act if there is evidence of repeated or outrageous offenses. Second, in some settings, particularly those that are very high-stress or time-sensitive, it is considered acceptable to abuse medical students, interns, and residents. In some areas, such as Pediatrics, verbal abuse of students appears to be rare, whereas in others, such as Surgery, it appears to be far more frequent. Medical school deans, department chairs, and administrators are working hard to change this aspect of these cultures. However, as with all cultural change, this will take time.

So what do you do in the meantime if you feel you are being abused? A few basic guidelines follow:

1. First, take a deep breath, and make sure you are not taking something out of context or personally when it was not meant that way.
2. Calmly let the person know that this was uncomfortable for you, and why.
3. Wait for a response. If there is an acknowledgment or apology, great! If not, but the behavior is not repeated, no further action is needed unless the abusive behavior is then directed at someone else.
4. If the response is only further abuse, or the abuse is repeated despite acknowledgment or apology, seek help. Help is available from the medical school ombudsman's office, the Student Affairs Office, or the Chair of the course or clerkship.

ASKING FOR ACADEMIC HELP

Everyone who is accepted to medical school has the academic ability to complete medical school. Those who have such serious academic difficulty in medical school that they do not graduate generally do so because they were not willing or able to ask for help when they needed it.

"My family/friends need me." Medical students are smart and hard-working people, and their family and friends admire and count on them—sometimes too much. However, medical school is a full-time job. It may have been possible to run the family business while in college, or you may have always been the one that all of your family depended on to make important decisions or to host all family events. Medical school is much less flexible about absences than undergraduate school. You may be expected to be in the hospital by 5 a. m. each morning to round on your patients. Being pulled in too many directions can cause serious problems for a medical student.

> This is all very fine, but it won't do—Anatomy—Botany—Nonsense! Sir, I know an old woman in Covent Garden who understands botany better, and as for anatomy, my butcher can dissect a joint full and well; no young man, all that is stuff; you must go to the bedside, it is there alone you can learn disease.
>
> THOMAS SYDENHAM

"I have always been able to do it, and I will be able to do this too." Some medical students have overcome significant obstacles on their way to medical school. They may come from families with few financial resources, or limited educational background. They may have had medical or psychological problems to cope with, or learning disabilities to overcome. They may have dealt with tragedy or violence. The fact that these students made it to medical school is a testimony to their hard work, determination, and intelligence. They deserve to be proud of their accomplishments. It is, therefore, a terrible loss when such students do not avail themselves of any supports they need once in medical school. All too often a student will refuse to meet with anyone after they fail an exam or course, thinking that all that is needed is to work harder. It is not until a pattern has emerged, and the student is forced to agree to an evaluation, that he or she is found to need a quieter test setting, different study approaches, or help in coping with anxiety. Medical schools are required to supply accommodation to any otherwise capable student for any documented learning disability or sensory impairment—but only if the student requests such accommodation. It is up to you as a student to request the evaluation and accommodations.

"I can't let anyone know that I can't do it." Although most students have worked hard to get to medical school and are there because they want to be, some are not. Some students are in medical school because that is what their parents expected or demanded, and many of these students are not sure they want to be there. Other students are convinced they are not capable of succeeding academically. These students experience embarrassment and shame when they encounter academic difficulty, and it may feel like they have let their friends and family down. These students often find it difficult to admit that they need help.

ASKING FOR NONACADEMIC HELP

Academic difficulty is not the only reason students do not graduate from medical school. For some students, the work load and the sense of never knowing enough can precipitate or uncover depression or anxiety. Trouble sleeping, difficulty concentrating, or not having enough energy to get to class or the hospital can exacerbate a situation that already felt overwhelming. Although help is available, it is often resisted. This is understandable: if you are having trouble functioning on your surgery rotation, the last thing you may want to do is to ask for time off to see a counselor. A less short-term assessment, however, shows that *it is far better to deal with such responses earlier rather than later*. The time lost when a student fails a course or clerkship is much more consequential and costly than any time invested in solving a problem before it gets out of hand.

> The physician himself, if sick, actually calls in another physician, knowing that he cannot reason correctly if required to judge his own condition while suffering.
>
> ARISTOTLE
> *De Republica*

Substance abuse, suicidal ideation, depression, and anxiety are much more wide-spread among medical students and physicians than is commonly believed, especially given how bright and accomplished medical students are. It is important for you to understand that *these problems are generally quite treatable*—if the individual seeks help. However, studies of medical students have found that less than 25% of those who were clinically depressed used mental health services. Barriers students most frequently cited included lack of time, lack of confidentiality, stigma, cost, fear of documentation on academic records, and fear of unwanted intervention.

All medical schools are required to have confidential counseling services. These services include access to medications, addiction counseling, and psychotherapy. However, *once out of medical school up to 35% of physicians do not*

have adequate mental health care. Given that physicians do not adequately diagnose or treat depression in 40 to 60% of patients with depression, it is perhaps not surprising that they have difficulty overcoming psychological barriers to treatment and seeking help for themselves.

There are also some real risks to seeking treatment. Medical students often are very concerned that any diagnosis or treatment they receive will be recorded in their files. These concerns are partially justified; for example, in one study, residency directors stated that they would be less likely to invite a hypothetical applicant to interview if he or she had a history of psychological counseling. Medical licensing boards in most states ask about significant medical conditions, and expect disclosure of any diagnosis or treatment that might impair ability to practice. Although it is unlikely that a state board would prevent someone from getting a license because of a history of treatment for depression, some states may require a letter from the applicant's treating physician documenting that the applicant is coping with his or her disorder.

Occasionally a medical student will have a serious underlying psychiatric or medical illness that may be exacerbated by the stresses of medical school. Examples include bipolar affective disorder and ulcerative colitis. In these cases, although the illness is quite treatable, the treatment as well as the symptoms of the illness can interfere with concentration and the student's ability to work as a part of a team. It is wisest for students to seek out help and guidance early, to determine if a leave of absence is preferable to the possibility of poor evaluations or failed exams, which eventually can cost more time than would be lost by taking a semester or a year off from medical school.

Students often can be the best advocates for one another, and in many cases you will know before the faculty if another student is struggling with anxiety or depression or is drinking too much. Often simply letting your classmates know that you consider it to be acceptable and honorable to seek help, and reminding them that help is available, can be enough to make a difference in someone's academic success, career—and life.

Character and Medicine

Most medical schools are now also evaluating students on their professionalism or **"physicianship."** Pioneered by the University of California, San Francisco, this type of evaluation is an addendum to the usual evaluations of knowledge and skills done in each course or clerkship. This type of evaluation was born out of concern about some of the abusive behaviors that appeared to be tolerated within the "culture of medicine" described above. A systemic approach to student abuse was necessary to communicate (to both students and faculty) the schools' condemnation of abusive or insensitive behavior. Culture change takes a long time, and this is one of the more effective ways to do it.

TABLE 13.1 Physicianship expectations from the David Geffen School of Medicine at UCLA Reporting Form

Professionalism

1. **Reliability and Responsibility:** Fulfills responsibilities to peers, instructors, patients, other health professionals, and oneself; Provides accurate, nonmisleading information to the best of one's abilities.
2. **Self-Improvement and Adaptability:** Accepts constructive feedback, and incorporates this feedback when making changes in his/her behavior; Accepts responsibility for one's failures.
3. **Relationships with Patients and Families:** Establishes rapport and demonstrates sensitivity in patient care interactions; Maintains professional boundaries with patients or members of their families.
4. **Relationships with Peers, Faculty, and Other Members of the Health-Care Team:** Relates well to fellow students, faculty or staff; Demonstrates sensitivity to other members of the health care team.
5. **Professional Behavior:** Respects diversity in patients and colleagues; Resolves conflicts professionally; Dresses and acts in a professional manner.

At UCLA, for example, using the expectations outlined in Table 13.1, students are counseled by the attending physician or faculty teacher if there is an egregious violation, or repeated examples of more minor infringements, of these expectations. If the student is able to accept the counseling and modify his or her behavior, a written report is given to the course chair, but no further action is taken. If, however, there is repetition of the behavior or another violation of the expectation, the course chair also counsels the student, and the report form is sent to the Student Affairs Office and put in the student's file. Two such forms in the student file will result in a notation in the Medical Student Performance Evaluation, and more than two can be grounds for dismissal.

Examples of violations of the expectations would include:

1. The student cannot be depended on to complete tasks in a timely manner.
2. The student is resistant or overly defensive in accepting criticism.
3. The student does not protect patient confidentiality or privacy.
4. The student does not establish and maintain appropriate boundaries in work and learning situations.
5. The student misrepresents or falsifies information and/or actions.

The response of students to these types of guidelines has generally been supportive, but students have been under-

standably quick to ask for similar guidelines for the faculty. Such expectations also exist for faculty, but the process of enforcement is not always as obvious or rapid. However, recently there has been far more focus on these types of expectations in medical settings. For example, mandatory training about sexual harassment is now provided for faculty and staff at most medical centers. The gender and ethnic diversity of current medical students and physicians has created a situation in which some long-standing problems are no longer tolerated by the majority of physicians. It is unfortunate that lawsuits have been necessary to make some of these changes become widespread. However, the result will be a better environment for the practice of medicine.

The Physician Ivo Saliger (1920). Courtesy of the National Library of Medicine. *Although the image is appealing, physicians who adopt grandiose self-images are at high risk to burn out and become frustrated and embittered.*

TAKING CARE OF YOURSELF

As medical students and physicians, you will frequently give excellent advice to your patients about lifestyle issues. However, a number of research studies have documented that *you are extremely likely to ignore this good advice when it comes to your own life*. After all, you are young. You are busy. You are stressed. Unfortunately, although you will not stay young, you are very likely to continue to be busy and stressed unless you choose to do something about it. *Medical school is the best time to set up habits that can help you to be a better doctor and a happier, healthier person for the rest of your life.*

Here are a few recommendations for maintaining your well-being that are best started now, not after you finish training.

1. Prioritize your time

Without this, nothing else will work. Realizing that there really is not time to do everything, figure out what you need to do. This means saying no to some things, often things that would be enjoyable or tasks that someone else thinks only you can do. It also means having some idea as to how long it will really take to do a given task. This is a life-long goal, as you will see if you observe any of your teachers or mentors. However, you are in a field where you should be able to enjoy your work. This will be much less true if you try to do too much.

2. Friends

Having people in your life is an essential part of being human. Depending on your personality, this may be a lot of people or just a few very close friends. You may have a huge extended family with whom you communicate daily, or your family may communicate primarily by email or through intermittent visits. Your social network may be within your neighborhood, your place of worship, your children's school, or at work. What matters is that you are able to relax and be yourself with someone who knows and likes you. *Isolation makes it much harder to get the support that is essential to the very emotionally demanding job you have chosen.*

3. Exercise

Taking care of your body is always a wise investment of time and energy. Exercise can be a wonderful way to deal with the tension of a day, or provide a moment of peace or thoughtfulness in a day filled with demanding patients or petulant coworkers. It is also a great way to be with people, whether you enjoy team sports or more individual activities such as swimming, hiking, or biking. Trips with organizations such as the Sierra Club can provide both exercise and a sense of belonging and community.

4. Relaxation

Exercise is one way to relax, but it should not be the only way. Relaxation is partly about changing the pace of your activities, but it also about changing the ways in which you are thinking. Reading or travel can take you into a different world, figuratively or literally, and help you develop new perspectives and experiment with different "ways of be-

ing." *You will be a better and more interesting person, but also a better and more sensitive physician, if your time is not spent solely with your patients and your journals*.

Different people find different ways to relax. Some physicians are uncomfortable when they have unscheduled time, and if this applies to you, you may need to have your weekends and vacations very structured. Some people are happy spending all of their free time with other people, while others have a genuine need to spend some time alone. Getting to know what works for you is an important step in taking care of yourself.

5. Sleep

The amount and timing of sleep needed is different for different people, and these needs change as a person ages. What is true for all is that some amount of restful sleep is essential for well-being, and most of us do not get as much sleep as our bodies need. This means it is important to understand and respect your own personal needs, and watch how these needs change over time. *Teenagers and people in their twenties often have an internal diurnal pattern that makes it easiest for them to concentrate and work at night*, and difficult to function effectively in the early morning. This pattern changes over the years, until by the age of 60 or 70 the early morning is the most active time for the majority of people. Most people need approximately 8 hours of sleep a night. However, some adults do very well on 6 or even 4 hours, while others really need 9 or 10 hours.

> Today's trainees have different values and demand a more balances lifestyle than those who believed the only thing wrong with every other night-call was that you missed half the good cases.
>
> H. SANFEY
> Contemporary US surgeon, University of Virginia
> *British Journal of Surgery*

Probably more important than the amount of sleep is what interferes with sleep. Coffee and other caffeine-containing drinks are an integral part of the culture in the United States, and they have become an expected part of medical culture. However, these beverages can have a significant effect on sleep, particularly when they are used to artificially induce alertness when the body is exhausted. Alcohol is especially likely to affect sleep patterns. *Often used as a relaxant, alcohol is actually disruptive to sleep.* Although a drink may help induce sleep, it also interferes with deep sleep, leads to wakening during the night, and interferes with restful sleep. Similarly, because of their ready access to sedatives, physicians often use drugs to induce sleep. The dangers of this are obvious, and yet the temptation is strong.

SUMMARY

In choosing to become a physician, you are starting on your way to a life which promises to be challenging and rewarding, intellectually and emotionally. Learning to handle the new language, culture, and stresses of the world of medicine can be as difficult as learning anatomy and the physical examination. A realistic approach to medical school, which allows one to ask for help and includes some relaxation, will provide an excellent preparation for a long and satisfying career.

CASE STUDY

A first-year medical student failed an important Anatomy examination in the first semester of medical school. She told the course director that she had an anxiety attack, but she reported that she was now fine, did not need treatment, and only requested an opportunity to retake the exam. She passed the makeup exam. However, the next semester she fails a midterm. When she is asked to see the course chair, she acknowledges that she has been extremely anxious, and she has had difficulty concentrating when she tries to study. She reluctantly agrees to go to Student Health. A counselor at the Student Health Center learns that she is the first one in her family to ever go to college, much less graduate school. Her family is very proud of her, but cannot be very emotionally supportive, as they do not understand the pressures and demands of medical school. She also feels conflicted because her family is experiencing financial distress, and she feels she should be working and supporting her family. She is trained in relaxation skills, and she is given medication for an underlying depression that has never been treated. However, it is the counseling about her professional goals and her obligation to the family that are ultimately the most helpful.

SUGGESTED READINGS

Epstein, R.M., & Hundert, E.M. (2002). Defining and assessing professional competence. *JAMA, 287*, 226–235.
This article reviews the expectations now made of medical students, including those having to do with professionalism, and how these are assessed.

Hampton, T. (2005). Experts address risk of physician suicide. *JAMA, 294*, 1189–1191.
This is an overview of a recent report from a group of experts in medicine, health insurance, and physician licensing convened to identify those factors that discourage physicians from seeking treatment for depression.

Krasner, M.S., Epstein, R.M., Beckman, H., Suchman, A.L., Chapman, B., Mooney, C.J., & Quill, T.E. (2009). Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA, 302,* 1284–1293.

This article reports on a study of the benefit to primary care physicians who were taught mindfulness meditation, self-awareness exercises, and wrote narratives about meaningful clinical experiences. Participants demonstrated short-term and sustained improvements in well-being and attitudes associated with patient-centered care.

Rosenthal, J.M., & Okie, S. (2005). White coat, mood indigo—depression in medical school. *New England Journal of Medicine, 353*, 1085–1088. This article outlines the incidence and probable causes of depression in medical school, as well as the obstacles to treatment, and what some schools are doing to address this.