



White Coat, Mood Indigo — Depression in Medical School

Julie M. Rosenthal and Susan Okie, M.D.

As the head of student government at Duke University School of Medicine in Durham, North Carolina, Sujay Kansagra had witnessed several of his fellow students dealing with depression. “I knew

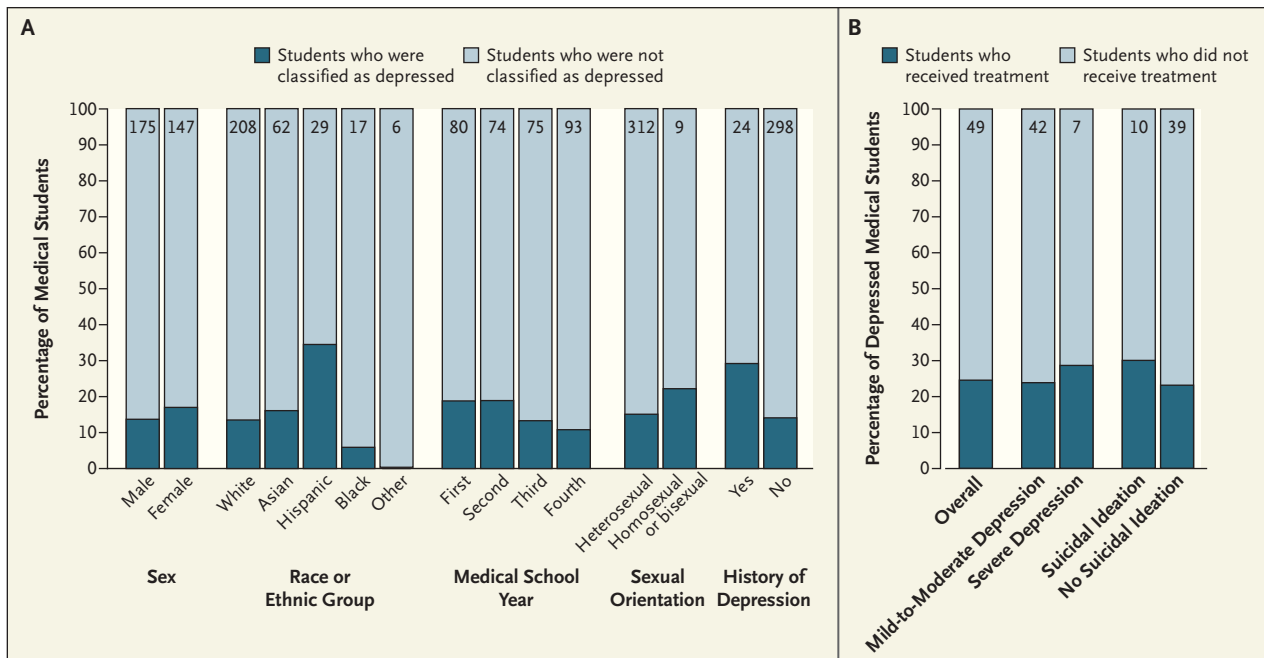
it was a big problem,” he said. “People were feeling isolated.” So Kansagra came up with an innovative way to provide emotional support to depressed students while shielding their identities. With the help of Caroline Haynes, Duke’s associate dean for medical education, he arranged an online forum to give students a safe place to talk and to help them “realize they aren’t alone and that there are a lot of resources available.” Students posted messages anonymously. Although the postings were reviewed by a psychiatrist in Duke’s student counseling service, the administration was not privy to the forum, which received more than 100 postings and more than 1000 hits during its planned 10-day existence in April 2005.

According to Kansagra, “peo-

ple had a lot to say about fighting with depression and [feeling] that medicine in general sees mental illness as a weakness and not an actual disease. People felt the need to hide it . . . because we are taught that we are the healers and not the ones with problems.” The pilot project led to open discussions about mental health, and in the subsequent week, Haynes, a psychiatrist, made two referrals for depression counseling. “This was a fabulous first step,” she said. “People felt that their concerns were normalized and validated. . . . It started a conversation that many people are hesitant to start.”

Medical students are more prone to depression than their nonmedical peers. Researchers recently surveyed first- and sec-

ond-year medical students at the University of California, San Francisco (UCSF), and found that about one fourth were depressed.¹ Others have suggested that although the rate of depression among students entering medical school is similar to that among other people of similar ages, the prevalence increases disproportionately over the course of medical school.² Laurie Raymond, a psychiatrist and the director of the Office of Advising Resources at Harvard Medical School in Boston, said that she met individually with 208 medical students — about one quarter of the student body — between July 2003 and July 2005. Thirty-one students (15 percent) presented with self-described depression — 20 of them with transient, “reactive” depressed mood that improved with supportive counseling or therapy and 11 who had a history of major depression. The majority (130 students) consulted Raymond because of concern about aca-



Rates of Depression among Medical Students (Panel A) and Treatment of Depressed Medical Students (Panel B).

Data in Panel A are for 322 medical students who responded to a questionnaire; data in Panel B are for the 49 medical students whose responses to the questionnaire indicated that they were depressed. Treatment consisted of counseling, antidepressants, or both. Total numbers (given in the bars) reflect the numbers of students who replied to the relevant question. Data are from Tjia et al.³

ademic performance, but major depression was diagnosed in 25 of them. A fourth-year medical student at Harvard estimated that three quarters of her close friends in medical school have taken psychiatric medications at some point during the four years.

Depression not only affects students' lives but may also have repercussions for patient care in the long run. Jennifer Tjia, an instructor in internal medicine at the University of Pennsylvania School of Medicine in Philadelphia, believes that many practicing physicians are afraid of being treated for depression and thereby revealing that they have the condition. But "if people don't know how to treat their own depression, it has a negative impact on how they treat patients," Tjia said.

Why does being a medical student increase the risk of depression? Raymond believes that

students' coping strategies and personal health deteriorate as they progress through medical school. Students "see themselves going into a very narrow tunnel," she said. "A lot of the depression we see halfway through the [first] year — it's a reaction to having constricted themselves down to studying these subjects in a very intense way. It's pretty unidimensional."

Symptoms of depression in medical students can be difficult to distinguish from the effects of the stress inherent in student life. Students often dismiss their feelings of despondency as a normal emotional response to medical school, where they live from test to test and don't take time for themselves.

"It's hard to ask about depression in medical students, because you ask about sleep, and all medical students aren't sleeping," explained Angela Nuzzarello, a psy-

chiatrist and dean of students at Northwestern University's Feinberg School of Medicine in Chicago. "They are overwhelmed, they are working hard, and they aren't having fun socially. . . . Of course they are fatigued."

The emotional and academic challenges involved in becoming a physician wear on students. Their initial encounters with illness and death may unmask psychological vulnerabilities. Such encounters often resonate with unresolved episodes of loss or trauma in the student's past or come as a shock to those who have had little experience with death. The treatment of death as a part of the daily routine may appear cold and calculating to students, who may fear becoming emotionally detached. Some become overwhelmed by the emotional toll of caring for others.

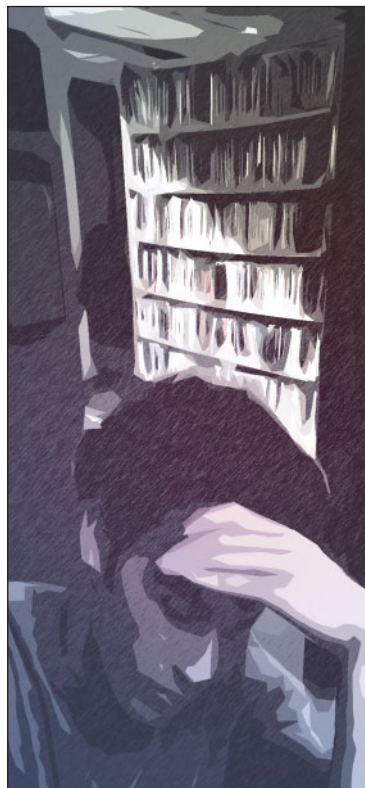
For students who have been lifelong achievers, getting a me-

diocre grade on an exam often is shocking. As a fourth-year student at Vanderbilt University School of Medicine in Nashville put it, “The transition from college to medical school [is] definitely an eye-opener . . . especially if your academic performance isn’t up to par. If you get C’s on your first set of tests, I can see that it would be easy to get depressed.” At the end of his second year, this student lost 15 or 20 pounds. “Retrospectively, I can say I was clinically depressed,” he said, “but at the time it was just one of those rough things.” He never sought treatment, he added, because “as a medical student, you are supposed to just deal with it.”

It is unclear whether there has been a recent increase in depression among medical students or whether greater awareness of mental health issues has simply led to increased recognition of the phenomenon. Nanette Gartrell is an associate clinical professor of psychiatry at UCSF who has treated many medical students and physicians for depression during 25 years of private practice. She said that in recent years, “[we] are seeing more students, because we have some more efficient pharmaceutical treatments.” Students know that selective serotonin-reuptake inhibitors (SSRIs) can make them feel better much more quickly than psychotherapy or older classes of antidepressants could. Gartrell added that virtually all the depressed physicians she sees have self-medicated with an SSRI before consulting her.

In addition, both Haynes and Raymond noted that many more students than in past decades are entering college or medical school with previous diagnoses and treatment for mental illness. When

Blue Cross asked Duke for a premium increase in their student health insurance policy recently, Haynes and others reviewed the policy for the university as a whole. They found that three of



the top five medications that the plan was covering were new antidepressants.

Students may become depressed at any point in medical school, but Gartrell has found that the period of greatest distress occurs during the third and fourth years, when students rotate through the hospitals and clinics. “In the clinical years, there’s just far greater commitment of time, plus as match pressure begins to emerge, it’s an extremely stressful time for a lot of people,” she said. Students are often separated from friends and classmates and must work with a constantly changing set of residents and attending physicians, which con-

tributes to their sense of isolation. Gartrell said that many of the female students she sees are worried that the mounting demands of training and clinical practice will not allow them time to find a partner, marry, and have children. Haynes noted that the increase in sleep deprivation during rotations may also expose mood disorders.

The Harvard medical student mentioned above recalls that her mood took a downturn during her third year. The pressures of school were building, and medicine was not turning out to be what she had expected. She began to think, “Man, this life isn’t exactly what I imagined it would be, and now I’m stuck and have all these debts. I don’t like what I’m seeing in the hospital; that’s not how I want to practice medicine.” She found herself disillusioned by the long hours, the competition among students and doctors, and the lack of time for really caring about, and not just for, patients.

As they begin to treat sick patients, depressed medical students usually become even more reluctant to admit that they are not well themselves. Northwestern’s Nuzzarello said that “even though they know about depression, [students] don’t recognize it often in themselves. . . . That’s part of the psychology and the denial: if I’m going to be a doctor, I’ve got to be well.”

One medical student who took antidepressants told friends that she felt guilty about needing them. Such guilt is common among depressed medical students, since, according to Penn’s Tjia, the stigma associated with treatment is strong. “One of the problems students have in getting help . . . is a tremendous fear that it will go

on their letter” of recommendation for residency, and that there will be professional repercussions, Tjia said. She and colleagues surveyed University of Pennsylvania medical students and found that only one fourth of those who were depressed had sought treatment (see bar graphs). In addition to stigma and fear of disclosure, students cited reasons such as lack of time and cost.³ At Northwestern, Nuzzarello found that medical students were not coming in for regular counseling appointments as often as law students — but they had many more emergency visits. “Med students were waiting and waiting and waiting,” she said, and going in when their depression had become more difficult to treat.

Medical students’ fear that treatment for depression will jeopardize their careers may not be unfounded. In one study, residency directors said they were less likely to ask a hypothetical applicant to interview if he or she had a history of psychological counseling.⁴ And state medical boards ask about significant medical conditions, including psychiatric illnesses, when certifying physicians. Candidates for medical licensure are expected to disclose the diagnosis of or treatment for any disorder that might impair their ability to practice. In a candidate with a history of depression, “some states may require a consultation with a psychiatrist or may request a report from the applicant’s treating physician,” according to James Thompson, president and chief executive officer of the Federation of State

Medical Boards. “But,” he noted, “I am unaware of any circumstance in which simply being treated for depression would stop someone from getting a license.” Thompson said, “We are trying to disseminate more appropriate information to residents and medical students, to reduce some of the fear that may . . . prevent them from getting appropriate medical treatment.”

Nevertheless, Haynes believes that an anonymous forum with no administrator looking at the responses, such as the one tested at Duke, “is going to be much more inviting to students than disclosing [depression] to even a sympathetic administrator. For that reason, I think medical school administrators need to be explicit on what will and won’t be disclosed.” Students need to be reassured, she said, that problems will be reported only if they grant permission and only to explain effects on their academic performance.

Many medical schools are looking for new ways to teach students to monitor their own health and to persuade them to seek help when they need it. At Harvard, a group of faculty members and students are developing workshops for first- and second-year students to teach “mindfulness” and self-renewal skills, based on a program pioneered by Craig Hassed of Australia’s Monash University. Administrators at Duke, discouraged by a low turnout for mental health education programs, have decided to present a wellness program focused on enhancing performance. Like the Harvard

workshops, it will include ways to improve eating habits, sleep hygiene, stress reduction, and mood regulation.

At UCSF, psychiatrists and psychologists with the medical school’s student well-being program lead support groups and hold “stress rounds” in which students on clinical rotations can share their experiences and emotional responses. Students are entitled to 10 free counseling sessions a year. The school also conducts an annual survey to assess the mental health of each class, said Maxine Papadakis, associate dean for student affairs. Those data provide a longitudinal picture of students’ moods, but Papadakis declined to say whether they reveal any long-term trends. “I don’t know if depression is worse now than it was 10, 20, or 30 years ago,” she said. “I think it’s certainly a more humane environment, and people may feel better about showing their vulnerabilities.”

An interview with Ms. Rosenthal and Dr. Tjia can be heard at www.nejm.org.

Ms. Rosenthal is a fourth-year medical student at the University of Pennsylvania School of Medicine, Philadelphia. Dr. Okie is a contributing editor of the *Journal*.

1. Givens JL, Tjia J. Depressed medical students’ use of mental health services and barriers to use. *Acad Med* 2002;77:918-21.
2. Rosal MC, Ockene IS, Ockene JK, Barrett SV, Ma Y, Hebert JR. A longitudinal study of students’ depression at one medical school. *Acad Med* 1997;72:542-6.
3. Tjia J, Givens JL, Shea JA. Factors associated with undertreatment of medical student depression. *J Am Coll Health* 2005;53:219-24.
4. Oppenheimer K, Miller M, Forney P. Effect of history of psychological counseling on selection of applicants for residencies. *J Med Educ* 1987;62:504-8.