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Recent Suicides Highlight Need to Address Depression in Medical Students and Residents

Rita Rubin, MA

The accomplished young man graduated medical school in May and, as a resident, quickly impressed his coworkers.

"He stood out among the doctors we have encountered because of his decisiveness, brilliance, kindness, and humility," a nurse recalled. "Our patients always had great praises for him, because he really showed how caring he was."

That apparently was not enough for the young physician. But no one will ever really know what was going through his mind, because he was 1 of 2 first-year residents who, only a few days apart in late August, jumped to their deaths from buildings in New York City. The nurse's comment about him was one of many condolences posted online.

An Occupational Hazard

Suicide has long been known to be an occupational hazard for physicians. Each year in the United States, 300 to 400 physicians take their own lives—roughly equal to the number of students in 3 medical school graduating classes. A widely cited decade-old meta-analysis suggests that the suicide rate among male physicians is 40% higher than among men in general, while the rate among female physicians is 130% higher than women in general (Schernhammer ES and Colditz GA. *Am J Psychiatry*. 2004; 161[12]:2295-2302).

"It's not so much that there is an increased incidence of depression in medical people, but rather that the rate of completed suicide in medical people is higher than in the general population," said psychiatrist Charles Reynolds III, MD, senior associ-

ate dean at the University of Pittsburgh School of Medicine.

"It kind of makes sense," Liselotte Dyrbye, MD, professor of medicine and medical education at the Mayo Clinic in Rochester, Minnesota. "We know how to kill ourselves."

Physicians generally receive little training in recognizing depression in their patients, let alone recognizing it in themselves. Even if they do realize they need help, they are often reluctant to seek care because of the stigma surrounding mental illness and the fear that getting treatment could lead to the loss of their medical license.

The recent suicides of the 2 newly minted physicians highlight the need for medical schools and residency programs to lift the veil on the problem, experts say.

"Deans of students and program directors play an important role in ensuring trainee well-being," Deborah Goebert, DrPH, professor of psychiatry at the University of Hawaii, said in an e-mail. "Burnout, depression, and suicidality are major concerns during medical training. We are required to take annual training on sleep, but nothing on suicide." Goebert noted that states are passing legislation to mandate suicide prevention training for mental health professionals (<http://huff.to/1rxXi3Q>). "Perhaps it's time for medical schools to make this a priority for faculty and students," she said.

A decade ago, Goebert and her coauthors surveyed medical students and residents at 6 sites to assess depressive symptoms and suicidal thoughts (Goebert D et al. *Acad Med*. 2009;84:236-241). They found the rate of depression was higher in medi-



cal students than in residents and in women compared with men. Goebert said government data suggest rates of depression and suicide haven't changed much in the past 10 years, although such data aren't specific to medical trainees.

Timothy Brigham, MDiv, PhD, chief of staff and senior vice president, department of education, at the Accreditation Council for Graduate Medical Education (ACGME), says he plans to propose that his organization convene a consensus conference in 2015 to discuss suicide prevention in trainees. The ACGME would invite not only medical school faculty, residents, and medical students, but also mental health professionals, nurses, pastoral counselors, and others who work with physicians-in-training.

"The 2 suicides in 1 place sent alarm bells off... about what we are doing in training," Brigham said. "We should be creating an environment where the well-being of the resident is part of the deal. What I'd like to focus on is wellness and stress resilience."

Before joining the ACGME in 2008, Brigham worked at Jefferson Medical College in Philadelphia, where he eventually became senior associate dean for organizational development. But his first job at Jefferson, nearly 25 years ago, was leading stress management support groups for all of the school's interns. "It was hugely progressive," said Brigham, a psychologist by training.

A Tsunami of Expectations

Suicide is thought to be rare among medical trainees, although solid data about suicides of medical students are lacking. In an annual survey of training programs, ACGME typically finds that only about 20 residents—of more than 100 000—die each year, and only about half of them by suicide, said DeWitt Baldwin, MD, the ACGME's scholar-in-residence, who, at age 92 years, has been studying the issue for nearly 45 years.

The 2 suicides in New York spurred Baldwin to ask Dyrbye to talk about her research into depression, burnout, and suicide risk with the ACGME board in late September. The young physicians' suicides, in just the second month of their residencies, occurred "at a very key moment," said Baldwin, who is board-certified in general and child and adolescent psychiatry as well as internal medicine and pediatrics. "They suddenly see this tsunami of expectations that

everyone has of them.... This is where we ought to pay special attention to how they're doing."

Gathering data about medical student suicides has proven to be difficult. "We have really good data on completed suicides for practicing physicians," thanks to the fact that death records include occupation, psychiatrist Christine Moutier, MD, chief medical officer at the American Foundation for Suicide Prevention (<http://www.afsp.org>). But there's a big gap in research on medical student suicides, she said, even though it would be simple to track because all medical schools submit data on various aspects of the student body.

Moutier said she was stunned at the negative reaction she received when she proposed that US medical schools start tracking medical student suicides. Officials at 2 schools said, "We will not be known as the suicide school. If we track that data, the media's going to get ahold of it."

Daniel Williams, MD, a psychiatry resident at Scott and White Hospital in Temple, Texas, said he called 5 medical schools to see if it would be feasible to compile suicide statistics. "No one would give us any answers," Williams said.

Clearly, medical schools in general are not doing enough to minimize depression and prevent suicide in fledgling physicians, said Goebert, although some schools, such as the University of Washington, have excellent programs. "Some put programs in place after an incident has occurred, but over time they lose ground," she said.

The suicide of a faculty member sparked the creation of the Healer Education Assessment and Referral (HEAR) program at the University of California, San Diego (UCSD), School of Medicine, said director Sidney Zisook, MD, the program's chair (Moutier et al. *Acad Med*. 2012;87[3]:320-326). "Being a resident and being a physician is high stress," said Zisook, a psychiatrist. "People do have suicidal ideation, yet very few avail themselves of treatment."

As its name suggests, HEAR takes a 2-pronged approach to the problem. Since HEAR launched 4 years ago, program representatives have met with every department in the UCSD medical school, some annually. The goal of their presentations is to decrease the stigma of depression and its treatment and inform physicians and trainees about what they can do if a colleague appears to be depressed.

The other component is a web-based survey developed by the American Foundation for Suicide Foundation, whose chief medical officer, Moutier, led HEAR with Zisook before leaving UCSD. She said about a dozen medical schools now use the foundation's survey.

"What we do every year is send to medical students as well as house staff and faculty a letter informing them about the website, asking them to take the survey," Zisook said. "We have counselors who review the site every day."

People who complete the survey receive a summary of their suicide risk and, if appropriate, an invitation for further evaluation and referral. Since HEAR was launched 4 years ago, the program has referred more than 150 medical students, residents, and faculty for treatment, Zisook said. Medical students can get free care through the university's student health services, he said, while residents and faculty are referred to a community physician.

Those 150 referrals probably represent only a small portion of the trainees and faculty who could use help, Zisook said. "They work so hard that the idea of taking an additional hour out to do anything for themselves is anathema to medical students."

At the University of Pittsburgh, "[w]e've taken steps to try to remove as many barriers as we can to appropriate help-seeking," Reynolds said. "We try to educate students and residents that taking care of themselves is very important."

In one session during medical students' orientation, Reynolds interviews a physician who has been treated for depression. She talks about how important it was for her to seek treatment, both counseling and medication, when she was in medical school.

The University of Pittsburgh medical school has a full-time psychotherapist who provides free care, someone Reynolds trained. His office is located off of the medical school campus, so those who see the therapist don't have to worry about being seen by classmates or colleagues.

Taking Steps to Prevent "Copycat" Suicides

One of the young physicians who committed suicide in August had just begun his residency at Columbia University. In response, "[w]e assembled our best experts in suicide and suicide prevention," said J. John

Mann, MD, a psychiatrist at Columbia and the New York State Psychiatric Institute. "The chairman of medicine came back immediately from his vacation. We had meetings with all of the interns and residents. We had a massive, carefully organized set of initiatives, all geared to help people deal with their feelings about what happened."

The approach has been used in communities, corporations, and the military after a suicide prompts concerns over the potential for contagion or "copycat" suicides, Mann said. "You give people information, and you create the opportunity for people to ask questions."

One might wonder whether medicine attracts individuals who are more vulnerable to suicide. But a new study found that when students entered medical school, they actually had lower rates of burnout and depression symptoms and a higher quality of life than college graduates the same age who

were not enrolled in medical school (Brazeau CM et al. *Acad Med*. doi:10.1097/ACM.000000000000482 [published online September 23, 2014]). The study, whose coauthors include Moutier and Dyrbye, surveyed entering students at 6 medical schools.

But by the time they graduated, about half of medical students had burnout, a syndrome of depersonalization, emotional exhaustion, and a feeling of low personal accomplishment, Dyrbye found in a previous study (Dyrbye LN et al. *Med Teach*. 2011; 33[9]:756-758). Other research found that burnout was independently associated with recent suicidal ideation in practicing surgeons (Shanafelt TD et al. *Arch Surg*. 2011; 146[1]:54-62).

Research shows that residents are depressed at a higher rate than people the same age who are not pursuing careers in medicine, Brigham said. "Is medical train-

ing doing some of the damage? What we're finding is that there is an effect that medical education is having, and it's not a positive one."

Some of the potential fixes are relatively simple, such as including a gym or a cafeteria when designing new medical school buildings, Zisook said. In a survey of first- and second-year students at 7 medical schools, Dyrbye and her coauthors found that how students were evaluated had a greater effect than other aspects of the curriculum structure on their well-being (Reed DA et al. *Acad Med*. 2011;86[11]:1367-1373). Students who were graded pass/fail were less likely to have burnout or consider dropping out of school than students who received letter grades.

"I believe it is possible to reconstruct the medical curriculum to make it a more positive and humanistic experience," the ACGME's Baldwin said. ■

Rate of Suicide Increases in Middle Age Primary Care Key to Suicide Prevention

Bridget M. Kuehn, MSJ

The recent suicide death of comedian Robin Williams drew attention to a worrisome public health trend: a rising rate of suicide among middle-aged individuals.

An analysis by the US Centers for Disease Control and Prevention found a 28.4% increase in suicides between 1999 and 2010 among people aged 35 to 64 years (Sullivan EM et al. *MMWR Morb Mortal Wkly Rep*. 2013;62[17]:321-325). During that period, suicide rates for men aged 50 to 59 years increased by about 50%, and the rate for women aged 60 to 64 years grew nearly 60%.

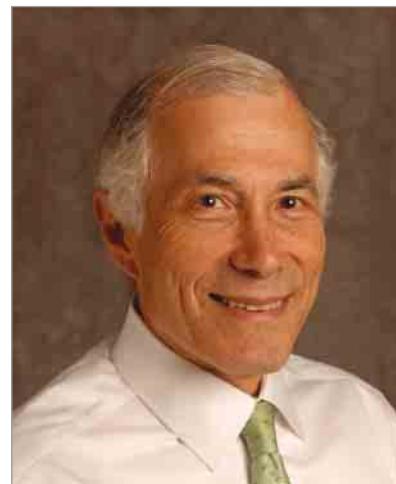
The US National Strategy on Suicide Prevention highlights the risks facing this age group as well as other high-risk groups (such as Native Americans and youths who are lesbian, gay, bisexual, transgender, or questioning their sexual identity) and emphasizes that primary care physicians can help prevent suicide and its harmful effects on loved ones (Kuehn BM. *JAMA*. 2013;310[6]:570-571).

J. John Mann, MD, Paul Janssen Professor Translational Neuroscience in

Psychiatry and Radiology at Columbia University and the director of the division of molecular imaging and neuropathology at the New York State Psychiatric Institute, discussed suicide trends and the role of primary care physicians in preventing suicides with *JAMA*.

JAMA: Do we know why the suicide rate has increased among middle-aged individuals?

DR MANN: We are not entirely sure why the suicide rate is going up in middle-aged people. Suicide rates fluctuate. It's linked to the level of alcohol consumption per capita. It has been linked to access to and quality of psychiatric care. But we don't always know the reasons for increases and decreases in suicide rates. Some things to think about with men is how they deal with adversity like divorce or widowhood. The apparent effect of divorce on men, in terms of suicide, is greater than the effect seen in women even though women are often financially worse off after divorce. Since the increase in suicide rates also affects women, and the divorce rates have not changed that much since 1999, this may not play much of a role.



Primary care physicians can help prevent suicides by asking patients about depression, said J. John Mann, MD, professor of psychiatry at Columbia University.

Another factor to think about since 2008 is the recession. There is a lot of debate about whether this has affected suicide rates because there is an imperfect match-up between the dates of the recession and the