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OBSERVATIONS

Physician Depression and Suicide: A Shared Responsibility

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***Issue*: Although the exact number is often disputed, it has been reported that approximately 300 to 400 physicians in the United States take their own lives annually. Despite calls from key interest groups for prevention and treatment protocols of physician suicide, little systematic change has taken place. *Evidence*: Research on suicide risk factors among physicians has expanded. Increasing reports are surfacing that highlight suicidal ideation and depression in medical school, residency training, and later professional practice. *Implications*: The purpose of this article is to draw attention to the problem of physician suicide with an emphasis on the role of medical education. Multiple accreditation bodies should be involved to effect a change in physician suicide prevalence. Thirty years have demonstrated that without mandates, large-scale change will not occur. We adapted some of the 2012 National Strategy for Suicide Prevention goals to medical education as a guide.**

Keywords physician suicide, physician depression, suicide prevention

> "Change will not come if we wait for some other person or some other time. We are the ones we've been waiting for. We are the change that we seek."
>
> — Barack Obama

Although the exact number is often disputed, it has been reported that approximately 300 to 400 physicians in the United States take their own lives annually.[1] Studies indicate that physicians commit suicide at a higher prevalence than the general population at a rate of 1 to 1.5 times higher for male physicians[2] and 2 to 4 times higher for female physicians.[3–6] Although physicians reportedly kill themselves at a higher rate than the general population, they have a lower rate of all-cause mortality.[6,7] This means that, in general, physicians are healthier than the general population, but they are more likely to end their own lives. Because physician suicide affects those who die, colleagues, families, patients, and communities, there is a collective responsibility to engage in prevention and treatment in a more active fashion. Legha[8] argued that it is not the rate of physician suicide compared to the general population that should be given most consideration. It is the fact that a physician can become ill and not receive the care and support needed despite being surrounded by so many other caregivers. In this commentary, we briefly review the history of physician suicide with an emphasis on the role of the medical education system.

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BACKGROUND

The exact prevalence of physician suicide has been debated for more than 30 years because the literature is fraught with methodological flaws and conflicting interpretations.[7,9] Early research did not control for race, gender, or retirement. Data were gleaned from obituaries and other data sources that did not include reliable causes of death.[7,10] Sample sizes were small.[9] Physician suicide is notoriously difficult to study because suicides are not always accurately reported.[6,11–14]

In the early 1900s, physician suicide was considered to be an individual, preexisting psychopathology, and the solution was to prevent these troubled individuals from entering into the profession.[8] Today, researchers believe that physician suicide is a multifaceted problem involving individual factors, the training environment, and culture of medicine.[8] In 2005, experts from the American Psychiatric Association, American Medical Association (AMA), Accreditation Council on Graduate Medical Education (ACGME), and others recommended curricula to address physician suicide.[15] Despite these strong recommendations, not enough has been done.[8]

CHARACTERISTICS OF PHYSICIANS WHO KILL THEMSELVES

Physicians who kill themselves are younger than the general population.[3,4] They are more likely to be single[6,16] with little social support[17] and use medications as a lethal means.[1,4,13,16,18–21] Physicians who take their lives often have a mental illness, especially depression.[2,3, 6,13,16–18, 20,22] They are more likely to be using self-prescribed medications like

barbiturates, benzodiazepines, and antipsychotics.[6,13,18,23] Surprisingly, physicians who commit suicide are less likely than the general population to be taking an antidepressant.[13] The use of self-prescribed medications underscores the hesitance physicians have to seek help from others. Even psychiatrists, who are physician experts at detection and treatment of psychopathology, are among those with higher rates of suicide.[22]

Work problems are more prevalent in suicide among physicians, which reinforces the link between suicide and the work of a physician.[6,7,13,23] There are often relationship issues at home,[24] which may be secondary to physicians working many hours.[1,3] Physicians who kill themselves reported more financial problems.[3,6,7] Like the general population, physicians who end their lives often use illicit drugs[4,9,19,24] and/or alcohol[4,10,21,23–25] and are prone to having a chronic health condition.[1,3,23]

NATURE VERSUS NURTURE

Why are physicians at higher risk? Some argue that physicians are trained to feel superhuman, unable to ask for help within the culture of medical education.[22,26,27] They learn self-sacrifice and emotional suppression as part of the indoctrination of becoming a physician.[8,26] Although society appreciates the qualities of perfectionism, compulsive attention to detail, and driven character, there could be an exaggerated sense of duty.[22,27] These qualities may be the reason that physicians do not seek help, as evidenced in multiple studies.[24]

Dunn[28] studied the health care practices of residents and found that they delay self-care due to worry about academic consequences, worry over what others will think, and privacy concerns. Cedfeldt, Bower, Grady-Weliky, Flores, Girard, and Choi[29] found that residents are less likely than general population peers to have a primary care physician or seek even routine health care. Regarding help seeking for emotional distress, medical students reported a lower likelihood of seeking help because of fear of being seen as less able and less respectable.[30]

In the past, it was argued that medicine attracts people with unhealthy qualities.[31] However, evidence supports that new onset mental health issues arise in medical school and that the training environment plays a role. Schwenk[30] found that 14% of medical students had moderate to severe depression, and 4% had suicidal ideation. Up to 80% of those students with moderate to severe depression had no previous history of diagnosis or treatment. A prospective study of medical students measuring suicidal thoughts at the beginning of medical school and at the end of the first term found that suicidal thoughts increased throughout the 1st year.[32] The presence of suicidal thoughts was related to perceived job stress after controlling for age, gender, marital status, life events, and personality.[32]

Goebert et al.[33] studied medical students at six sites over a 1-year period. They found that 12% had probable major depression, with another 9% having mild to moderate depression. Almost 6% admitted to having suicidal ideation, whereas 18% did not answer the question about suicidal ideation. These rates were higher than comparisons to graduate students in other fields of study. This finding has been replicated by other researchers.[34] Moutier et al.[35] found that the vast majority (94%) of medical students who completed screening had moderate or high risk of suicide. Dyrbye, Thomas, and Shanafelt[36] reported that the adjustment to medical school, exposure to abuse, life events, and exposure to death are all related to medical student distress.

Depression and suicidal thinking extend beyond medical school. Becker, Milad, and Klock[37] found that the rate of depression among OB/GYN residents was 31% for women and 48% for men, well above the levels in the general population. A study of Dutch medical residents demonstrated that 12% had suicidal thoughts at some point in residency.[38] Rosen, Gimotty, Shea, and Bellini[39] found that among Internal Medicine residents, the prevalence of depression increased dramatically from the start to the end of the intern year. In a European study of students and attendings, almost 7% of students felt that life was not worth living, whereas up to 9% of students and 2% of attendings actually wished they were dead. Almost 67% of students had mild to moderate depression, and approximately 43% of attendings had depression.[40] In a 2012 study of the AMA membership, 37.8% of the respondents screened positive for depression, and Shanafelt et al.[41] noted that depression is strongly associated with suicidality. A 2008 survey of the American College of Surgeons found that 6.4% of surgeons reported suicidal ideation in the previous 12 months, which is 1 to 3 times higher than the general population.[42,43] Suicidal ideation was associated with longer work hours, more call, and the perception of having made major errors in the practice of medicine, all of which are unique occupational hazards of medicine. Suicidal ideation was also strongly correlated with emotional distress, depression, and burnout. Many more surgeons are at risk of developing suicidal ideation as 30% screened positive for depression.[42,43]

PREVENTION AND TREATMENT

Unfortunately, there is little information available on effective prevention of physician suicide, particularly because it is a low base rate event.[6] In 1987, the AMA recommended that organized medicine promote suicide reduction programs and develop guidelines to detect and treat suicidal ideation,[23] but little systematic action has been taken. Many say that efforts must begin in medical school by teaching medical students about self-care,[26] social support,[31] relationship management, self-awareness,[44] drug and alcohol abuse,[31] and how to ask for help.[6,10,26] Model medical school programs, such as that at the University of California San Diego School of Medicine, demonstrate benefits associated with education, confidential screening, and early intervention. However, programs such as these are not universal among medical schools. It may be that standardized health promotion programs based on evidence

will not materialize without a formal mandate from the Liaison Committee on Medical Education and ACGME.[3]

For practicing physicians, there is also a dearth of data on prevention efficacy. Authorities recommend regular healthcare and stress evaluations,[3,5,11,15,31] education on state and federal protections, and mandatory physical examinations and drug testing before medical staff appointments with follow-up random drug and alcohol testing.[45] This would require leadership from health institutions and nondiscriminatory practices from licensure boards.[3] Although these measures may seem extreme to many, it is clear that current practices are insufficient. At the most basic level, we must destigmatize help seeking,[6] and we must focus on early identification and treatment.[11] More support is needed from professional physician and hospital organizations beyond basic substance abuse programs.[15,19]

Perhaps, most important, experts believe we need to teach medical students and practicing physicians how to recognize the signs of suicide risk in self and others and how to sensitively approach a struggling colleague.[1,3,5,10,15,22,30] More than 40 years ago, Ross[19] indicated that part of the problem is that physicians treat other physicians as "special" and miss the warning signs of suicide. Even when the signs are recognized, physicians hesitate to intervene[11] and are afraid to help.[46] Early identification and treatment of even "mild" suicidal thinking must be implemented.[40] This would be in line with well-studied suicide prevention strategies used among the general public.

Several expert groups identified barriers to getting treatment, including concerns about time, confidentiality, stigma, documentation, unwanted interventions, and repercussions by the licensing board.[15] Carr[27] pointed out that questions about mental illness on state licensure applications are a significant barrier to help seeking. The University of Michigan developed a well-being program for residents. Of those treated, 60% had depression. The residents stated that if the program did not guarantee total confidentiality, they would not have utilized the services.[47] Experts recommend in-house consultations and treatment for medical students and residents to address the fear of getting help.[11,15] The problem is that many physicians do not utilize available resources due to shame and stigma,[46] which makes this a systems problem. There must be a shift away from pathologizing individuals and refocusing upon creating a nurturing environment.[48]

WHERE DO WE GO FROM HERE?

Although the Liaison Committee on Medical Education requires schools to have a wellness program for medical students, we need more guidance on how to develop such programs. In addition, it is not clear what the entire scope of the

TABLE 1
Sample medical education goals adapted from the 2012 National Strategy for Suicide Prevention

Goal 1: Integrate and coordinate suicide prevention activities across medical schools, residency programs, and institutional continuing medical education
Goal 2: Implement research-informed communication efforts designed to prevent suicide by changing knowledge, attitudes, and behaviors among medical students, residents, and practicing physicians
Goal 3. Increase knowledge of the factors that offer protection from suicidal behaviors and that promote wellness and recovery among medical students, residents, and practicing physicians
Goal 4. Develop, implement, and monitor effective programs that promote wellness and prevent suicide and related behaviors among medical students, residents, and practicing physicians
Goal 5. Promote efforts to reduce access to lethal means of suicide among medical students, residents, and practicing physicians with identified suicide risk
Goal 6. Provide training to medical students, residents, and practicing physicians on prevention of suicide and related behaviors among colleagues
Goal 7. Promote suicide prevention as a core component of health care services for medical students, residents, and practicing physicians
Goal 8. Promote and implement effective clinical and professional practices for assessing and treating medical students, residents, and practicing physicians identified as being at risk for suicidal behaviors
Goal 9. Provide care and support to families, colleagues, and patients affected by medical student, resident and practicing physician suicide deaths
Goal 10. Increase the timeliness and usefulness of national surveillance systems relevant to medical student, resident, and practicing physician suicide prevention and improve the ability to collect, analyze, and use this information for action
Goal 11. Promote and support research on suicide prevention among medical students, residents, and practicing physicians
Goal 12. Evaluate the impact and effectiveness of suicide prevention interventions among medical students, residents, and practicing physicians and disseminate findings

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problem is among trainees as the ACGME doesn't collect data on resident suicide (M. Miller, personal communication, June 30, 2013). The ACGME recently convened the Council of Review Committee Residents to study resident wellness and mental health following two resident suicides in 2014,[49] but it is not clear what authority will be given to their recommendations. Finally, we don't know a lot about what works with practicing physicians, because little research has been done.[45] We do know that using the hidden curriculum, which informs medical students and physicians to get help themselves, doesn't work because it is at odds with the medical culture. University of California San Diego School of Medicine data show that an open, proactive approach from leadership, which educates students about burnout, depression, and suicide along with encouragement to seek treatment, is more effective.[50]

A public health model, such as that in the 2012 National Strategy for Suicide Prevention,[51] addresses primary prevention of suicide for all physicians (e.g., destigmatization of mental illness, psychoeducation on burnout prevention, health promotion, and restriction of self-prescribing practices) and secondary prevention for physicians who are identified at highest risk, such as those having depression (e.g., availability of easy access, noninsurance-billed counseling). We adapted aspects of the 2012 National Strategy for Suicide Prevention[51] and applied them to medical education as a potential starting point. This is found in Table 1.

In summary, physician suicide is not an individual issue, and it is time to recognize that medical education, hospital institutions, and communities share responsibility for keeping physicians healthy. Perhaps the place to start is developing our own national strategy for medical student, resident, and attending physician suicide prevention. Health care systems have not developed the will and resources to tackle such a stigmatizing issue without the assistance of state and national regulatory agencies. This change will not occur quickly or easily, but we have to stop talking at some point and begin acting and evaluating those actions.

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