EDITORIAL

Resident Depression
The Tip of a Graduate Medical Education Iceberg

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Physicians are rightfully proud of their reputation as being intelligent, dedicated, hard-working, committed to the lifelong acquisition of new knowledge and skills, and able to overcome personal discomfort (particularly sleep deprivation) for the sake of the needs of patients. Physicians are less proud and less willing to admit or discuss that, as a profession, they are at equal risk for depression and higher risk for suicide than that of the general population,[1-3] despite having seemingly better access to mental health care than many segments of the population.

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The literature describing the risk of depression and suicide in medical students is relatively rich[4] and somewhat so for practicing physicians.[1-3,5] Studies of depression among physicians in training (residents and fellows) are less common, perhaps because residents in general are busier, more overwhelmed, more fatigued, more sleep deprived than either medical students or practicing physicians, and less accessible for surveys and interviews. The reasons that depression risk among physicians in training is more difficult to study may be the very reasons they are more vulnerable to that risk.

In this issue of *JAMA*, the study by Mata and colleagues[6] fills that gap to a considerable extent with a meta-analysis of 31 cross-sectional and 23 longitudinal studies of depression among physicians in training. The results are discouraging: the prevalence of depression or depressive symptoms ranged from 20.9% to 43.2%, depending on the nature of the assessment. This systematic review makes it clear that the medical profession has a major problem. What is the profession willing and able to do about it?

The 54 studies identified by Mata et al[6] mostly used validated self-report questionnaires to assess either depression or depressive symptoms. These questionnaires, plus the structured interviews used in 3 studies, are highly heterogeneous in their construction, symptoms measured, and criteria used, with a wide range of resultant operating characteristics. The authors addressed this problem with appropriate groupings of instruments that perform in similar ways. In any case, the subtle methodologic complexities of this systematic review pale in comparison with the fundamental finding that the extent of depressive symptoms in physicians in training is extraordinarily high. Roughly a quarter to a third of physicians in training reported experiencing significant depressive symptomatology, if not overt clinical depression, at any point in time. The distinction between symptoms and disease may not be particularly important, because the functional effect of subsyndromal depression and dysthymia approaches that of criterion-based major depressive disorder.[7] The personal and professional dysfunction, not to mention the suicide rate that may derive from this symptom burden, should be disturbing to the profession; these findings could be easily construed as describing a depression endemic among residents and fellows.

Discussions about depression among medical students and physicians often involve questions about how the prevalence of depression in physicians compares with that of other professions or population groups. The implication seems to be that perhaps the profession should not be so concerned if the prevalence is similar to that of other high-stress groups. In general, the lifetime prevalence of depression is roughly similar to that of the general population, approximately 10% to 13% in male physicians and 20% in female physicians, compared with 16% in the overall general population.[2,3,5,8] The rate ratios for suicide in male and female physicians compared with their general population counterparts are 1.41 and 2.7, respectively.[3]

Little is known about depression in other professions. But such comparisons are not relevant. When physicians in training have such a high burden of depressive symptomatology, in a caregiving and helping profession it does not matter whether they are more or less likely to be depressed than those in other professions. The prevalence is unacceptably high, with both personal and professional consequences. Studies among medical students and residents have demonstrated that burnout, a different but closely related construct to depression, is associated with higher self-reported rates of cheating on examinations, lying about clinical data, medical errors, and ethical lapses, as well as less altruistic and compassionate care.[9] Relieving the burden of depression among physicians in training is an issue of professional performance in addition to one of human compassion.

The solutions to this endemic can be classified into 3 categories: provide more and better mental health care to depressed physicians and those in training, limit the trainees' exposure to the training environment and system that are thought to contribute at least in part to poorer mental health and wellness, and consider the possibility that the medical training system needs more fundamental change.

The first approach is appropriate irrespective of any other changes. The profession has an obligation to provide appropriate medical and mental health care to all members of the medical profession.[10] However, the best efforts fall short, mostly because of the high levels of stigma attached to seeking mental health care.[11] Medical students and residents are

acutely aware of the negative effects any record of mental health care could have on their future training opportunities. Physicians have the same concerns that their medical staff membership and licensing could be severely compromised by disclosure of mental illness and treatment.[5]

The second approach is embodied in the limits placed on duty hours for physicians in training, first implemented in 1989 and revised in 2003 and 2011.[12] These Accreditation Council for Graduate Medical Education requirements were designed in part to address the issues of resident stress, burnout, sleep deprivation, and medical errors. The results have been disappointing.[13] The literature would suggest that the profession has not yet found the minimal threshold of exposure below which both resident health and performance improve.[14]

With respect to the third approach, there has been little willingness or energy to change the system. The study by Mata et al[6] suggests there may be no choice. The profession appears to not fully appreciate how little the system for training physicians has changed in response to changes in the practice of medicine. The high burden of depressive symptoms experienced by physicians in training suggests that this mismatch has reached a crisis level.

The basic features of the current system of graduate medical education would be recognized by any trainee in the 1950s or 1960s, except perhaps for the limits on work hours. However, the actual delivery of medical care in 2015 would be unrecognizable to those same physicians. The reasons are numerous: life-prolonging and life-creating technologies that lead to unsolvable ethical dilemmas, risk-based reimbursement strategies that limit the opportunities for patient engagement, electronic medical records and documentation requirements that lead to inaccurate and sometimes dangerous copy-and-paste shortcuts, malpractice exposure in which a high proportion of residents in some specialties are named in lawsuits before finishing their training, short hospital lengths of stay that require protocol-driven procedural care with little opportunity for thinking and learning, direct-to-consumer advertising that causes patients to demand medications for conditions they sometimes do not even have, and online ratings of physician performance. The training system for residents and fellows is disconnected from that of medical students, leading to barriers to providing a continuum of progressive learning objectives and professional growth. Clinical productivity pressures on faculty members detract from the formation of strong mentorship relationships and the ability of physicians in training to seek support and wide guidance for the many acute and often highly traumatic experiences they face. The profession purportedly recognizes the importance of health and wellness, but the value system of the current training environment makes clear to residents the unacceptability of staying home when ill, of asking for coverage when a child or parent is in need, and in expressing vulnerability in the face of overwhelming emotional and physical demands.

The time is long overdue for a national conversation on the fundamental structure and function of the graduate medical education system, not unlike the discussion that reformed undergraduate medical education after the Flexner report. The prevalence of depressive symptomatology and disease in physicians in training reported by Mata et al[6] is a significant and important marker for deeper and more profound problems in the graduate medical education system that is in need of equally profound change.

ARTICLE INFORMATION

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