

The Depressed Physician: A Different Kind of Impairment

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The authors of this article were recently asked to lecture at grand rounds about physician depression. However, the lecture never took place. Concerned that the presentation may offend the staff physicians, the organizer of the grand rounds rescinded the request. This experience was the impetus for a much-needed review about the nature of physicians who become depressed.

As this episode illustrates, even health care providers may misunderstand and stigmatize mental illness. This phenomenon is potentially tragic, especially if physicians resist recognizing and seeking help for their personal, emotional difficulties. Also, because of the potential impact on public safety, a physician's duty is to maintain physical and mental health to every extent possible. Simultaneously, the demands of the medical profession pose multiple challenges to physical and mental health, particularly in vulnerable individuals.

In recent years, the focus on the "impaired physician" has increased. The American Medical Association (AMA) (Chicago, IL) defines the impaired physician as a physician who is unable to practice medicine with reasonable skill and safety to patients because of mental illness or excessive use or abuse of drugs, including alcohol.¹ Although considerable attention has been given to physician impairment caused by drug and alcohol use, this article concentrates on a different problem that can lead to serious impairment—depression. This article reviews the data on rates of physician depression and suicide and explores potential reasons for depression among physicians. The impact of depression on physicians in medical training programs and on established physicians is also discussed.

SUICIDE AMONG PHYSICIANS

Historic Reports

Reports of high suicide rates among physicians have stimulated interest in depression among physicians. In 1925, a review of records maintained by the AMA led to the conclusion that the rate of completed suicides

among white male physicians² was approximately 1.5 times the rate for white male nonphysicians of the same age.³ However, subsequent studies from 1925 to 1950 failed to confirm this observation, at least among physicians in the United States. In 1965, the inclusion of suicide among the causes of death in the obituary notices in *JAMA* spawned a renewal of interest in depression among physicians.

Gender differences. Craig and Pitts⁴ examined physician deaths from May 1965 to May 1967 and determined that suicide rates among male physicians were comparable to the rates of matched nonphysician controls. However, these researchers were startled to discover that the suicide rate among female physicians was four times that of women in the general population. This finding was confirmed by Steppacher and Mausner,⁵ who analyzed physician deaths between 1965 and 1970. Steppacher and Mausner⁵ determined that the suicide rate in male physicians was approximately 1.15 times the overall rate of the male population, whereas the suicide rate for female physicians was closer to three times that of other women. It is important to note that, in the general population, the rate of completed suicide among men is approximately three times the completed suicide rate of women; thus, male and female physicians commit suicide at close to the same rate (**Figures 1 and 2**).

Steppacher and Mausner⁵ reported that the preponderance of suicides among male physicians occurred during middle age, whereas the suicide rate among men in the general population older than age 25 years increases with age (Figure 1). In contrast, suicides in female physicians tended to occur at younger ages, and

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Figure 1. Annual age-specific suicide rates per 100,000 comparing male physicians with white men in the United States. Adapted from Steppacher RC, Mausner JS: Suicide in male and female physicians. *JAMA* 1974;228:323-328.

the highest rate occurred among female physicians age 35 to 44 years (Figure 2). Notably, 29% of the females who committed suicide did so during training, whereas only 10% of the male suicides occurred at the same period of professional training.

Recent Reports

Johnston⁶ notes that at a 1996 International Conference on Physician Health (Phoenix, AZ), researchers presented an analysis of 48 physician suicides reported to the AMA from 1991 to 1993. The study noted that the average age of physicians who committed suicide (ie, 55 years) was somewhat higher than the average age of physicians in practice as a whole (ie, 49 years). Additionally, these suicides were spread evenly throughout the age groups of 30 to 43 years, 43 to 54 years, 55 to 70 years and 70 years and older. The study also noted that physicians who committed suicide used drugs more frequently as the means of suicide (19% versus 11% in the general population) and had a somewhat lower rate of use of guns as a means of suicide (46% versus 60% in the general population).

Gender differences. After an extensive review of the international literature concerning gender-specific suicide, Lindeman et al⁷ concluded that both male and female physicians commit suicide at a higher rate than other professionals as well as at a higher rate than the general population. Depending on the study cited, the

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Figure 2. Annual age-specific suicide rates per 100,000 comparing female physicians with white women in the United States. Adapted from Steppacher RC, Mausner JS: Suicide in male and female physicians. *JAMA* 1974;228:323-328.

estimated suicide risk among male physicians ranged from 1.1 to 3.4 times the rate of males in the general population and 1.5 to 3.8 times the rate of other professionals. The relative risk among female physicians was 2.5 to 5.7 times the rate of females in the general population and 3.7 to 4.5 times the rate of other female professionals. This study also confirmed that male and female physicians commit suicide at close to the same rates.

Criticism of Suicide Data

There has been considerable criticism of the physician suicide data, largely because death certificates and other traditional sources of information have proven unreliable. In many cases, it is difficult to determine if death is a result of suicide or an accident. Traditionally, suicides have been underreported to protect the victim or family from stigma or insurance investigations.

DEPRESSION AMONG PHYSICIANS OVERALL

Early Investigations

Depression has been assumed to be the most common precursor to suicide. Although more than 75% of the physicians who commit suicide are alleged to be depressed,⁸ studies of the rate of depression in physicians have been scant. Many reports of mental illness among physicians are the result of retrospective studies based on statistics obtained from clinics and mental

hospitals.⁹ Murray¹⁰ compared psychiatric illness in male physicians with controls by analyzing admission and discharge rates at Scottish psychiatric hospitals. This study reported that first admission and discharge rates were more than twice as high in physicians than in controls, particularly for cases of alcoholism, drug dependence, and depression. Similar findings were reported in an analysis of 100 physicians (89 men and 11 women) admitted to a private psychiatric hospital in Pennsylvania.¹¹ Among the physicians in this study, the prevalence of affective disorders and drug and alcohol abuse was higher than the prevalence for the general population, whereas the rates of schizophrenia and other psychoses were lower.¹¹

In addition, two other studies examining psychiatric hospitalization demonstrated that physicians have higher admission rates than the rates in the general population.¹²⁻¹⁴ Although the preponderance of depression and substance abuse reported in physicians is noteworthy, little can be concluded definitively from these studies other than the fact that physicians have been hospitalized more frequently than would be expected from their numbers in the general population. It is possible that this finding is a result of the fact that physicians are more likely than the general population to use inpatient psychiatric care. None of this data reveal the prevalence of mental illness in physicians who do not need or accept hospitalization.

A Landmark Study

More reliable data regarding the mental health of male physicians comes from a landmark prospective study performed by Vaillant et al.¹⁵ This study followed a group of 268 male Harvard sophomores over a period of 30 years. Of this group, 47 men attended medical school and 46 men graduated. When these 47 men were compared with 79 controls, 17% of the 47 physicians were hospitalized for psychiatric illness, 34% underwent psychotherapy, and 34% abused drugs. The physicians were significantly more likely than the controls to have relatively poor marriages, to use drugs and alcohol heavily, and to obtain psychotherapy. Although this sample is not an overall representation of physicians, the data are enlightening.

Physicians Versus Lawyers

Krakowski¹⁶ compared 100 physicians with 50 lawyers in New York state and found no significant difference in the incidence of mental illness or substance addiction. However, 20% of physicians reported depressive illness when inquiry was made regarding their history of illness as a result of stress. Physicians endorsed more depres-

sive feelings in response to both personal and professional stressors than lawyers did.

DEPRESSION IN FEMALE PHYSICIANS Studies of Depression

In light of the high rate of suicide reported among female physicians, a study was conducted in the late 1970s comparing the lifetime prevalence of affective disorders among a group of female physicians and a group of female PhDs who were matched according to age, race, and marital status.¹⁷ An initial report of this study described a remarkably high rate of depression in both groups as well as a significant difference in lifetime prevalence among the two groups: 51% of the MDs and 32% of the PhDs were diagnosed as having a lifetime primary affective disorder.¹⁷ A subsequent report of the same data, using more strict diagnostic criteria, described a lower but still comparative prevalence of primary affective disorder: 39% among the MDs and 30% among the PhDs, a nonstatistical difference.¹⁸ These rates still surpassed the highest estimate (23.9%) of a lifetime affective disorder among women in the general population.¹⁹ In this study, a finding regarding family history was impressive: 51% of the depressed MDs (compared with 11% of the nondepressed MDs) had a first-degree relative with depression. Among the PhDs, 32% of the depressed group (compared with 8% of the nondepressed group) had at least one depressed relative. The study suggested that the risk for affective disorder may be even higher than the noted risk because many of the women in the nondepressed group had not passed through the age of risk for depression; the study also noted that any MDs who had already committed suicide were not part of the study.¹⁸ The study concluded that female physicians and other female professionals are indeed at high risk for depression and that the higher prevalence in first-degree relatives suggests that high-risk women may self-select for professional careers.

Not all studies, however, indicate that female physicians experience a high rate of depression. Brown²⁰ studied the relationship of depression, stress, and self-esteem among 52 Canadian female physicians in family medicine from London, Ontario; this sample represented 83.3% of all female physicians in family medicine in that geographic region. Using the Cognitive Checklist as a screening instrument for depression and anxiety, the study found that the group's mean scores for depression and anxiety were well within normal ranges. Brown²⁰ did note, however, that a major limitation of the study was the small sample size and the geographic homogeneity of the female family medicine practitioners who were surveyed.

DEPRESSION IN MEDICAL TRAINEES

Impairment has been of particular concern among medical students and house officers. The stresses of medical training are widely acknowledged, and educators have suggested that physician training centers offer formal psychiatric assistance.²¹

Relevant Studies

One review of psychiatric illness in medical trainees described a prevalence of 15% to 46%.¹² Valko and Clayton²² reported that 30% of medical interns retrospectively reported the experience of significant depression during their internship; 25% of these depressed interns reported suicidal ideation, and many had a plan to commit suicide. This finding was confirmed by Reuben,²³ who reported a 29% rate of depression during the internship year with a prevalence as high as 34% during particularly stressful rotations. Furthermore, Schneider and Phillips²⁴ reported a 35% prevalence of significant anxiety and depressive symptoms in a cohort of medical, surgical, and pediatric interns. Symptoms were consistent throughout the year, reflecting little adaptation to the demands of residency training. Hendrie et al²⁵ compared symptoms of anxiety, depression, and suicidal ideation in medical students and housestaff and found a reduction of symptoms in men who were farther along in training; this reduction was not found in women.

Overall, female trainees endorsed greater symptoms of anxiety and depression compared with male trainees (41% compared to 27%). Significant symptoms, reflecting anxiety and depression beyond the norm, were found in 33% of male medical students but only 10% of male residents. In contrast, female medical students endorsed symptoms at a rate of 42% compared to 37% in residents, a nonsignificant difference.

Rosal et al²⁶ performed a longitudinal study of depression in medical students at the University of Massachusetts Medical School (Worcester, MA) from 1987 to 1993. From an initial pool of 264 students entering medical school who had baseline assessments for depression, stress, anger, and frequency of social contacts, 99 students completed three longitudinal measurements—at entry into medical school, during their second year of school, and during their fourth year of school. The study used scores at or above the 80th percentile on the Center for Epidemiological Studies Depression (CES-D) scale as an indicator of depression. A consistent increase was noted in CES-D scores from 18% among students entering medical school to 39% at year two and 31% at year four ($p = 0.001$). No gender differences were found at baseline in this group of students entering school, 53% of

whom were male. However, women had significantly higher levels of depression at both years two and four. Gender and increases in perceived stress significantly predicted higher CES-D scores. For women, internalized anger and a lower frequency of social contacts outside school served as additional predictors of the CES-D scores for depression. Notably, the observed increase in depression scores was not an episodic phenomenon, but rather was chronic and persistent. The study concluded that social isolation prior to entering medical school may predispose all medical students, particularly women, to higher levels of depression. However, generalizations based on the study are limited because the data were from only one medical school and because data from survey nonresponders were absent.

Suicide Among Trainees

Suicide among medical students is an important issue that has been investigated only periodically. Hays et al²⁷ recently published results of a telephone survey of 80% of American medical schools from 1989 to 1994. Medical schools reported a lower number ($n = 15$) of student suicides than would have been expected from data of earlier studies. The study suggests that the relatively recent development of systems for medical student counseling and other means of psychological support may be having a positive effect on suicide prevention in medical students.

Conclusions

Based on the available data on depression in medical trainees, one could conclude that the rate of emotional distress in this group is particularly high. It is unclear, however, how much of this distress is transient and stress-related versus how much it reflects major psychiatric impairment. Regardless, these findings have serious implications, not only for medical trainees' personal health but also for their ability to integrate vast amounts of cognitive knowledge while maintaining sensitivity and empathy for their patients.

EXPLANATIONS FOR DEPRESSION IN PHYSICIANS

Why is there so much depression among physicians? Typically, the answer to this question falls into one of two categories—the unique occupational stresses of being a physician can cause depression, or individuals who are predisposed to depression are more likely to choose the medical profession.

Occupational Stress

The stresses of being a physician are well known. House officers in particular are subject to long hours,

the need to make rapid and important decisions, exposure to unpleasant and emotionally taxing illnesses, and the need to absorb large quantities of new and complicated information. The stress faced by a house officer negatively affects training and patient care, and has been implicated as a cause of depression among medical trainees.²⁸ Friedman et al²⁹ documented that the sleep deprivation of internship can lead to depression as well as cognitive impairment and irritability.

Established physicians can also be negatively affected by the stress of the profession. May and Revicki³⁰ conducted a mail survey to assess professional stress among family physicians. These researchers reported a significant correlation among perceived stress in medical practice and depression—specifically, the greater the perceived stress level in medical practice, the higher the level of depression in the physician. Although only 3% of respondents reported clinical levels of depression, almost 33% of the total sample experienced symptoms within a subclinical range.

Although stress appears to be a major contributor to the prevalence of physician depression, many factors mediate the effects of stress. Individuals respond to stress in different ways based on genetic predilection, personality makeup, coping skills, and external supports. Most physicians are highly resilient individuals and thrive even in a stressful environment. Physicians who become psychiatrically impaired are often found to be predisposed to depression before entering medical training.

Predisposition to Impairment

In a review of psychiatric illness among physicians, Waring¹² proposed that attributing physician impairment to stress is an insufficient and superficial explanation of the problem. This researcher cited that many professions are equally demanding, that most physicians do not develop psychiatric impairment (although they are subject to the same pressures as the physicians who do), and that evidence supports that the presence or absence of psychiatric illness in physicians is strongly associated with their life adjustment prior to entering medical school. Considerable support exists for the view that depressed physicians are vulnerable to impairment before entering medicine. In a study of Harvard students, Vaillant et al¹⁵ noted that the physicians who demonstrated the highest level of impairment achieved the lowest scores on levels of adjustment in childhood and adolescence. Borenstein²¹ summarized the makeup of vulnerable trainees:

They are often intellectually gifted, competitive, and compulsive. They tend to isolate themselves

and have few close personal relationships. They are frequently troubled by identity or role diffusion and may have a history of substance abuse, suicide attempts, and/or psychiatric illness. It is not unusual to find a family history of psychopathology, suicide, or substance abuse.

Further supporting the concept of physicians' predisposition to impairment, in a report of psychiatrically hospitalized physicians, Jones¹¹ reinforces the theory that the personality of impaired physicians seems to predispose them to problems when attempting to cope with occupational stresses. Jones¹¹ characterized the premorbid personality of impaired physicians as overzealous, with a reluctance to relax or acknowledge personal limits or vulnerabilities. Clayton et al¹⁸ emphasized the importance of genetic vulnerability, making special note of the difference in prevalence of depression in first-degree relatives among depressed and nondepressed women professionals. The findings in a study by Valko and Clayton²² of depressed interns were quite similar: 50% of the depressed interns had at least one first-degree relative with depression and 13% of all the interns had a first-degree relative with a history of depression.

Do Vulnerable Individuals Disproportionately Select a Career in Medicine?

The association of an increased risk of depression with a family history of affective disorders, childhood parental loss, and childhood trauma (eg, loss, abuse, neglect) is well established. Personality characteristics such as inflexibility, compulsiveness, and perfectionism may further predispose an individual to emotional difficulties. It should not be surprising that physicians who enter the profession with these vulnerabilities develop depression, especially when considering the sometimes severe occupational stressors that they encounter. With these factors in mind, one must ask if individuals who are more vulnerable to depression selectively choose the medical profession, and if so, why?

To answer these questions, investigators have explored and compared the family histories of medical students and physicians with the histories of other professionals. Paris and Frank³¹ reported that medical students were more likely than law students to have experienced a serious medical illness in their family of origin. Feifel et al³² also found that physicians experience the fear of death at a younger age than do controls, usually in response to a personal or family experience of illness, accident, or death. The experience of the authors of this article while serving on medical school admission committees confirms that many medical students attribute their interest in medicine to early life impressions of

physicians, arising from personal or familial illness. A student who chooses to enter the medical profession based on early life experiences with a depressed parent would most likely be vulnerable to developing depression. The data point to the fact that illness in general predisposes interest in the medical profession.

How might early life experiences with medical illness predispose a physician to psychiatric impairment? Johnson³³ asserted that some physicians are predisposed to emotional distress and psychiatric illness because of personal qualities that arise from unconscious responses to ill or unavailable parents. Moreover, this researcher argued that some physicians choose to enter the medical profession for two unconscious reasons: 1) to redress childhood fears of powerlessness created by being ill or seeing an ill parent, or 2) to obtain the care and attention that they did not receive as children because of absent, neglectful, or otherwise unavailable parents. Choosing medicine as a career is a form of defensive behavior for these individuals who are trying to deal with their fears of death or feelings of inadequacy. Under the stresses of the profession, their defenses break down. Physicians who enter the profession to "conquer illness" soon discover that they have little power in the face of death and serious disease. They may persevere to the detriment of their own health.

Although these theories have not been validated empirically, they may provide a logical contribution to the research regarding the high levels of impairment among physicians. Most likely, physician depression arises from a combination of factors that include genetic history, early life experiences, and high levels of occupational stress.

TREATMENT

Recognizing Depression

The first step in treating depression is recognizing it. A colleague who is suffering from depression may not appear to be sad or "blue." Symptoms may include a marked irritability or apathy, weight changes as a result of decreased appetite, or carbohydrate cravings. The physician's quality of work may decline because of sleep problems, fatigue, or poor concentration, and the physician may fall behind on record keeping and other administrative duties. Attempts to compensate for low productivity may result in working excessive hours or going on rounds at unusual times. Physicians who are depressed may be unusually self-critical of their patient care and unable to forgive themselves if a problem occurs. The depressed physician may withdraw from participating in once-enjoyable social activities and may exhibit an increased use of alcohol or drugs.

Because of the stigma attached to depression and the reluctance of many physicians to acknowledge their impairment, it may be necessary to gently confront a colleague who demonstrates these symptoms. The depressed physician should be reassured that many effective therapies are available for depression and that the condition need not become catastrophic. If this reassurance is ineffective, a reminder of the personal and professional consequences of impairment may be necessary.

Reluctance in Seeking Help

The problem of recognizing and treating depressed physicians is complicated by the notorious reluctance of physicians to acknowledge their vulnerabilities or seek help. Personal, professional, and societal factors contribute to the reasons that physicians tend to be so reluctant. Physicians are used to being in the caretaking role; thus, they may resist accepting that they, too, have human needs. Physicians often experience guilt or shame when receiving help from others, which may be provoked by a perception of personal weakness.³⁴ Professionally, physicians may fear sanctions on medical licensure or hospital privilege. Physicians may also fear discrimination in current or future practice opportunities.³⁵ On a societal level, physicians are subject to the same influences as members of the general population—specifically, a considerable stigma is still attached to mental illness. Despite widespread attempts to destigmatize depression and psychiatric treatment, many continue to view depression as a weakness or character flaw rather than an involuntary and blameless medical illness.

The Challenges of Treating the Depressed Physician

After the illness has been acknowledged, treatment of the depressed physician poses unique challenges. Physicians tend to be treated as "special patients," by their colleagues, which can ultimately erode the quality of their care; for example, a physician may write a prescription for antidepressants for a physician friend without performing the extensive evaluation that is usually conducted on depressed patients. Because physicians are often reluctant to seek help, many come to treatment only when they are no longer able to practice.³⁴ Some physicians self-medicate with antidepressants, a practice that should be strongly discouraged. The depressed physician may decide to leave treatment prematurely. Even if a physician accepts somatic therapies, many have difficulty appreciating that stress-reducing lifestyle changes may be equally important in maintaining emotional health. After recovery, the physician should be reminded that depression may be a chronic and relapsing condition that requires close monitoring.

IMPLICATIONS FOR ORGANIZED MEDICINE

It is vitally important that physicians, trainees, and members of medical organizations are aware of the risk of physician depression, particularly among women. In recent years, there has been a move away from the harsh expectations of medical training (eg, more reasonable schedules); nevertheless, medical students, house officers, and established practitioners continue to face very high levels of stress. Newer stressors include dealing with managed care and the emerging corporate climate of medicine, significant loan debt following training, and an explosion of technologic advances that must be absorbed and incorporated into practice.

Physicians should be sensitized to the risk of impairment and provided with resources for obtaining help. Medical organizations may be in the best position to organize and disseminate this information. In addition to helping physicians recognize that they are at high risk, these organizations should also educate them in ways to recognize and confront a colleague who appears to be suffering from depression.

Unfortunately, data about depression among physicians is considerably lacking. The increasingly diverse population of individuals entering medicine, and the changing stresses of a medical career make it impossible to predict how this issue may change. Further research is necessary to monitor and address this problem. Included should be a sampling of the mental health of existing physicians and trainees, and an investigation of factors that may affect the mental health of the physician population. HP

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