Depression in the Workplace: Costs and Barriers to Treatment

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Surveys estimate that 1.8 to 3.6 percent of workers in the U.S. labor force suffer from major depression. Depression has a significant impact on vocational functioning. Seventeen to 21 percent of the workforce experiences short-term disability during any given year, and 37 to 48 percent of workers with depression experience short-term disability. Studies indicate that treating workplace depression provides favorable cost offsets for employers, although a number of methodological issues have influenced the interpretation of these findings. In addition to disability costs, cost analyses need to include lost wages and indirect costs to employers, such as the costs of hiring and training new employees. In general, employers are not aware of the extent of the indirect costs of untreated depression. They have mistaken assumptions about the availability of effective treatment, and they are unaware of how often depression contributes to worker disability. The workers' compensation system and the courts have been slow to recognize depression as a work-related disability, and as a result employers have few incentives to treat and prevent workplace depression. (*Psychiatric Services* 52:1639–1643, 2001)

Depression is among the most debilitating health problems worldwide. The World Health Organization ranked depression as the fourth most common disease in 1990, after lower respiratory tract infections, diarrheal diseases, and conditions arising in the perinatal period (1). Depression is expected to be the second most common disease by 2020 and to account for 15 percent of the disease burden in the world (1). The Epidemiologic Catchment Area study found that 17 percent of all American adults have experienced an episode of major depression in their lifetime; the 12-month prevalence rate of major depression is 10 percent (2). People who have a depressive disorder suffer limitations in physical and social functioning that are as severe or more severe than those caused by such conditions as hypertension, coronary artery disease, lung problems, and back pain (3).

It is no surprise that depression has a significant prevalence in the workplace and a significant impact on vocational functioning. If one assumes that depression in the workplace is common and that it is associated with impaired work performance as well as more days of disability, then an important economic question is whether identifying and treating workers who suffer from depression is a good financial investment. This paper examines the prevalence and effects of depression in the workplace and the financial and policy implications of its presence and treatment.

Prevalence and associated disability

According to the National Survey of Midlife Development in the United States, an estimated 1.8 percent of workers in the U.S. labor force suffer from major depression; the National Comorbidity Survey puts the estimate at 3.6 percent (4,5). Workers who are depressed are at significant risk of having both social and work disabilities. A study of 11,000 outpatients at three U.S. locations compared levels of physical, social, and role functioning of patients with depression with those of patients who had a medical disorder, such as hypertension, diabetes, advanced coronary artery disease, angina, arthritis, back problems, breathing problems, and gastrointestinal disorders (3). The patients with depression showed impairments in functioning that were comparable to or worse than those of patients with medical disorders.

As part of the World Health Organization's collaborative study of psychological problems among patients in general health care, Ormel and colleagues (6) prospectively examined 1,501 patients. At baseline, 14 percent of the patients had a diagnosis of depression, but none had a physical disability. Patients who had depression at baseline were 1.8 times more likely to have a physical disability at 12 months, with severity of illness controlled for. The same authors also looked at a sample of 914 patients. At baseline, 9 percent of the patients had a diagnosis of depression; none

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had a social disability. Those with depression at baseline were 23 times more likely to have a social disability at 12 months, with severity of physical disease controlled for.

Kessler and colleagues (7) analyzed data from two national surveys to determine the association between short-term work disability episodes—one to 30 work days—and major depression that lasted at least 30 days. Seventeen to 21 percent of the total sample had taken a short-term disability leave; however, the rate among workers with depression was 37 to 48 percent.

Some of the most interesting data about the relationship between depression and workplace disability are from a 12-year study of psychiatric short-term disability leave among employees at First Chicago NBD Corporation, a large financial services company (8). In 1989 behavioral illness was the sixth leading cause of short-term disability episodes among company employees; by 1992 it had risen to the third leading cause—from 2.5 events per 1,000 employees per year to ten events per 1,000 employees per year. Depression accounted for 59 percent of the events and 65 percent of total short-term disability days. An average of 44 work days were lost during short-term disability events associated with depression. By comparison, the average number of days lost during other short-term disability events was 42 for heart disease, 39 for lower back pain, and 21 for asthma. Furthermore, 12-month recidivism for a short-term psychiatric disability leave was 20 percent, compared with 8 percent for lower back pain, 9 percent for heart disease, and 30 percent for asthma. It should be noted that the findings of this study were skewed by the fact that two-thirds of the employees at First Chicago are women, and depression is more prevalent among women than among men.

Financial impacts

Zhang and colleagues (9) explored the question of whether direct costs for the treatment of major depression offset the costs of lost earnings that resulted from lost work days. They examined a statewide cohort of community residents in Arkansas who were diagnosed as having major depression, dysthymia, or "substantial" depressive symptoms. Participants were seen at baseline, at six months, and at 12 months. The cost of treatment for depression was measured by charges from insurance records. Lost earnings were measured as lost work days multiplied by wages. After the analysis controlled for sociodemographic characteristics, severity of depression at baseline, and comorbidity, treatment for depression was found to have no effect on net cost. This finding suggests that the cost of treatment was fully offset by the savings realized from the reduction in lost work days.

Despite the growing incidence of claims for compensation for work-related depression, workers' compensation boards as well as the courts have been slow to recognize depression as a work-related disability.

In this study, the direct cost offset alone was sufficient to justify benefit support.

Kessler and colleagues (7) found that workers with depression had 1.5 to 3.2 more short-term disability days than other workers during a 30-day period, with an average salary-equivalent productivity loss of $182 to $395. On the basis of an estimated cost of $402 for the treatment of an episode of depression (10), the cost of lost wages nearly equaled the direct costs of treatment.

Birnbaum and colleagues (11) used 1997 claims information from a Fortune 100 manufacturer to analyze the financial impact of major depression. Of the 100,000 employees and family members enrolled in the company's health care plan, a total of 4,220 had claims for depression or depression-related disabilities. The average annual costs—including medical, pharmaceutical, and disability costs—for the beneficiaries with major depression were 4.2 times greater than the costs for a typical beneficiary: $8,709 versus $2,059. Furthermore, disability costs for patients with major depression represented a much higher proportion of total costs—22 percent versus 13 percent for the typical beneficiary. The average annual direct health care costs for patients with major depression was $6,787. Because these patients had a high rate of comorbid medical disorders, only 43 percent of this total was for psychiatric care.

The mean annual cost per employee—including physician, drug, and disability costs—was $3,127. For the depressed employees who did not take disability leave, the mean cost was $11,086, and for the depressed employees who took disability leave, the mean cost was $13,929. Twenty percent of all company employees had a disability claim in 1997, for an average expense of $931 for every person in the company. Fifty-two percent of the employees who were treated for depression had a disability claim. Of the 1,902 employees with major depression, 859 (45 percent) were disabled specifically because of depression, and their disability costs were three times the average.

Workers' compensation and depression

Workers' compensation is intended to provide fair payment for work-related injuries or disabilities. If some cases of depression can be viewed as stemming from conditions in the workplace, then depression could be seen as a compensable condition under the worker's compensation system. There is a commonsense view that dysfunctional work settings contribute to the onset of major depression in vulnerable individuals. Despite the growing

incidence of claims for compensation for work-related depression, workers' compensation boards as well as the courts have been slow to recognize depression as a work-related disability. Claimants under the workers' compensation system have found it difficult to secure compensation for depression resulting from workplace conditions (12).

Workers' compensation evolved throughout the United States as a no-fault insurance system. It provides a means of compensating workers for the costs of treating work-related injuries and for lost wages, and it protects employers from additional liability. No fault is assigned either to the injured worker or to the employer for causing the injury. In return for these "modest but assured benefits," the employee and his or her dependents give up the right to sue for common-law tort damages for injuries that are covered by the insurance (13).

The system works well for physical injuries—when a construction worker falls and breaks a leg, for example. However, when symptoms are mental rather than physical—as is often the case with depression—the courts have tended to blame the claimant for the disability rather than considering the role of workplace stress. Judges who seek to blame workers for their own depression do not recognize the rehabilitative purposes of workers' compensation laws.

The rationale behind this blame-seeking analysis seems to stem in part from judicial concerns about the possibility of workers' compensation being turned into a general health insurance system. Judges are concerned that claimants would wrongly get money for lost wages and treatment for depression when the ailment actually arises out of the "day-to-day emotional strain and tension which all employees must experience" (14). Courts also assume that they are vulnerable to false claims for compensation from malingering workers (12).

Judges may think that because mental or situational stimuli such as stressful workplace conditions are somehow "amorphous and intangible," their existence cannot be proven. Mallin (12) argued that the testimony from other workers, supervisors, and employers who are present in the workplace can provide concrete evidence about working conditions. Thus change in the work schedule that gives rise to depression may actually be easier to trace causally than, for example, the synergistic relationship between asbestos and smoking in cases of silicosis. However, silicosis generally has been accepted as an occupational disease, but depression caused by situational stimuli has not. Judges who conclude that the situational stimuli leading to depression are internally imposed—that is, not imposed by the workplace—are seeking to attach blame to the worker in a system in which fault is not meant to be an issue.

The injury or accident model, as described above, is usually not sufficient for the depressed worker to receive compensation for a workplace-caused depression. Another model, the occupational disease model, is only slightly more friendly to a workers' compensation claim. The occupational disease model compensates workers for disabilities resulting from inherent hazards of continued exposure to conditions of the particular employment. Only five states—Montana, Oregon, Washington, Georgia, and Ohio—have included compensation for mental reactions to the repetitive stress associated with certain occupations. Much of the case law involves psychological reactions to exposures to toxins that also produced physical illnesses (15).

Occupational disease claims are subject to an extra requirement not involved in accident claims. An occupational disease, as defined, may not be "an ordinary disease of life." The harmful conditions of employment must be distinctive in kind or be present in a greater degree than in everyday life or in employment in general (12). Symptoms of depression that may be caused by the workplace must be manifested outside as well as within the workplace. In the occupational disease model, judges are asked to accept employers' claims that depression is an ordinary disease of life.

From a public health perspective, wider compensation for stress-related claims, including claims for depression, would provide an incentive for employers to reduce stress in the workplace. The present environment, in which most claims for depression-related illnesses are rejected, provides few incentives to do so.

Problems of identification

The ability to identify major depression in the workplace is compromised by a number of issues. Specifically, concerns about confidentiality cause some people to avoid screening for depression, leading to sample bias. The 2 percent prevalence rate of major depression in the workplace cited by Kessler and colleagues (7) does not include the "hidden burden" of depression that presents in the medical sector as physical complaints, such as back pain. Therefore, it is likely that the prevalence and impact of depression are underestimated. Depression, whether detected or undetected, most likely contributes to low productivity, absenteeism, increased use of health and mental health services, substance use, job dissatisfaction, and accidents.

The investigation of depression in the workplace includes important nosological issues. Dysthymia, subsyndromal forms of depression, and prolonged adjustment disorders—as well as major depression—can have a significant impact on work activities. Kessler and colleagues (7) found that severity of depression was not related to the number of disability days. However, subsyndromal depressive symptoms, often accompanied by anxiety symptoms, may be manifested as "stress-related" symptoms, such as irritability, burnout, fatigue, boredom, and poor work performance. Although low morale is not the same as depression, it may be a result of depression. The World Health Organization has recognized workplace stress as a worldwide epidemic, and many employee assistance programs have data documenting the high prevalence of workplace stress and related symptoms.

Why is workplace-related depression not identified and treated? The answer to this question involves personal, employer, societal, and provider components. Individuals who suffer from depression are often in denial; lack of motivation to get help is

part of the illness, as is a sense of helplessness. Both the emotion and the illness are still largely stigmatized in our culture.

Of special concern in the workplace is that the identification of depression will lead to employment consequences and discrimination. Glozier (16) reported data from a survey of human resource officers in the United Kingdom who were given vignettes about potential employees. The vignettes were equivalent except for the presence of depression among some of the candidates. Participants were significantly less likely to state that they would hire a candidate with depression than one with diabetes. Their decisions not to hire the candidates with depression were based on expectations of poor work performance rather than expectations of absenteeism.

The common belief that there are no effective treatments also may keep employers from addressing depression in the workplace. However, Frank and colleagues (17) concluded that the cost-effectiveness of treatment has improved to the point at which it provides a good return on investment for employers. Using a database of 428,000 employees and dependents who were enrolled with four large, self-insured companies between 1991 and 1996, the authors identified 13,098 episodes of major depression and the treatments provided. Treatment effectiveness was estimated by a panel of expert consultants. The panel found that a large range of treatments produced substantial clinical effects and that over the course of the study period the costs of successfully treating depression actually decreased.

The current literature contains no studies of workplace interventions that use work performance as an outcome variable of either depression treatment or changes in workplace systems. The lack of specific data in this area, along with the judicial views of depression, handicaps attempts to address the questions of whether depressed workers require some type of accommodation and whether workers who are vulnerable to depression could benefit from workplace prevention programs directed either toward the individual or toward the workplace system.

Potential interventions for identifying and addressing depression in the workplace include depression recognition screenings at health fairs, confidential self-rating sheets placed in company cafeterias, promotion of greater awareness by employee assistance programs, recognition training for supervisors, and more education for boards and hospital leadership.

Given the role of the judiciary in setting the framework for liability, providing ongoing education for members of the judicial system also seems important.

Prevention issues

The question of whether it is possible to prevent major depression in the workplace is nested within the larger question of whether the emergence of major depression in vulnerable individuals can be prevented. In the workplace, the importance of stress management in preventing the onset of depression is certainly an issue. However, no data on the impact of workplace stress management programs on the incidence of major depression are available. The commonsense view is that dysfunctional work settings—those that produce excessive stress and feelings of powerlessness, for example—can contribute to the onset of major depression in vulnerable individuals in a manner similar to that in which laboratory models can induce depressive behaviors in animals. At this time, there is little legal acknowledgment of this relationship. Because of the interaction of personal and environmental variables, it may be that workplace stressors are contributors to rather than the sole cause of depression.

Measuring cost

The American Psychiatric Association has formed a committee to study the issue of workplace depression. The current statistical models for measuring the direct and indirect costs attributable to depressed workers are rather primitive, and there is tremendous variability in the indirect costs associated with impaired workers (Sperry L, committee chairman, personal communication, 2000). Relatively untrained workers who can be replaced quickly may not engender any indirect costs. However, decreased productivity among depressed managers or professionals may result in high indirect costs. The costs associated with impaired leadership may include the ripple effects of absenteeism, a decrease in productivity among other team members, and stalled projects. Sperry estimates that the direct costs of treatment account for about a third of all costs and that the largest portion of indirect costs (about 30 percent) is due to absenteeism alone. An unpublished study cited by Sperry found that by providing vigorous treatment, a large East Coast company cut by half the $14 million of total costs attributed to depressed workers. (These data are not yet available for review.)

Is developing initiatives to identify and treat major depression a good financial investment for employers? Treating major depression simply to reduce human suffering and distress is probably not the primary concern of most employers. Support for enhanced treatment and benefit programs clearly must come from data that go beyond the simple analysis of direct treatment costs and missed work days. The most sophisticated approach combines data on medical costs, pharmacy costs, and disability costs. Lost opportunity costs as well as substantial indirect costs must also be factored in. It is also clear that direct disability payments constitute only a fraction of the costs of workforce disruption; additional and significant disability-related costs include hiring and training other employees, increased incidence of accidents, poor work performance, and the effects on the morale of other workers. The industry rule of thumb is that for every $1 of disability claim paid out there is an associated cost of $1.50 for workplace disruption.

Charles Cutler, M.D., chief medical officer of the American Association of Health Plans—an organization that has opposed efforts to mandate parity coverage for mental illness—believes that treating depression in the workplace is worthwhile, although he does not feel that the evidence that savings exceed costs is

convincing (18). In his review of some of the same studies reviewed here, he concluded that the savings realized by treating depression represent between 45 and 98 percent of the cost of treatment. His view highlights the importance of defining the methods by which costs are calculated, because measuring only direct costs may not provide sufficient support for investing in the treatment of workplace depression.

Conclusions

Depression is a common problem in the workplace, and its effects are costly for the employer. Workers' access to needed psychiatric services is often limited by inadequate health insurance benefits and benefit structures. The costs of adequate treatment are almost certainly offset when compared with the combined direct and indirect costs associated with depression. Employers take a shortsighted view of the role played by workplace conditions in the cause of depression, and the workers' compensation system provides them with few incentives to create prevention or treatment programs.

Few data are available on the specific relationship between work conditions and depression. However, there is certainly enough information about how to help people with depression. The workplace can be an important arena for addressing public health problems, as has been the case with smoking, obesity, and illiteracy. Employers who support recognition and treatment of workplace depression may see financial returns through increased employee productivity. ♦

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Psychiatric Services Invites Submissions for Special October 2002 Issue

The 2002 Institute on Psychiatric Services will be held October 9–13 in Chicago. President-Elect Paul S. Appelbaum has informed the journal that an important focus of the meeting will be on the critical issue of diminishing resources for mental health services as missions are redefined in both the private and the public sector to focus on ever-smaller groups of patients and as care is increasingly entrusted to for-profit managed care companies. Dr. Appelbaum has identified two important and related questions raised by this issue:

♦ What should a system of care look like at the start of the 21st century?

♦ How can we identify the funding to sustain such a system?

Psychiatric Services is planning a special section in the October 2002 issue that will address these questions and that may serve to influence and galvanize public policy. Papers are invited on relevant topics, especially the funding issue.

To propose a submission and discuss its appropriateness, please contact John A. Talbott, M.D., Editor, at jtalbott@psych.umaryland.edu or Connie Gartner, Managing Editor, at cgartner@psych.org.