

Caring for Depression in Primary Care: Defining and Illustrating the Policy Context

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Depression is a socially important condition that is often undertreated. This article reviews data from the Medical Outcomes Study illustrating the policy importance of depression, highlighting style of treatment under prepaid managed or fee-for-service care and strategies to improve the cost-effectiveness and efficiency of care.
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Illnesses typically acquire policy importance when they are associated with high direct and indirect, or social, costs relative to other major disease conditions and when the illnesses are malleable to treatment and policy decisions.¹ In framing policy, policymakers are concerned about the impact of the disease in the form of morbidity, mortality, and social costs as they equate to loss of work and productivity and the time costs of care for the disease. Policymakers are perhaps more concerned with the direct treatment costs that must be borne by patients, employers, and insurance companies. However, concern with such indirect and direct costs may be tempered by the acknowledgment that it may be worthwhile for society to pay for a costly treatment if there is a good outcome return in terms of benefit to patients and reduced social costs of illness.

Depressive illness satisfies the criteria for a socially important condition: it is a common illness associated with high direct and indirect costs, and it is an illness that is eminently treatable.² The current trend with regard to treatment of depression is a shifting from specialty care to primary care, a movement that has been encouraged by managed care policy.³ Two contended issues regarding this trend are whether managed care strategies affect the quality and outcomes of care and whether the shifting of depressed patients to the primary care setting affects the quality and outcomes of care. This article presents a discussion of these issues using data from the Medical Outcomes Study. A detailed discussion of the design and find-

ings of the Medical Outcomes Study has recently been published by Wells et al.¹

PUBLIC HEALTH PERSPECTIVE

Depression clearly belongs to the group of disorders meriting public health policy attention. Epidemiologic Catchment Area (ECA) data⁴ indicate that the 1-year prevalence of major depressive disorder is 5%, and 5.4% of the population have dysthymic disorder. It has also been shown that the prevalence of major depression is increasing over time and by birth cohort.⁵

Figure 1 shows the comparative prevalences of depression and patient-reported chronic medical conditions in general medical practice.¹ Depressive symptomatology is comparable in prevalence to hypertension and arthritis, whereas current depressive disorder is comparable in prevalence to advanced coronary artery disease and chronic lung disease. Greenberg et al.⁶ have estimated that the cost associated with affective disorders in the United States is approximately \$44 billion, exceeding the annual costs associated with coronary heart disease or arthritis.

Morbidity is the key policy concern in depression, since approximately 65% of the cost associated with affective disorders is associated with morbidity; in this regard, depression differs from such illnesses as hypertension, arthritis, and coronary heart disease, for which the bulk of cost to society consists of direct treatment costs. An example of the degree of morbidity associated with depressive disorder comes from a comparison of outcomes in other illnesses associated with functional limitation.⁷ Two-year follow-up of patients with double depression and early-onset diabetes in general medical practice has shown that although there is improvement in both physical and social functioning over 2 years in those with depression and deterioration in both types of functioning in patients with diabetes, overall levels of both physical and social functioning in those with depression remain lower than levels in those with diabetes over this time period (Figure

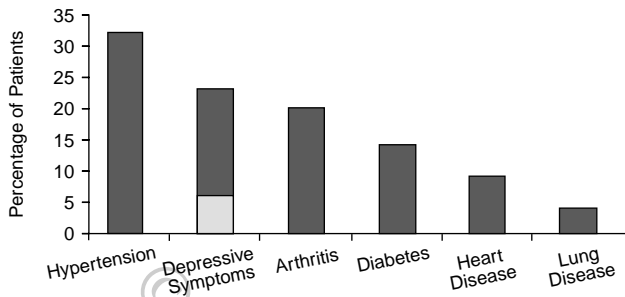
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Figure 1. Prevalence of Depression and Patient-Reported Medical Conditions in General Medical Practice*



*From reference 1, with permission. Percentage of patients in general medical practice with depressive symptoms or self-reported conditions of hypertension, arthritis, diabetes (high blood sugar or diabetes), heart disease (lifetime occurrence of heart attack or current heart failure or enlarged heart), and lung disease (asthma or other such severe lung problems as chronic bronchitis or emphysema). Lighter shading on depressive symptoms bar indicates proportion of patients with current depressive disorder.

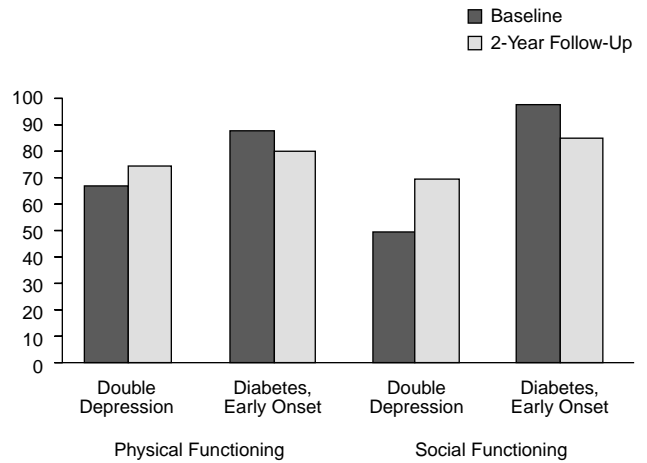
2).⁷ Persons with depression had more bed days than persons with any other chronic illness studied in the Medical Outcomes Study except coronary heart disease, and depression was more prevalent than heart disease.⁸

FEE-FOR-SERVICE AND PREPAID CARE FOR DEPRESSION

Two major competing forms of managed care in the United States are prepaid managed care and fee-for-service care. In prepaid care, the enrollee pays for care in advance; this method contains an inherent incentive to health care providers to reduce services, since no additional fees are collected for additional services rendered. In fee-for-service care, the provider is paid for each service performed, providing an incentive to increase service use; however, under this form of care, patients typically are obligated to meet co-pay requirements or are faced with other financial barriers to discourage service use.

We have assessed the outcomes achieved in treating depression in general medical practice under prepaid and fee-for-service systems to determine if the systems are associated with different degrees of quality of care.⁹ When patients with acute depression presented to a general medical practice, the depression or history of depression during the past year was detected in 54% of cases in the fee-for-service settings and in 42% of cases in the prepaid care settings. The proportion of patients who received any counseling, consisting of at least 3 minutes of discussion of depression or psychosocial issues, was 51% in fee-for-service settings and 35% in prepaid care settings. Under both payment types, only 20% of severely depressed patients used appropriate antidepressant medication and only 5% to 10% were referred to specialty care. More than 35% of these patients used ineffective minor tranquilizers, and

Figure 2. Physical and Social Functioning Levels in General Medical Practice Patients With Depression or Diabetes*



*From reference 7, with permission. Levels of physical functioning and social functioning at baseline and after 2 years in patients from general medical practice with double depression or early-onset diabetes. Higher scores indicate greater functioning level.

the proportion of patients using tranquilizers was considerably higher in the prepaid care settings. Among general medical practice patients, there was virtually no difference in functional outcomes between the two payment types and no difference in level of functioning within payment types over 2 years of follow-up.¹

COST-EFFECTIVENESS OF PRIMARY CARE FOR DEPRESSION

In an analysis of the most severely depressed patients in the Medical Outcomes Study,¹⁰ the average annual cost per primary care patient, including undetected cases, was approximately \$1000 for all their mental health care. As noted, there was no improvement in functioning outcomes on average over 2 years. It was calculated that the cost of removing one functional limitation was \$5000 for these patients.

To determine what the effects of specific quality improvements in primary care would be on costs of care, we used a model in which it was supposed that the appropriate use of antidepressant medication would be increased to a level approximately 70% of that recommended by the Agency for Health Care Policy and Research (AHCPR) in its guideline for diagnosis and treatment of depression in primary care. It was found that the average cost per year per patient would increase 20% to \$1300; the costs would be somewhat higher if medications used were limited to serotonin selective reuptake inhibitors (SSRIs). The expected level of outcome improvement for this increase in quality of care would be equivalent to removing an additional 10 to 20 functional limitations per a 100-patient

pool. If 70% of patients with severe depression also received at least brief counseling, overall costs of treatment per patient would increase 40% to 50% and an additional 32 to 35 functional limitations would be removed per 100-patient pool. This level of outcome improvement is comparable to what is currently achieved on average under psychiatric care.¹⁰ If it were further supposed that no more than 10% of depressed patients regularly used minor tranquilizers, cost of care would be reduced with the distinct possibility of improvement in clinical outcome; in our data base, use of minor tranquilizers was associated with worse functional outcomes, although such a finding may not be true of all data bases.¹⁰

When the effects of these quality improvements (improving antidepressant medication, adding counseling, and limiting minor tranquilizer use) in primary care on the entire mental health delivery system were calculated, it was found that the cost of mental health care for depressed patients would increase by 10%, but this strategy carried the potential to double the proportion of patients who improved in functioning outcomes. The cost of removing a single new functional limitation would decrease substantially, from \$5000 under current care patterns to \$1000 in the quality-improvement model.

Using the same data base, we calculated the effect of shifting depressed patients from specialty care to primary care without any of the hypothesized improvements in current care patterns in the primary care setting. It was found that costs for care would decrease and that outcomes would worsen; under one set of hypothesized conditions, average cost of treatment decreased from \$2250 to \$1825, and 6 fewer patients of 100 had functional improvement. The cost-effectiveness of treatment changes little with this shifting. With quality improvement, many of the gains in value of care are maintained even with a shift.

Overall, our conclusions regarding cost-effectiveness of depression care are as follows. First, the largest issue to be confronted is not type of payment for primary care, but the inadequate levels of care for depression overall and the low cost-effectiveness of care. Second, outcomes and cost-effectiveness of primary care for depression could be improved with improvements in quality of care. Although shifting patients to primary care in the absence of quality improvements would reduce treatment costs, it would do so at the expense of worsening outcomes; such a strategy would not appear to be socially desirable.

OTHER POLICY CONSIDERATIONS

Other issues that should be considered in framing of policy for depression include opportunity costs and social cost implications.¹¹ With regard to opportunity costs, quality improvement for one condition could shift attention of clinicians away from other conditions (such as hypertension). With regard to social cost implications, we have cal-

culated that improvement of quality of care would have a marked effect on costs associated with the morbidity of depression to society. In particular, we found that removal of one functional limitation was associated with an average annual increase of \$3000 in family income. This increase exceeds the marginal cost of treatment (approximately \$1000) needed to achieve that better outcome under the quality-improvement model discussed above. In addition, greater taxes and reductions in transfer payments would accrue to society.

Despite these potential benefits, there are significant difficulties facing efforts to achieve more efficient and better quality care for depression in this country. Currently, it is very difficult for consumers/employers to know which provider group or plan is achieving better outcomes, since such data are not routinely made available; given the insufficient data in this regard, decisions and arguments in this area are dominated by price of care. Another major problem consists of externalities: the entities benefiting from improved care in terms of reduced social costs are the depressed individuals and their employers through functional improvements. The improvements in functioning and productivity do not directly benefit the plan or provider of the improved services. Thus, effective policy may need to address differences in who benefits from and pays for care—for example, by providing incentives for plans to reduce social costs of illness.

CONCLUSION

Depression in primary care seems to be a prime example of a condition that may currently be inefficiently treated, with cost-effectiveness of care being lower than optimal because quality of care is too low. The social cost implications of improved quality of care have not been clear, but the data suggest that increasing the percentage of severely depressed patients who receive guideline-concordant care would markedly improve outcomes and cost-effectiveness of care for depression at modest direct treatment cost increases. The role of policy becomes clear when one considers that social costs outweigh direct treatment costs in depression and that patients, employers, and society may benefit financially more from improved care than would plans and providers. Further research is needed not only on the effects of quality improvement,¹² but on the consequences of policy designed to improve cost-effectiveness from a societal perspective.

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